PRIMAVERA

Primavera P6 Professional Project Management





### **Planning & Scheduling Using** Primavera P6 Professional Project Management





MUHAMMAD WASEEM KHAN MS (PROJECT MANAGEMENT) - DISTINCTION ORACLE PRIMAVERA PROJECT MANAGEMENT IMPLEMENTATION SPECIALIST CERTIFIED PROJECT MANAGEMENT TRAINER & CONSULTANT







**Define Project Management Processes** 

**Use Primavera P6 IDE & Its Features** 

**Create a Project with Activities & Resources** 

**Calculate a Project Schedule** 

Analyze Resource/ Cost Data

**Compare Current vs. Target Schedule** 

### Lessons

#### Lesson 1

- History & Introduction
- Diff b/w Primavera & MS Project (Server/Desktop)
- Lesson 2
  - World's Top PM Standards
  - Project Management Lifecycle
- Lesson 3
  - Data, Navigation, and Layouts
- Lesson 4
  - Enterprise Project Structure
  - Org. Breakdown Structure
  - Mapping EPS & OBS
- Lesson 5
  - Creating a Project
  - Adding Project Details

- Lesson 6
  - Creating WBS & Assigning Responsible Manager
- Lesson 7
  - Adding Activities/ Types
  - Adding Activity Details
- Lesson 8
  - Creating Relationships
  - (Through Activity Network, Gantt Chart, Rel. Tabs)
- Lesson 9
  - Perform Scheduling
  - Schedule Settings
- Lesson 10
  - Assigning Constraints
  - (Project/ Activity Level)

### Lessons



- Lesson 11
  - Maintaining Project Documents Library
- Lesson 12
  - Formatting Scheduled Data
- Lesson 13
  - Defining & Assigning Resources, Cost & Expenses
- Lesson 14
  - Analyzing Resources with Spreadsheets & Profiles
- Lesson 15
  - Optimizing Project Plan (Schedule & Resource)

- Lesson 16
  - Baseline Project Plan
  - (Project Baselines & User Baselines)
- Lesson 17
  - Project Execution & Control (Spotlight Feature)
- Lesson 18
  - Reporting Performance (Screens, Filters, Grouping)
  - Performance Monitoring (Earned Value Management)
  - Primavera Visualizer
- Lesson 19
  - Project Website



# Introduction to Primavera

### Introduction to Primavera

- Objectives
  - History and Present
  - Primavera Solutions
  - Oracle's Primavera P6



### The Value of Project Management

- 80% of global executives believed having project management as a core competency helped them remained competitive during the recession<sup>1</sup>
- "The delivery of business outcomes is realized through the success of projects, and in essence that is the way that project management strategies drive organizational success," says Adrian McKnight, PMP, Program Director at Suncorp-Metway Ltd., Brisbane, Queensland, Australia
- Nearly 60% of senior executives said building a strong project management discipline is a top-three priority for their companies as they look to the future<sup>2</sup>
- "Good project management discipline stopped us from spending money on projects that fail," says Ron Kasabian, General Manager at Intel, Folsom, California, USA

1 Closing the gap: The link between project management excellence and long-term success, Economist Intelligence Unit, October 2009.

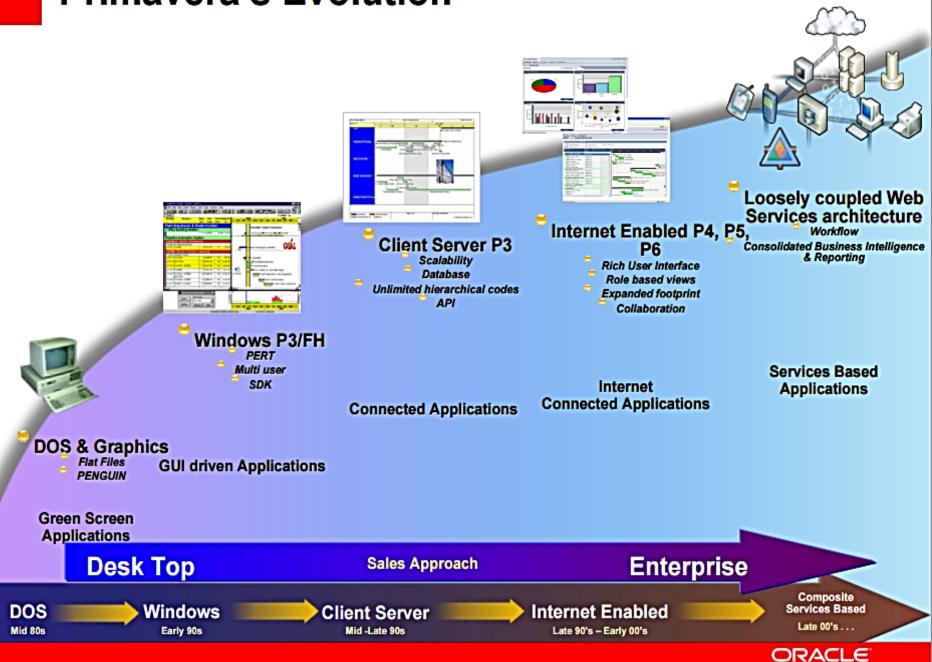
2 McKinsey & Co., January 2010. Results based on a survey of 1,440 senior executives.

### History and Present



- Primavera began in **1983** with the launch of PC-based software for engineering and construction.
- Oracle has acquired *Primavera Software, Inc.*, a leading provider of Project Portfolio Management (PPM) solutions for project-intensive industries on *October 8, 2008*.
- The present version is Oracle Primavera P6
   Professional Project Management v 16.1, released on March 31, 2016.

### Primavera's Evolution



Project-intensive Industries Require Enterprise PPM



- Deliver high-quality projects on-time and within budget
- End-to-end visibility for improved, timely decision making

Architecture, Engineering & Construction	Public Sector, Aerospace & Defense	Utilities, Oil & Gas	High Tech & Manufacturing	IT and Services
<ul> <li>Improve coordination and collaboration</li> </ul>	<ul> <li>Manage large programs with multiple suppliers and subcontractors</li> </ul>	<ul> <li>Manage short- duration, high- intensity outages and shutdowns</li> </ul>	<ul> <li>Bring the right products to market within market windows</li> </ul>	<ul> <li>Prioritize projects based on strategic objectives</li> </ul>
<ul> <li>Avoid and protect against claims</li> </ul>	<ul> <li>Improve accountability and meet regulatory reguirements</li> </ul>	<ul> <li>Increase productivity and speed of project delivery</li> </ul>	<ul> <li>Collaborate across the global supply chain</li> </ul>	<ul> <li>Optimize assignment of scarce resources</li> </ul>

Key Industry Requirements

### Overview of Primavera



#### • Primavera's mission is to "Rid the world of project failure"

- 5,000 global enterprises, 18,000 medium-sized customers, and 2.5 million users in 85 countries
- More than \$6 trillion in project value managed with Primavera
- Consistently recognized as a leader by industry analysts
- Global reach: 43% of revenue from outside North America, localized products in 13 languages
- Award-winning customer service
- Industry-specific business processes
- Standard, pre-built integrations with leading ERP vendors
- Open standards-based integration with industry applications
- 30 years as proven PPM leader for project-intensive industries
  - 375 of top 400 engineering and construction firms
  - 17 of top 20 power companies
  - 9 of top 10 oil companies
  - All 5 US military branches
  - 12 of 16 US Federal agencies
  - 9 of top 10 aerospace and defense contractors

#### Large Portfolio of Loyal Customers Rely on Primavera for Their Mission-Critical Projects





© Primavera Training @ BU - 2016 by M. Waseem Khan

### Construction Company Successfully Manages Thousands of Projects





"It gives us a strategic advantage to say that we use Primavera software, because our clients trust the Primavera name."

> Cost and Scheduling Manager Parsons Infrastructure and Technology



#### **Business challenges:**

- Provide clients with consistent and profitable engineering and construction management services
- Deliver project management, detailed design, procurement and management of one-of-akind projects

- Over 4,000 projects managed and 6,000 team members coordinated
- Consistent project control across the enterprise
- Decreased schedule development time by 50%
- Accurate and timely performance data to support management decisions

### Oil Company Streamlines Shutdowns and Standardizes Processes





"From the initial quotes to awarding of contracts and beyond, we can track all elements of purchasing and payments, as well as the progress of the work itself."

> Project Management Professional (PMP) Kuwait National Petroleum Company



#### **Business challenges:**

- Increase oil production without further capital investment
- Replace 31 legacy systems used to manage maintenance and turnaround work

- Standardized on Primavera for project management and scheduling and integrated with IBM's Maximo and Oracle's Human Capital Management and Financials
- 7% reduction in shutdown duration
- Savings of US\$21 million per year, with US\$3 million from manpower reduction
- Quicker procurement cycles, including faster payments to contractors

© Primavera Training @ BU - 2016 by M. Waseem Khan

### Aerospace & Defense Contractor Improves Productivity





"Primavera provides us with the toolset and visibility to ... take an idea and transform it into a complex product that flies away and saves lives."

> Program Planning and Control Manager Military and Commercial Programs



A United Technologies Company

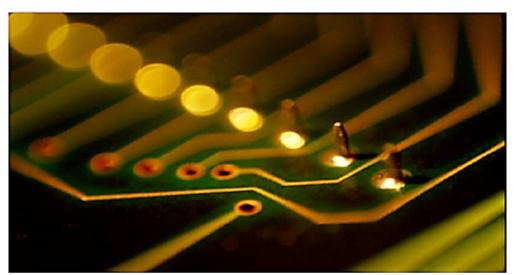
#### **Business challenges:**

- Manage lifecycles of billion-dollar programs from contract award through delivery
- Comply with government reporting requirements
- Collaborate with customers

- Managing more than 350 projects, with 50 to 30,000 tasks each, including the Blackhawk Helicopter program
- Integrated with SAP and other internal systems
- Improved productivity and efficiencies, providing greater value to customers
- Gained visibility into contract performance

#### High-Tech Company Gains Visibility and Control of Development Projects Worldwide





"We had immediate visibility into our project portfolio and resources, along with status against official baselines based on business rules we defined. The information is right there, and everyone can trust that it's accurate."

> Operations Manager Freescale Semiconductor



#### **Business challenges:**

- Provide accurate project information to all stakeholders across all functional groups
- Manage both functional and matrixed organizational structures
- Manage both waterfall and spiral development models

#### **Business results:**

- 160 product releases per year
- "Real-time, all the time" dashboards showing end-to-end PPM information
- Eliminated redundant work
- Better control of commitments, resources and deliverables
- 50% productivity gain in scheduling and reporting
- Saving 8 hours per week in administrative time

© Primavera Training @ BU - 2016 by M. Waseem Khan

#### Insurance Company Standardizes Platform to Improve IT Performance and Control Costs





"Our business units and IT have the same objectives, the same agenda, the same priorities. Primavera's software plays a major role in making that happen."

> IT Executive The Guardian Life Insurance Company



#### **Business challenges:**

- Run IT like a business while reducing IT budget by US\$40 million over two years
- Establish a sound financial management structure for IT

- Eliminated US\$20 \$50 million of nonstrategic projects from the IT budget each year
- Increased rate of delivering projects on time, on budget and within scope from 35% to 69%
- Reduced routine IT maintenance costs from 30% of the budget to only 18%

### **Customer Results**



- *New Jersey Department of Transportation* realized an estimated savings of US\$50 million annually by reducing project delays
- University of Utah used Primavera Unifier to help complete a major cancer center expansion project, budgeted at US\$105 million, completed two months early and US\$9 million under budget
- **Parkland Health & Hospital System** completed a 1,700-space parking garage nearly 14% under budget and came in US\$8 million under projection on the new US\$683 million acute care hospital
- *CPqD* cut project monitoring time approximately 75%
- **GERC** reduced planning time and costs by 50%
- 1 Oracle Project Portfolio Management http://www.oracle.com/us/solutions/project-management/index.html

### **Reports From Analyst Firms**



• The Info-Tech Research Group ranked Primavera as a <u>"Market Pillar"</u> in their Enterprise Project Portfolio Management Vendor Landscape for 2014.

1 The Info-Tech Research Group- Vendor Landscape: Enterprise Project Portfolio Management http://www.infotech.com/research/ss/vendor-landscape-enterprise-project-portfolio-management © Primavera Training @ BU - 2016 by M. Waseem Khan

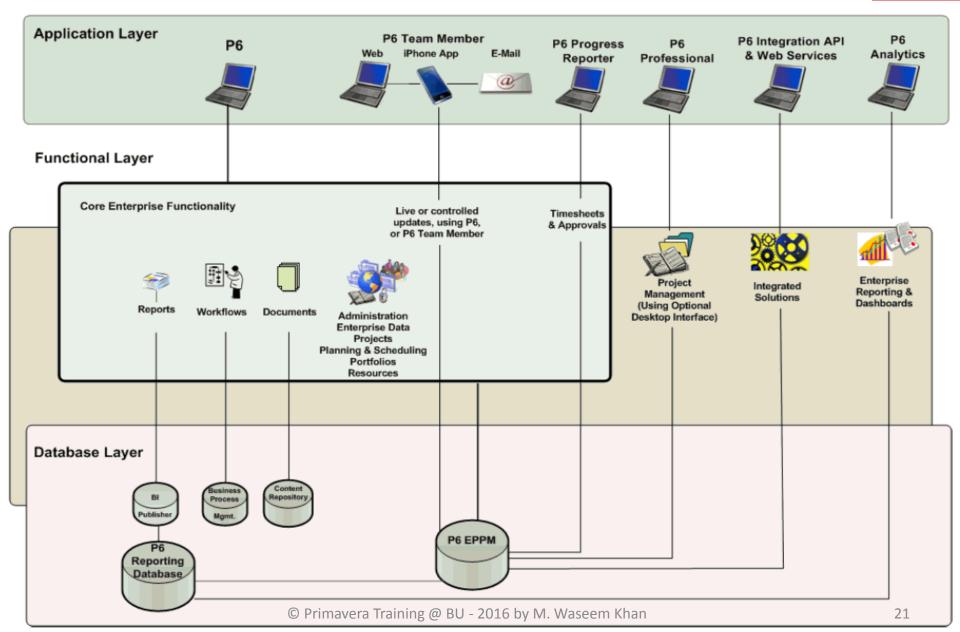
### Oracle's Primavera P6



- Gives today's Project Managers and Schedulers the one thing they value most: *Control*.
- The recognized standard for high-performance project management software, is designed to handle large-scale, highly sophisticated and multifaceted projects.
- Can be used to organize projects up to 100,000 activities, and it provides unlimited resources and an unlimited number of target plans.

### Primavera P6





### Applications



- **P6:** Simply termed P6, it is the primary interface for administering and managing projects.
- **P6 Professional for EPPM:** The P6 web application is the main interface for all project management functionality.
- **P6 Progress Reporter:** P6 EPPM includes the P6 Progress Reporter integrated timesheet entry software. Resources use P6 Progress Reporter to record their time spent working on assignments via electronic timesheets, and approving managers use P6 to review and approve them.
- **P6 Integration API:** A Java-based application programming interface (API) enabling your P6 EPPM deployment to interface with other components and systems.
- **P6 Web Services:** P6 Web Services is an integration technology that extends P6 business objects and functionality.
- **P6 Analytics:** An optional integrated dynamic reporting tool with advanced visual features, including dashboards.

### Functionality



- **Core Enterprise Functionality:** We use P6 for all of the following core enterprise functionality:
  - Administration and Enterprise Data: Administer user accounts, preferences, views, application settings, and enterprise data.
  - **Project, Portfolio, and Resource Management:** P6 provides an extensive array of features designed to optimize all phases of Project Management, Resource Management, and Portfolio Management. It includes full support for activities, work breakdown structures, costs, resource administration and assignment, roles, teams, portfolio analysis, capacity planning, and convenient dashboards for measuring status at any level at every moment.
  - Document Management: P6 includes document management support with or without the optional document repository option.
  - **Workflows:** The workflow engine bundled provides Business Process Modeling Notation (BPMN) compliant graphical notation that depicts the steps in your project initiation workflows.
  - *Reports:* Generate and view reports using your standard web browser running P6.

### Functionality



- **Planning and Scheduling:** The optional P6 Pro component of the suite provides a robust set of features primarily for planners and schedulers, including reflections, schedule comparison (Claim Digger), and a report designer.
- *Time Reporting:* P6 EPPM includes P6 Progress Reporter, an optional integrated timesheet entry application.
- Integrated Solutions: Build or deploy other systems and use the P6 Integration API or P6 Web Services to integrate them with P6 EPPM.
- **P6 Analytics:** Extend your solution by adding P6 Analytics with the Oracle Business Intelligence (OBI) metadata layer to facilitate the creation of ad-hoc reports and interactive custom dashboards reflecting trends and metrics for activities, portfolios, resource assignments, utilization, and project history. Also receive proactive alerts based on integrated report data mined from the ODS and star databases.

### Technology



- **The P6 EPPM Database:** The main database for all your P6 EPPM data.
- **BPM Workflow:** The separate workflow engine bundled with P6 EPPM.
- Oracle BI Publisher: The database server hosting the reporting library, templates, and views required to build complex reports with ease.
- **The Reporting Database:** The P6 Reporting Database portion of the suite consists of the Star database and the Operational Data Store (ODS) database used to extract, transform, and load data from the P6 EPPM database. This data is specifically designed to be used to create reports.
- Oracle Universal Content Management: This server hosts documents in a shared repository enabling collaborative functionality such as document check-out/check-in and versioning.

### Primavera vs. MS Project

- No. of Activities per Project (100,000 & 400,000)
- No. of EPS Structures (20/ 50 & Nil)
- No. of Baselines (**∞** & 11)
- Publish Project (Yes & Customizable only on Server)
- No. of Columns (200 & 40)
- Issues & Risks
- Multi-User Multi-Project
- Roles based Analysis
- TSLD
- Mobile Alerts
- Activity Steps & Expenses
- Multiple Activity Relationships



## The Project Management Lifecycle

Lesson 2

### The Project Management Lifecycle



- Objectives
  - A brief on Project Management history
  - An overview of World's Renowned Project Management Standards/ Methodologies (PRINCE2, ISO 21500, PMBOK)
  - Project & Project Management Defined (Standard-based)
  - Review relationship between Primavera and the Project Management Lifecycle
  - Identify the Process Groups in the Project Management Lifecycle



# Talking About Most Recognized Standards/ Methodologies

**PRINCE2** 

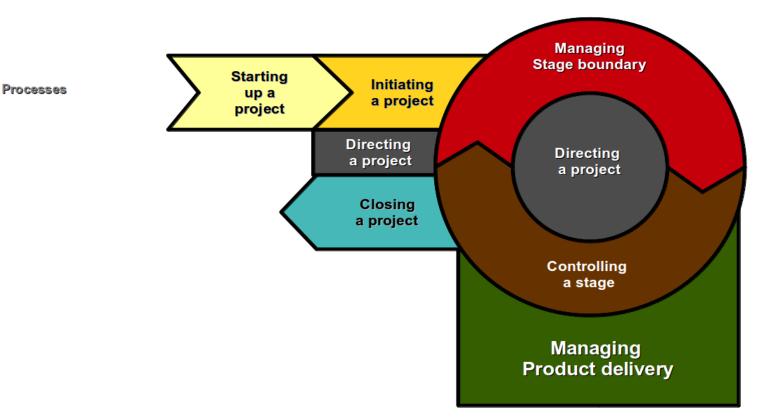
#### ISO 21500:2012

РМВОК

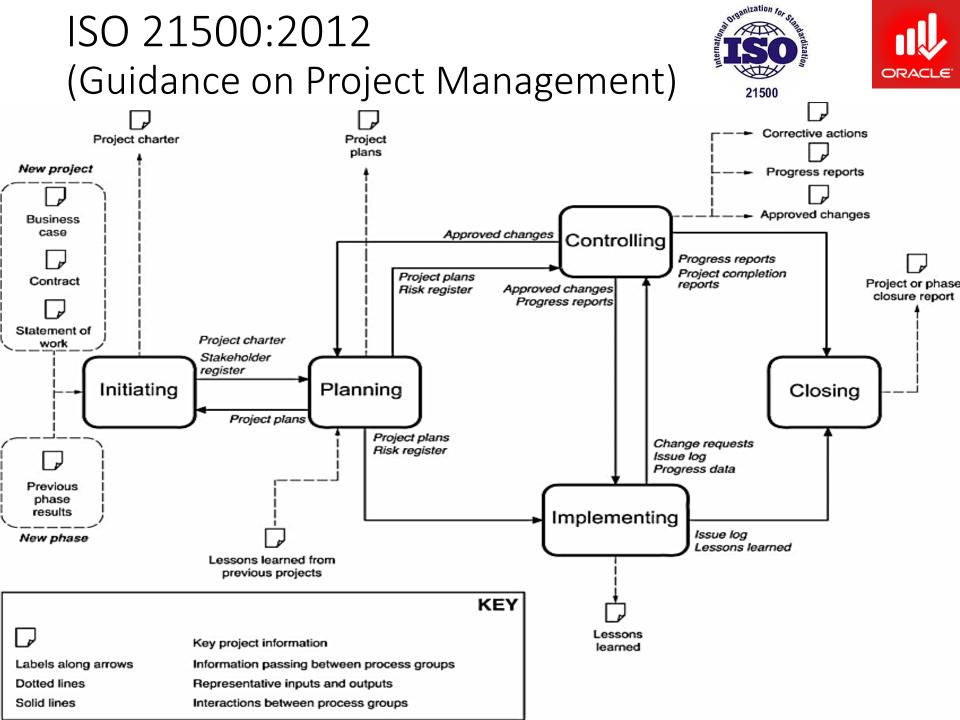
### PRINCE2











### РМВОК



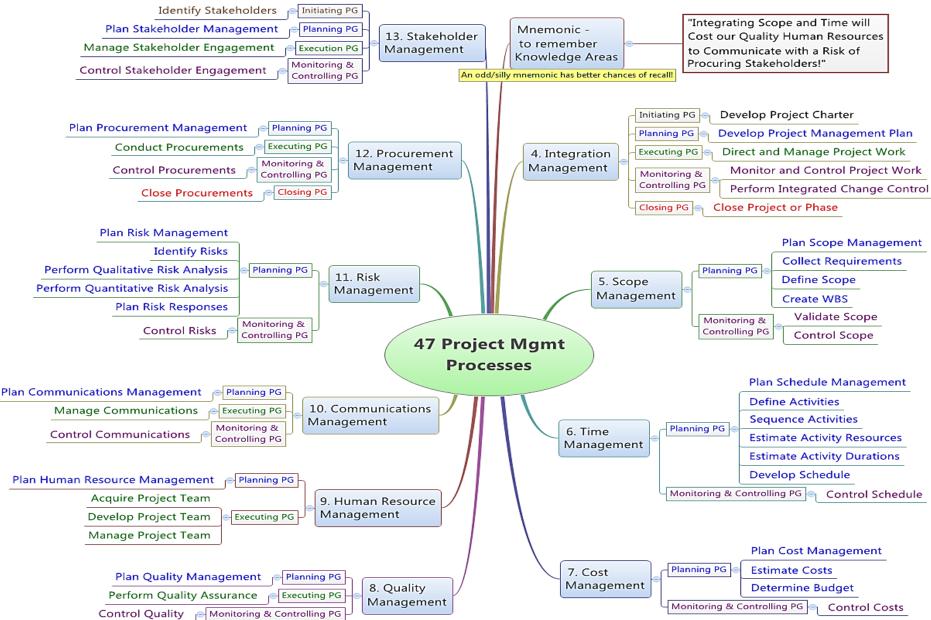






Table 1. ISO 21500 and PMBoK® Guide process groups comparison

ISO 21500	PMBoK® Guide	•	1	
Initiating	Initiating			
Planning	Planning		-	
Implementing	Executing			
Controlling	Monitoring and Controlling		ISO 21500 Subjects and PMBoK® Guide Knowledge Areas	
Closing	Closing		ISO 21500	PMBoK® Guide
39 Processes vs	. 47 Processes		Subjects	Knowledge Areas
		Integrati	ion	Integration
		Stakeho	lder	Stakeholder
		Scope		Scope
		Resourc	æ	Human Resources
		Time		Time
	Cost		Cost	
		Risk		Risk
		Quality		Quality
		Procurei	ment	Procurement
© Primavera Training @ BU - 2016 by M. Waseem Khan		Commu	inication	Communication





#### **PRINCE2 (PRojects IN a Controlled Environment)** & **PMBOK (Project Management Body of Knowledge)**

PRINCE2	PMBOK
Origin - United Kingdom	Origin - United States
Administered by APMG	Administered by PMI
A process based project management methodology	A knowledge based approach to project management
A series of management processes defining what must be done, when and how it must be done and by whom over the life of a project	Describes core practices and a wider range of techniques that can be applied to manage a project
Prescriptive, but tailorable	Non-prescriptive
Defines the roles of everyone involved in a project	Focuses on the project manager's role



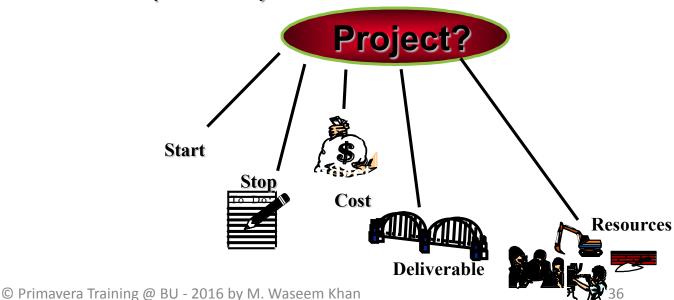


PRINCE2	PMBOK
Practical project management methodology based on 7 principles	Comprehensive information on all aspects of project management
Driven by the business case	Driven by customer requirements
Business case, product based planning, management by exception, clarity in roles and authorities, project assurance	Procurement, HR management. More depth on techniques such as EVM, Critical Path, estimating, etc.

### The Project



- A project is a temporary organization that is created for the purpose of delivering one or more business products according to an agreed Business Case. (PRINCE2)
- A project consists of a unique set of processes consisting of coordinated and controlled activities with start and end dates, performed to achieve project objectives. *(ISO 21500: 2012)*
- Project is a temporary endeavor undertaken to create a unique Product, Service or Result. (PMBOK)

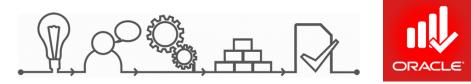


#### The Project



- It has a defined START and END, therefore the project is TEMPORARY;
- It has a certain volume of "WORK" which needs some form of organization, otherwise it is NOT a endeavor;
- It is NOT business as usual, NOT following normal procedures, because there is something UNIQUE to it;
- It creates an END RESULT, being a PRODUCT, a SERVICE or RESULT.

#### **Project Management**



- Project management is the planning, delegation, monitoring and control of all aspects of the project, and the motivation of those involved, to achieve the project objectives within the expected performance targets for time, cost, quality, scope, benefits and risks. (PRINCE2)
- Project management is the application of methods, tools, techniques and competencies to a project. (ISO 21500)
- Project management is the application of knowledge, skills, tools, and techniques to project activities to meet the project requirements. (PMBOK)

#### Project Manager

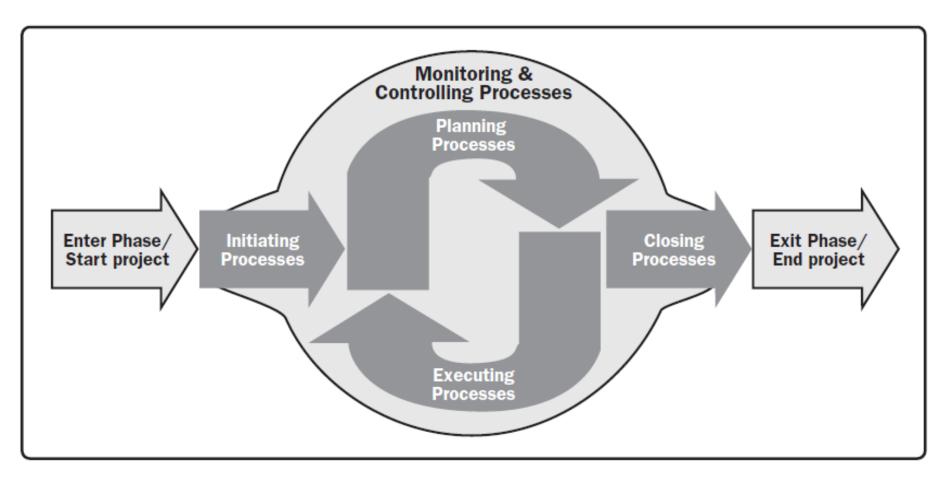


- The <u>Project Manager</u> is the person assigned by the performing organization to lead the team that is responsible for achieving the project objectives.
- Project managers are change agents: they make project goals their own and use their skills and expertise to inspire a sense of shared purpose within the project team.





#### The Project Management Lifecycle

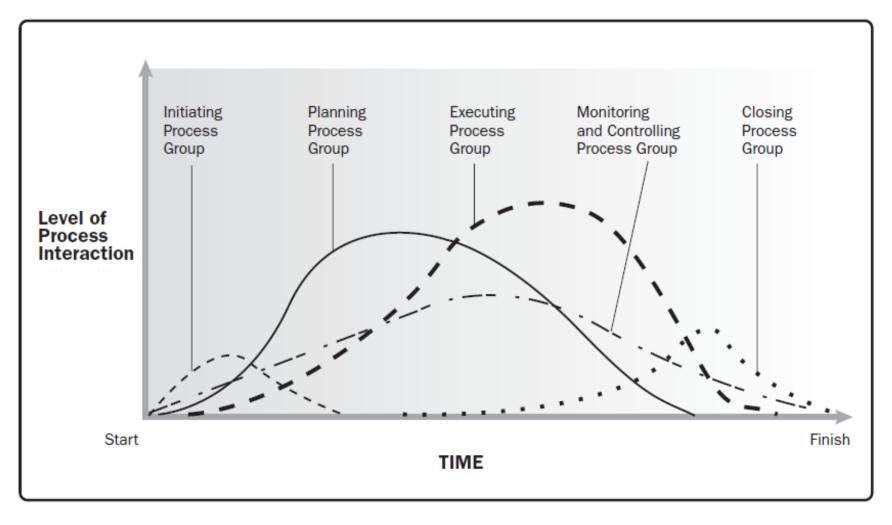


#### Figure : Project Management Process Groups

ORACLE

#### Process Groups & the Project/ Phase

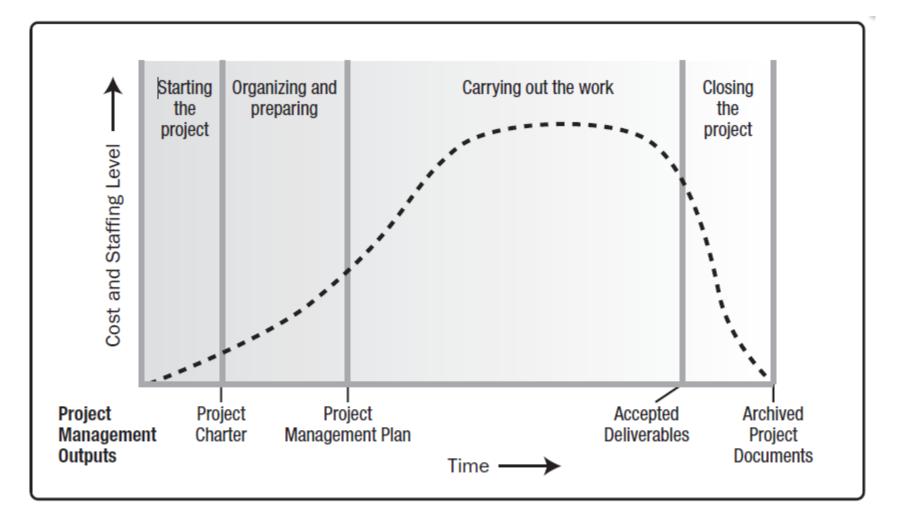




#### Figure: Process Groups Interact in a Phase or Project

#### Project Life-Cycle





#### Figure: Typical Cost and Staffing Levels Across a Generic Project Life Cycle Structure

© Primavera Training @ BU - 2016 by M. Waseem Khan



# Data, Navigation, and Layout

© Primavera Training @ BU - 2016 by M. Waseem Khan

#### Data, Navigation, and Layout



- Objectives
  - Describe Enterprise and Project Specific Data
  - Log In to Primavera P6
  - Open an Existing Project
  - Navigate in the Home Window and Activities Window
  - Open an Existing Layout
  - Customize a Layout
  - Save a Layout

#### Enterprise Data



- Enterprise Data provides a global structure needed to manage multiple projects. It is available to all projects across the organization and provides the structure necessary for centralized project and resource management.
- Administrator defines enterprise-specific data to standardize the organizational data.
- Examples of Enterprise Data:
  - Enterprise Project Structure
  - Project Codes
  - Resource Codes
  - Admin Categories and Preferences
  - Resources
  - Cost Accounts

#### Project Specific Data



- Project Specific Data is only available to the project in which it is defined.
- Project Manager defines project specific data to further control his/her project.
- Examples of Project Data:
  - Dates
  - Work Breakdown Structure
  - Activities
  - Relationships
  - Baselines
  - Expenses
  - Risks
  - Thresholds and Issues
  - Work Products and Documents
  - Project Website

#### Enterprise/ Project Specific Data



- Enterprise/ Project Specific Data is available to both enterprise and project data.
- Examples of Enterprise/ Project Specific Data:
  - Calendars
  - Reports
  - Activity Codes

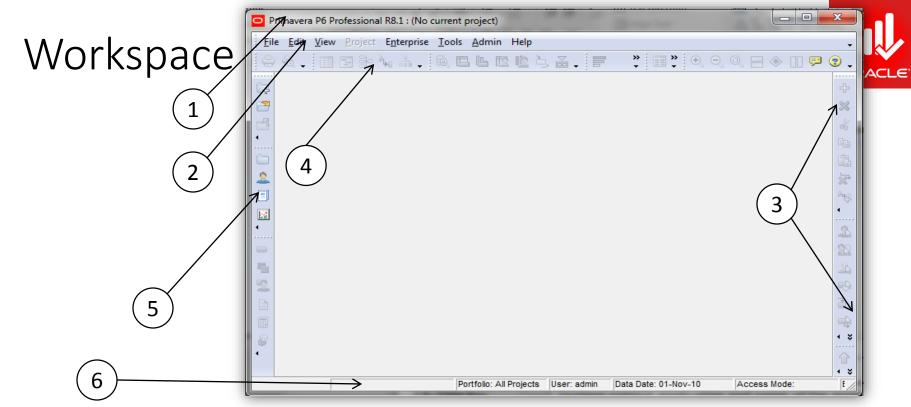
#### Logging In



- Exercise:
  - Steps
    - Click Start, Programs, Oracle Primavera P6, P6 Professional R15.1
    - Type a Login Name "admin"
    - Type your password "admin123"

Login Name	 <ul> <li>Image: A start of the start of</li></ul>	OK
admin	0	Cancel
Password	 ?	Help
JI.	<u> </u>	
Database		
PMDB		

© Primavera Training @ BU - 2016 by M. Waseem Khan



Item	Functionality
1. Title Bar	Displays current application and name of the project
2. Menu Bar	Perform functions in Primavera
3. Command Bar	Actions that are performed in an open window (Add, Delete etc.)
4. Tool Bar	Displays icons that allow you to change the look and feel of the layout
5. Directory Bar	Quickly displays Primavera window (Activities, Project, Resources etc.)
6. Status Bar	Login Name, Data Date of open project, Access Mode, and Current Baseline

## **Opening An Existing Project**

- The Open Project dialog box lists all the projects you have access to open
  - Open a single project indicated by indicated
  - Open a single node indicated by
    - All projects under the node are opened.
  - Open multiple projects under different nodes
    - Press Click+Ctrl to open more than one project.
- Exercise
  - Steps
    - In the File menu Click "Open"

Se	elect l	Project Portfolio	All Projects	
	∠ Dis	play		
Pr	oject	D	Project Name	Project Status
=	۰.	Enterprise	All Initiatives	Active
	=4	E&C	Engineering & Cons	Active
		EC00515	City Center Office Building Adc	Active
		🚞 EC00530	Nesbid Building Expansion	Active
		🚞 EC00501	Haitang Corporate Park	Active
		🚞 EC00610	Harbour Pointe Assisted Living	Active
		🚞 EC00620	Juniper Nursing Home	Active
		💼 EC00630	Saratoga Senior Community	Active
	∎∢	Energy	Energy Services	Active
		📄 NRG00870	Baytown, TX - Offline Mainten	Active
		🚞 NRG00950	Red River - Refuel Outage	Active
		🚞 NRG00800	Sunset Gorge - Routine Mainte	Active
		🚞 NRG00940	Sillersville - Refuel Outage	Active
		🚞 NRG00820	Johnstown - Routine Maintena	Active
		📄 NRG00910	Driftwood - Refuel Outage	Active
	∎∢	Manufacturii	ng Manufacturing	Active
		🛅 MFG00772	Cordova - Plant Expansion & N	Active
		MFG00497	Ravine - Plant Expansion & Mo	Active



#### Activities Window



 Activities Window is used to create, view, and edit activities for open project.

	O Pri	imavera P6 Professiona	al R8.1 : EC00515 (City Center Office Bo	uilding Add	ition)											
			E <u>n</u> terprise <u>T</u> ools <u>A</u> dmin Help							/						· ( 1
$\frown$	0	🗟 🗸 🔳 💽 🦻	🍬 🚠 🗸 🔯 🖪 🖪 🐚 🙋 🐛	. 👗 .	<b>=</b>	🗏 7• 6• .	🗉 🔱 😴 🇞	\$ 🔡 📼 .	. 🔍 🔍 🔍		ب 😒 🖓					
		Activities													×	 
	1	Layout: Classic Sc	hedule Layout	Filter: A	AllActivities											×
$\smile$		Activity ID	Activity Name	Original F Duration	Remaining A	November 201			January 2011	February		March 2011	April 2011	May 2011	Jun 🔺	le le
		EC1000	Design Building Addition	55		31 07 14 2	1 28 05 12	19 26 02		30 06 13 In Building Additio		06 13 20 27 03	10 17 24	01 08 15 22	29 05	90 70
		EC1010	Start Office Building Addition Project	0	0	Start Office Build	ng Addition Project									
		EC1030	Review and Approve Designs	22	0						Review and	Approve Designs				
	2	EC1050	Assemble Technical Data for Heat Pump		0					•		nble Technical Data for Hea	t Pump			Ĵ.€_
	1	EC1040	Assemble Brick Samples	0	0						Assemble Bri					1 Barris
$\frown$		EC1100	Site Preparation	43	0								Site Prep			·
$(\mathbf{n})$	4	EC1160 EC1060	Review Technical Data on Heat Pumps	27	0						▲ Ássen	nble and Submit Flooring Sa		Jata on Heat Pumps		
( <b>2</b> )		EC1080	Assemble and Submit Flooring Samples Review and Approve Flooring	28	0							nois and Submit Flooring Sa	Review and A	pprove Flooring		🔬 (Д)
$\smile$		EC1070	Review and Approve Brick Samples	30	0									Approve Brick Sample		<b>* \</b>
		EC1090	Begin Building Construction	0		•					🔶 Beg	in Building Construction				
$\frown$	2	EC1180	Prepare and Solicit Bids for Brick Exterio	15	0								Prepare and	Solicit Bids for Brick E	Alerior	<b>₩</b>
(c)		EC1170	Prepare and Solicit Bids for Flooring	24	5									Prepare and So		<b>≟</b> L3
(6)		EC1220	Review Bids for Brick	15	0							<		Review Bids for Brick Prepare and Solid		<b>_</b>
$\smile$	8	EC1190 EC1260	Prepare and Solicit Bids for Heat Pump Award Contract for Brick	15	4									Prepare and Solid Award Contract		2
	۹Ť.	EC1230	Excavation	24	24									- Ward Contract		
$\frown$		EC1240	Review Bids for Heat Pump	10	10									Review	w Bids for Hea	$\langle \rangle$
(7)		EC1280	Deliver Brick	1	1	-								Deliver Brick	-	-(3
		<		!	•	•										
$\smile$		General Status Res	sources Codes Relationships Noteboo	k Steps Fe	eedback W	Ps & Docs Risks Ex	penses Summary									
		÷	Activity EC1170			plicit Bids for Flooring						Project	EC00515			•
		Activity Type	,	Duration Typ				% Complete	Tree			Activity Calendar				
		Task Dependent		Fixed Durat		s/Time	-	Physical	туре			Trades - 5 Day Workw	eek		- 11	
		WBS	_	1		Responsible					Primary Res					
			Finish.Coverings Floor and Carpeting			E&C						Controls Project Controls				
														_		
												$\leftarrow$				
															<u> </u>	
																-(8)
			Portfolio: All Projects	User: admi	in Data D	ate: 01-May-11	Access Mode: Sha	ared Baseline	e: City Center Offi	ce Building Additi	ion - B1					
	_															

#### Activities Window



Item	Functionality
1. Tool Bar	Displays icons that allow you to change the look and feel of the layout
2. Activity Table	Displays activity information in spreadsheet format
3. Gantt Chart	Provides graphical view of the activity progress over the period of time
4. Command Bar	Displays options for adding or removing activity data
5. Layout Option Bar	Displays menu of available options for activity window
6. Vertical Split Bar	Drag this bar to hide/ show information in each pane
7. Horizontal Split Bar	Hide/ show more information in bottom pane
8. Activity Details	View/ edit detail information for selected activity

#### • Exercise

- Steps
  - Confirm you are in Activity Window (By clicking on activity button)

#### Layouts



 Layout is a customizable view of information. It is combination of all the visual elements that appear on screen. Layouts are available in Projects, WBS, Activities, Resource Assignments, and Tracking Windows.

#### Activity Layout

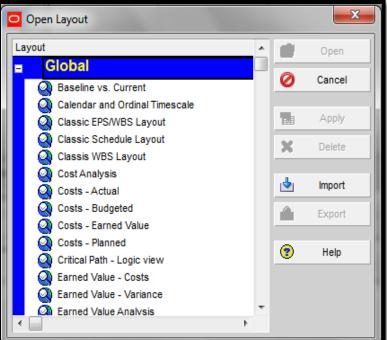


- The activity window provides options in viewing data in top/ bottom layouts
  - Choose one of the following to show on top:
    - Activity Table
    - Gantt Chart
    - Activity Usage Spreadsheet
    - Activity Network
  - Choose one of the following to show on bottom:
    - Activity Details
    - Activity Table
    - Gantt Chart
    - Activity Usage Spreadsheet
    - Activity Usage Profile
    - Resource Usage Profile
    - Trace Logic

## **Opening An Existing Layout**



- A variety of layouts are available to present activity data from different perspectives. You can create user specific layouts and project specific layouts, or use global layouts provided by your company.
- After selecting a layout, you can click either "Apply" or "Open"
  - Apply Displays layout but keeps open layout dialog box open
  - Open Displays layout and closes open layout dialog box
- Exercise
  - Steps
    - In the Layout Option Bar, click Layout, Open
    - When prompted to save changes to the layout, click No
    - Select a layout, Analyzing the Budget
    - Click Apply
    - Select a layout, Classic WBS Layout
    - Click Open



#### Gantt Chart



#### • Gantt Chart is divided into two sections:

- Activity Table Displays activity data in columns
- Bar Area Provides a graphical display of activity progress over the duration of the project

O Pri	imavera P6 Professiona	R8.1 : EC00515 (City Center Office B	uilding Ad	dition)								
<u>F</u> ile	<u>E</u> dit <u>V</u> iew <u>P</u> roject	E <u>n</u> terprise <u>T</u> ools <u>A</u> dmin Help										
0	& i========	🍬 ili 🛛 🔯 🖾 🐚 🖄	~					⊒ ⊛ III 🖻 👰				
			· • • •			· * • • • ;						
Cap -	Activities											×
<b>2</b>	V Layout: Classic Sch			AllActivities								×
-9	Activity ID	Activity Name	Original Duration	Remaining A Duration			nuary 2011	February 2011	March 2011	April 2011	May 2011	Jun 🔺
	EC1000	Design Dubling Address	55		31 07 14 21 28 05 1	2 19 26 02		30 06 13 20 27 Juilding Addition	06 13 20 2	7 03 10 17 24	01 08 15	
*****	EC1000 EC1010	Design Building Addition Start Office Building Addition Project	0		Start Office Building Addition Proje	+	Design	fuliding Addition				PC
	EC1030	Review and Approve Designs	22		Start office Dailaring Addition Proje			Review a	nd Approve Designs			
2	EC1050	Assemble Technical Data for Heat Pump	7						semble Technical Data	for Heat Pump		×
<b>a</b>	EC1040	Assemble Brick Samples	0						Brick Samples			Dag.
	EC1100	Site Preparation	43					· · · · · · · · · · · · · · · · · · ·		Site Pr	eparation	
	EC1160	Review Technical Data on Heat Pumps	27	0						Review Technic	al Data on Heat Pum	nps
	EC1060	Assemble and Submit Flooring Samples	0	0				♦ Ass	semble and Submit Floo	ring Samples		2
-	EC1080	Review and Approve Flooring	28	0						Review and	Approve Flooring	2
<b>-</b>	EC1070	Review and Approve Brick Samples	30	0				<b>—</b>		Review an	d Approve Brick Sa	mples
2	EC1090	Begin Building Construction	0					♦ E	Begin Building Construc			
	EC1180	Prepare and Solicit Bids for Brick Exterio								Prepare ar	nd Solicit Bids for Br	
	EC1170	Prepare and Solicit Bids for Flooring	24									d Solicit Bids for Fl 👌
<b></b>	EC1220	Review Bids for Brick	15								Review Bids for E	
2	EC1190 EC1260	Prepare and Solicit Bids for Heat Pump Award Contract for Brick	15								Award Cont	Solicit Bids for Hea
•	EC1280 EC1230	Excavation	24								Award com	Exc. 1
	EC1240	Review Bids for Heat Pump	10								R	eview Bids for Hea
		Deliver Brick	1								Deliver Brid	*
	•			· · · · · ·							1	
				,								
	General Status Res	ources Codes Relationships Noteboo	k Steps I	Feedback WPs	s&Docs Risks Expenses Summa	/						
	↓ <u>+</u>	Activity EC1170	P	repare and Soli	cit Bids for Flooring				р	roject EC00515		
			1									
	Activity Type		Duration Ty	ype		% Complete Ty	pe		Activity Calendar			
	Task Dependent	-	Fixed Dur	ation and Units/	Time	<ul> <li>Physical</li> </ul>		•	Trades - 5 Day	Workweek		
	WBS				Responsible Manager			Primary F	Resource			
		Finish.Coverings Floor and Carpeting			E&C				ect Controls Project Co	ontrols		
		Portfolio: All Projects	User: adr	min Data Dat	te: 01-May-11 Access Mode:	ihared Baseline: C	ity Center Office I	Suilding Addition - B1				

#### Activity Usage Spreadsheet



- The Activity Usage Spreadsheet displays units, cost, or earned value data by activity overtime. Use this type of layout to review per period and rolled-up activity resource/ cost.
- You can customize the timescale of Activity Usage Spreadsheet:
  - Move the timescale to focus on a specific time period Point in timescale until cursor displays and then slide cursor left or right.
  - Expand the timescale to widen/ narrow width of columns Point in minor date interval until the cursor displays and then slide cursor left or right.

#### Activity Usage Spreadsheet



- Exercise
  - Steps
    - Layout Option Bar, click Show on Top, Activity Usage Spreadsheet
    - In the Layout Option Bar, click Show on Bottom, No Bottom Layout
    - Expand the timescale
    - Move the timescale to display August 2011

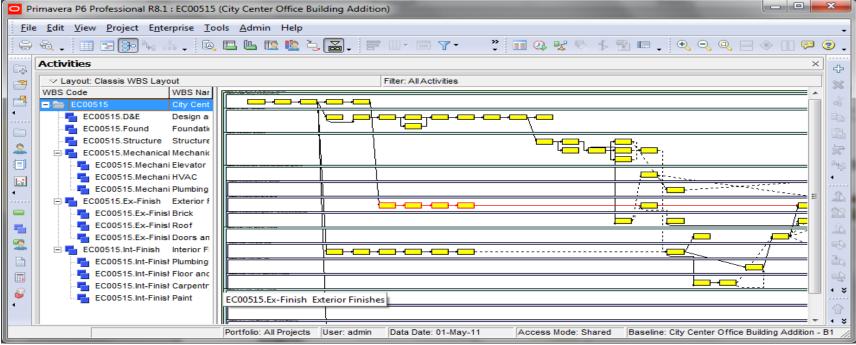
e <u>E</u> dit <u>V</u> iew <u>P</u> roject E <u>n</u> terprise <u>T</u> ools <u>A</u> dmin Help .																
? < .   II I I }																
Ac	Activities															>
	✓ Layout: Classis WBS Layout		Filt	er: A	IActivities											
Ac	Activity ID Activity Name	Start	Finish	-	Remaining Labor	Ι	Qt	r 2, 2011	1	Q	tr 3, 201	1	Q	tr 4, 201	1	1
	N N				Units		Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
	<ul> <li>City Center Office Building Addition</li> </ul>	01-Nov-10 A	03-Jul-13					658	1174	1328	1535	1152	672	718	84	c
	<ul> <li>Design and Engineering</li> </ul>	01-Nov-10 A	06-Apr-11 A													
	EC100 Design Building Addition	01-Nov-10 A	19-Jan-11 A													
	EC101 Start Office Building Addition Project	01-Nov-10 A														
	EC103 Review and Approve Designs	17-Jan-11 A	17-Feb-11 A													
	EC105 Assemble Technical Data for Heat F	16-Feb-11 A	25-Feb-11 A													
	EC116 Review Technical Data on Heat Pu	24-Feb-11 A	06-Apr-11 A													
	Foundation	23-Feb-11 A	19-Sep-11					335	814	1008	1167	670				
	EC109 Begin Building Construction	28-Feb-11 A														
	EC110 Site Preparation	23-Feb-11 A	18-Apr-11 A													
	EC123 Excavation	02-May-11	06-Jun-11					335	49							
	EC132 Install Underground Water Lines	03-Jun-11	21-Jun-11						192							
	EC133 Install Underground Electric Conduit	03-Jun-11	21-Jun-11						192							
	EC134 Form/Pour Concrete Footings	21-Jun-11	26-Jul-11						381	771						
	EC135 Concrete Foundation Walls	25-Jul-11	26-Aug-11			Τ				237	915					
	EC136 Form and Pour Slab	26-Aug-11	14-Sep-11			T					252	516				
	EC137 Backfill and Compact Walls	13-Sep-11	19-Sep-11			T						154				

© Primavera Training @ BU - 2016 by M. Waseem Khan

#### Activity Network



- Use the *Activity Network* to view the relationships between activities and the logical flow of the activities in the project:
  - Left Pane Displays the WBS hierarchy
  - Right Pane Shows a graphical display of activities and their relationships



© Primavera Training @ BU - 2016 by M. Waseem Khan

#### Activity Network



- Exercise
  - Steps
    - In the Layout Option Bar, click Show on Top, Activity Network
    - In the Toolbar, click (magnifier) zoom several times to get a close look at activities

#### Activity Table



- The *Activity Table* enables you to see project data in the spreadsheet format. You also can modify the columns displayed in the Activity Table to meet your needs.
- You can display activity Table on the entire screen if you want to analyze data in tabular format.

#### Activity Table

- Exercise
  - Steps
    - In the Layout Option Bar, click Show on Top, Activity Table

🖸 Pri	imav	era P6 Profess	sional R8.1 : EC00515 (City Center	Office Buildin	g Addition)	-				×			
<u> </u>	<u>E</u> d	lit <u>V</u> iew <u>P</u> ro	oject E <u>n</u> terprise <u>T</u> ools <u>A</u> dmin	Help						-			
	8	. 🔲 🖃	9• % A 🗐 🖻 🖪 🖬	1 🖄 🖄 📓	].   =	• • • •	💷 🗛 😼 🍕 🖇	🖫 🖬 🚽 🔍 🔍 🖓	3 🛞 🕕 🗭 🄇	3.			
······									×	······			
C	- 4 ·												
2	Vayout: Classis WBS Layout     Filter: All Activities												
-5	Activity ID Activity Name Start Finish												
•	=	City Center O	ffice Building Addition	01-Nov-10 A	03Jul-13					Ba			
		<ul> <li>Design and</li> </ul>	d Engineering	01-Nov-10 A	06-Apr-11 A								
		EC100	Design Building Addition	01-Nov-10 A	19 Jan 11 A								
2	EC101 Start Office Building Addition Project 01-Nov-10 A												
<b>(1</b> )		EC103	Review and Approve Designs	17-Jan-11 A	17-Feb-11 A					hy			
		EC105	Assemble Technical Data for Heat F	16-Feb-11 A	25-Feb-11 A					•			
		EC116	Review Technical Data on Heat Pu	24-Feb-11 A	06-Apr-11 A	1							
	E	- Foundation	n	23-Feb-11 A	19-Sep-11					£			
		EC109	Begin Building Construction	28-Feb-11 A						22			
		EC110	Site Preparation	23-Feb-11 A	18-Apr-11 A					æ			
		EC123	Excavation	02-May-11	06Jun-11								
		EC132	Install Underground Water Lines	03Jun-11	21-Jun-11					-B			
		EC133	Install Underground Electric Conduit	03-Jun-11	21-Jun-11					2.			
		EC134	Form/Pour Concrete Footings	21-Jun-11	26-Jul-11								
		EC135	Concrete Foundation Walls	25-Jul-11	26-Aug-11					• *			
9		EC136	Form and Pour Slab	26-Aug-11	14-Sep-11					*****			
			Backfill and Compact Walls	13-Sep-11	19-Sep-11								
		EC138	Foundation Phase Complete		19-Sep-11		-			• ¥			
			Portfolio: A	Il Projects Use	r: admin D	ata Date: 01-May-11	Access Mode: Shared	Baseline: City Center Office	Building Addition - B	31 🅢			

#### Customizing a Layout



- The Activities Window can be customized and saved as a layout. Saving layouts for future use allows you to quickly retrieve information.
  - The Layout option bar is the centralized menu for layout customization
  - Following is the list of Layout elements that are customizable:
    - Bars
    - Columns
    - Timescales
    - Table Font and Colors
    - Row Height
    - Filters
    - Activity Grouping and Sorting
    - Top/ Bottom Layouts

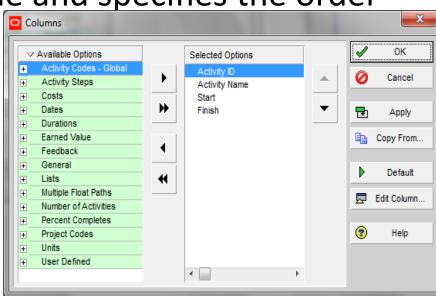


## Selecting Columns

- The Column dialog box enables you to select columns to display in the Activity Table and specifies the order in which they appear:
  - Available Options
    - This section lists data items in groups or in list
  - Selected Options
    - This section lists items you have chosen to display
  - Single Arrow –

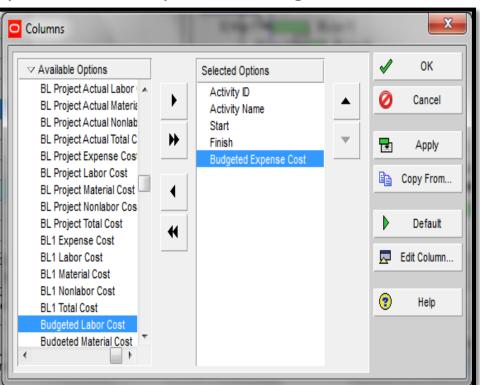
Moves highlighted data items to the other section

- Double Arrows Move all data items to the other section
- Up/ Down Arrows Configure the order of the data items
- Click *Edit Column* to edit the selected item's title and choose its alignment in the display.



#### Selecting Columns

- Exercise
  - Steps
    - In the Layout Option bar, click Columns
    - In the Available Option Bar, click Group & Sort By, List
    - Select a data item to display in the Activity Table; Budgeted Labor Cost
    - Click > to move the selected data item into the Selected Options
    - Use the Navigation Arrow to configure the order of the data item
    - Click Apply



## Using Hint Help



- Use *Hint Help* to view a definition for any data item
- To move Hint Help, click 🗐 and drag to the desired location Primavera P6 Professional R8.1 : EC00515 (City Center Office Build

location I	O Pri	mave	a P6 Professional R8.1 : EC00515 (City Center	Office Building	g Addition)
location	Eile	Edit	<u>View Project Enterprise Tools Admin</u>	Help	
		-	i III 🕞 🦻 🐜 🖬 💶 🖾 🗳	s 🐚 🐂 🛋	
		Activ			· · · · ·
		Activ	ayout: Classis WBS Layout ty ID Activity Name	Start	Filter
	4		City Center Office Building Addition	01-Nov-10 A	03-Jul-13
			Design and Engineering	01-Nov-10 A	06-Apr-11 A
			EC100 Design Building Addition	01-Nov-10 A	19-Jan-11 A
			EC101 Start Office Building Addition Project	01-Nov-10 A	175101
			EC103 Review and Approve Designs	17-Jan-11 A	17-Feb-11 A
	<u>Ea</u>		EC105 Assemble Technical Data for Heat F EC116 Review Technical Data on Heat Pur	16-Feb-11 A 24-Feb-11 A	25-Feb-11 A 06-Apr-11 A
	•		Foundation	23-Feb-11 A	19-Sep-11
			EC109 Begin Building Construction	28-Feb-11 A	13-3ep-11
	_		EC110 Site Preparation	23-Feb-11 A	18-Apr-11 A
			EC123 Excavation	02-May-11	06-Jun-11
			EC132 Install Underground Water Lines	03-Jun-11	21-Jun-11
			EC133 Install Underground Electric Conduit	03-Jun-11	21-Jun-11
			EC134 Form/Pour Concrete Footings	21-Jun-11	26-Jul-11
			EC135 Concrete Foundation Walls	25-Jul-11	26-Aug-11
	<i></i>		EC136 Form and Pour Slab	26-Aug-11	14-Sep-11
	-	Fi Fi	nish –🛱	ssors Codes	Notebook Ste
		11 -	he current finish date of the activity. Set	ssors   codes	
		t	o the activity remaining early finish date 💫 👝		Concrete F
			hile the activity is not started or in	Durat	ion Type
• Exercise			ne activity is completed.		d Duration and L
			WDS	-	
<ul> <li>Steps</li> </ul>			EC00515.Found Foundation		
00000					

- In the Available Option bar, click Hint Help
- Click a column heading, Budgeted Labor Cost
- In the Available Option bar, click Hint Help to disable the onscreen help dialog box
- Click Ok

## **Displaying Activity Details**



• Activity Details displays detailed information for the activity highlighted in the Activity Table or Activity Network.

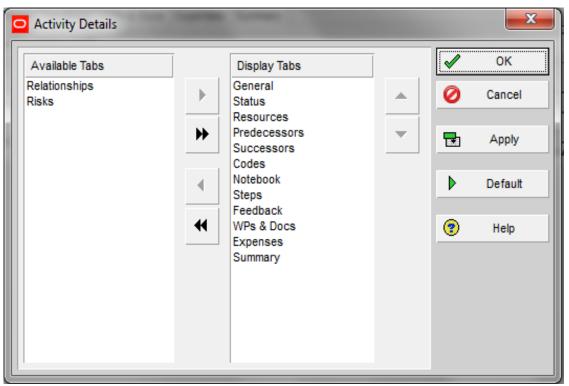
O Pri	mavera P6 Professiona	R8.1 : EC00515 (City Center Office B	uilding Add	dition)		
Eile	Edit View Project	E <u>n</u> terprise <u>T</u> ools <u>A</u> dmin Help				-
10	A 1	<u>⊾ – IBEU II II</u>	<u> </u>	=	■ ┳・ ╔╸,   == 0, ⊯ %, ≴ 🖫 ा० ,   �, ♀, ལ, 🗆 ⊕     🗭 🕲 ,	
*****			· • • ;	<del>с</del> ш		
Cq.	Activities					× ÷
2	V Layout: Classic Sch	nedule Layout	Filter:	AllActivities		×
-	Activity ID	Activity Name		Remaining	November 2010 December 2010 January 2011 February 2011 March 2011	April 2011 May 2011 Jun 🔺
			Duration	Duration	31 07 14 21 28 05 12 19 26 02 09 16 23 30 06 13 20 27 06 13 20 27	
	EC1000	Design Building Addition	55	0	Design Building Addition	En la
	EC1010	Start Office Building Addition Project	0	0	Start Office Building Addition Project	
2	EC1030	Review and Approve Designs	22	0	Review and Approve Designs Assemble Technical Data f	or Heat Pump
ā	EC1050	Assemble Technical Data for Heat Pump	7	0	Assemble Fichnical Data t ♦ Assemble Brick Samples	
-	EC1040	Assemble Brick Samples	0	0	Assemble blick Samples	Site Preparation
	EC1100 EC1160	Site Preparation Review Technical Data on Heat Pumps	43	0		Site Preparation  Review Technical Data on Heat Pumps
4	EC1160 EC1060	Assemble and Submit Flooring Samples	27	0	♦ Assemble and Submit Floor	Review reclinical para on real ramps
_	EC1080	Review and Approve Flooring	28	0	Assemble and Submit Plot	Review and Approve Flooring
	EC1000	Review and Approve Price Samples	30	0		
<b>1</b>	EC1090	Begin Building Construction	0	0	Begin Building Construction	on
2	EC1180	Prepare and Solicit Bids for Brick Exterio		0		Prepare and Solicit Bids for Brick Exterior
	EC1170	Prepare and Solicit Bids for Flooring	24	5		Prepare and Solicit Bids for FI
	EC1220	Review Bids for Brick	15	0		Review Bids for Brick
	EC1190	Prepare and Solicit Bids for Heat Pump	15	2		Prepare and Solicit Bids for Hea
8	EC1260	Award Contract for Brick	5	4		Award Contract for Brick
•	EC1230	Excavation	24	24		Exc 4
	EC1240	Review Bids for Heat Pump	10	10		Review Bids for Hea
	EC1280	Deliver Brick	1	1		Deliver Brick
	4		!			
	General Status Res	ources Codes Relationships Noteboo	k Steps F	eedback V	s & Docs Risks Expenses Summary	
	* *	Activity EC1170	Pr	repare and S	cit Bids for Flooring Pro	oject EC00515
	Activity Type		Duration Tv		% Complete Type Activity Calendar	
	Task Dependent			pe ation and Uni		Vorkweek
			I wed burs	ation and oni		
	WBS				Responsible Manager Primary Resource	
	EC00515.Int-F	Finish.Coverings Floor and Carpeting			E&C E&C	ntrols
		Portfolio: All Projects	User: adr	nin Data I	te: 01-May-11 Access Mode: Shared Baseline: City Center Office Building Addition - B1	
			June 1	eatu		

- Exercise
  - Steps
    - In the Layout Options bar, click Show on Bottom, Activity Details

## Selecting Details Tab



• The tab displayed in the Activity Details can be customized.



- Exercise
  - Steps
    - In the Layout Option bar, click Bottom Layout Options
    - In the Available Tabs column, select Relationships
    - Click > to move the selected data item in Display Tabs column
    - Click Ok.

# ORACLE

#### Saving Layout

- Layouts can be saved and shared with other users to facilitate project communication. Use the Save Layout dialog box to save a layout in the Activities, WBS, Projects, Assignments, or Tracking Windows:
  - Layout Save Saves changes to the existing layout
  - Layout Save As Prompts you to save the layout with a new name
    - Current Users Only the user creating the layout will have access to it in the future
    - Project Apply the layout to any project that is currently open in Primavera. Though project-specific layouts can be applied to multiple projects, you can only select one project at a time in the Layout Save As dialog box. After a project-specific layout is saved it can be viewed in the Project band in the Open Layout dialog box. Project-specific layout offers two advantages:
      - Exported with the project when it is exported
      - Enhanced organization of multiuser layout

#### Saving Layout



Save Layout As	
Layout Name	ideated Labor Cost
Classis WBS Layout with Bu	User
Current User	admin admin
	Project
🕑 Help 🛃	Save 🥝 Cancel

- Exercise
  - Steps
    - In the Layout Option bar, click Layout, Save As
    - Type a Layout name <Classic WBS with Budgeted Labor Cost>
    - Verify Current User is selected in the Available To field
    - Click Save

#### Closing a Project

 $\bullet$ 



- Close the project when you have finished working with it. You are prompted to verify for that.
- Closing the project takes you back to the Home window.

ſ	🖸 Pri	rimaver	a P6 Profess	ional R8.1 : EC00515 (City Cer	ter Office Buildi	ng Addition)							- 0	23
	Eile	e <u>E</u> dit	<u>V</u> iew <u>P</u> ro	ject E <u>n</u> terprise <u>T</u> ools <u>A</u> dn	nin Help									-
	0	8.		)• 🐜 🚠 🚬 💽 🖽 🗠	🌆 💆 💆	<b>.</b> .	🐥 💷 🖓 🧏	2 🤘	\$ 5	2 * (	€, ⊝,	0, 8 (	» 🔲 📮	] 😨 📮
		Activ	ities											×
	 	V	ayout: Classis	WBS Layout with Budgeted Lat	or Cost	Filte	er: All Activities							
		Activi	ty ID	Activity Name	Start	Finish	Budgeted Labor	^ L		Qtr 4, 20	10	Qtr 1,	2011	► 🔔
			ì				Cost	F	Oct	Nov	Dec	Jan F	eb Mar	
I				1 Engineering	01-Nov-10 A	06-Apr-11 A	\$79,776.00							
				Design Building Addition	01-Nov-10 A	19-Jan-11 A	\$52,992.00	L L	ov-10 A	A Charl			an-11 A	
I	0			Start Office Building Addition Proje		17-Feb-11 A	\$0.00				Uffice Bu 7-Jan-11	iilding Additio	n Project 17-Feb	*
I				Review and Approve Designs Assemble Technical Data for Hea	17-Jan-11 A	25-Feb-11 A	\$10,368.00 \$3.456.00			· · · · · · · ·		Feb-11 A		
I				Review Technical Data on Heat I		06-Apr-11 A	\$12,960.00					24-Feb-11 A		146 I
I			Foundation		23-Feb-11 A	19-Sep-11	\$242,457.60							
I	•			Begin Building Construction	28-Feb-11 A		\$0.00						📥 Beg	<b>A</b>
I				Site Preparation	23-Eeb-11 A	18-Apr-11 A	\$24 192 00	_				23-Feb-11 A		22
I	-		EC123	Excavation	Primavera P6	Professional	R8.1				1		02	
I			EC132	Install Underground Water Lines				_						
I				Install Underground Electric Cond	uit 🥐	Are you sur	e you want to close	this	project?					-
I				Form/Pour Concrete Footings										<b>≧</b> ⊳
I				Concrete Foundation Walls								+		- 🛶 🛛
	8			Form and Pour Slab		Yes	No	0						- 🖻
I	1		ECI37	Backfill and Compact Walls									•	_ • •
I		Gene	eral Status	Resources Predecessors Su	ccessors Codes	Notebook St	teps Feedback Wi	Ps &	Docs Ex	kpenses	Summa	ry Relation	ships	
		÷		EC1350 Concrete	Foundation Walls	I			_ '	Project	EC0051	5		
				Iconcrete	- roundation Walls	•				roject	1200051			- 4
Exercise		A	ctivity Type	Duration Type		% Com	nplete Type		Activity	y Calenda	ar			
		1	ask Depende	nt 🔻 Fixed Duratio	n and Units/Time	▼ Physic	cal	-	Tr	ades - 5	Day Wor	rkweek		
• Stope		· · · ·		,		,						-		• *
Steps				Portfolio	: All Projects Us	er: admin D	ata Date: 01-May-11		Acce	ss Mode	: Shared	Baseline	: City Cent	ter Offi
•. •														

- In the File menu, click Close All
- When prompted, click Yes



## Enterprise Project Structure/ Organization Breakdown Structure

Lesson 4

# EPS/OBS



- Objectives
  - Describe the components that comprise the Enterprise Project Structure (EPS)
  - Describe the components that comprise the Organization Breakdown Structure (OBS)
  - View the EPS and OBS

## Organization Breakdown Structure



- The Organization Breakdown Structure (OBS) is a hierarchy used to organize responsibilities.
  - The OBS is made of roots and nodes
    - Each root in the OBS can be sub-divided into many nodes
    - Nodes represent different levels within the structure
      - E.g., nodes can represent subordinates within your company, departments, project groups, and site locations
    - All responsible persons must be included in a node
      - Each node can contain an unlimited no. of responsible persons

### Opening OBS



- You can use **OBS** dialog box to define the hierarchy.
- The two fields (General Tab) to enter when adding an OBS node are:
  - OBS Name Name of the selected OBS node
  - OBS Description Description of the selected OBS node (Details of job, Level etc.)

Organizational Breakdow	n Structure	· Superior		×
✓ Display: All OBS Elements	S			Close
OBS Name	E		<u> </u>	
Enterprise	·	[		Add
E&C Energy Manufacturing ProdDev			×	Del. / Merge
Magufacturing				-
			ø	Cut
ProdProg1			Ē	Сору
ProdProg2				-
E 🧟 Corporate				Paste
n Flight				▲ .
Pipeline			- 1	<b>—</b>
			_	
<u>G</u> eneral	<u>U</u> sers	<u>R</u> esponsibility	2	Help
OBS Name			-	
LOB 2				
OBS Description				
		÷		
		<b>.</b>		
🗖 Modify 🚔	Print 🗎 Copy			
			_	



#### Opening OBS

 You can assign Users (Primavera user) to a selected OBS node using Users Tab

General	<u>U</u> sers <u>R</u> espons	sibility 😗 Help
OBS Users		
Login Name	Project Security Profile	
🐺 Assign 🐺 Ren	nove	

 You can add a Responsibility of Certain Project/WBS to a selected OBS node using Responsibility Tab

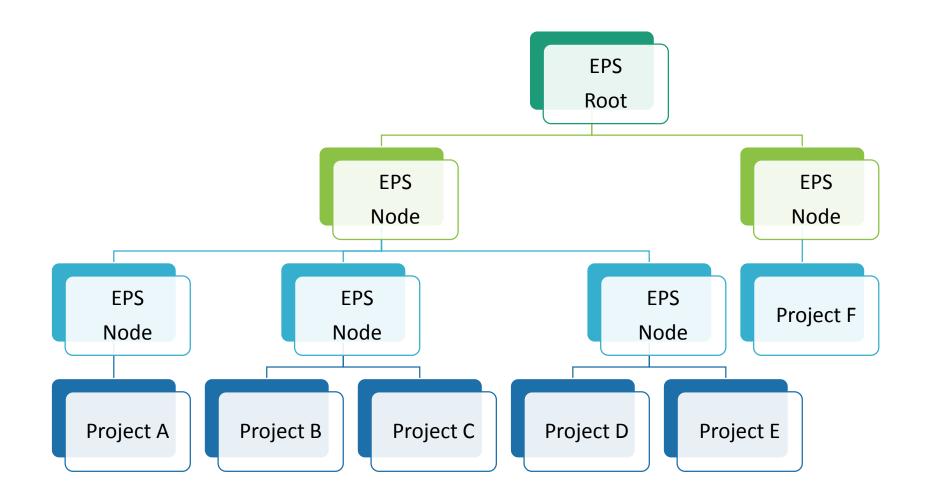
<u>G</u> eneral	Users <u>R</u> esponsibility
Project ID / WBS Code	Project Name / WBS Name
📣 LOB 2	Line of Business 2
🛅 ПО0112	Claims Processing Upgrade
🖶 ПТОО112.99	Key Milestones
🖶 ПТОО112.0	Initiation Phase
🖶 ПТОО112.1	Planning Phase
🖶 ГГОО112.2	Requirements Phase
🖶 ПТ00112.3	Design Phase 🔻

#### Enterprise Project Structure



- The *Enterprise Project Structure (EPS)* is a hierarchy used to organize projects.
  - The EPS is made of roots and nodes
    - Each root in the EPS can be sub-divided into many nodes
    - Nodes represent different levels within the structure
      - E.g., nodes can represent divisions within your company, departments, project groups, and site locations
    - All projects must be included in a node
      - Each node can contain an unlimited no. of projects
      - Projects always represent the lowest level of hierarchy
      - Placement of a project in the hierarchy determines the summary level in which it is included

#### Enterprise Project Structure



ORACLE

### **Opening EPS**



- You can use *Enterprise Project Structure* dialog box to define the EPS.
- The three fields to enter when adding an EPS node are:
  - EPS ID Identifies the selected EPS node
  - **EPS Name** Description of the selected EPS node
  - Responsible Manager Use this field to select an OBS (Organizational Breakdown Structure) element to associate with the selected level of EPS.

EPS ID	EPS Name	2811
Education	Education	
Responsible Manage	•	
Responsible Manage		

#### Opening the EPS

- Exercise
  - Steps
    - In the Enterprise menu, click Enterprise Project Structure
    - Select an EPS node, Education
    - After viewing the EPS, click Close

Enterprise Project	Structure (EPS)		-	-	×
✓ Display: EPS					Close
EPS ID	E	EPS Name			
Enterprise		All Initiatives			Add
C E&C		Engineering & Construction			
- Energy		Energy Services		×	Delete
- Manufactur	ring	Manufacturing		ali	Cut
ProdDev		Product Development		- 00	Cut
	g1	Product Program 1		E B	Copy
> ProdProg	g2	Product Program 2			
Corporate		Corporate Programs			Paste
		In-flight Projects			
Pipeline		Proposed Opportunties			
i 🗄 🔶 Π		Information Technology			
LOB 1		Line of Business 1			
LOB 2		Line of Business 2		<b>(2)</b>	Help
EPS ID	EPS Name			_	
	All Initiatives				
Enterprise	JAII Initiatives				
Responsible Manag	er				
Enterprise					
F					

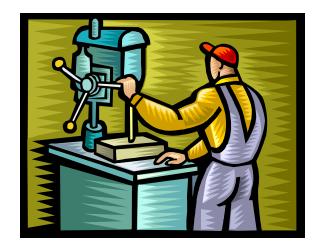
#### Enterprise Project Structure



- Benefits
  - View project priorities, scope, budgets, and resource across the entire project structure or within a specific node
  - Manage projects separately while keeping ability to roll-up and summarize data across multiple projects
    - Each node acts as a master project, rolling-up all child nodes and projects
    - A node can be opened to view all detailed activity information from the member projects
  - View resource allocation across projects
  - Assign security at any level of project structure to provide user with appropriate access to project information

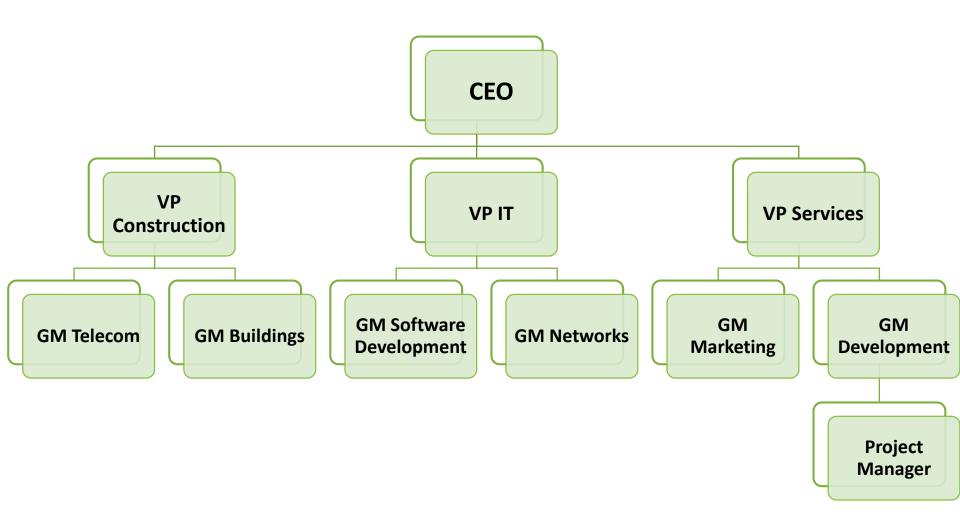


#### WORKSHOP Creating a Organization Breakdown Structure and Enterprise Project Structure



© Primavera Training @ BU - 2016 by M. Waseem Khan

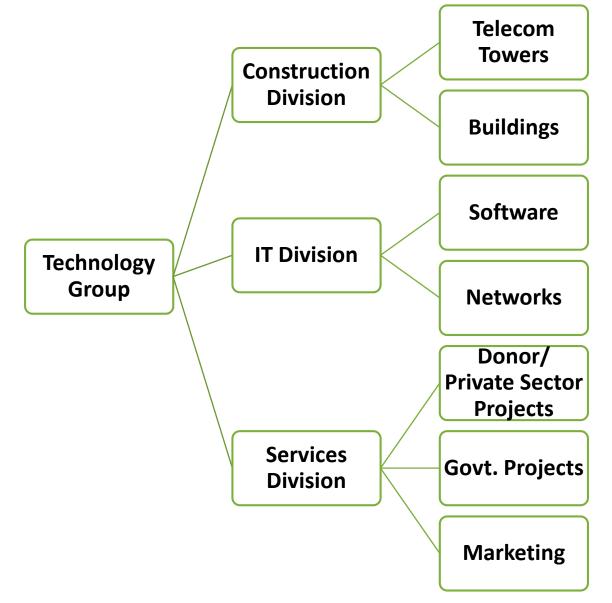
#### Exercise: Create Management OBS

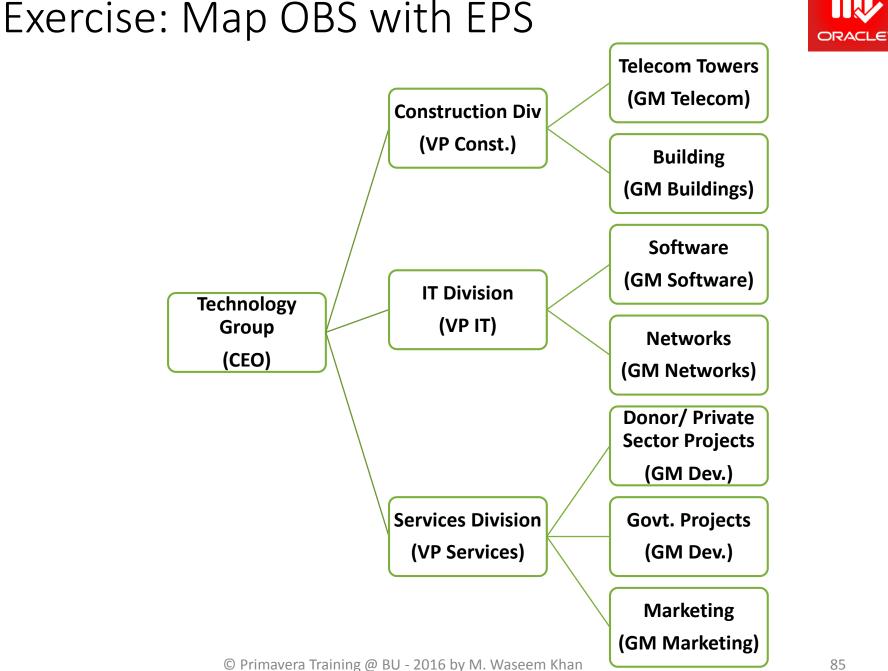


ORACLE

#### Exercise: Create EPS







#### Organization Breakdown Structure

Organizational Breakdow	vn Structure	· Supervision -	-	×
Display: All OBS Element	s		Ľ	Close
OBS Name		*		
E CEO			÷	Add
E S CP Construction			×	Del. / Merge
👰 GM Buildings			ď	Cut
📗 🚊 🙅 🔽 Р П			00	Cui
GM Software			es.	Сору
GM Networks	3			Paste
GM Developn	nent			
GM Marketing		-	•	►
<u>G</u> eneral	<u>U</u> sers	<u>R</u> esponsibility	•	Help
OBS Name				
CEO				
OBS Description				
		÷		
	Dist D. Osra	•		
🗖 Modify 🔒	Print Copy			

ORACLE

#### Enterprise Project Structure



Enterprise Project Structure	e (EPS)			×
✓ Display: EPS				Close
EPS ID	EPS Name	Responsible Manager		
Enterprise	All Initiatives	Enterprise	_ 	Add
Ξ-♠ TG	Technology Group	CEO		
CoD	Construction Division	VP Construction	×	Delete
TET	Telecomm Towers	GM Telecomm	ď	Cut
BLD	Buildings Projects	GM Buildings	00	Cut
🔲 🗄 🔶 ПО	IT Division	VP IT	Ba	Сору
sow	Software Projects	GM Software		
NET	Networks Projects	GM Networks		Paste
📄 📣 SeD	Services Division	VP Services		
DPP	Donor/ Private Sector Projects	GM Development	-   ●  -	►
GPP	Government Projects	GM Development		
🧄 МКТ	Marketing Projects	GM Marketing	•	Help
•		•		
EPS ID	EPS Name			
TG	Technology Group			
Deserve it is Manager				
Responsible Manager				
CEO				

#### Lesson Review



- The OBS and EPS are the hierarchies that represent the management and the project organization of your company respectively
- In EPS, root is the top-level that can be sub-divided into nodes
- Each node represents a level in the project structure that can hold another node or a project
- Projects represent the lower level of hierarchy
- The EPS enables you to view project data across the entire project structure or within a specific node



# Creating a Project

© Primavera Training @ BU - 2016 by M. Waseem Khan

#### Creating a Project

- J
- Objectives
  - Create a Project
  - Navigate in the Project Window
  - View and Modify Information in Project Details

## Creating a Project



- Project can be created using a variety of methods:
  - Using the Create a New Project Wizard
    - Create a Project
    - Create the Work Breakdown Structure (WBS)
    - Add Activities
    - Assign Resources and Costs
  - Using Project Templates (Only Available in EPPM 8+ Enterprise Suite)
    - Create Project from Methodology (Templates)
    - Review and Adjust the WBS
    - Review and Adjust the Activities
    - Assign Resources and Costs
  - Importing a File
    - Import Projects Using the Following File Formats:
      - Project Management Module Project (XER)
      - All Microsoft Project Related Extensions (MPP, MDB, MPD, MPT)
      - Third-Party Projects (MPX)
      - Primavera Project Planner Projects (P3)
    - Review and Adjust the WBS
    - Review and Adjust the Activities
    - Assign resources and Costs
  - Copy/ Paste
    - Select Elements of an Existing Project You Want to Copy to a New Project

#### Create a New Project Wizard



The New Project Wizard can assist you in creating a project

project	Create a New Project
	Create a New Project
	Select EPS
	Select the Enterprise Project Structure level for the new project.
	Select EPS Donor/ Private Sector Projects
• Exercise	Cancel Prev Next Finish
Steps     In t	he File menu, click New to launch the wizard

- In the File menu, click New to launch the wizard
- Click Select EPS field, click
- Select a node, Donor/ Private Sector Projects

#### **Entering Project Name**



- The *Project Name* is City Center Office Building Addition. You can shorten the name to create the Project ID, bldg
  - Project ID Type a unique identifier in this field
  - Project Name Type a new name in this field. (May not be

unique)	Create a New Project
	Create a New Project
	Project Name Enter the Project ID and Project Name. The Project ID is a short, unique identifier for your project.
Exercise • Steps	Project ID TUP Project Name Technology Upgradation Project Oracel Project Name Technology Upgradation Project

- In Project ID field type <TUP>
- Type a name in Project Name field<Technology Upgradation Project>

# Entering Project Start & End Dates



- Use the calendar to select *Planned Start* and *Must Finish* By dates for the project.
- The Must Finish By field is not mandatory. You can assign a project Must Finish By date at any point in the project lifecycle in the Dates tab in Project Details.
- To navigate in the calendar:
  - When you launch the calendar, the current month/year is displayed.

To navigate to a different year, click the month/Year section in the calendar, and then use arrows to scroll to the desired year.

• Click the desired month and date, and then click Select.

Create a New Project
Create a New Project
Project Start and End Dates
Specify the planned start date and must finish by date for the project.
The Must Finish By date is the date by which all project activities must finish. If entered, it is used as the project late finish date by the project scheduler.
Project Planned Start Must Finish By 01-Feb-12
Cancel

# Entering Responsible Manager



- The *Responsible Manager*, selected from the OBS, is the individual responsible for the work.
- The OBS is a hierarchical arrangement of an organization's project management structure, either as roles or individuals. The OBS can be configured to represent a detailed organizational breakdown (with employee names) or a more general framework where departments, teams, or types of responsibility are modeled in the structure.

- Exercise
  - Steps
    - In the Responsible Manager field, click
    - Select a responsible manager
       Project Manager> and then click
       select button
    - Click Next



## Selecting Assignment Rate Type



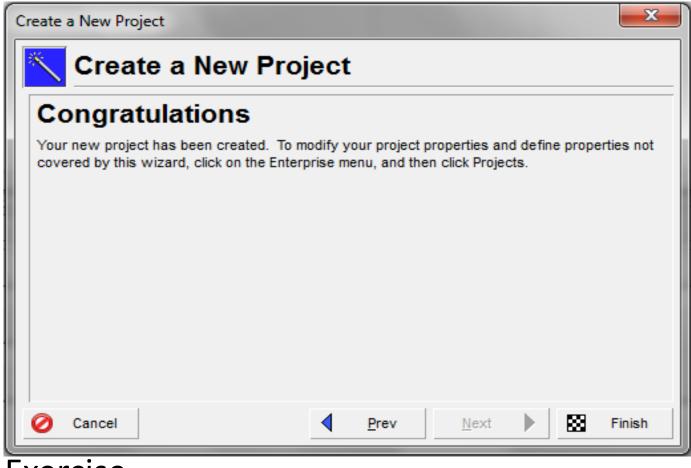
 You can specify the Assignment Rate Type for new resource assignments. The default rate type determines which price/ unit is set on a resource assignment. Values in the Rate Type drop-down list reflects rate types defined in the Rate Types tab in Admin Preferences.

Create a New Project Assignment Rate Type Specify the default Rate Type for new assignments.	
Specify the default Rate Type for new assignments.	
Rate Type Standard Rate	
• Exercise	
Steps	

- In the Rate Type drop-down list, confirm Standard Rate
- Click Next

#### **Project Creation**





- Exercise
  - Steps
    - Click Finish to end the new project wizard

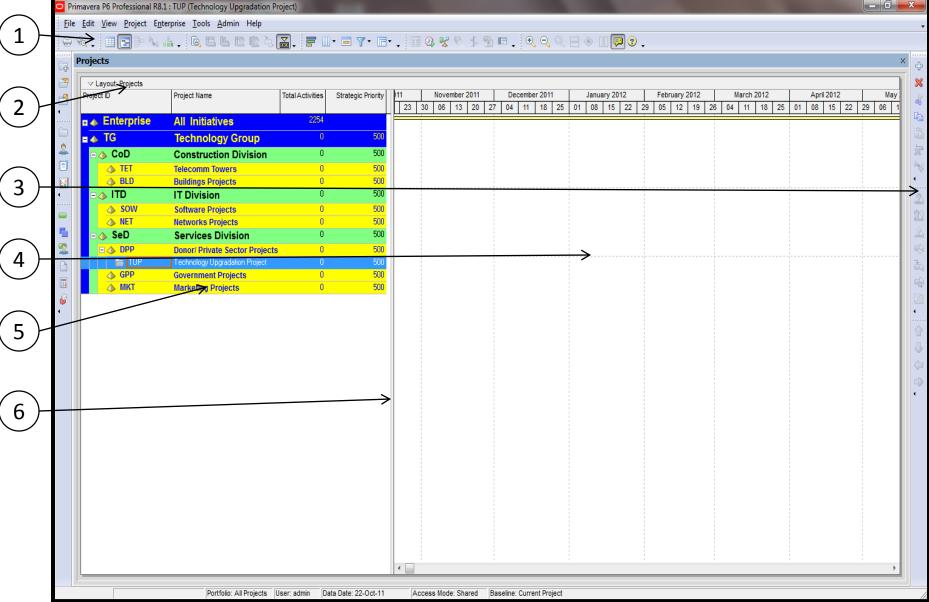
#### Projects Window



- The project has been created and opened
- To view high-level information about the project, navigate to the Projects window, which displays the projects within the EPS that you can access. You can also:
  - Open, create, and save project layouts
  - Group projects by the EPS, project codes, or other projectrelated items
  - Filter projects
  - Modify column data
- The sicon in the project window indicates the project is open
- Exercise
  - Steps
    - In the Directory Bar, click Projects

#### Projects Window





#### Projects Window



ltem	Functionality
1. Tool Bar	Displays icons that allow you to change the look and feel of the layout
2. Layout Option Bar	Displays a menu of available options for projects window
3. Command Bar	Displays options for adding or editing project data
4. Bar Area	Provides a graphical display of the project progress over the period of time
5. Project Table	Displays project information in spreadsheet format
6. Vertical Split Bar	Drag this bar to hide/ show information in each pane

#### **Project Details**



 Project Details information is located in the bottom layout of the Projects Window. It can be used to define the project properties and defaults that are applied to the selected project.

General	Notebook	Budget Log	Spending Plan	Budget Summary	Dates	Funding	Codes	Defaults	Resources	Settings	Calculations	]
EPS ID			EPS Name Technology Gro	up								
Status		<b>_</b>	Responsible Ma							Project Lev	veling Priority	
1	Out Status	-	Checked Out By			_	te Check	ed Out				
	t Web Site I		1			1					unch	
											aunch	

- Exercise
  - Steps
    - In the Layout Options bar, click Layout, Open
    - If Prompted to save changes made to the layout, click No
    - Select a layout
    - Click Open
    - Select a project <TUP Technology Upgradation Project>
    - Verify the General Tab is selected in bottom layout © Primavera Training @ BU - 2016 by M. Waseem Khan

#### General Tab



- The General Tab enables you to view or modify general info about the selected project. Project ID, Project Name, and Responsible Manager can be set when you create the project, or you can change them here. The remaining fields are set by default.
- Fields in the General tab are:
  - **Project ID** Short, unique identifier for the project
  - *Project Name* Name of the project
  - Status Indicates status of the project based on table:

Status	Indicates Project is					
Planned Being analyzed before establishing permanent plan						
Active	Currently being worked on					
Inactive	Completed or on hold					
What-if	Used as Test Scenario					

#### General Tab



- Fields in the *General Tab* are:
  - Responsible Manager Individual, selected from the OBS, who is responsible for the project.
  - Leveling Priority User-defined rank of the project against all other projects, based on its importance to the organization while leveling resources. You can enter a value between 1 and 100. The highest rank is 1; the default is 10.
  - Check Out Status Indicates whether the project is checked-in or checked-out
  - Checked Out By Displays the user that checked-out the project
  - Date Checked Out Indicates the date and time the user checked-out the project
  - Project Website URL Displays the project's website address

#### Dates Tab



- The *Dates Tab* enables you to edit date information for the selected project. The Planned Start and Must Finish By dates can be set when you create the project, or you can change them here.
- <u>Fields</u> in the Dates tab are:
  - *Planned Start* Planned start date of the project
  - Data Date Date used as the starting point for schedule calculations
  - Must Finish By Date indicating the desired end date of the project
  - Finish Non-editable field indicating the latest early finish date calculated when the project was last scheduled
  - Actual Start and Actual Finish Non-editable field indicating the actual start and finish dates of the project
  - Anticipated Start and Anticipated Finish Expected dates that can be entered while planning the project at a high level

#### Notebook Tab



- The *Notebook Tab* enables you to write, view, or edit project notes such as the project's purpose, core requirements, or other project-specific details.
- Fields in the Notebook tab are:
  - Notebook Topic List of topics assigned to the selected node/ project
  - Detail User-defined description of the selected topic. You can use HTML editing features, including formatting text, inserting pictures, copy, paste, and adding hyperlinks
- Exercise
  - Steps
    - Click the Notebook Tab
    - In the Notebook Topic selection, click Add
    - Scroll-down and highlight a Notebook topic, Purpose
    - Click Assign button
    - Close the assign Notebook Topic dialog box
    - In the Detail section, type <Building Design Enhancement, New Software Development, and Training for Software Technology Park>
    - Press Enter (keyboard) for single spacing Press Shift+Enter

#### Notebook Tab



Primavera P6 Professional R8.1 : TUP (Technology Upgradation Project)

<u>File Edit View Project Enterprise Tools Admin Help</u>

#### 

✓ Layout: Projects				II.																	_				_
roject ID	Project Name	Total Activities	Strategic Priority			Novembe		_	Decembe			Januar	-			uary 20			March 2				12012		
				23	30	06 13	3 20	27	04 11	18 2	25 0	1 08	15 2	2 29	05	12	19 2	6 04	11	18 2	5 01	08	15	22	29
🔈 Enterprise	All Initiatives	2254						1			-			-				1							
🐟 TG	Technology Group	0	500																						
⊨ 🇄 CoD	Construction Division	0	500																						
	Telecomm Towers	0	500																						
📣 BLD	Buildings Projects	0	500																						
= 🔈 ITD	IT Division	0	500															1							
📣 SOW	Software Projects	0	500																						
📣 NET	Networks Projects	0	500																						
🗉 🗄 SeD	Services Division	0	500																						
🗆 📣 DPP	Donor/ Private Sector Projects	; 0	500								·														
📄 TUP	Technology Upgradation Project	0	500															1							
📣 GPP	Government Projects	0	500															1							
📣 MKT	Marketing Projects	0	500																						

#### General Notebook Budget Log Spending Plan Budget Summary Dates Funding Codes Defaults Resources Settings Calculations

Notebook Topic	Scope	📎 Assign Notebook Topic
	Building Design Enhancement and Training for a Software Technology Park	Display: Notebook Topics
	······································	Search
		Notebook Topic   Executive Feedback
		🕺 Progress Photographs
		<ul> <li>Fishbone Highlights</li> <li>Cause &amp; Effect Analysis</li> </ul>
		Scope
		Anticipated Problems
		Tools / Techniques
		Exit Criteria
다 Add 💥 Delete	🖾 Modify 🖨 Print 🖶 Copy	

© Primavera Training @ BU - 2016 by M. Waseem Khan

#### Defaults Tab



- The *Defaults Tab* is divided into two section:
  - Default for New Activities Indicates the settings that will be used when new activities are added to the project. Note that changing these settings will not affect existing activities.
  - Auto-numbering Defaults Sets how new activities will be numbered in your project.
    - When the Increment Activity ID based on selected activity checkbox is marked, the prefix or suffix of the selected activity is applied to the activity that is being added.

#### Defaults Tab



General	Notebook	Budget Log	Spending Plan	Budget Summa	ry Dates	Funding	Codes	Defaults	Resources	Settings	Calculation	s
Defaul	lts for Nev	v Activities										
Duration	п Туре		Fixed Durati	on & Units	•	CostAcco	ount	4				
Percent	Complete T	уре	Duration		•	Calendar			Corporate - S	tandard Fu	ull Time	
Activity	Туре		Task Depen	dent	•							
Auto-n	numbering	Defaults										
Activit	ty ID Prefix		Activity ID Suffix	i Ir 1000	crement	10						
🔽 Inc	crement Act	ivity ID based	on selected acti	vity								

#### Settings Tab



- The *Settings Tab* consists of three sections:
  - Summarized Data Identifies the date and level to which the project was last summarized
  - **Project Settings** Sets the character used to separate WBS levels, identifies the month in which the fiscal year begins, and specifies the baseline used in earned value calculations
  - *Define Critical Activities* Identifies which activities are displayed as critical, either longest path or Total Float.

General	Notebook	Budget Log	Spending Plan	Bud	get Summary	Dates	Funding	Codes	Defaults	Resources	Settings	Calculations	]
Summ	narized Da	ita			Project Se	ttings							
Last Su	ummarized (	Dn			Character f	or separ	ating code	fields fo	or the WBS	S tree			
					Fiscal year	begins o	on the 1st o	lay of			Janu	Jary	-
Summa	rize to WBS	S Level			Baseline for	earned	value cale	ulations			,		
2					Project	baselin	e		(	O User's prin	nary base	line	
					Define Crit	ical Ac	tivities						
					Total Fl	oat less	than or ea	ual to				Oh	
					C Longes	st Path							

#### Lesson Review



- You can create a project with several methods including: New Project Wizard, Import a File, Copy and Existing File, and Project Templates.
- Once the project is created, use the Projects Window to high-level information for the projects you can access
- Use Project Details tab in the Projects Window to define defaults settings and properties for the selected project, such as anticipated start and finish dates.



## Creating a Work Breakdown Structure (WBS)

Lesson 6

#### Creating a WBS



- Objectives
  - Define a Work Breakdown Structure of a project
  - Create multiple levels of WBS hierarchy

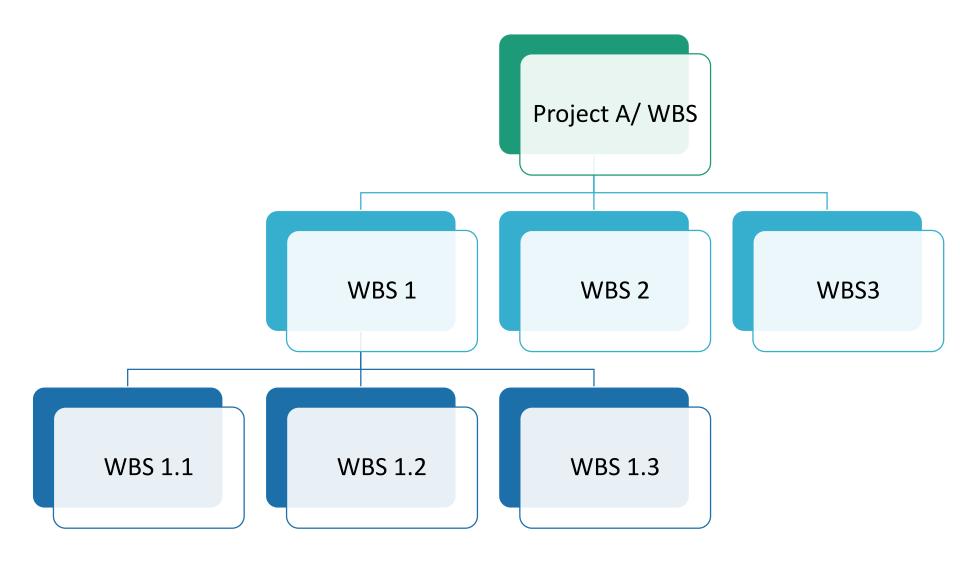
#### Work Breakdown Structure



- The Work Breakdown Structure (WBS) is a hierarchical arrangement of the products and services produced during, and by, a project. It enables you to divide a project into meaningful and logical pieces for the purpose of planning and control.
- Each project has a unique WBS hierarchy
  - The root level of the WBS is equal to the Project ID and Project Name
- Elements within the WBS have parent/child relationship, which means that you can rollup and summarize information from the lower levels.

#### Work Breakdown Structure





#### Viewing WBS Elements



• When the project is created, root level WBS element is added with the same ID and name as of project.

O Pri	im	ave	ra P	6 P	rofe	ssio	nal	R	<b>B.1</b>	: TI	UP	(Te	ch	nol	ogy	7 U	pg	Irac	lat	ion	Pro	ojec	t)																							X	
<u>F</u> ile						_				-																																					-
	ę	à.,				) 7	. 0	<b>₩</b>			- 11	E	۹.		lu		ΤS	2. 1	D	Ę		$\stackrel{\sim}{=}$	÷		-		>> •			0	3	¥	ø		>> +		<del>e</del>	Q	6			۲			<b>,</b>	2	•
·····	w	/BS	÷																																										×		ф.
2	P	Proj	ject	s	WB	s																																									×
-1	ſ	~	Lay	out:	WB:	s								-																															1	-	ď
•		WB	s co	ode					E	M	/BS	Na	me										То	tal	Act	ivitie	s	11							201							201		-		1	i
	ŀ	F	⇒Г	'UP			_	_	_	1	ech	nno	logy	, Ur	ogra	ada	itior	n Pi	roje	et			I				0	μ	23		30	00	5	13	20	וס	27	0	4	11		18	25		01		
2	ľ													_																																	*
																																															nege (
-																																															
																																															₹ <sub>Q</sub>
																													•																		
8	Ľ	_						_						_																	_	_	_	_		_			_	_	_		_	_			71
•		Ger	nera	I N	oteb	ook	В	udg	get I	Log	) s	Spe	ndi	ng F	Plan	E	Bud	dge	t Si	umn	nary	/ V	VBS	s Mi	ilest	one	s	w	Ps 8	k Do	ocs	Ea	rne	1 V	alue										_		
		G	ene	ral																														][	Ant	tici	pat	ed C	Dat	es					I		
			WB		de						VBS			-																			_		Ar	itici	ipate	ed St	tart					_			
			TU								Tec		-					on F	Proj	ect																											<b>₽</b>
			Stat						<b>-</b>	_	Resp	•				_																	_		Ar	itici	ipate	ed Fi	nisł	h				_			-
			IAC	uve					-		*	en	Jec	e nela	una	ige	•																														
	14	-		_														_																											_		
	_	_	_		_		_	_	_	_	_	_		Por	tfol	10:	All	Pro	ojec	ts	0:	ser:	ad	min		Da	ta C	Jate	e: 23	2-0	ct-1	1	_		Acc	es	s Mo	de:	Sha	arec	1	Ba	selir	ie: C	Curre	ent	PI //

© Primavera Training @ BU - 2016 by M. Waseem Khan

#### Viewing WBS Elements

ORACLE

- Exercise
  - Steps
    - In the Projects Window, select a project TUP
    - Right-click the Projects Window and select Open Project
    - In the Directory Bar, click WBS
    - In the General Tab, note the WBS Code and WBS Name, TUP Technology Upgradation Project

#### Creating WBS Hierarchy



- WBS elements added to the root level element are automatically indented to form the second level of the hierarchy.
- When you create a new WBS element, it is indented as a "child" of the WBS element that is currently selected.
- If you add a WBS element to the wrong level or in the wrong order, you can use the indentation keys located on the Command Bar to adjust the structure of the WBS hierarchy.
- The child WBS element inherits attributes from the parent WBS element.
- You can determine the level of WBS elements group by clicking right in the WBS window and choosing Collapse To
- Right-click in the WBS window and click Expand All or Collapse All to expand or collapse elements of the WBS.

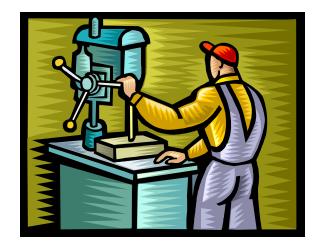
#### Creating WBS Hierarchy



- Exercise
  - Steps
    - In the Command Bar, click Add
    - In the WBS Code column, type the name and press Tab to move to the next field
    - In the WBS Name column, type the name and then press Enter
    - In the Responsible Manager, select appropriate manager as given

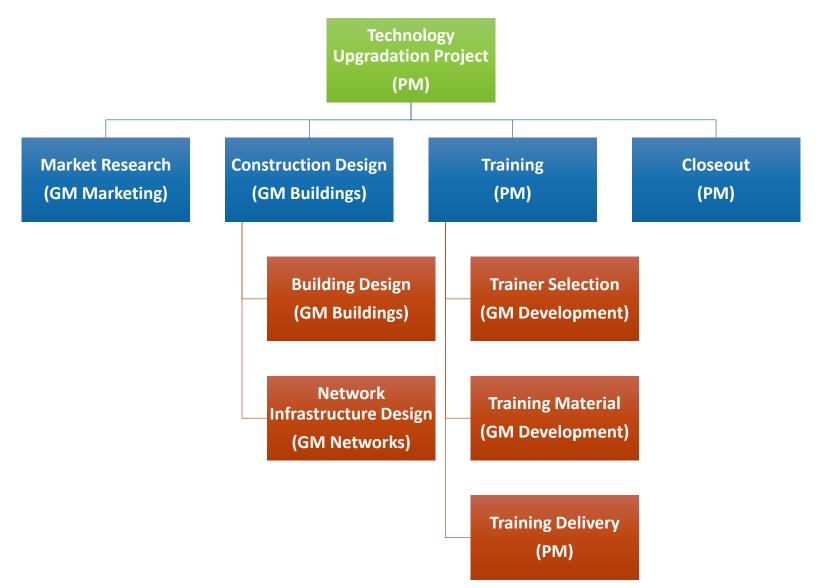


#### WORKSHOP Creating a Work Breakdown Structure



© Primavera Training @ BU - 2016 by M. Waseem Khan

## Exercise: Create WBS and Map Responsible Manager



ORACLE

# Exercise: Create WBS and Map Responsible Manager

<b>D</b> P	rimavera P6 Professional	R8.1 : TUP (Technology Upgradatio	n Project)		x
<u>E</u> ile	e <u>E</u> dit <u>V</u> iew <u>P</u> roject	E <u>n</u> terprise <u>T</u> ools <u>A</u> dmin Help			•
	- 🙈 🗸 💷 💽 Bo h	🎑 🗆 🗠 🖻 i		• 🗨 🖶 🛞 🛄 🤅	⊇
 	WBS			>	< <sub></sub>
	Projects WBS				*
	VBS Code	WBS Name	Responsible Manager		
		E		23 30 06 13	
	E 🗁 TUP	Technology Upgradation Project			Ē.
2	TUP.1	Market Research	GM Marketing		*
目	🖻 🔁 TUP.2	Construction Design	GM Buildings		n <sub>egi</sub>
	- TUP.2.1	Building Design	GM Buildings		4
•	- TUP.2.2	Network Design	GM Networks		 6.
******		Training	Project Manager		2
	- <b>TUP.3.1</b>	Trainer Selection	GM Development		22
	- <b>TUP.3.2</b>	Training Material	GM Development		R
2	TUP.3.3	Training Delivery Closeout	Project Manager Project Manager		€9
	···• 10F.4	Closeoul	Floject Managel		E.
	•		4		4
8	<u></u>				
1	General Notebook Bu	dget Log Spending Plan Budget Sun	nmary WBS Milestones WPs & Do	ocs Earned Value	•
	General		Anticip	ated Dates	Ŷ
	WBS Code	WBS Name	Anticip	ated Start	4
	TUP	Technology Upgradation Project			
	Status	Responsible Manager	A stists	ated Finish	
	Active	Project Manager	Anticip		1
		y =			
		Portfolio: All Projects	User: admin Data Date: 22-0	ct-11 Access N	node: St

© Primavera Training @ BU - 2016 by M. Waseem Khan

ORA

#### Lesson Review



- The Work Breakdown Structure is a hierarchical arrangement of the products and services produced during and by a project.
- The highest level of the WBS is the project, and lowest level consists of the individual activities required for the deliverables.
- Create the WBS in WBS Window. Use the indentation keys to form various levels in the WBS.



# Adding Activities

© Primavera Training @ BU - 2016 by M. Waseem Khan

#### Adding Activities

- Objectives
  - Describe an activity and its components
  - Describe activity components
  - Add activities
  - Add a notebook topic to an activity
  - Add steps to an activity
  - Assign activity codes to activities



#### Activities



- The component of work performed during the course of project.
- Activities are the fundamental work elements of a project. They are the lowest level of a WBS and the smallest subdivision of work that directly concerns the project manager.
  - Most detailed work unit tracked in a project schedule.
  - Contains all information about the work to be performed.
  - Also known as a task, item, event, or work package

#### Activity Components





© Primavera Training @ BU - 2016 by M. Waseem Khan

#### Adding Activities



- Use the Activities Window to create, view, and modify activities for the selected project.
- To add an activity, perform one of the following:
  - In the Command Bar, click Add
  - In the Edit Menu, click Add
  - Press Insert on the Keyboard
  - Right-click and click Add

#### Adding Activities

- Exercise
  - Steps
  - Open a Project, TUP
  - Confirm you are in Activities Window
  - Click the Layout Option Bar
  - and open a layout,
  - Classic WBS Layout

	Prin	mave	ra P6 Profes	sional R8.1 :	TUP (Technolo	ogy Upgrada	tion Proj	ect)									X
					prise <u>T</u> ools	55 15											
				•				- :		. 3		N 1 1					•
	1	÷	.   💷 🔁	) 🤁 🍾 🚠	. 🖻 🗖	Ш 🗓 🗓	9, ĕ			-	== Q	<b>.</b> . (	<del>t</del> , 🔍	Q 🗕	*		]? .
Cą.	1	Activ	vities													>	< ب
		Proj	jects   WBS	Activitie	s												*
-9		νL	ayout: Class	is WBS Layou	ıt				Filter: /	AllA	ctivities						J di
4		Activ	rity ID 🚽	Activity Nam	e	Start		Finish			Q	tr 4, 20	10	Qtr	1, 201	1	
			,							P	Oct	Nov	Dec	Jan	Feb	Mar	
		-	Technology Market Ri	Jpgradation F	roject												
2				ion Design													*
1				ig Design													ing.
				rk Design													•
4		Ξ	Training							···				1 1	i		2
				r Selection													22
				ng Material													
			Trainin Closeout	ig Delivery													Æ
2			Lioseout														Щ.
										•						Þ	ā.
		0		<b>D</b>	Decide constant	0	Contra	Netsheet	0			14/0-1		<b>F</b>			
2		Gen	eral Status	Resources	Predecessors	Successors	Codes	Notebook	Steps	S	eedback		& Docs	Expense	s   Sum	mary	
1		Ī	Activity									Proj	ject				4
		A	ctivity Type		Duration Type		%	Complete T	уре		Ac	tivity Ca	alendar				4
		[		-			-				<b>_</b>	1					J
		N N	VBS			Responsibl	e Manage	er			Primary I	Resour	се				
										_	2						
		1															4
		Ľ.								_							
					Port	folio: All Proje	cts Us	er: admin	Data	Date	: 22-Oct	t-11	A	ccess Mod	le: Shar	ed	Basel //



#### New Activity Wizard



• The *New Activity Wizard* walks you through the process of adding an activity. Once you become familiar with the process, you can disable the wizard in User Preferences and manually add activities to the project.

- Exercise
  - Steps
    - In the Edit Menu, click User Preferences
    - Click the Assistance Tab
    - Check Use New Activity Wizard
    - Click Close

Time <u>U</u> nits	Wizards
<u>D</u> ates	Would you like to use wizards when adding new activities and
<u>Currency</u>	resources?
<u>E</u> -Mail	
A <u>s</u> sistance	
Application	Use New Resource Wizard
Password	Use New Activity Wizard
Resource Analysis	
Calculations	
Startup <u>F</u> ilters	1
	1

### Adding Activities Using Activity Wizard



 The New Activity Wizard appears only when you click Add in the Command Bar.

Enter an Activity ID and Activity Name. The Activity ID uniquely identifies the activity.          Activity ID         A1000	Enter an Activity ID and Activity Name. The Activity ID uniquely identifies the activity.	Activity Name		
A1000	A1000 Activity Name	and a second	Name. The Activity ID uniquely identifies the	e activity.
A1000	A1000 Activity Name			
A1000	A1000 Activity Name			
A1000	A1000 Activity Name			
A1000	A1000 Activity Name			
A1000	A1000 Activity Name			
A1000	A1000 Activity Name			
	Activity Name	Activity ID		
A starity Marso	present in the second se			
Provide and a second	Project Kick-off	A1000		
Project Kick-off		A1000 Activity Name		

- Exercise
  - Steps
    - In the Activity ID field, type <A1000>
    - In the Activity Name field, type <Project Kick-off>
    - Click Next

#### © Primavera Training @ BU - 2016 by M. Waseem Khan



#### Adding Activities Using Activity Wizard

- Exercise
  - Steps
    - In the WBS field, click Browse
    - Select a WBS, TUP Technology Upgradation Project, and click Assign button
    - Click Next

New Activit	Ŋ
Nork Breakdo	own Structure
elect a Work Breakdown S	tructure (WBS) element for this activity.
	rangement of the products and services produced by a project. sibilities are assigned via the WBS.
	adation Project
WBS TUP Technology Upgra Do not show this wizard a	_





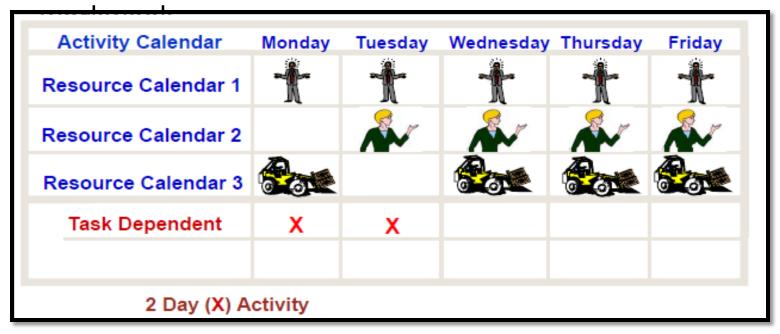
- Activity type controls how an activity's duration dates are calculated
- Select the Activity Type according to the activity's function in the project and the calendar that should be used for the activity during scheduling
  - Start Milestone
  - Finish Milestone
  - Task Dependent
  - Resource Dependent
  - Level of Effort
  - WBS Summary



- Start Milestone This type is typically used to mark the beginning of a phase or to communicate project deliverables.
  - Zero-duration activity
  - Only has a start date
  - You can assign constraints, steps, expenses, work products, and documents
  - You can assign a primary resource
  - You cannot assign roles
- *Finish Milestone* This type is typically used to mark the end of a phase or to communicate project deliverables.
  - Zero-duration activity
  - Only has a finish date
  - You can assign constraints, steps, expenses, work products, and documents
  - You can assign a primary resource
  - You cannot assign roles



- Task Dependent This type is typically used when the work needs to be accomplished in a given time frame, regardless of the assigned resources' availability.
  - The activity's resources are scheduled to work according to the activity calendar
  - Duration is determined by the assigned calendar's





- Resource Dependent This type is typically used when multiple resources assigned to the same activity can work independently.
  - The activity's resources are scheduled according to the individual resource's calendar
  - Duration is determined by the availability of the resources assigned to work on the activity.

Activity Calendar	Monday	Tuesday	Wednesday	Thursday	Friday
Resource Calendar 1	Ť	Ť	Ť	Ť	Ť
Resource Calendar 2		Ň	<b>A</b>	Ň	$\sim$
Resource Calendar 3					
Task Dependent	x	X			
Resource Dependent	X	X	X		
2 Day (X) A	Activity				

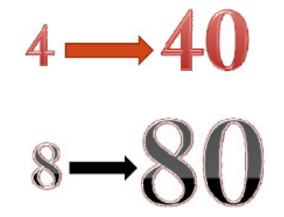


- Level of Effort This type is typically used for ongoing tasks dependent on other activities.
  - Duration is determined by its predecessor and successor activities, and its assigned calendar
  - Examples include clerical work, a security guard and meetings
  - You cannot assign constraints
- WBS Summary This type is used to summarize a WBS level.
  - The WBS summary activity comprises a group of activities that share a common WBS level
  - The dates calculated on a WBS summary activity are based on the earliest start date of the activities in the group and the latest finish date of these activities
  - You cannot assign constraints

#### Activity Decomposition



- Activities need to be decomposed to sufficient detail so as to provide effective basis for:
  - Estimating
  - Scheduling
  - Executing
  - Monitoring
  - Control
- Hourly rules
  - 4 to 40 hour rule
  - 8 to 80 hour rule



#### Activity Type Using Activity Wizard

- Exercise
  - Steps
    - In the Activity drop-down list, select Start Milestone
    - Click Next
    - Verify No, continue is selected, and then click Next
    - Verify No, thanks is selected, and then click Next

New Activity			
Activity Type			
Choose an Activity Type for th	is activity.		
Use Task Dependent for most availability controls the activity significant project events. Lev activities. Administration activ	schedule. Milestones are zero el of Effort activities have dur	b-duration activities ations which are dri	which mark
Activity Type			

#### Completing New Activity Wizard

- Exercise
  - Steps
    - Make check <do not show this wizard again>
    - When prompted, click Ok
    - Click Finish

lew Activity	ivity
Congratula	tions added a new activity. You may update information for this activity at any
Primavera	
<b>i</b>	To enable the activity wizard in the future, select User Preferences under the Edit menu. On the Assistance tab, click on the Use New Activity Wizard checkbox.
	<u>O</u> K
✓ Do not show this wiz	ard again.
O Cancel	Prev Next     Prev     Next     Finish

#### Adding An Activity via Activity Details



- You can use the Activity Details tab to add an activity, and then can enter additional information about the activity.
- Exercise
  - Steps
    - Select a WBS element, Market Research
    - In the Edit Menu, click Add, or Right-click and then click Add

#### General Tab



#### • Use the General Tab to assign basic information about an

activity	O Pr	rimavera P6 Professi	ional R8.2 : TUP (Technology Upg	radation Project)		0.1.10													a x
activity.			ject E <u>n</u> terprise <u>T</u> ools <u>A</u> dmin																-
,	9	🙈 🗸 🔳 💽	)• 🐜 🗸 💽 🖪 🕒 📧	1 և 🕹 🚛 🚍		🖃• # 🚬 🔳 🙆	¥ (	🇞 🚺	👔 💷 🖕	ج چ	२ 🗄 🚸	🔲 🗭 📀	•						
		Activities																	×
	1	Activities Proj	ects WBS																*
	-	V Layout: Classic		Filter: A	IActivities			_											d
	•	Activity ID	Activity Name	Original Duration	Remaining Duration	Schedule % Start Complete	Finit	, 2010 Iov	Dec	Jan	Qtr 1, 2011 Feb	Mar	Apr	Qtr 2, 2011 May	Jun	Jul	Qtr 3, 2011 Aug	Sep	🖻
			chnology Upgradation	2	2	0% 01-Feb-12	02-F		Dec	Jan	Teb	mai	Арі	may	Jun	Jui	Aug	Sep	
	2	😑 A1000	Project Kickoff	0	0	0% 01-Feb-12													4
	•	= 🖷 TUP.1	Market Research	2	2	0% 01-Feb-12	02-F												2
		👝 A1010	Review Literature Search	2	2	0% 01-Feb-12	02-F												22
	•	= 🛀 TUP.2	Construction Design	0	0	0%													2
	-		.1 Building Design	0	0	0%													€3
	ч.	= 🖬 TUP.3	.2 Network Infrastructure Desi	0	0	0% 0%													<b>≧</b> L₃
	2	_	.1 Trainer Selection	0	0	0%													<b>-</b>
		TUP.3.	.2 Training Material	0	0	0%													
			.3 Training Delivery	0	0	0% 0%													4
	8	<b>1</b> 0P.4	Closeout	U	U	0%													1
	•																		4
							•	•											<u>→</u> ⇒
		General Status	Resources Predecessors Succes	ssors Feedback															•
			Activity A1010	Re	view Literature Se	earch								Proje	ct TUP				_
		Activity Type		Duration Typ					omplete Typ	9			Activity C						
		Task Depend		Fixed Durat	ion & Units			.▼ Du	ration			•	- 🛅 Corp	orate - Standa	rd Full Time				
		Finish Milesto Level of Effo	rt			Responsible Manager							Resource						
		Resource De Start Milestor				GM Marketing						2							
		Task Depend WBS Summa	ient Dr																
		Wb5 Summa	i y																
_ ·																			
Exercise																			
<b>A</b> .																			
<ul> <li>Steps</li> </ul>																			
Steps			Portfolio: All Projects Acc	ess Mode: Shared	Data Date: 01-Fet	b-12 Baseline: Curre	ent Proj	ect		User	admin DE	3: PMDB (Profe	essional)						
• In	G	Gener	al Tab, ve	erify tl	ne A	ctivity	D	</th <th><b>\1</b>C</th> <th>10</th> <th>&gt;</th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th>	<b>\1</b> C	10	>								
				-		-						,							
• In	t	ne Ac	tivity fiel	a, typ	e <r< th=""><th>leview</th><th>LĽ</th><th>ter</th><th>atu</th><th>ire</th><th>Sea</th><th>irch</th><th>&gt;</th><th></th><th></th><th></th><th></th><th></th><th></th></r<>	leview	LĽ	ter	atu	ire	Sea	irch	>						

• In the Activity Type drop-down list, verify <Task Dependant>

#### Status Tab



 Use the Status Tab to define the selected activity's duration, constraints, Start and Finish Dates, Labor and Non-labor Units and Costs, and Material Costs. You can also use the Status Tab to view the selected activity's float, actuals, and completion %.

General Status	Resources Predecessors	Successors	Feedback							
* *	Activity A1010			Review Literature Searc	h				Project TUP	
Duration			Statu	s					✓ Labor Units	
Original	10			Started	01-Feb-12	Duration %	0	)%	Budgeted	0
Actual		0		inished	14-Feb-12	Suspend			Actual	0
Remaining		10	Exp	Finish		Resume			Remaining	0
At Complete		10							At Complete	0
			Cons	traints						
Total Float			Prim	ary	< None >	Secondary	< None >	<b>–</b>		
Free Float			Date			Date				
						[r				
	Portfolio: All Projects	Access M	ode: Shared	Data Date: 01-Feb-12	Baseline: Current Project	User: a	Idmin DB: PMDB (Professional)			

- Exercise
  - Steps
    - In the Activity Details, click the Status Tab
    - In the Original Duration field, type <10>, and then press Enter

© Primavera Training @ BU - 2016 by M. Waseem Khan

#### Notebook Tab



 The Notebook Tab enables you to assign notes to an activity. Notebook topics are typically instructions or descriptions that further describe the activity according to specific categories of information.

General Status Resources Predecessors Successors Notebook	📎 Assign Notebook Topic
Activity A1010 Review Literature Search	V Display: Notebook Topics         Project         TUP
Notebook Topic       Scope       Scope       Add       Delete	Search Notebook Topic Constraints Change Management Sponsor Feedback Resource Brokering Sponsor Feedback Recent Accomplishments Lessons Learned Dijectives Changes Corrective Actions Co
Portfolio: All Projects Access Mode: Shared Data Date: 01-Feb-12 Baseline: Cu	urrent Project User: admin DB: PMDB (Professional)

- Exercise
  - Steps
    - Click the Notebook Tab
    - In the Notebook Topic section, click Add
    - Select a Notebook topic, Scope and click Assign button
    - Close the Assign Notebook Topic dialog box
    - Type a description in Modify section <Literature Review for Design of Building and Network including Internet, Market Survey>

#### Adding an Activity via Column



- You can also use the columns in the Activity Table to add an activity and then enter additional information about it.
- Exercise
  - Steps
    - In the Activity Table, select a WBS band, Market Research
    - Press Insert on your keyboard
    - Verify the Activity ID, <A1020>
    - In the Activity Name column, type <Prepare Inventory & Vendor List>
    - In the Activity Type column, verify Task Dependent
    - In the Original Duration column, type <4>
    - Press Enter on your keyboard

## Activity Codes



- Activity Codes enable you to classify and categorize activities according to you organizational and project needs.
- You can use activity codes to view and roll-up activities in the Activity Table; build reports in the Report Wizard or Report Editor; organize a layout by grouping activities into specific categories; and select and summarize activities.
- Examples include Phase, Area, Site, and Division.
- Activity codes can be defined at three levels
  - Global Level Available to all activities in the database
    - Create an unlimited no. of global-level activity codes
    - Organize activities within a project or across the project structure
  - EPS Level Available to all activities within the EPS node and its children
    - Create an unlimited no. of EPS-level activity codes
    - Organize activities within a project or across a portion of the EPS
  - Project Level Available to activities only in the project in which code is defined
    - Create upto 500 activity codes per project
    - Filter and organize activities based on unique, project-specific requirements

# Assigning Activity Codes to an Activity



- Assign activity code values in the Activities Window
  - Add a column for the activity code in the Activity Table
  - Use the Codes Tab in Activity Details
- Exercise
  - Steps
    - Select an activity A1020 Review Literature Search
    - In the Activity Details, click the Codes tab
    - Click Assign
    - In the Assign Activity Codes dialog box, click the Display Option bar and choose Filter By, All Values
    - Click the Display Option bar and choose Collapse All
    - Expand the Department activity code
    - Within the Department activity code, select an activity code value, ISD

       Information Systems, and then click Assign
    - Click Close

## Assigning Activity Codes to an Activity



Control Contro Control Control Control Control Control Control Control Control Co	vera P6 Professional R8.2 : TUP (Technolog dit <u>V</u> iew <u>P</u> roject E <u>n</u> terprise <u>T</u> ools <u>A</u>																٥
Unities           thinking         Projects (Wis)           true         Organ Duration         Remain         Schedule kg           thy O         Activity Name         Organ Duration         Remain         Schedule kg           a MU00         Project Schold         0         0         000000000000000000000000000000000000				·	. <del>.</del>	87	1 🗣 💷 🔒			n 🖻 😨							
Lynd: Cases Schedule Layout       Filter: Al Activities       Schedule	tivities										•						×
drive V         Active Yume         Original Duration         Beamining Duration         State is Sam         Pair         2010         Off 7, 2011         <	ctivities Projects WBS				_												
TUP:         Tochnology Upgradation         00         10         050(0000000000000000000000000000000000	Zayout: Classic Schedule Layout	Filter: A	All Activities									_	_				
TUP: Technology Upgradation       10       10       00       01/16/12       14       02<	ctivity ID C Activity Name	Original Duration			Fini												$\square$
■ A1000       Prior Kodrit       0       03; 01 Feb 12       I         ■ A1000       Prove London Search       10       00; 01 Feb 12       I         ■ A1020       Prove London Search       10       00; 01 Feb 12       I         ■ A1020       Prove London Search       0       00; 01 Feb 12       I         ■ A1020       Prove London Search       0       00; 01 Feb 12       I         ■ A1020       Prove London Search       0       00; 03;       I         ■ A1020       Prove London Search       0       0; 0; 0; Feb 12       0; 0; 0; Feb 12         ■ UR22; Nation Design       0       0       0; 0; 0; Feb 12       0; 0; 0; Feb 12       0; 0; 0; Feb 12         ■ TUP3; Corstruction Design       0       0       0; 0; 0; 0; 0; 0; 0; 0; 0; 0; 0; 0; 0; 0	= TUP, Technology Upgrada	tion 10			14	lov	Dec	Jân	Feo	Mar	Apr	Мау	Jun	Jui	Aug	Sep	0
TUP.1 Market Research       10       10       00: 01: Febra 14: Febra 14: Febra 14: Febra 10: 00: 01: Febra 12: 16: Febra 12:						1											
1000             Pressel landous Search             10             10						A											1
TUP.2 Construction Design 0 0 0 0  TUP.2 Interest Banking Design 0 0 0  TUP.3 Training 0 0 0 0 0  Tup.3 Training 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		arch 10	10	0% 01-Feb-12	14	4											
C TUP2.1 Building Design UP2.2 Betwork Infrastructure Desi UP3.3 Training UP3.2 Training Material 0		. 2	2	0% 01-Feb-12	02-1	.f											
TUR2.2 Helwork Infrastructure Desi     0	TUP.2 Construction Desig	<b>n</b> 0	0	0%		4		1							1		1   
TUP3 Training       0       0       0%         **       TUP3.1 Training Safection       0       0%         **       TUP3.3 Training Material       0       0       0%         **       TUP3.4 Closeout       0       0       0%         **       TUP3.4 Closeout       0       0       0%         **       TUP4.4 Closeout       0       0       0%         **       TUP3.4 Closeout       0       0       0%         **       Activity Al1010       Review Literature Search       Code Value       EPS        Project         *       Activity Code       Code Value       Description       Sarar       Sarar       Code Value       Description         *       Soldaarmeet       If ormation Systems Department       *       *       Sarar       *       Code Value       Description       *       *       *       Sarar       *       Code Value       Description       *       *       *       *						4											
TUR3.1 Trainer Selection     0																	
TUP3.2 Training Delivery     0																	
TUP.3.3 Training Delivery         0         0         0						<b>/</b> }		{									
eneral Status Resources Predecessors Successors Notebook Codes Expenses Feedback Relationships Risks Steps Summary WPs & Docs	TUP.3.3 Training Delivery					4				1							
eneral Status Resources Predecessors Successors Notebook Codes Expenses Feedback Relationships Risks Steps Summary WPs & Docs Activity A1010 Review Literature Search Code Value Description Department SD Information Systems Department	TUP.4 Closeout	0	0	0%													
eneral Status Resources Predecessors Successors Notebook Codes Expenses Feedback Relationships Risks Steps Summary WPs & Docs Activity A1010 Review Literature Search Code Value Description Department SD Information Systems Department					ļ	1											
Activity A1010 Review Literature Search      Global     Global     Global     PS     Project      Display: All Values     Search      Code Value     Description      Global     Global     Code Value     Description      Global     Code Value     Description      Global     Code Value     Description      Global     Glob					•		<u> </u>		· · · ·		·	·	·		1	·	-
Activity A1010 Review Literature Search      Global     Global     Global     Cece     Soft in Kerring Cocce      Soft in Kerring Coccee      Soft in Kerring Coccee      Soft in Kerring Coccee      Soft in	eneral Status Resources Predecessors	Successors Notebook Cor	des Expenses /	Feedback Relationships F	Risks	Steps	Summary WF	s & Docs	R Assian	Activity Cod	les			×			
Activity Code Code Value Description          > Department       SD       Information Systems Department         SD       Information Systems Department         SD       Ensigneeting Department         SD       Information Systems Department         SD       Ensigneeting Department         SD       Information Systems Department         SD       Ensigneeting Department         SD       Information Systems Department         SD       MASDN         And Walson       MASIS         MALIS       Invida Harie	A			-								C Project					
ISD     Information Systems Department     Search     Code Value     Department     Search     Search    Search     <		1						/			195						
Code Value Description   Image: Subscription Image: Subscription   Image: Subscription Image: Subscription <td>· · · · · · · · · · · · · · · · · · ·</td> <td></td> <td>-</td> <td></td> <td></td>	· · · · · · · · · · · · · · · · · · ·														-		
Solution										,	E Descrip	otion		A			
ENG Engineering Department   PCH Purchasing Department   SD Information Systems Department   CON Construction Department   CON Construction Department   Activity Code: Responsibility   Addy Mason MILLS   MILLS Tom Mills   HABIS Linda Haris								ľ			-						
Isb       Information Systems Department         CDN       Construction Department         Activity Code: Responsibility       Image: Construction Department         MASON       Andy Mason         MILLS       Tom Mills         HARIS       Linde Harie								V					ent		A		
CON Construction Department								ľ	🔍 🔍 PCł	СН				<b>-</b>	i i		
Image: Second state     Image: Second st								ľ							۵.		
MASON     Andy Mason     MILLS     Tom Mills     HARIS     Livida Haris								ľ	· ·			-		<b>(</b>	0		
ALLS Tom Mills								ľ						-			
								ľ	🛋 🛋 MIL	ILLS	Tom Mill	ills					
Assiss IV Demous	Assign Remove									RIS	Linda H	ario		+			

## Calendar Assignments



- Calendars can be created and assigned to each activity and resource.
- Calendar assignments are used to schedule activities and level resources.
- An unlimited no. of calendars can be created.
- The Activity Type determines whether the activity calendar or resource calendar is used during scheduling.
- There are three calendar types:
  - Global Calendar
    - Contains calendars that can be used by all projects in the database
    - Available for all resources and activities in the database
  - Resource Calendar
    - Contains separate calendars for each resource
  - Project Calendar
    - Contains a separate pool of calendars for each project
    - Available for the current project only

## Calendar Assignments

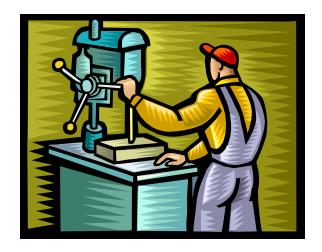
ORACLE

- Exercise
  - Steps
    - Select and Activity, A1020
    - Click the General Tab
    - In the Activity Calendar field, click Browse button
    - View the available global calendars, and then close the dialog

	•		h and the second s
General Status Resources Predecessors Successors Notebook Codes	Expenses Feedback Relationships Risks Str	🛗 Select Activity Calendar	
Activity A1010	Literature Search	☐ ✓ Display: Global Calendars	Project TUP
Activity Type Duration Type Task Dependent  WBS  TUP.1 Market Research	Units Responsible Manager	Search       Calendar Name       Sx10       6x24       7x24       No       Corporate - Standard Full Time       Yes       Trades - 5 Day Workweek       No	Activity Calendar Corporate - Standard Full Time tesource



### WORKSHOP Adding Activities



© Primavera Training @ BU - 2016 by M. Waseem Khan

## Exercise: Add Activities



WBS	Activity ID	Activity Name	Activity Type	Original Duration	Calendar
Technology Upgradation Project				10	
TUP	A1000	Project Kick-off	Start Milestone	0	Corporate – Standard Full Time
TUP		Design Handover (Project Completion)	Finish Milestone	0	Corporate – Standard Full Time
Market Research				10	
TUP.MR	A1010	Review Literature Search	Task Dependent	t 10	Corporate – Standard Full Time
TUP.MR	A1020	Prepare Inventory & Vendor List	Task Dependent	t 4	Corporate – Standard Full Time
TUP.MR	A1030	Perform Market Survey	Task Dependent	t 10	Corporate – Standard Full Time
TUP.MR	A1040	Formulate Survey Findings	Task Dependent	t 5	Corporate – Standard Full Time
TUP.MR		Perform SWOT Analysis	Task Dependent		Corporate – Standard Full Time
TUP.MR	A1060	Document Results and Handover	Task Dependent	t 2	Corporate – Standard Full Time

## Exercise: Add Activities



WBS	Activity ID	Activity Name	Activity Type	Original Duration	Calendar
Construction Design				10	
Building Design				6	
TUP.CD.BLD	A1070	Prepare Concept Design	Task Dependent	10	13h/d
TUP.CD.BLD	A1080	Prepare Tender Documents	Task Dependent	10	13h/d
TUP.CD.BLD	A1090	Develop 100% Construction Document	Task Dependent	10	13h/d
Network Infrastructure Design				10	
TUP.CD.NID	A1100	Prepare LAN Layout	Task Dependent	10	Corporate – Standard Full Time
TUP.CD.NID	A1110	Prepare Domain/ Harwdware Layout	Task Dependent	10	Corporate – Standard Full Time
TUP.CD.NID	A1120	, Handover Network Design	Finish Milestone	0	Corporate – Standard Full Time

## Exercise: Adding Activities



WIDS	Activity ID		Activity	Original	
WBS Training	שו	Activity Name	Туре	10	Calendar
Trainer Selection				10	
Indiller Selection			<b>–</b> 1	10	
TUP.TR.TRS	A1130	Prepare & Review RFP/ Advertisement	Task Dependent	5	Corporate – Standard Full Time
TUP.TR.TRS	A1140	Open Technical Bids	Finish Milestone	0	Corporate – Standard Full Time
TUP.TR.TRS	A1150	Review and Score Technical Bids	Task Dependent	10	Corporate – Standard Full Time
TUP.TR.TRS	A1160	Open Financial Bids	Finish Milestone	0	Corporate – Standard Full Time
TUP.TR.TRS	A1170	Negotiate with Bidders	Task Dependent	5	Corporate – Standard Full Time
TUP.TR.TRS	A1180	Award Contract	Finish Milestone	0	Corporate – Standard Full Time
Training Material				8	
TUP.TR.TRM	A1190	Prepare and Review Draft Material	Task Dependent	8	Corporate – Standard Full Time
TUP.TR.TRM	A1200	Finalize Training Material with Client	Task Dependent	5	Corporate – Standard Full Time
TUP.TR.TRM	A1210	Print Training Material	Task Dependent	4	Corporate – Standard Full Time

## Exercise: Adding Activities



WBS	Activity ID	Activity Name	Activity Type	Original Duration	Calendar
Training Delivery				8	
TUP.TR.TRD	A1220	Deliver Training Course	Task Dependent	5	Corporate – Standard Full Time
TUP.TR.TRD		Prepare & Submit Assessment Report	Task Dependent	8	Corporate – Standard Full Time
Closeout				10	
TUP.CO		Prepare Closeout Documentation	Task Dependent	10	Corporate – Standard Full Time

## Lesson Review



- There are four ways to add an activity to a project:
  - In the Command Bar, click Add
  - Press Insert on keyboard
  - Right-click
  - Click Add
- You can also enable the New Activity Wizard to walk through the steps of adding activity information
- Activity Type controls how an activity dates are calculated
- Use steps to create a checklist for the activity, and mark step completion
- Use Activity Codes to group activities by a common attribute. Create an unlimited no. of code values for each activity code.
  - The Global level codes can be assigned to all activities in the database
  - EPS level codes can be assigned to all activities in the EPS and EPS children
  - Project level activity codes can be assigned to activities in the projects in which they are created



# Creating Relationships Lesson 8

© Primavera Training @ BU - 2016 by M. Waseem Khan

## **Creating Relationships**

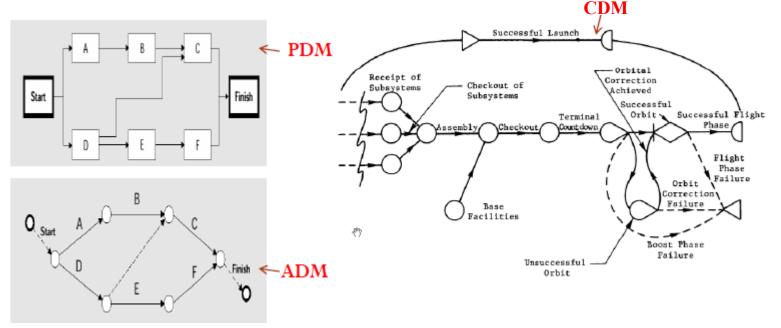
ORACLE

- Objectives
  - Create a Network Logic Diagram
  - Differentiate Between the Four Relationship Types
  - Create Relationships in the Activity Network
  - Create Relationships in Activity Details

## Network Logic Diagram



- A network logic diagram is a logical representation of all activities in a project showing their dependency relationships.
  - Precedence Diagramming Method (PDM, AON)
  - Arrow On Arrow Diagramming Method (AOA)
  - Conditional Diagramming Method (CDM)



## Network Logic Diagram



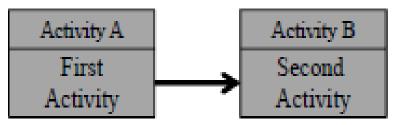
- Precedence Diagramming Method
  - A method of constructing a project network diagram using nodes to represent the activities and connecting them with arrows that show the dependencies.
  - This technique is also called activity-on-node (AON)

- A box or rectangle represents an activity
- Lines with arrows connect the boxes and represent the logical relationships between the activities
  - **Predecessor:** Controls the start or finish of another activity
  - Successor: Depends on the start or finish of another activity

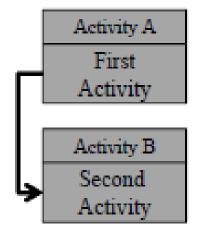
# **Relationship Types**



- There are *four relationship types*.
- In the following diagram, activity A represents the predecessor and activity B represents the successor.
  - Finish-to-Start (FS) When A finishes, B can start



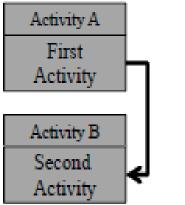
• Start-to-Start (SS) – When A starts, B can start



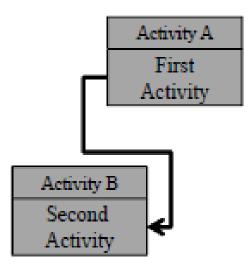


## **Relationship Types**

• Finish-to-Finish (FF) – When A finishes, B can finish



• Start-to-Finish (SF) – When A starts, B can finish



## Relationships with Lag



- Lag specifies an offset or delay between an activity and its successor. It can be added to any type of relationship and have a positive or a negative value.
- Lag is scheduled based on the calendar selected in the GENERAL Tab in the Schedule Options dialog box.
  - Tools Menu→ Schedule→Options
- There are four calendar options for scheduling lag
  - Predecessor activity calendar
  - Successor activity calendar
  - 24-hour calendar
  - Project default calendar

Creating Relationship using Activity Network



- The Activity Network is useful when sequencing activities because it displays the activities graphically as you create relationships.
- Click Zoom to enlarge the size of activities viewable in the network.
- Exercise
  - Steps
    - Confirm you are in Activities Window (Directory bar, click Activities)
    - In the Layout Option bar, click Layout, Open
    - Select a Layout, Critical Path Logic View, and then click Open
    - Select a WBS Code, TUP
    - Click Zoom in on activities in the Activity Network
    - Select an activity, A1000 Project Kick-off
    - In Activity Details, click Relationship tab

## Creating Relationship using Activity Network



- 0 X Primavera P6 Professional R8.2 : TUP (Technology Upgradation Project) File Edit View Project Enterprise Tools Admin Help ⇔ & , ! == = ]= \, ... , | [2] == \L 12 \, L 2, | = | | + = | + , ! == 0, 😰 ♥, ≴ 🖫 = , ! Q, Q, Q, ⊟ ♦ | | | = ② , Activities × ÷ Activities Projects WBS Filter: All Activities WBS Code WBS Nar TUP Technology Upgradation Project Techr 📲 TUP.1 Market R 4 🖻 📥 TUP.2 Construc TUP.2.1 Building [ 2 TUP.2.2 Network A1280 Handover Design (Project roiect Kickoff 🖻 🖶 TUP.3 Training Completion) TUP.3.1 Trainer S TUP.3.2 Training E. TUP.3.3 Training I Z. E TUP.4 Closeout TUP1 Market Research 2 .... 1070 1060 1050 A1040 Document Results and Perform SWOT Analysis Formulate Survey Findings Perform Market Survey Handover General Status Resources Predecessors Successors Codes Notebook Steps Feedback WPs & Docs Expenses Summary Relationships Risks Activity A1000 Project Kickoff Project TUP -Predecessors Successors Lag Activity Status P Project ID WBS Activity ID V Activity Name Relations Project ID WBS Activity ID V Activity Name Relations Lag Activity Status Primary Rese • • 5 Assign **...** Remove GoTo Assian ..... Remove GoTo Portfolio: All Projects Access Mode: Shared Data Date: 01-Feb-12 Baseline: Current Project User: admin DB: PMDB (Professional)

© Primavera Training @ BU - 2016 by M. Waseem Khan

# Creating a Start-to-Start Relationship

- You can create a relationship between activities by clicking and dragging your mouse between the two activities:
  - The left-edge of the activity represents the start of the activity
  - The right-edge of the activity represents the finish of the activity

- Exercise
  - Steps
    - To create a SS relationship, place the mouse pointer to the leftedge of an activity, A1000-Project kickoff
    - Click and drag the mouse to the left-edge of a successor activity, A1010-Review Literature Search

## Creating a Start-to-Start Relationship



Primavera P6 Professional R8.2 : TUP (Technology Upgradation Project)

<u>File Edit View Project Enterprise Tools Admin Help</u>

#### 

ties Projects  WBS   out: Critical Path - Logic view Filter: All Activities de WBS Nar UP Technolo TUP Technology Upgradation Project
de WBS Nar
UP Technolo TOP TECHNOlOgy Opgradation Project
TUP.2 Construc
TUP.2.1 Building [
TUP2.2 Network A1280 A1000 TUP3. Training Handover Design (Project Project Kickoff
TUP.3.1 Trainer S Completion)
TUP.3.3 Training I
TUP4 Closeout
TUP.1 Market Research
A1010 A1060 A1050 A1050 A1040
Review Literature Search Perform SWOT Analysis Formulate Survey Findings Perform Market Survey
al Status Resources Predecessors TUP.1 Market Research ebook Steps Feedback WPs & Docs Expenses Summary Relationships Risks
Activity A1010 Review Literature Search Project TUP
ecessors Successors
ect ID WBS Activity ID 🗸 Activity Name Relations Lag Activity Status P Project ID WBS Activity ID 🗸 Activity Name Relations Lag Activity Status Primary Res
TUP TUP Technolog: A1000 Project Kickoff SS 0 Not Started
Assign 🖼 Remove 📅 GoTo

© Primavera Training @ BU - 2016 by M. Waseem Khan

# Creating Relationships in Activity Details



- You can also use *Relationships Tab* to create relationships. When creating a relationship in Activity Details, the default relationship type is Finish-to-Start (FS).
- Activities in the Assign Successor dialog box can be grouped and sorted in a variety of ways, including by EPS and by List. In the Display Options bar, click Group and Sort By to view the options
- Exercise
  - Steps
    - Select an activity A1010-Review Literature Search
    - In the Successor pane within Relationships tab, click Assign
    - Select an activity A1020-Prepare Inventory List and then click Assign button
    - Close the Assign Successor dialog box

## Creating Relationships in Activity Details



Primavera P6 Professional R8.2 : TUP (Technology Upgradation Project)

<u>File Edit View Project Enterprise Tools Admin Help</u>

#### Settitize

tivities Projects WBS							
Layout: Critical Path - Logic view Fitter: All Activities S Code WBS Nar TLUD To a law a law and a superior of the superior of							_
TUP Technology Upgradation Project							Â
TUP.1 Market R							
TUP.2 Construc							Ξ
TUP.2.1 Building [							
TUP.2.2 Network							ſ
TUP.3 Training							
- TUP.3.1 Trainer S - Tup.3.2 Training I							
TUP.3.2 Training I							
TUP4 Closeout							
TUP.1 Market Research							
		<b>D</b> 1			×		
A1020	Assig	n Predecessors	ALC: NO				
Indor List Prepare Inventory List	→ Displ	ay: All Activities					
	Search	י ר					
	Activity I	)	C Activity Name	Activity Status	<b>€</b> ⊇		
•	E 🔶 T	echnology Gr	oup			•	
		Services Divis			<b>F</b>		ī
eneral Status Resources Predecessors Successors Codes Notebook Steps Feedback WPs & Docs Expenses S	Summary Relation	Donor/Private S			<b>R</b>		
Activity A1020 Prepare Inventory List			Jpgradation Project				
Predecessors	Successo	😑 A1000	Project Kickoff	Not Started			Ī
Project ID WBS Activity ID T Activity Name Relations Lag Activity Status	P Project ID	😑 A1280	Handover Design (Project Completion)	Not Started	•	tatus Primary Resi	1
TUP TUP.1 Market R A1010 Review Literature Search FS 0 Not Started		Market Re:	search Review Literature Search	Not Started		ratus Frindry Resi	
		A1010	Prepare Inventory List	Not Started			
		A1020	Prepare Vendor List	Not Started			
		A1030	Perform Market Survey	Not Started			
		🚍 A1050	Formulate Survey Findings	Not Started			
		😑 A1060	Perform SWOT Analysis	Not Started			
		😑 A1070	Document Results and Handover	Not Started	-		
٠ 🗌	>   < _				)	•	
		Remove 🔐	GoTo				
Assiss Berroug - Colo							17
🐺 Assign 🖼 Remove 🔐 GoTo	Assign	Kelliove	0010				

© Primavera Training @ BU - 2016 by M. Waseem Khan

## Using GoTo Feature



• Click • • • on the Relationship tab to change the selection in the Activity Table to the activity highlighted in the successor or predecessor pane.

# Assigning Lag



 Although the default relationship type is FS with zero days of lag, but still you can use columns on the Relationships tab to make adjustments to the relationship type or to assign lag.

- Exercise
  - Steps
    - Select an Activity, A1010-Review Literature Search from Activity Network
    - In the Successor pane, select an activity A1030-Prepare Vendor List
    - Type the number of days of lag <1>
    - Press Enter

## Assigning Lag

....



 $\times$ ÷

.

×

ab

- 0 X

Primavera P6 Professional R8.2 : TUP (Technology Upgradation Project) <u>File Edit View Project Enterprise Tools Admin Help</u> ⇔ & . 💷 ⊇ 📴 ¼ ∴ . 🔯 🗳 🛍 🐚 🖄 🎽 . 🚍 💷 - 🔤 🖓 - ि+ # . 🗐 🖓 🧏 ♦ ≴ 💁 💷 . 🔍 🤤 🥲 . Activities Activities Projects WBS ✓ Layout: Critical Path - Logic view Filter: All Activities WBS Nar TLID Technology Upgradation Project WBS Code Ŷ -2

		43
TUP.1 Market R		•
E TUP.2 Construc		≡ .
TUP.2.1 Building [		
A12		£
Han Han	ndover Design (Project Vickoff Project Vickoff	22
Con	npletion)	
		<u>a</u>
TUP.3.3 Training I		<b>-</b>
		<b>≧</b> ⊳
TUP.4 Closeout TUP.1 Market Research		
TUP. I Walket Research		<b>_</b>
		2
		-
A10		·····
Revi	iew Literature Search Perform SWOT Analysis Formulate Survey Findings Perform Market Survey	4
		• E>
	III	-
General Status Resources Predecessors Successors Codes Notebook Steps Feedbac		
General Status Resources Predecessors Successors Codes Notebook Steps Feedbac	ck WPs & Docs Expenses Summary Relationships Risks	
General Status Resources Predecessors Successors Codes Notebook Steps Feedbac	ck WPs & Docs Expenses Summary Relationships Risks	
General Status Resources Predecessors Successors Codes Notebook Steps Feedbac	ck WPs & Docs Expenses Summary Relationships Risks	
General Status Resources Predecessors Successors Codes Notebook Steps Feedbac	ck WPs & Docs Expenses Summary Relationships Risks ch Project TUP Successors tions Lag Activity Status P Project ID WBS Activity ID  Activity Name Relations Lag Activity Status Primary Resu	
General Status Resources Predecessors Successors Codes Notebook Steps Feedbac	ck     WPs & Docs     Expenses     Summary     Relationships     Risks       ch     Project     TUP       Successors       titions     Lag     Activity     C     Activity     Name     Relations     Lag     Activity     Status     Primary Result	
General     Status     Resources     Predecessors     Successors     Codes     Notebook     Steps     Feedbace	Ck     WPs & Docs     Expenses     Summary     Relationships     Risks       ch     Project     TUP       Successors       titions     Lag     Activity     Colspan="2">Activity     Not       0     Not Started     Project     TUP     TUP     TUP	
General     Status     Resources     Predecessors     Successors     Codes     Notebook     Steps     Feedbace	Ck     WPs & Docs     Expenses     Summary     Relationships     Risks       ch     Project     TUP       Successors       titions     Lag     Activity     Colspan="2">Activity     Not       0     Not Started     Project     TUP     TUP     TUP	
General     Status     Resources     Predecessors     Successors     Codes     Notebook     Steps     Feedbace	Ck     WPs & Docs     Expenses     Summary     Relationships     Risks       ch     Project     TUP       Successors       titions     Lag     Activity     Colspan="2">Activity     Not       0     Not Started     Project     TUP     TUP     TUP	
General     Status     Resources     Predecessors     Successors     Codes     Notebook     Steps     Feedbace	Ck     WPs & Docs     Expenses     Summary     Relationships     Risks       ch     Project     TUP       Successors       titions     Lag     Activity     Colspan="2">Activity     Not       0     Not Started     Project     TUP     TUP     TUP	
General     Status     Resources     Predecessors     Successors     Codes     Notebook     Steps     Feedbace	Ck     WPs & Docs     Expenses     Summary     Relationships     Risks       ch     Project     TUP       Successors       titions     Lag     Activity     Colspan="2">Activity     Not       0     Not Started     Project     TUP     TUP     TUP	
General     Status     Resources     Predecessors     Successors     Codes     Notebook     Steps     Feedbace	Ck     WPs & Docs     Expenses     Summary     Relationships     Risks       ch     Project     TUP       Successors       titions     Lag     Activity     Colspan="2">Activity     Not       0     Not Started     Project     TUP     TUP     TUP	
General     Status     Resources     Predecessors     Successors     Codes     Notebook     Steps     Feedbace	Ck     WPs & Docs     Expenses     Summary     Relationships     Risks       ch     Project     TUP       Successors       titions     Lag     Activity     Colspan="2">Activity     Not       0     Not Started     Project     TUP     TUP     TUP	
General     Status     Resources     Predecessors     Successors     Codes     Notebook     Steps     Feedbace	Ck     WPs & Docs     Expenses     Summary     Relationships     Risks       ch     Project     TUP       Successors       titions     Lag     Activity     Colspan="2">Activity     Not       0     Not Started     Project     TUP     TUP     TUP	
General Status Resources Predecessors Successors Codes Notebook Steps Feedbac	ck WPs & Docs Expenses Summary Relationships Risks ch Project TUP Successors Project ID WBS Activity ID C Activity Name Relations Lag Activity Status Primary Resi O Not Started TUP TUP:1 Market R A1020 Prepare Inventory List FS 0 Not Started TUP TUP:1 Market R A1030 Prepare Vendor List FS Not Started	
General Status     Resources     Predecessors     Successors     Codes     Notebook     Steps     Feedbace	Ck       WPs & Docs       Expenses       Summary       Relationships       Risks         ch       Project       TUP       TUP         stions       Lag       Activity Status       P         Itions       Lag       Activity Status       P         Itions       Lag       Activity ID       C       Activity Name       Relations       Lag       Activity Status       Primary Reserved         Itions       U       Not Started       Itions       TUP       TUP.1 Market R       A1020       Prepare Inventory List       FS       0       Not Started         Ition       TUP       TUP.1 Market R       A1030       Prepare Vendor List       FS       1       Not Started	
General Status Resources Predecessors Successors Codes Notebook Steps Feedbac	ck WPs & Docs Expenses Summary Relationships Risks ch Project TUP Successors Project ID WBS Activity ID C Activity Name Relations Lag Activity Status Primary Resi O Not Started TUP TUP:1 Market R A1020 Prepare Inventory List FS 0 Not Started TUP TUP:1 Market R A1030 Prepare Vendor List FS Not Started	
General Status Resources     Predecessors     Successors     Codes     Notebook     Steps     Feedbace	ck       WPs & Docs       Expenses       Summary       Relationships       Risks         ch       Project       TUP       TUP         stions       Lag       Activity Status       P         0       Not Started       Project       TUP       TUP         TUP       TUP.1 Market R       A1020       Prepare Inventory List       FS       0       Not Started         TUP       TUP.1 Market R       A1030       Prepare Vendor List       FS       Not Started         TUP       TUP.1 Market R       A1030       Prepare Vendor List       FS       Not Started	

© Primavera Training @ BU - 2016 by M. Waseem Khan

Viewing Relationship in Gantt Chart

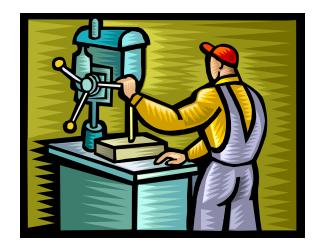


- You can also view/ modify relationships in the Activity Table and Gantt Chart:
  - Activity Table You can see Predecessor and Successor columns
  - Gantt Chart Click the Relationship Lines icon 4 on the Toolbar to toggle relationship lines on and off.

<mark>O</mark> Pr	'ima	vera P6 P	Professional	R8.2 : TUP (Technology Upg	radation Project)						-	-						And an and a state of the state				x
Eile	<u>E</u> c	dit <u>V</u> iew	v <u>P</u> roject	E <u>n</u> terprise <u>T</u> ools <u>A</u> dmin	Help																	
0	8	<b>.</b>   🔳	D - C	<b>,</b> 🔊 🖪 🕒 🚺	🐚 👌 👗 🚦	<b>;</b>	7• 🖻• #	.   📰 🤇	a 😴 🍫	\$ 😨 🖪	•	0, 0, 🗖	ه 🔲	2 3	•							
	Act	tivities		Relationship Lines																	:	×
	Ac	tivities	Projects	WBS																		- ~
2	_		1 -																			
	S		Classic Sche			IActivities			1	 								 				- do
4	Ac	tivity ID	7	Activity Name	Original Duration	Remaining Duration	Schedule % Complete	Start	Finish		Qtr 1, 2		<u> </u>		2tr 2, 2012			 3, 2012			<u>`</u> _	Ba
	-				10			01-Feb-12	14-Feb-12	Jan	Feb	Mar 14-Feb-12, TUP	Ар	-	May	Jun	Jul	Aug	Sep	Oct		
				ology Upgradation	10	10			14-Feb-12					igy upgr	adation Pro	plect						
2		😑 A1		Project Kickoff	0	0		01-Feb-12			·	t Kickoff, 01-Fet				1						
ョ		🔲 A1	280	Handover Design (Project Co	5	5			07-Feb-12			ndover Design (I				1						2
	(	🗆 💾 TI	UP.1 Mar	ket Research	10	10	0%	01-Feb-12	14-Feb-12			14-Feb-12, TUP	.1 Market	Researc	ch							60
			A1010	Review Literature Search	10	10	0%	01-Feb-12	14-Feb-12			Review Literatu										<u>elx</u>
******		-	A1020	Prepare Inventory List	2	2	0%	01-Feb-12	02-Feb-12		🗝] Prepa	ire Inventory List	:					 		1		22
		-	A1030	Prepare Vendor List	2	2	0%	01-Feb-12	02-Feb-12		Prepa	ire Vendor List				1						
<b>1</b>		-	A1040	Perform Market Survey	10	10	0%	01-Feb-12	14-Feb-12			Perform Market	Survey			1						3.
			A1050	Formulate Survey Findings	5	5	0%	01-Feb-12	07-Feb-12		🔲 For	mulate Survey F	indings									
			A1060	Perform SWOT Analysis	3	3	0%	01-Feb-12	03-Feb-12		Perfo	rm SWOT Analy	sis									43
		-	A1070	Document Results and Hanc	2	2			02-Feb-12			ment Results an				1						
<b></b>		= 🐴 Tl	UP.2 Cor	nstruction Design	10	10	0%	01-Feb-12	14-Feb-12		<b>—</b>	14-Feb-12, TUP	.2 Constru	iction De	esign							•
		-	TUP.2.1 Bu	ilding Design	10	10	0%	01-Feb-12	09-Feb-12		09 🔫 09	Feb 12, TUP.2.	1 Building	Design								
۲			A1080	Prepare Concept Design	10	10	0%	01-Feb-12	09-Feb-12		🔲 Pre	epare Concept D	)esign									T
			A1090	Prepare Tender Documents	10	10	0%	01-Feb-12	09-Feb-12		🔲 Pre	epare Tender Do	ocyments			1						
			a A1100	Develop 100% Design Docur	10	10	0%	01-Feb-12	09-Feb-12		🗖 De	velop 100% De:	sign Docur	nent				 		1		
			TUP.2.2 Ne	twork Infrastructure Desi	10	10	0%	01-Feb-12	14-Feb-12		<b>—</b>	14-Feb-12, TUP	.2.2 Netw	ork Infra:	structure D	esign						
			A1110	Prepare LAN Layout	10	10	0%	01-Feb-12	14-Feb-12			Prepare LAN La	yout									7
			A1120	Prepare Domain/Hardware L	10	10	0%	01-Feb-12	14-Feb-12			Prepare Domain	/Hardware	Layout						1	172.	
			⇒ ∆1130	Handover Netowrk Design	n	n	۵۶		01.Feb.12	_	👆 Handr	nver Netowrk De	esian			i				; -		



### WORKSHOP Creating Relationships



© Primavera Training @ BU - 2016 by M. Waseem Khan

## Exercise: Create Relationships



Activity ID	Activity Name	Original Duration	Predecessors	Relationship Type
A1000	Project Kick-off	0		
A1010	Review Literature Search	10	A1000	SS
A1020	Prepare Inventory & Vendor List	4	A1010	FS with Lag 1
A1030	Perform Market Survey	10	A1020	FS
A1040	Formulate Survey Findings	5	A1030	FS
A1050	Perform SWOT Analysis	3	A1040	FS
A1060	Document Results and Handover	2	A1050	FS
A1070	Prepare Concept Design	10	A1060	FS
A1080	Prepare Tender Documents	10	A1070	FS
A1090	Develop 100% Construction Document	10	A1080	FS
A1100	Prepare LAN Layout	10	A1090	FS
A1110	Prepare Domain/ Harwdware Layout	10	A1100	FS
A1120	Handover Network Design	0	A1110	FS

## Exercise: Create Relationships



Activity ID	Activity Name	Original Duration	Predecessors	Relationship Type
A1130	Prepare and Review RFP/ Advertisement	5	A1070	SS with Lag 10
A1140	Open Technical Bids	0	A1130	FS with Lag 5
A1150	Review and Score Technical Bids	10	A1140	FS
A1160	Open Financial Bids	0	A1150	FS
A1170	Negotiate with Bidders	5	A1160	FS
A1180	Award Contract	0	A1170	FS
A1190	Prepare and Review Draft Material	8	A1180	FS
A1200	Finalize Training Material with Client	5	A1190	FS
A1210	Print Training Material	4	A1200	FS
A1220	Deliver Training Course	5	A1210	FS
A1230	Prepare & Submit Assessment Report	8	A1220	FS
A1240	Prepare Closeout Documentation	10	A1230	FS
A1250	Design Handover (Project Completion)	0	A1240	FS

## Lesson Review



- Use Precedence Diagramming Method (PDM) to create a Network Logic Diagram and to show relationships between activities. Create logical relationships between activities by specifying predecessor and successor activities.
- Four relationship types exist, namely: Finish-to-Start, Start-to-Start, Finish-to-Finish, and Start-to-Start. The default relationship type is Finish-to-Start (FS).
- Use Lag to specify a delay between an activity and its successor.
- You can create relationships in Activity Network via a graphical display, or in the Relationships tab in Activity Details.



# Scheduling

Lesson 9



## Scheduling

- Objectives
  - Perform a forward and backward pass
  - Describe float and its impact on a schedule
  - Identify loops and open ends
  - Calculate a schedule
  - Analyze the scheduling log report

# Critical Path Method Scheduling



- The *Critical Path Method (CPM)* scheduling technique is utilized to calculate project schedules. CPM uses activity durations and relationships between activities to calculate schedule dates.
- This calculation is done in two passes through the activities in a project:
  - Forward Pass
  - Backward Pass
- Critical Path
  - The critical path is the series of activities that determines a project's completion date.
  - The duration of activities on the critical path controls the duration of the entire project. A delay to any of these activities will delay the Finish Date of the entire project.
  - Critical activities are defined by either the Total Float or the Longest Path in the project network.

## Data Date



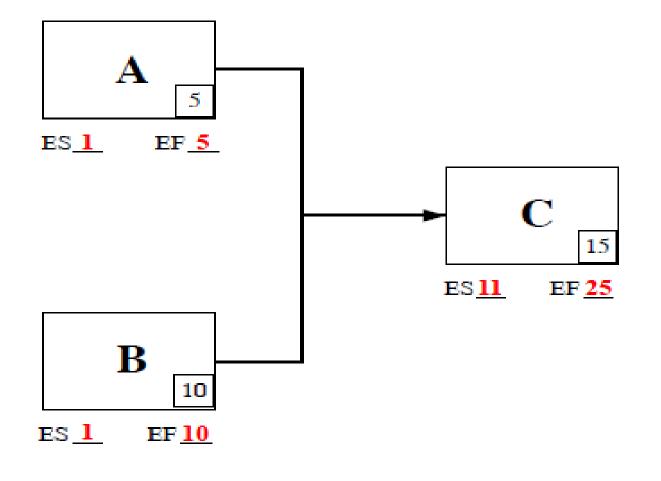
- The *Data Date* is the date that is utilized as the starting point for schedule calculations. It is the date used to schedule all remaining work.
- Duration the Planning Phase the data date should match the project Start Date.

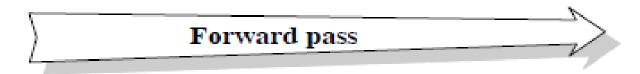
# Scheduling – Forward Pass



- The *forward pass* calculates an activity's early dates
- Early dates are the earliest times an activity can start and finish once its predecessors have been completed
- The calculation begins with the activities without predecessors
- Early Start (ES) + Duration 1 = Early Finish (EF)

# Scheduling – Forward Pass





ORACLE

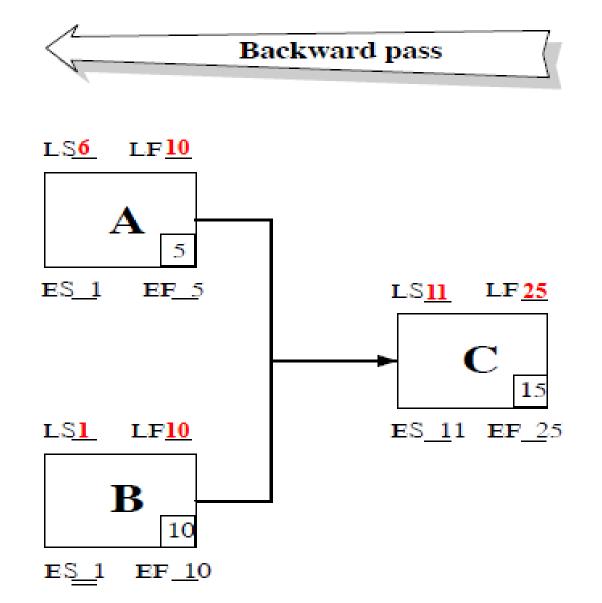
# Scheduling – Backward Pass



- The *backward pass* calculates an activity's late dates
- Late dates are the latest times an activity can start and finish without delaying the end date of the project
- The calculation begins with the activities without successors
- For projects without a Must Finish By date, activities without successors are assigned a Late Finish equal to the latest calculated Early Finish date
- Late Finish (LF) Duration + 1 = Late Start (LS)

# Scheduling – Backward Pass

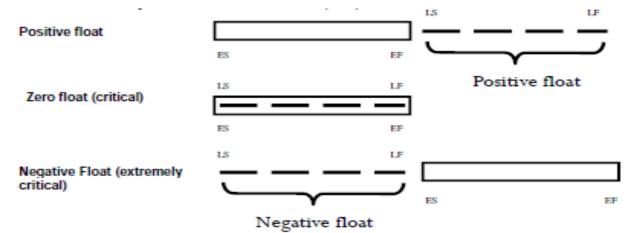




# Scheduling - Total Float



- The total amount of time that a schedule activity may be delayed from its early start date without delaying the project finish date or violating a schedule constraints.
- The difference between an activity's late dates and early dates
- Activities with zero Total Float are critical
- Late date Early date = Total Float (TF)



 The activity's total Float is automatically calculated each time you schedule the project. You cannot edit an activity's float values directly.

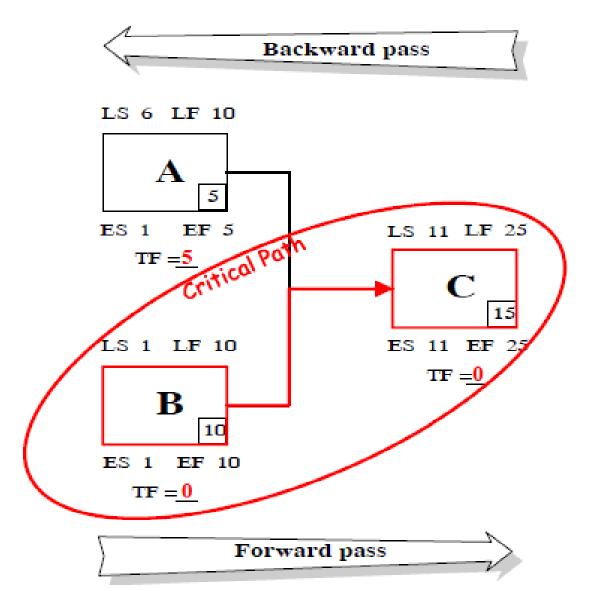
# Scheduling – Free Float



- The amount of time that schedule activity can be delayed without delaying the early start date of immediately following schedule activities.
- It is calculated by subtracting the early finish date of the activity from the earliest start date of the closest of its successor.
- Critical activities has zero free float.
- Free Float cannot be negative.

### Scheduling – Passes & Float





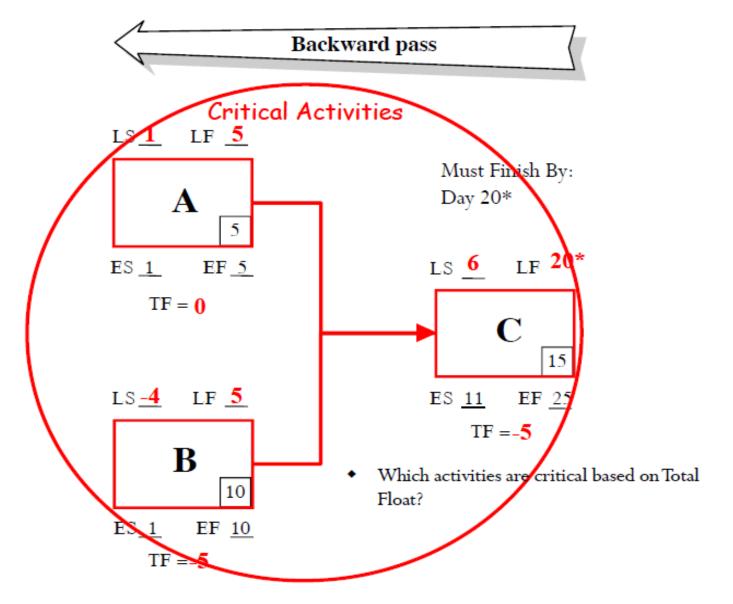
© Primavera Training @ BU - 2016 by M. Waseem Khan

Scheduling – Backward Pass with Required Finish

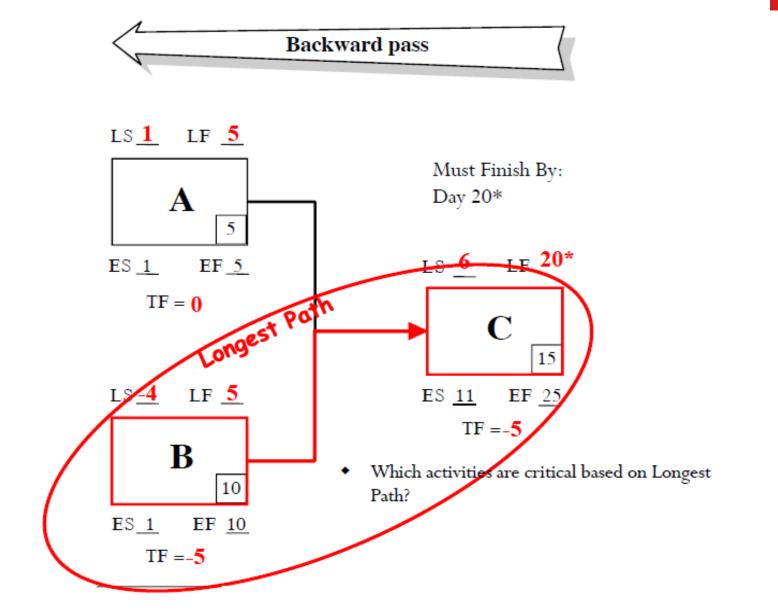


- One of the most common project scenarios is a required finish date for the project
- Used only during the backward pass
- Required finish date specifies when the project must finish regardless of the network's duration and logic
- Late Finish Duration + 1 = Late Start

### Scheduling – Backward Pass with Required Finisher



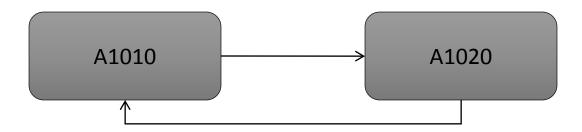
### Scheduling – Backward Pass with Required Finisher



# Scheduling – Circular Relationships



- Loops indicate circular logic between two activities.
- Primavera will not calculate a schedule until the loop is eliminated.

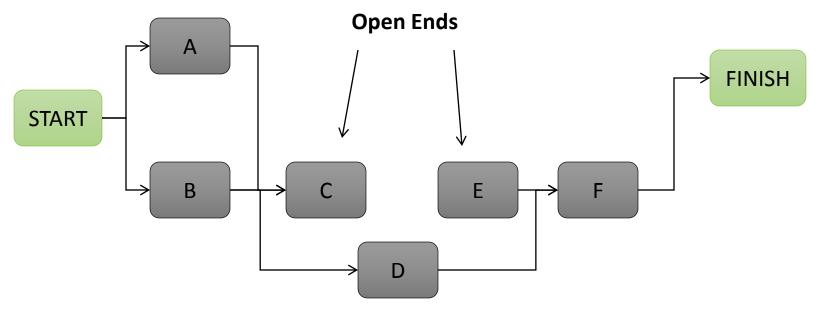


- To eliminate a loop:
  - Determine proper logic
  - Re-run the schedule

# Scheduling – Open Ends



- Open Ends are activities without a predecessor or successor:
  - No Predecessor: Activity uses Data Date as its Early Start
  - No Successor: Activity uses Project Finish as its Late Finish
- Open-ended activities can portray an unrealistic amount of positive Total Float.





# **Out-of-Sequence** Activities

- Retain Logic
- Progress Override
- Actual Start

Although Activity B started early, P6 will not allow the remainder of the activity to continue until its' predecessor is complete. The overall activity path will still reflect the gain in duration Activity ID Total Float Activity Name progress Mon Tue 29-Mar-13 05:00 PM, Examples Examples Activ Activity A А 13h Activity B в Activity B 13h С Activity C 13h Activity C FM Finish Milestone 0h Finish Milestone

As you can see, even though Activity B started early, P6 will not allow the remainder of the activity to continue until its predecessor Activity A is complete.

The staffing plan below shows how Retained Logic prevents "front end-loading".

Activity ID	Activity Name	Total Float				Mar 24			
V.			un	Mon	Tue	Wed	Thr	Fri	Sat
Examples		0h		-					29-Mar-13
A	Activity A	13h			<b>–</b> A	ctivity A			
В	Activity B	13h		└┏╸┲		Act	tivity B		
С	Activity C	13h	1			╘┲╍		tivity C	
FM	Finish Milestone	Oh	1					- i 🛶	Finish Mile
< 📃		4	•						
✓ Display: Current	Project's Resources			Display: O	Open Proj	ects Only	,		
Resource ID	Resource Name								
			35h					al Units	
🕵 EX.A	Example A		0.01				Rema	aining Ear	rly Units
🔔 EX.B	Example B		· 28h						
🔔 EX.C	Example C		· 21h						
			- 14h						
< 🗌		۴.	- 7h						
Display Activities f	or selected								
Time Period	Resource		un	Mon	Tue	Wed	Thr	Fri	Sat
	10000100					Mar 24			

<u>Retained Logic:</u> The remaining duration of a progressed activity is not scheduled until all predecessors are complete. It also prevents tasks from "front-loading" since the remainder of the work is held out.



<u>Progress Override</u>: Network logic is ignored and Activity B can progress without delay. Although the predecessor logic remains intact, the relationship is ignored and the predecessor is treated as if it has an open end, resulting in unrealistic positive float. It also shows the task now capable of running in parallel, but resource availability may not allow this.



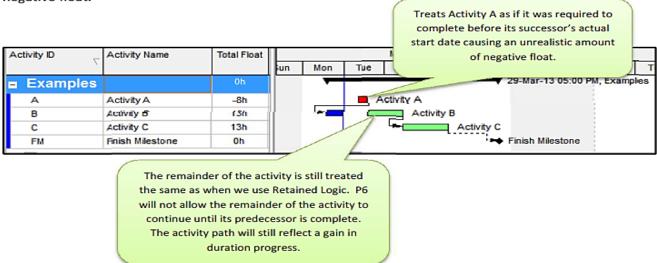
Although it's not apparent, Activity A is treated as open-ended, resulting in an unrealistic increase of float. (This example increased float from 13 to 27 hours.) Activity A and B are also now running in parallel. Activity ID Activity Name Total Float Mon W un Tue Fri Sat Sun Mon 29-Mar-13 05:00 PM, Examples Examples Activity A А Activity A 27h Activity B в Activity B 18h С Activity C Activity C 18h FM Finish Milestone Finish Milestone 0h

This type of scheduling does not prevent "front end-loading" which could lead to an increased staffing plan or improper staffing of the work.

As you can see, Activity B is now running in parallel with Activity A. Activity C was originally scheduled to Finish on March 28<sup>th</sup>, but is now scheduled to Finish on March 27<sup>th</sup>; doing so has pulled all scheduled work back and increased the staffing.

Activity ID	Activity Name	Total Float				Mar 24						
`			un	Mon	Tue	Wed	Thr	Fri	Sat	Sun	Mon	Т
Examples		0h		-					29-Mar-13	3 05:00 PI	M, Examp	les
А	Activity A	27h	1		_ <b>_</b> A	Activity A					1	
В	Activity B	18h	1			ctivity B					1	
С	Activity C	18h	1		└┲┏		Activity C				1	
FM	Finish Milestone	0h	1					· • •	Finish Mile	estone	1	
<		•	•								1	
V Display: Current	Project's Resources		~	Display: 0	Open Pro	jects Only	1					
Resource ID	Resource Name						Actu					
			40	1			_					
🧟 EX.A	Example A		201				Rema	aining Ea	rly Units			
💁 EX.B	Example B		321									
🚯 EX.C	Example C		24	1								
			161	1								
< 🗌		+	81	1								
Display Activities f	or selected											
Time Period	Resource		un	Mon	Tue	Wed	Thr	Fri	Sat	Sun	Mon	Т
	© Prima	avera Train	ing (	D BU - 2	016 by	/ Mer Wa	iseem k	Chan				

<u>Actual Dates:</u> Similar to Retained Logic, but the actual dates are used to calculate the forward and backward pass and treats the actual dates similar to constraints. The result can be an unrealistic amount of negative float.



Viewing the Schedule Log will provide details about your project and its settings. Out-of-sequence activities are one of these items that can be viewed by running the log.

To view the Schedule Log for your project follow the steps below:

Project(s) to schedule	1	O Cancel
Current Data Date	26-Mar-13 12:00 AM	5 View Log
Project Forecast Start Date		Help
	ct Forecast Start during scheduling	Doptions
C:\Users\BridgetteWDocuments\Sched	l aatst	

- 1. Click F9 on your Keyboard
- 2. Check the Log to file box
- 3. Click Schedule
- 4. Click F9 on your Keyboard again
- 5. Now that Log to file location has been selected you can select View Log

ORACLE

# Scheduling the Project

- ORACLE
- When you schedule a project, activity dates are calculated according to durations and logic.
- Mark the Log to file checkbox to record scheduling results in a log file (.txt).
- After you schedule the project, note the change in the position of activities on the Gantt Chart. Activities are displayed according to their calculated start and finish dates. Critical activities are displayed in red.
- Exercise
  - Steps
    - Confirm you are in Activities Window.
    - In the Tool menu, click Schedule
    - Verify the date in the Current Data Date
    - Check Log to File
    - Click Schedule

Schedule			×
Project(s) to schedule	1	0	Cancel
Current Data Date	01-Feb-12	▶	Schedule
		2	View Log
Project Forecast Start Date		?	Help
📕 🥅 Set Data Date and Planned Start to Proje	ect Forecast Start during scheduling		Options
✓ Log to file			
C:\Users\WaseemHQ\Documents\Sche	dLog.txt		

# Schedule Log



#### • The *Schedule Log* records scheduling results, including:

- Scheduling/ Leveling Settings
- Statistics
- Errors
- Warnings
- Schedule/ Leveling Results
- Exceptions

- Exercise
  - Steps
    - In the Tool menu, click Schedule
    - Click View Log

SchedLog - Notepad	
File Edit Format View Help	
Scheduling/Leveling Report - 30-jan-12 - PM.exe	*
Default ProjectTUP	
Projects: TUPTechnology Upgradation Pr	oject
Scheduling/Leveling Settings:	=
General	
Scheduling       Yes         Leveling       No         Ignore relationships to and from other projects       No         Make open-ended activities critical       No         Wase Expected Finish Dates       Yes         Schedule automatically when a change affects dates       No         Level resources during scheduling       No         Recalculate assignment costs after scheduling       No         when scheduling progressed activities use       Retained Logic         Calculate start-to-start lag from       Early Start         Define critical activities as Total Float less than or equal to .0       Compute Total Float As         Calculate float based on finish date of       Each project         Calculate float based on finish date of       Each project         Calculate float based on finish date of       Advanced	
Calculate multiple float pathsNo	
Statistics:	
<pre># Projects</pre>	
<	▶

### Schedule Log (Out-of-Sequence Activities)

#### Viewing the Schedule Log

The Schedule Log records scheduling results, including:

- Scheduling / leveling settings
- Statistics
- Critical activities
- Errors, warnings (Out-of-sequence activities)
- Scheduling / leveling results
- Exceptions

# Activities with co	nstraint			1	
Project:	NEWPROJ-2	Activity:	FM	Finish Milestone	
rors:					
rnings:					
Activities without p	redecessors			1	
	NEWPPO1-2	Activity	4	Activity A	
Project:	NEWPROJ-2	Activity:	A	Activity A	
Project: Activities without s	NEWPROJ-2	Activity:	A	Activity A	
Project: Activities without s Project:	NEWPROJ-2	Activity:	A FM	Activity A 1 Finish Milestone	
Project: Activities without s Project: out-of-sequence acti	NEWPROJ-2	Activity:	A FM	Activity A 1 Finish Milestone 1	
Project: Activities without s Project:	NEWPROJ-2	Activity:	A FM	Activity A 1 Finish Milestone	
Project: Activities without s Project: out-of-sequence acti	NEWPROJ-2 WCCessors NEWPROJ-2 Vities NEWPROJ-2	Activity: Activity: Activity:	FM B	Activity A 1 Finish Milestone 1	
Project: Activities without e Project: Out-of-sequence acti Project:	NEWPROJ-2 WCCESSOFS NEWPROJ 3 Vities NEWPROJ-2 Wal Dates > Data (	Activity: Activity: Activity: Date	A FM B	Activity A 1 Finish Milestone 1 Activity B 0	=

# Schedule Log



- Find-out the problems in the Schedule Log
- We have relationship problems
- Now fixing these problems

# **Driving Relationships**

\_\_\_\_\_

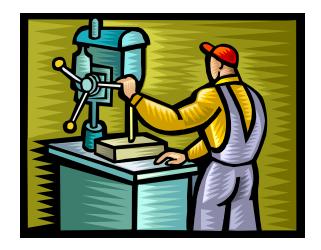


- An activity may have a relationship from a predecessor that determines its Early Start. This logictie is called a driving relationship.
  - A solid relationship line indicates a driving relationship

• A dashed relationship line indicates a non-driving relationship



#### WORKSHOP Calculating Schedule



© Primavera Training @ BU - 2016 by M. Waseem Khan

#### Lesson Review



- After relationship logic has been defined, schedule the project to determine when the activities will take place.
- Schedule dates can be calculated based on the critical path, a series of activities that determine a project's completion date.
- When scheduling using Critical Path Method (CPM), activity Early Start and Finish dates are calculated during a Forward Pass, and Late Start and Finish dates are calculated during Backward Pass.
- The Data Date is used as a starting point when scheduling all remaining work for the project.
- After scheduling activities will have a total float that represents the amount of time an activity can be delayed without delaying the project.
- After scheduling results are recorded in a Schedule Log. Problems can be seen and rectified using this log.



# Assigning Constraints Lesson 10

# Assigning Constraints

ORACLE

- Objectives
  - Apply an overall deadline to a project
  - Apply a constraint to an individual activity
  - Add Notebook topics to constrained activities
  - Describe the available types

### Constraints



- Constraints are the imposed restrictions used to reflect project requirements that cannot be built into the logic.
- Use constraints to build a schedule that more accurately reflects the real-world aspects of the project, provide added control to the project, and impose a restriction on the entire project or an individual activity.
- Constraints are user-imposed.
- Two constraints can be assigned to an activity.
- After applying a constraint, the project must be rescheduled to calculate the new dates.

### Constraints

- Project Constraints
  - Project Finish Constraints (Must Finish By)
  - Project Start Constraints (Must Start By)
- Activity Constraints
  - Start On or After
  - Start On or Before
  - Start On
  - Mandatory Start
  - Finish On or After
  - Finish On or Before
  - Finish On
  - Mandatory Finish
  - As Late As Possible
  - As Soon As Possible





# Constraints – Must Finish By



- Used when an overall project deadline must be met.
- Forces all activities in the project to finish by the date (and time) specified.
  - By default, the time associated to the Must Finish By date is set to 12:00 am.
  - This means that if the project must finish by the end of day on 1-Nov, assign a Must Finish By of 2-Nov.
- Must be applied in the Dates tab in Project Details.
- Exercise
  - Steps
    - Open Project, EC00515 City Center Office Building Addition
    - In the Directory bar, click Projects
    - In the Project Table, select a project EC00515 City Center Office Building Addition
    - Click the Dates tab in Project Details
    - Click Must Finish By field

(browse button)

• Select a date, 27-Dec-13

#### Constraints – Must Finish By



#### Primavera P6 Professional R8.2 : EC00515-1 (City Center Office Building Addition)

<u>File Edit View Project Enterprise Tools Admin Help</u>

#### ; ⊖ & , ] = ; }• \, ... , [6] = L 12 12 \, ... = 11 = 7 • ; • . ] = 0, % ♥ ≴ % = , ] •, •, •, = @ ... ₽ @ ...

ect ID	Project Name	Total Activities	2011 16 23	November 20           30         06         13	011 De 20 27 04	ecember 2011 11 18 25		y 2012 15 22 2		iry 2012 12 19 2	March 2 26 04 11	2012 18 25	April 2 01 08		2012 13 2
Enterprise	All Initiatives	2325													
🔥 E&C	Engineering & Construction	679													
EC00515	City Center Office Building Addition	71		1							1		1	1	_
EC00530	Nesbid Building Expansion	71		1							1			1	
💼 EC00501	Haitang Corporate Park	71		-!							4		- <u>-</u>	 	
EC00515-1	City Center Office Building Addition	71		!			!				!		1	!	
EC00610	Harbour Pointe Assisted Living Center	131		!			1				1		1	1	
EC00620 EC00630	Juniper Nursing Home Saratoga Senior Community	132 132		!			1				!		1	1	
ECOUSIO		689							an-12						
NRG00870	Energy Services Baytown, TX - Offline Maintenance Work	132						v 2400						 	
NRG00870	Baytown, TX - Ornine Maintenance Work Red River - Refuel Outage	98		1							1				
NRG00800	Sunset Gorge - Routine Maintenance Work														
NRG00940	Sillersville - Refuel Outage	98						24Ja	an-12						
	Johnstown - Routine Maintenance Work						1								
📄 NRG00820	Jonnstown - Houtine Maintenance Work	131									1		1		
NRG00820	Johnstown - Houtine Maintenance Work Driftwood - Refuel Outage In Manufacturing	98 537	•	· · · · · · · · · · · · · · · · · · ·											4
Manufacturir	Driftwood - Refuel Outage	98 537		Resources Sett	ings Calculati	ons							               		4
Manufacturir	Driftwood - Refuel Outage	98 537		Resources Sett	ings Calculati	ons	1			Anticipa	ted Dates				4
Manufacturir Manufacturir	Driftwood - Refuel Outage	98 537 es Funding Code			ings Calculati	ons				<u> </u>	ted Dates ated Start			· · · · · · · · · · · · · · · · · · ·	4
NRG00910     Manufacturir      Manufacturir      Notebook Budge      chedule Dates	Driftwood - Refuel Outage	98 537 es Funding Code	es Defaults		ings Calculati	ons				<u> </u>			· · · · · · · · · · · · · · · · · · ·		•
NRG00910     Manufacturir  eral Notebook Budge  chedule Dates  Project Planned Start [01-Nov-10	Driftwood - Refuel Outage	98 537 es Funding Code	Must Finish B 27-Jun-13		ings Calculati					Anticip	ated Start		•	 · · · · · · · · · · · · · · · · · · ·	•
NRG00910     Manufacturir      Manufacturir      Notebook Budge      chedule Dates      Project Planned Start     [01-Nov-10     Data Date	Driftwood - Refuel Outage	98 537 es Funding Code	Must Finish B 27-Jun-13		ings Calculati					Anticip			· ·	 · · · · · · · · · · · · · · · · · · ·	•
NRG00910 Manufacturir eral Notebook Budge chedule Dates Project Planned Start [01-Nov-10 Data Date	Driftwood - Refuel Outage	98 537 es Funding Code	Must Finish B 27-Jun-13		ings Calculati	ons 				Anticip	ated Start		· ·		•
NRG00910     Manufacturir  eral Notebook Budge  chedule Dates  Project Planned Start [01-Nov-10	Driftwood - Refuel Outage	98 537 ► es Funding Code	Must Finish B 27-Jun-13		ings Calculati	ons 				Anticip	ated Start		· ·		4
NRG00910     Manufacturir  neral Notebook Budge  chedule Dates  Project Planned Start [01-Nov-10 Data Date [01-May-11]	Driftwood - Refuel Outage	98 537 ► es Funding Code	Must Finish B 27-Jun-13 Finish 03-Jul-13		ings Calculati					Anticip	ated Start		•		4
NRG00910     Manufacturir      Manufacturir      Manufacturir      Manufacturir      Dates     Project Planned Start     [01-Nov-10     Data Date     [01-May-11     Actual Start	Driftwood - Refuel Outage	98 537 ► es Funding Code	Must Finish B 27-Jun-13 Finish 03-Jul-13		ings Calculati					Anticip	ated Start				4
NRG00910     Manufacturir      Manufacturir      Manufacturir      Manufacturir      Dates     Project Planned Start     [01-Nov-10     Data Date     [01-May-11     Actual Start	Driftwood - Refuel Outage	98 537 ► es Funding Code	Must Finish B 27-Jun-13 Finish 03-Jul-13		ings Calculati					Anticip	ated Start				•
NRG00910     Manufacturir      Manufacturir      Manufacturir      Manufacturir      Dates     Project Planned Start     [01-Nov-10     Data Date     [01-May-11     Actual Start	Driftwood - Refuel Outage	98 537 ► es Funding Code	Must Finish B 27-Jun-13 Finish 03-Jul-13		ings Calculati					Anticip	ated Start				••••••••••••••••••••••••••••••••••••••

© Primavera Training @ BU - 2016 by M. Waseem Khan

# Constraints – Must Finish By



- Exercise
  - Steps
    - In the Directory bar, click Activities
    - In the Layout option bar, click Layout, Open, Classical Schedule Layout.
    - In the Tools menu, click Schedule
    - Now see Total Float column (both in Activity Table and Project Table)

Constraints – Must Start By



- Used only during the forward pass
- Required start date specifies when the project must start regardless of the network's duration and logic
- Early Start (ES) + Duration 1 = Early Finish (EF)

### Constraints – Start On or After



- Used to set the earliest date an activity can begin
- Forces the activity to start no earlier than the constraint date
- Pushes the Early Start to the constraint date
- Affects the early dates of its successors

### Constraints – Start On or After



- Exercise
  - Steps
    - Select an activity, EC1640-Install Wiring and Cable
    - Verify the Status tab is selected in Activity Details (bottom)
    - In the Primary drop-down list, select a constraint, Start On or After
    - In the Date field, click browse button
    - Select a date, 2-Jul-12
    - In the Tool menu, click Schedule

#### Constraints – Start On or After



Primavera P6 Professional R8.2 : EC00515-1 (City Center Office Building Addition)

Portfolio: All Projects Access Mode: Shared Data Date: 01-May-11

<u>File Edit View Project Enterprise Tools Admin Help</u>

#### 

ctivity	yout: Classic Sche	Activity Name	Filter: All Activities Original Duration	Remaining	Schedule % Start	Finish	Total Float				Qtr 4, 2010		1	Qtr 1.2	2011			0
Clivity	7	Activity Name	Original Duration	Duration	Complete	T IIIISII	Total Tioat	Î	H	Oct	Nov	Dec	Jan	Fet		Mar	Apr	Ť
E	💾 EC00515-1	Mechanicals.HVAC HVAC	575	563	3.85% 14-Apr-1	LA 16Jul-13	-17	-										-
	💷 EC1190	Prepare and Solicit Bids for Heat Pump	15	2	100% 14-Apr-1		-17										Le 📩	_
	😑 EC1240	Review Bids for Heat Pump	10	10	79.17% 04-May-	1 17-May-11	-17											4
	😑 EC1270	Award Contract for Heat Pump	6	6		1 25-May-11	-17										- J	
	😑 EC1290	Fabricate and Deliver Heat Pump and Co	ontrols 423	423		1 23-Jan-13	-17										1	
	😑 EC1500	Install HVAC Ducts	24	24	0% 21-Mar-1		168										1	
	😑 EC1630	Insulate Ducts	5	-	0% 28Jun-1		122											
	😑 EC1650	Set Heat Pump	12	12	0% 23Jan-1		-17										1	
	😑 EC1670	Relocate HVAC Chiller	7	7	0% 08-Feb-1													
	😑 EC1680	Startup and Test HVAC	2	2	0% 19-Feb-1		-17											
	😑 EC1770	Install AC Grills and Registers	5	5	0% 24-Apr-1		6											
		Test and Balance HVAC Equipment	2		0% 12Jul-13		-17		ļ								<u></u>	
E		Mechanicals.Systems Plumbing a		263	0% 31 Jan-1												1	
		Set Mechanical and Electrical Equipmen		36		2 21-Mar-12	168										1	
		Rough-In Plumbing/Piping	3			2 29-Mar-12	170										11	
		Install Wiring and Cable	36			2* 20-Aug-12											1	
		Connect Equipment	1	1		3 11-Feb-13			÷								<u> </u>	
	EC00515-1.	Ex-Finish Exterior Finishes	343	296	43.02% 17-Feb-1	TA 28-Jun-12	254	-	•									•
Sene	ral Status Resou	urces Predecessors Successors																
	▲	Activity EC1640	Install Wiring and	Cable							_	Droje	ct EC00515	: 4				_
	•	Activity [EC1040		Jable									ci jecuusia	-1				
Dura	ation		Status									⊂ Labo	or Units					
Or	iginal	36	Started	28-Jun-12		Physical %			_		0%	Budge	ted					576
Ac	tual	0	Finished	20-Aug-12		Suspend	Í				_	Actual			-			0
							1					1			-			-
Re	maining	36	Exp Finish			Resume						Remair	ning				5	576
At	Complete	36				-						At Con	nplete					576
		1	Constraints															
Tot	tal Float	109	Primary	Start On or	After 🔻	Secondary	Γ	< Non	ne >		•							
		109		1			1				_							

© Primavera Training @ BU - 2016 by M. Waseem Khan

Baseline: City Center Office Building Addition - B1 User: admin DB: PMDB (Professional)

# Adding Notebook Topic



- When a constraint is assigned to an activity, it is recommended that you add a note to document why the constraint was assigned. You can use the Notebook tab in the Activity Details window to document these reasons.
- Exercise
  - Steps
    - Verify activity selection, EC1640-Install Wiring and Cable
    - Click the Notebook tab (bottom)
    - Click Add
    - Assign a Notebook Topic, Constraints
    - Close the Assign Notebook Topic dialog box
    - Type a description <Cables are not available until 2-Jul-12>

# Adding Notebook Topic



Primavera P6 Professional R8.2 : EC00515-1 (City Center Office Building Addition)

#### <u>File Edit View Project Enterprise Tools Admin Help</u>

#### 

Project         Classics Exclusion         Plant All-All-All-All-All-All-All-All-All-All	Acti	vities																		×
Active y Um       Active y Name       Organization       Resumption       Streaming       Streaming       Complete       Final       Tote Field       Out       Out       Active y Name       Active y Name <th< th=""><th>Proj</th><th>ects Activities</th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th></th<>	Proj	ects Activities																		
Active y Um       Active y Name       Organization       Resumption       Streaming       Streaming       Complete       Final       Tote Field       Out       Out       Active y Name       Active y Name <th< td=""><td></td><td>ayout: Classic Sche</td><td>dule Layout</td><td>Fit</td><td>er: All Activities</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></th<>		ayout: Classic Sche	dule Layout	Fit	er: All Activities															
EXC0055       Status       255       Status       2000       Location		-	-	//	Original Duration			Finish	Total Float				Qtr 4, 2010			Qtr 1, 2	2011			Qt 🔺
E C113)       Page and SolicBids for Intel Punp       15       2       1001 [14/4p113 [14/4p11 17]         E C1200       Pace/Bids for Intel Punp       6       6       101 [17/4p11 [24/4p11 13]         E C1200       Pace/Bids for Intel Punp       6       6       101 [17/4p11 [24/4p11 13]         E C1200       Pace/Bids for Intel Punp       6       6       101 [17/4p11 [24/4p11 13]         E C12500       Pace/Bids for Intel Punp       12       10       14/4p13 [14/4p13 [14/4p1		,								_		Oct	Nov	Dec	Jan	Fel	b	Mar	Apr	
EC240       Period Vise Party       10       10       79 172 (0449)       174 (1449) <t< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>																				
E1220       Multi Contact for Haa Pung and Contach       6       6       0001744pt 11 254m11 377         E1220       Multi Mode Data       7       7       001174m11 254m11 254m13 177         E12500       Intel Mode Data       5       5       001274m12 254m13 084e12 1029         E12500       Intel Mode Data       5       5       001284m12 054m12 1026         E12500       Intel Mode Data       7       7       001874m13 054m13 0176m13			· ·	•		-														
E1232       Falsche and Device Head Pung and Controls       4/23       4/23       4/24       <				•				-												
E100 InduitWC Ducks E1000 InduitWC Ducks E100 InduitWC Ducks					-	-		-												
EC1839 induéto Nues     E																			<u>ر</u>	
EC1650 Status and Text HALC   EC1680 Constraints    EC1680 Constraints   EC1680 Constraints   Constraints   Constraints   Constraints   Constraints   Constraints								· ·												
Ec1670 Recode HV4C Diler 7 7 000 (95 Feb13 19 Feb13 17 EC1680 Statup and Test HV4C 2 2 2 000 (5 Feb13 19 Feb13 17 EC1680 Statup and Test HV4C Expensent 2 2 000 (5 Veb13 10 Feb13 16 EC1830 Test and Basics FV4C Expensent 2 2 000 (5 Veb13 10 Feb13 10) EC1640 Status Resources For Recession Systems: Planuage and Store Status Resources Freedback Notebook Relationships Relate Steps Summary WFe & Docs Central Status Resources Predecessors Successors Codes Expenses Feedback Notebook Relationships Relate Steps Summary WFe & Docs Activity EC1640 Inself Wring and Cable Inself Wring Inself Wr						-									; ; ;					· · · · ·
EC1690 Shup and Text HVAC 2 2 00; 1940p and Text HVAC 2 2 00; 1940p and AC Gills and Registes: 5 5 00; 244pt13 01:Hay 13 61 EC1830 Text and Adameter HVAC Equipment 2 2 00; 1244pt13 01:Hay 13 61 EC1830 Text and Balance HVAC Equipment 2 2 00; 1244pt13 01:Hay 12 11:Feb 13 01 EC06515.4.Machanized Segterizes Plattering and Elex 0:65 0:88 00; 03:Hay 12 11:Feb 13 01 EC1630 Intrad Wing and Ede: 0 0:00015-1.Ex-Finish Exterior Finishes 3 3 0:0; 02:Mar12 2:34ws 12 11:Feb 13 01 EC06515.4.Machanized Elex 0:000 0:000 Equipment 1 1 0:000Feb 31 11:Feb 13 01 EC06515.4.Ex-Finish Exterior Finishes 343 0:00000000000 0:00000000000000000000				•															1	
EC1770       IntellAC Edite and Registers       5       5       012       24.4p13       014.4p13       61         EC1800       Ext and Bakne HVAC Equipment       2       2       012       14.4p13       61         EC1800       Ext and Bakne HVAC Equipment       36       36       012       14.4p13       14.1p1         EC1100       Registerial Systems       Number of the state Monther of the state					· ·	•														
EC130       Tet and Balance HVAC Expirement       2       2       0% 12,44-13       16,44-13       17         If EC00515-1. Metchanicalis: Systems: Futuribing and Edic       203       203       0.0%       174-eb13       11         If EC00515-1. Hetchanical and Edic Edic Equipment       36       30       0.0%       274-48-12       170         If EC1510       Practal Worg word Calde       255       55       0.0%       0.04/12/2       224-99-12       100         If EC1630       Drayb-In Punchary/Pring       3       3       0.0%       274-48-12       170         If EC1630       Drayb-In Punchary/Pring       3       3       0.0%       274-48-12       170         If EC1630       Drayb-In Punchary/Pring       3       3       0.0%       274-48-12       170         If EC00515-1.EX-Finish Exterior Finishes       343       256       430.0%       174-b13       11       0.0% <td< td=""><td></td><td></td><td>· ·</td><td></td><td>_</td><td>-</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></td<>			· ·		_	-														
Constraints     Constrain				-	-	-	· ·													
EC1440 Set Mechanical and Electrical Equipment 38 38 08 31.Jan 12 21.Man 12 <						-					+				:   					
EC1510 RoughIn Plumbing/Piping 3 3 0 0k 27Mar12 29Mgr12 170 EC1560 Concert Equipment 1 1 0k 004Pet-13 11-feb-13 -f11 EC00515-1,Ex-Finish Exterior Finishes 343 256 43.02X 17Feb-11A 28Jun12 254 Ceneral Status Resources Predecessors Successors Codes Expenses Feedback Notebook Relationships Risks Steps Summary WPs & Docs Activity EC1640 mstal Wiring and Cable Notebook Topic Constraints Constraint				· · ·											1				1	
EC1640       Instal Wring and Cable       36       36       04// U23/d512// 22.4ug/12       107         Image: EC1660       Correct Equipment       1       1       05// 067-eb-13       111         EC005015-1.Ex-Finish Exterior Finishes       343       296       43.02%       17.Feb-11 A       254         General Status Resources       Predecessors       Successors       Codes       Evenses       Feedback       Notebook Topics         Search       Image: Notebook Topic       Image: Notebook Topics       Search       Image: Notebook Topics         Image: Notebook Topic       Image: Notebook Topics       Search       Image: Notebook Topics         Image: Notebook Topic       Image: Notebook Topics       Search       Notebook Topics         Image: Notebook Topic       Image: Notebook Topic       Image: Notebook Topic       Image: Notebook Topic         Image: Constraints       Image: Constraints       Image: Constraints       Image: Constraints       Image: Constraints         Image: Constraints       Image: Constraints       Image: Constraints       Image: Constraints       Image: Constraints       Image: Constraints       Image: Constraints         Image: Constraints       Image: Constraints       Image: Constraints       Image: Constraints       Image: Constraints       Image: Constraints																			1	
EC1660 Connect Equipment   1 1 0% 08/Feb13 111   EC00515-1.Ex-Finish 243 256 43.022   Activity EC1640 Instal Wring and Cable   Notebook Topic   Constraints   Constraints   Constraints   Constraints   Cables are not available until 2-Jul-12   Print   Constraints Constraints Constraints Cables are not available until 2-Jul-12 Notebook Topic Constraints Constraints Cables are not available until 2-Jul-12 Notebook Topic Constraints Constraints Cables are not available until 2-Jul-12 Notebook Topic Constraints Cables are not available until 2-Jul-12 Notebook Topic Constraints Cables are not available until 2-Jul-12 Notebook Topic Constraints Constraints Constraints Cables are not available until 2-Jul-12 Notebook Topic Constraints Constraints Constraints Cables are not available until 2-Jul-12 Notebook Topic Notebook Topic Notebook Topic Notebook Topic Constraints Constraint			-	- · -		-														
Image: Second Status       Resources       Predecessors       Successors       Codes Expenses       Feedback       Notebook       Relationships       Risks       Steps       Status       Resources       Predecessors       Successors       Codes       Status       Resources       Predecessors       Successors       Codes       Feedback       Notebook       Relationships       Risks       Steps       Steps       Steps       Status       Resources       Predecessors       Steps       Status       Resources       Predecessors       Status       Sta																			1	
General Status Resources Predecessors Successors Codes Expenses Feedback Notebook Relationships Risks Steps Summary WPs & Docs         Activity EC1640       Install Wiring and Cable         Notebook Topic       Search         Notebook Topic       Search         Search       Notebook Topic         Constraints       Constraints         Constraints       Constraints         Cables are not available until 2-Juli-12       Resource Brokering         Sponsor Feedback       Resource Brokering         Sponsor Feedback       Resource Brokering         Modify       Print         Copy       Corrective Actions													1		 					· · · · · ·
General Status Resources Predecessors Successors Codes Expenses Feedback Notebook Relationships Risks Steps Summary WPs & Docs       Display: Notebook Topic         Activity EC1640       Install Wiring and Cable         Notebook Topic       Constraints         Constraints       Cables are not available until 2-Jul-12         Second Record Records Records and Records       Record Records Records         Modify       Print         Copy       Copy	-	EC00515-1.	.Ex-Finish	Exterior Finishes	343	296	43.02% 17-Feb-11 A	( 28-Jun-12	204	Ŧ	1 🚫 A	ssign N	otebook Topi	c	<u> </u>					P.
Activity EC1640 Instal Wiring and Cable Notebook Topic Constraints Cables are not available until 2-Jul-12 Cables are not available until 2-Jul-12		aral Status Dago	uroon Drodoon	anara Successora Codes E		Natabaak Balatiar	nahina Diaka Stana Sum		Deep											
Activity [EC1640       Install Wiring and Cable         Notebook Topic       Constraints         Constraints       Cables are not available until 2-Jul-12         Rescure Brokering       Sponsor Feedback         Recent Accomplishments       Rescure Brokering         Objectives       Objectives         Objectives       Objectives         Modify       Print         Print       Copy	Gen						nsmps Risks Steps Sum	inary   wes o	DOCS	_				3		- 16				- 1
Notebook Topic       Constraints         Constraints       Constraints         Cables are not available until 2-Jul-12       Resource Brokering         Sponsor Feedback       Recent Accomplishments         Lessons Learned       Objectives         Objectives       Corrective Actions         Corrective Actions       Corrective Actions			Activity EC16	40	Install Wiring and Ca	ble										- 16				
Constraints Cables are not available until 2-Jul-12 Cables are not available until 2-Jul-12 Constraints Cables are not available until 2-Jul-12 Constraints Constr	N	lotebook Topic		Constraints								<u> </u>			<u> </u>	×				
Cables are not available until 2-Jul-12		Constraints								-										- 11
Sponsor Fecadack Recent Accomplishments Lessons Learned Recent Accomplishments Lessons Learned Copy Add X Delete Modify Print B Copy												-	-							^
Recent Accomplishments Lessons Learned Rationale Objectives Changes Corrective Actions				Cables al	re not a	vailabl	e until 2-J	ul-12	2				-		E	₩				
Add X Delete									-			-								
Rationale Objectives Changes Corrective Actions														8						
Copy													Learned		(	2				
Changes Corrective Actions																				
Add X Delete													8							
Add X Delete												-								
Add 🗙 Delete												orrective	Actions		-					-
			· · · · ·	Modify Dr	nt Ba Conv						1				•					
Portfolio: All Projects  Access Mode: Shared  Data Date: 01-May-11  Baseline: City Center Office Building Addition - B1  User: admin  DB: PMDB (Professional)		🕂 🖓 🖓	Delete		сору						C									
Portfolio: All Projects Access Mode: Shared Data Date: 01-May-11 Baseline: City Center Office Building Addition - B1 User: admin DB: PMDB (Professional)										_										
			Portfolio: All I	Projects Access Mode: Share	d Data Date: 01-Ma	ay-11 Base	line: City Center Office Build	ng Addition -	B1 User: adr	nin	DB: PMD	)B (Profe	ssional)							



#### Constraints – Finish On or Before

- Used to set intermediate completion points
- Forces the activity to finish no later than the constraint date
- Pulls the late finish date to the constraint date
- Affects the late dates of its predecessors
- Exercise
  - Steps
    - Select an activity, EC1740-Install Ceiling Grid
    - Click the Status tab
    - In the Primary drop-down list, select a constraint type, Finish On or Before
    - Click browse in the Date field
    - Select a date, 3-Jun-13
    - In the Tools menu, click Schedule

#### Constraints – Finish On or Before



Primavera P6 Professional R8.2 : EC00515-1 (City Center Office Building Addition)

<u>File Edit View Project Enterprise Tools Admin Help</u>

#### ⇔ & . | □ ; }• N, ∴ . | [3] ⊑ ⊑ 11 10 10 10 | ; | = 7 • 6 • # . | = 0, % ♦ ≸ % 10 . | • 0, 0, 0, 0, 0 + ∞ 11 🕫 Ø .

	yout: Classic Sche		ilter: All Activities	I													
ctivit	y ID 🗸	Activity Name	Original Duration	Remaining Duration	Schedule % Start Complete	Finish	Total Float	*	H	Oct	Qtr 4, 2010 Nov	Dec	Jan	Qtr 1, 201 Feb	1 Mar	Apr	Qt
	😑 EC1850	Punch List	5	5	0% 16Jul-13	23-Jul-13	-17	-									
	😑 EC1860	Building Addition Complete	0	0	0%	23-Jul-13	-17						1				
E		Int-Finish.Fixtures Plumbing and Lightin	-	45	0% 24-Apr-13	27-Jun-13	-10										
		Install Lighting Fixtures	7	7	· · ·	06-May-13	3										
		Install Plumbing Fixtures	5	5	0% 20Jun-13		-10					, , , ,	, , ,			<u> </u>	
E		Int-Finish.Coverings Floor and Carpetin	-	546	20.72% 25-Feb-11 A		-17								•		
	= EC1060	Assemble and Submit Flooring Samples	0	0	100% 25-Feb-11 A										🛉 Assemble an		-
	= EC1080	Review and Approve Flooring	28	0	100% 25-Feb-11 A									L po		Revi	ey ar
	EC1170	Prepare and Solicit Bids for Flooring	24	5	100% 04-Apr-11 A		213						1				
	EC1250	Review Bids for Flooring	15	15	36.11% 06-May-11		213		·			; 	: 				-
	EC1300	Award Contract for Flooring	5	5	0% 27-May-11		213						1			E 2	
	EC1310	Fabricate and Deliver Flooring	279	279		09-Jul-12	213 -17						1			1	
	EC1790	Install Floor and Carpeting	12	12 60		20-Jun-13 09-Jul-13	-17										
-		Int-Finish.Carp Carpentry Install Ceiling Grid		36		09-Jul-13 04-Jun-13*	-17										
		Finish Carpentry and Millwork	36	12		04-Jul-13	-17		ŀ								
		Int-Finish.Paint Paint	12	12	0% 2050rF13		-17 60										
		Paint Building Interior	12	12	0% 04-Mar-13		60										
	-					Loniario		Ŧ	•								•
Gene	ral Status Resou	Irces Predecessors Successors Codes	Expenses Feedback	Notebook Relatio	onships Risks Steps Sum	mary WPs &	Docs										
	÷	Activity EC1740	Install Ceiling Grid						_			Proje	ct EC00515	-1			-
Dur	ation	Sta	atus									\ \ \ Labo	r Units				
Or	riginal	36	Started	12-Apr-13	F	hysical %					0%	Budget	ed	[		28	38
A	ctual	0	Finished	, 04-Jun-13		Suspend	ĺ					Actual		ſ			0
Re	emaining	36 Ex	(p Finish	/		lesume	ĺ					Remain	ing	ſ		28	38
	-			1			1						-	1			_
At	Complete	36 Co	nstraints									At Com	iplete	ļ		28	38
То	tal Float	-17 Pr	imary	Finish On or	Before 👻 S	econdary	[	< Non	e >		•						
E-	ee Float		ate	03-Jun-13		)ate	Γ										
F	ee Fioat	0		100 0000 100			1										

Portfolio: All Projects Access Mode: Shared Data Date: 01-May-11

Baseline: City Center Office Building Addition - B1 User: admin DB: PMDB (Professional)

© Primavera Training @ BU - 2016 by M. Waseem Khan

#### Constraints – Start On



- Forces the activity to start on the constraint date
- Shifts both Early and Late Start dates
- Delays an Early Start or accelerates a Late Start
- Used to specify dates submitted by contractors or vendors

#### Constraints – Start On or Before



- Used to set intermediate start points
- Forces the activity to start no later than the constraint date
- Pulls the late start date to the constraint date
- Affects the late dates of its predecessors

Constraints – Mandatory Start



- Forces the activity to start on the constraint date
- Forces early and late dates to be equal to the constraint date
- Affects late dates of predecessors and early dates of successors
- May violate network logic

Constraints – Finish On or After



- Forces the activity to finish no earlier than the constraint date
- Shifts the Early Finish to the constraint date
- Affects the early dates of its successors
- Used to prevent an activity from finishing too early

#### Constraints – Finish On



- Forces the activity to finish on the constraint date
- Shifts both Early and Late Finish dates
- Delays an Early Finish or accelerates a Late Finish
- Used to satisfy intermediate project deadlines

Constraints – Mandatory Finish



- Forces the activity to finish on the constraint date
- Forces early and late dates to be equal to the constraint date
- Affects late dates of predecessors and early dates of successors
- May violate network logic

Constraints – As Late as Possible



- Delays an activity as late as possible without delaying its successors
- Shifts the early dates as late as possible
- Also called a zero free float constraint

#### Lesson Review



- Assign constraints to activities and projects to reflect real-world restrictions.
- A maximum of two constraints can be assigned to an activity (Primary and Secondary).
- The Must Finish By constraint is used when overall project deadline must be met.
- Use the Start On or After constraint to set the earliest date an activity can begin.



## Maintaining the Project Document Library

Lesson 11

### Maintaining the Project Document Library

- Objectives
  - Describe the difference between a work-product and a reference document
  - Create a document record
  - Link the document record to a project document or workproduct
  - Assign the project document to an activity or WBS

#### **Project Documents**

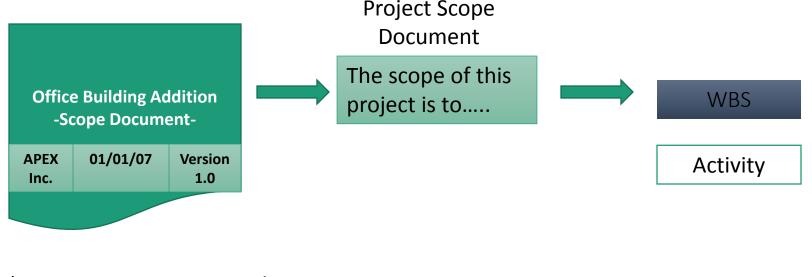


- The *Work Products and Documents (WPs & Docs) window* enables you to maintain general information about the project documents including links to the actual document files. Documents are organized hierarchically to enhance categorization.
- You can catalog and track project-related documents and deliverables and provide standards and guidelines for performing work on an activity.
  - Store documents on a network file server or website
  - Maintain general information about project documents such as version, revision date, and author.
  - Create a link to the actual document file (path of file).
- Documents can be designated as a work product or reference document:
  - Work Products Includes project or activity deliverables that will be turned-over to the end-user or customer. E.g. CAD files, testing plans, maps etc.
  - Reference Documents Includes documents that can be referenced by a project participant to provide standards and guidelines for performing work. E.g. guidelines, policies, procedures, design templates, checklists, and worksheets.

#### Creating a Document Record



 Documents do not reside in the Primavera Database. To access documents via Primavera, a document record must be created in the Work Products and Documents window.



1) Create Document Record

2) Establish Link to Actual Document File

Assign Document
 Record to WBS element
 and/or to an Activity

#### Creating a Document Record

ORACLE

- Exercise
  - Steps
    - Open a Project, City Center Office Building Addition
    - In the Directory bar, click WPs & Docs
    - In the Command bar, click Add
    - In the Title field in General tab, type a title <Construction Safety Regulations>, and then press Enter
    - In the Reference No. field, type <1918.14>
    - In the Document Category field, click browse
    - Select a document category, Regulatory/Compliance
    - In the Revision Date field, select a date, 11-Jan-07

#### Creating a Document Record



Primavera P6 Professional R8.2 : EC00515-1 (City Center Office Building Addition)

#### <u>File Edit View Project Enterprise Tools A</u>dmin Help

#### ⇔ & . □ ⊇ ≫ № ∴ . [2] ⊑ ⊑ ⊑ ⊑ ⊵ ≿ . [7 Ⅲ• □ 7• ⊡• # .] ⊒ Q, % ♥ ≴ 5 □ = . ● Q ♀ ≫ ... ₽ ⊗ ...

e	E Reference No. S	tatus Document Category	Version	Revision Date	
OSHA Regulations		Regulatory/Compliance	1.0	28-Feb-03	
Construction Safety Regulations	1918.14	Regulatory/Compliance	1.0	11-Jan-07	
🔓 Design		Detailed Design Specification		28-Feb-03	
laction Design Specification		Detailed Design Specification		28-Feb-03	
掛 (Steel Fram		General Documents	1.0	28-Feb-03	
ᅪ Machinery		General Documents	1.0	28-Feb-03	
General Description Files	Assignments				
					Reference No.
Title					1918.14
Title					1010.14
Title Construction Safety Regulations		Document Category			Status
		Document Category			<none></none>
Construction Safety Regulations					
Construction Safety Regulations		Regulatory/Compliance			, .
Construction Safety Regulations				<u></u>	,
Construction Safety Regulations Version 1.0		Regulatory/Compliance		<u></u>	, .
Construction Safety Regulations Version 1.0 Revision Date		Regulatory/Compliance			

© Primavera Training @ BU - 2016 by M. Waseem Khan

#### Files Tab



- After you add a document record, you must establish a link to the document by specifying a file path.
- There are two kinds of document location references:
  - Private Location References can be viewed only by Primavera client/server application users. E.g. Invoices, Purchase Orders, or Contracts.
  - Public Location References can be viewed by all project participants including timesheet users. E.g. Procedure Guidelines or Project Checklists.
- Exercise
  - Steps
    - Click the Files tab
    - In the Public Location field, click browse button
    - Browse to file location (any document file)
    - In the Select File Name dialog box, click Open
    - Click Launch to view the document
    - In the File menu in Notepad, click Exit

#### Assigning a Project Document



- Project Documents can be assigned to both WBS elements and activities.
- Exercise
  - Steps
    - Click Assignments tab (bottom)
    - Click Assign Activity
    - Select an activity, EC1090-Begin Building Construction
    - Click Assign button to assign the document to the activity
    - Close the Assign Activities dialog box

#### Assigning a Project Document



<u>V</u> iew <u>P</u> roject E <u>n</u> terprise <u>T</u> ools <u>A</u> dmin Help		
II I 9• % # . 🔯 🗉 🛍 🖄 🏜 . I II 🗉 🖓 - II - # . II 🖗 🥵	K K 🙀 🖬 _ Í O. O. O. 🚍 🛞 🔲 🗭 🕑 _	
		X
tts Activities WPs & Docs		
splay: All WPs & Docs		
E Reference No. Status Document Category Version	Revision Date	
OSHA Regulations Regulatory/Compliance 1.0	28-Feb-03	
Construction Safety Regulations 1918.14 Regulatory/Compliance 1.0	11-Jan-07	
Design Detailed Design Specifications 1.0	28-Feb-03	
Detailed Design Specification Detailed Design Specifications 1.0 (Steel Fram General Documents 1.0	28-Feb-03 28-Feb-03	
Machinery General Documents 1.0	28Feb-03	
	2016000	
		_
	📮 Assign Activities	- 11
	☐	- 11
	Search	- 8
		- 11
	Activity ID 🗸 Activity Name Activity Status 🔺 🛃	
	■ ◆ Engineering & Construction	- 8
		- 11
	EC1000 Design Building Addition Completed	- 1
	EC1000 Design outdang Addition Project Completed	- 1
	EC1030 Review and Approve Designs Completed	- 1
	EC1050 Assemble Technical Data for Heat Pump Completed	
	🚍 🗖 EC1160 Review Technical Data on Heat Pumps Completed	
eral Description Files Assignments	Foundation	
	EC1090 Begin Building Construction Completed	-1
S Code Activity ID Activity Name Work Product	EC1100 Site Preparation Completed	-1
EC00515-1.Fou EC1090 Begin Building Construction	EC1230 Excavation Not Started	- 1
	EC1320 Install Underground Water Lines Not Started	
	EC1330 Install Underground Electric Conduit Not Started	
	EC1340 Form/Pour Concrete Footings Not Started	
	EC1360 Form and Pour Slab Not Started	
	E FC1370 Rackfill and Compact Walls Not Started	
Assign Activity 🛱 Assign WBS 🖼 Remove		

© Primavera Training @ BU - 2016 by M. Waseem Khan

#### Assigning a Project Document

ORACLE

- Exercise
  - Steps
    - In the Directory bar, click Activities
    - Select an activity, EC1090-Begin Building Construction
    - In the Layout Option bar, click Layout, Open
    - Select a Layout, Classic WBS Layout, and then click Open
    - Click the WPS & Docs tab
    - Verify that the Construction Safety Regulations document has been assigned to activity EC1090-Begin Building Construction

#### Viewing Document Details



- Use the Work Product and Document Details dialog box to view details about and/or open the selected work product or document. Fields in the dialog box are summarized below:
  - *Title* The name of the selected work product or document
  - Author The name of the person who created the selected the work product or document
  - Version The selected work product or document's version number
  - *Date* The entered Revision Date
  - Private/ Public Location The work product or document's file name with complete path
  - Launch Opens the work product or document in its native application
  - Description A narration of the selected work product or document

© Primavera Training @ BU - 2016 by M. Waseem Khan

#### 238

### Viewing Document Details

- Exercise
  - Steps
    - In the WPs & Docs tab, select a document <Construction Safety Regulations>
       Work Product and Document Details
    - Click Details... button
    - Click Launch button
    - Click File, Exit
    - Click Close button

Title	Ref. No.	
Construction Safety Regula	tions	1918.14
Author	Version	Date
	1.0	11-Jan-07
Document Category	Status	
Regulatory/Compliance		Deliverable
Private Location		
		Launch
Public Location		
		Launch
, 		,
Description		
	rint 🖪 Copy	



#### Lesson Review



- Documents do not reside in the Primavera database.
   To access documents via Primavera, a document record must be created in the WPs & Docs window.
- After adding a document record, specify its private and/or private location. Specifying a public location enables all project participants to view the document.
- You can designate a document as a work product or reference document and assign it to an activity or WBS element.
- Maintain general information of each project document such as version, revision date, and author.



# Formatting the Schedule Data

© Primavera Training @ BU - 2016 by M. Waseem Khan

#### Formatting Schedule Data



- Objectives
  - Group activities according to a specific criteria
  - Sort activities
  - Apply a filter
  - Create a filter

#### Grouping Data



- *Grouping* is a flexible way to organize data into categories that share common attributes.
- You can group data to create customized layouts. You can also use grouping to quickly view subtotal data in the group title bands, view summary bars in the Gantt Chart, and summarize data for reporting purposes.
- Grouping is available in all windows and most dialog boxes
  - Each window or dialog box has its own grouping options
  - Some windows have customized/ pre-defined groups
- Activities can be grouped by hierarchical fields such as WBS, activity codes, and project codes.
- Activities can be grouped by data fields such as dates, costs, total float, and other numeric data.

#### Group & Sort Dialog Box



- The *Group & Sort dialog box* is used to set up the organization of activities on screen:
  - Show Group Totals Choose to display or hide the total values for grouping bands. If you mark the Show Group Totals checkbox, you have the additional options to Show Grand Totals and Show Summaries Only.
    - Show Grand Totals Mark to display a grand total row at the top of the layout
    - Show Summaries Only Mark to hide the activities within each group title band
  - Shrink Vertical Grouping Bands Minimize the width of the vertical grouping bands displayed in the Activity Table. This setting is available in windows that have the Group and Sort By, Customize Layout option

#### Group & Sort Dialog Box



- Group By Lists data items used to group the current display
  - Indent Available if the selected data item is hierarchical
  - To Level Indicates the no. of levels to display when grouping by a hierarchical data item
  - Group Interval Indicates the interval by which you want to group the selected data item
  - Font & Color Displays the font/color for each group title band
  - Hide if empty Mark to hide the group title bands that do not contain activities
  - Sort Bands Alphabetically Mark the checkbox to sort the grouping bands alphabetically rather than their order in their respective hierarchy. This checkbox is disabled for any grouping that is not hierarchical
  - Show Title Mark to display the name of the field that the layout is grouped by; the value is also displayed
  - Show ID/Code Mark the checkbox to display the ID or code value on the grouping band
  - Show Name/Description Mark the checkbox to display the name or description on the grouping band

#### • Open a project, EC00515 Group and Sort • Confirm you are in

Activities window

• Exercise

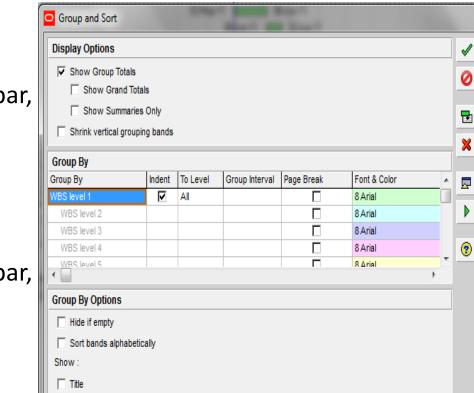
• Steps

 In the Layout option bar, click Layout, Open

Group & Sort Dialog Box

- Select a layout, Classic WBS Layout, and click Open
- In the Layout option bar, click Group & Sort...

	Show : Title ID / Code Name / Description
a Training @ Bl	J - 2016 by M. Waseem Khan



X

OK

Cancel

Apply

Delete

Sort...

Default

Help

## Grouping By Date



 Grouping a layout by date allows you to identify activities that are scheduled to occur within a particular time period.

- Exercise
  - Steps
    - In the Group By column, select Start
    - In the Group Interval column, select Month
    - Click Ok
    - In the Layout option bar, click Layout, Save As
    - Type a Layout name
    - <Monthly Schedule>, and then click Save

Group and Sort		- 100	-					X	
Display Options							<	ОК	
✓ Show Group Totals ✓ Show Grand Totals	0	Cancel							
Show Summaries (	Show Summaries Only								
Shrink vertical grouping	Shrink vertical grouping bands								
Group By							×	Delete	
Group By	Indent	To Level	Group Interval	Page Break	Font & Color			Sort	
Start			Month		8 Arial				
					8 Arial			Default	
					8 Arial		-		
					8 Arial		?	Help	
•					R∆rial ♦				
Group By Options									
📕 Hide if empty									
🔲 Sort bands alphabetica	ally								
Show :									
Title									
🔲 ID / Code									
Name / Description									

## Collapsing/Expanding Grouped Data

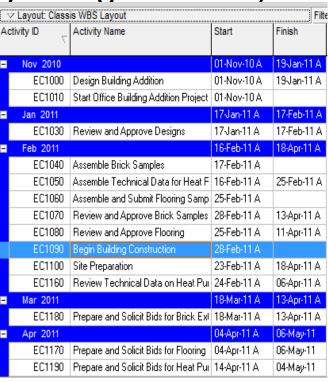


- Collapse group bands are used to control the level of detail you are viewing. This functionality is especially useful if you want to focus on a specific portion of the layout.
- In the Activity Table, view summary information for the displayed columns.
- In the Gantt Chart, summary bars are displayed to represent the Start/Finish dates in each group band.
- Exercise
  - Steps
    - In the Layout option bar, click Collapse All
    - Click + (sign) to expand a group band

#### Sorting Activities

- Sorting Activities
   Sorting determines the sequence in which activities are listed within each grouping band. Based on the data item you choose, you can sort alphabetically, numerically, or chronologically.
- Sorting by Single Criteria To sort by a single criteria, click the data item's column title
  - •
- indicates sort in ascending order
  - indicates sort in descending order

- Exercise
  - Steps
    - Click on column title, Original Duration





## Filtering Activities



- A *filter* is a set of instructions that determines which activities should display on screen.
- Filters enable you to create customized layouts by limiting the no. of activities displayed; helping you to focus on critical activities.
- A set of pre-defined filters is provided, however userdefined filters can also be created.
- Filters are divided into the following groupings:
  - Default
    - Available to all users
    - 15 pre-defined filters
    - Cannot be deleted or modified
  - Global
    - Available to all users
  - User-defined
    - Available to current user for all accessible projects

### Filtering Activities



- One or more filters may be applied to a layout at a time
- Multiple criteria for selection may be used within a single filter
- Filter specifications can be saved and re-applied
- Filters can be saved as a part of a layout

#### Filter Dialog Box



- All Activities Mark to show all activities in the current layout
- Show activities that match When more than one filter is marked, you must select one of the following options:
  - All selected filters Mark to include the activities that meet the criteria of each selected filter
  - Any selected filter Mark to include the activities that meet the criteria of atleast one of the selected filters
- Replace activities shown in current layout Displays only the activities that meet the criteria of each selected filter
- Highlight activities in current layout which match criteria Highlights only the activities in the current layout that meet the criteria of each selected filter

## Applying a Default Filter



- To view critical activities, you can run the Critical default filter Sorting By descending order.
- Exercise
  - Steps
    - In the Layout option bar, click Filters
    - In the Select column, mark the checkbox Critical
    - In the When applying the selected filter(s) section,
       Select Highlight activities in the current layout with match criteria
    - Click Ok to execute the filter

All Activities	Show activities that ma All selected filters Any selected filter			<ul> <li>✓</li> <li>Ø</li> </ul>	OK Cancel
Filter	7	1		-	
- Default					Apply
The Completed					
Tritical		V		÷	New
🍸 Has Finish Constraint				x	Delete
Thas Start Constraint					
T In Progress				E)	Сору
The vel of Effort					Deate
T Longest Path				Ê.	Paste
T Milestone					
🍸 Negative Float					Modify
Y Non What-If					
Y Non-critical				•	Make Global
Y Normal					
Y Not Started				Cor	oy As Layout
- Global			Ŧ		ny no cuyou
When applying the selected filter	s):				Hala
Replace activities shown in c	urrent layout			?	Help

#### Create a Filter



- You can create filters based on single line of criteria or multiple criteria.
- A convenient single-criteria filter to use throughout the lifecycle of a project is a lookahead filter. It displays the activities that are scheduled to occur within a given amount of time. E.g. the next month.
- You will execute the new filter to display all activities scheduled to occur within the next month, and then save the layout as One Month Lookahead
- Exercise
  - Steps
    - In the Filters dialog box, click New
    - In the Filter Name field, type <One month lookahead>
    - Click in the Parameter cell and select a data item, Early Start
    - Double-click in the Is cell and select a filter criteria, is within range of
    - Double-click in the Value cell and select a date, DD (data date)
    - Double-click in the High value cell and type <DD+1M>
    - Click Ok to close the Filter Specification dialog box

## ORACLE

#### Create a Filter

- Exercise
  - Steps
    - Verify the new filter is selected,
       One Month Lookahead
    - Verify Replace activities shown in the current layout is selected
    - Click Ok to execute the filter
    - In the Layout option bar, click
       Group & Sort
    - Mark the checkbox,
    - Hide if empty
    - Click Ok
    - In the Layout option bar, click

Layout, Save As, type a layout name <One Month Lookahead>

Click Save

O Filter	_	A Manual V		10.		• X
Filter Name	One Month Lookahead				<	ок
✓ Display: Filte	1				0	Cancel
Display all rows	Parameter	ls	Value	High Value		
•	(All of the following)				4	Add
Where	Early Start	is within range of	DD	DD+1M	<u> </u>	
					×	Delete
					ab	Cut
					e <sub>b</sub>	Сору
					Ê.	Paste
					•	* +
					<b>?</b>	Help
•				÷.		

### Using Multiple Filters



- If you are unable to achieve your goal with single filter, then you can also run two filters simultaneously.
- Exercise
  - Steps
    - In the Layout option bar, click Filters
    - In the Select column, mark the checkbox next to filter, Critical
    - Scroll-down and confirm that the One Month Lookahead filter is also selected
    - Click Ok to execute filters
    - In the Layout option bar, click Save As
    - Type a layout name, One Month Lookahead Critical Activities
    - Click Save

### Applying All Activities Filter



 To refresh your screen with all activities , you can run the all Activities filter.

- Exercise
  - Steps
    - In the Layout option bar, click Filters
    - Mark the All Activities checkbox
    - Click Ok to execute the filter

All selected filters   Any selected filter   Filter   Completed   Completed   Critical   Has Finish Constraint   Has Start Constraint   Has Start Constraint   Level of Effort   Longest Path   Milestone   Negative Float   Non What-If   Non-critical	Select	<ul> <li>✓     <li>★     <li>×     <li>★     <li>×     <li>★     </li> <li>★      </li> <li>★      </li> <li>★     </li> <li>★      </li> <li>★      </li> <li>★      </li> <li>★      </li> <li>★      </li> <li>★      </li> <li>★      </li> <li>★      </li> <li>★      </li> <li>★      </li> <li>★      </li> <li>★      </li> <li>★      </li> <li>★      </li> <li>★      </li> <li>★      </li> <li>★      </li> <li>★      </li> <li>★      </li> <li>★      </li> <li>★      </li> <li>★      </li> <li>★      </li> <li>★      </li> <li>★      </li> <li>★       </li> <li>★       </li> <li>★      </li> <li>★       ★       ★     <!--</th--><th>Cancel Apply New Delete Copy Paste Modify</th></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></li></ul>	Cancel Apply New Delete Copy Paste Modify
Filter       \vee         Image: Default       \vee         Image: Default       \vee         Image: Default       Image: Default         Image: Default Default Default       Image: Default         Image: Default Default Default       Image: Default Default         Image: Default		<ul> <li>₽</li> <li>4</li> <li>×</li> <li>№</li> </ul>	New Delete Copy Paste
Default         Tompleted         Totical         Has Finish Constraint         Has Start Constraint         In Progress         Level of Effort         Longest Path         Milestone         Negative Float         Non What-If		4 ×	New Delete Copy Paste
Critical         Has Finish Constraint         Has Start Constraint         In Progress         Level of Effort         Longest Path         Milestone         Negative Float         Non What-If		4 ×	New Delete Copy Paste
Thas Finish Constraint         Has Start Constraint         In Progress         Level of Effort         Longest Path         Milestone         Negative Float         Non What-If		×	Delete Copy Paste
Has Start Constraint         In Progress         Level of Effort         Longest Path         Nilestone         Negative Float         Non What-If			<b>Copy</b> Paste
In Progress         Image: Part of Effort         Image: Pa			<b>Copy</b> Paste
Image: Second state       Image: Second state         Image: Second state       Image: Second state <td></td> <td></td> <td>Paste</td>			Paste
Image: Complexity Path       Image: Complexity Plant       Im			
Y       Milestone         Y       Negative Float         Y       Non What-If			
Negative Float           Y           Non What-If			Modify
Von What-If			Modify
			moung
Von-critical			
			Make Global
Y Normal			
Y Not Started		Cop	oy As Layout
Global			
Y 2 Weeks Ahead		(?)	Help
Milestone Variance from Baseline		<u> </u>	Trop
Yariance from Baseline			
- User Defined	_		
Vew_2			
Tone Month Lookahead	<b>•</b>		
When applying the selected filter(s):			
• Replace activities shown in current layout			



#### Lesson Review

- Use grouping and sorting to organize activities in a layout
- Grouping is available in all windows and most dialog boxes
- The Group & Sort dialog box provides options to show grand totals and summaries and modify the font and color for each grouping selected. You can also sort the groups alphabetically, numerically, or chronologically
- Use filters to customize the layout or only show activities that satisfy the filter criteria. You can apply multiple filters to a layout



### Assigning Resources & Cost Lesson 13

#### Assigning Resources & Cost



- Objectives
  - Assign labor, non-labor, and material resources to activities
  - Adjust budgeted units/time for a resource
  - Assign expenses to activities

Steps for Resource Management



- Following are the basic steps for resource management:
  - Defining resources in the Resource window
    - Define resource availability
    - Set up the resource name, description, cost, roles, and attributes that control the resource's effect on the schedule
  - Assigning resources in the Activity window
    - Enter the resource name and amount of work planned
    - The cost is calculated based on the resource quantity and price/unit as defined in the Resource window
  - Analyze resources and costs in the Activity window
    - Use the Resource Usage Profile to view resource quantity/cost information graphically. The profile helps you analyze when, and to what extent, a resource is allocated
    - Use the Resource Usage Spreadsheet to view resource quantity/cost information in a tabular format. The spreadsheet also helps you analyze resource allocation
    - Use columns to view total costs



- A resource is anything used to complete an activity.
- The *Resources window* contains information about all resources within the organization, enabling centralized resource management.
- Resources are divided into three categories:
  - Labor (People) Measured in units of time
    - Generally re-used between activities/ projects
    - Recorded in terms of price/unit E.g. Rs. 300/hour
  - Non-labor (Equipment) Measured in units of time
    - Recorded in terms of price/unit
  - Material Measured in units other than time E.g. Rs. 15/sq.ft

ORACLE

- Exercise
  - Steps
    - In the File menu, click Close All
    - In the Directory bar, click Resources
    - In the Display option bar, click Filter By, All Resources



× 🕂

X

<u>File Edit View Project Enterprise Tools Admin Help</u>

#### 

		-	 	
	es	OI	ces	
 1000	<b>Contract</b>	0.00	and the second	

Projects Activities Resources

source ID	E Resource Name	Resource Type	Unit of Measure	Primary Role	Default Units / Time	
💈 E&C Resources	E&C Resources	Labor	- M.		8/d	
🖻 🙎 Trades	Trades	Labor			8/8	
INSP	Inspections	Labor			22/d	
🙎 Cretefinisher	Concrete Finisher	Labor		Trades	0/d	
👲 Hydro	Hydroblaster	Labor			22/d	
Q Operator	Operator	Labor		Trades	0/d	
OPTGP	Operations Test Group	Labor			8/d	
🙎 Elec	Electrician	Labor		Trades	8/d	
2 Paint	Painter	Labor		Trades	8/d	
🙎 Ехс	Excavator	Labor		Trades	8/d	
👤 Floor	Floor and Carpet Layer	Labor		Trades	8/d	
🤦 lmWrk	Ironworker	Labor		Trades	8/d	
🤦 GenLabor	Laborer-Construction	Labor		Trades	8/d	
🙎 Plumb	Plumber	Labor		Trades	8/d	
🧕 RCarp	Rough Carpenter	Labor		Trades	8/d	
👲 FCarp	Finish Carpenter	Labor		Trades	8/d	
🖃 🧕 Elev Inst	Elevator Installer	Labor		Trades	8/d	
eneral Codes Details Resource ID	Units & Prices Roles Notes Resource Name					
E&C Resources	E&C Resources					
Employee ID		Title				
1		1				
E-Mail Address		Office Phor	ie			
1				Active		

Portfolio: All Projects Access Mode: Shared Data Date: 01-Feb-12 Baseline: Current Project User: admin DB: PMDB (Professional)

- Exercise
  - Steps
    - Click Add on the Command bar
    - Write ID: MEX
    - Name: Marketing Executive
    - Click Next
    - Select Resource Type: Labor
    - Click Next
    - Write Cost: 100
    - Click Next
    - Click Finish

ter a Resource ID and a R		Resource ID	uniqu <mark>e</mark> ly ider	ntifies this r	esource.
esource ID					
/EX					
esource Name					
Aarketing Executive					
and any excounter					
o not show this wizard a	gain.				
and the second se	in the second		1	the there	_
Cancel		Prev	Next		Finish
	4	Prev	Next		
v Resource Wizard	4		Next	• 8	Finish
	▲ urce Wizar		<u>N</u> ext		
v Resource Wizard			<u>N</u> ext		
v Resource Wizard New Resou Resource Tyj	pe	d			
New Resource Wizard	D <b>E</b> rce is Labor, Nonlabo	<b>d</b> r or Material			X
New Resource Wizard New Resource Type Resource Type Specify whether this resource the units of work performe according to this setting. Ch	DC rce is Labor, Nonlabo d by this resource wi noose Labor or Nonlat	<b>d</b> r or Material II be classifi	ed as Labor, Nure work in un	Ionlabor or I	Material
New Resource Wizard	DC rce is Labor, Nonlabo d by this resource wi noose Labor or Nonlat	<b>d</b> r or Material II be classifi	ed as Labor, Nure work in un	Ionlabor or I	Material
v Resource Wizard New Resou Resource Typ Specify whether this resou The units of work performe according to this setting. Ch work in units other than tim Resource Type	DC rce is Labor, Nonlabo d by this resource wi noose Labor or Nonlat	<b>d</b> r or Material II be classifi	ed as Labor, Nure work in un	Ionlabor or I	Material
New Resource Wizard New Resource Resource Typ Specify whether this resourche units of work performe tocording to this setting. Ch work in units other than tim Resource Type (* Labor ( People )	DE rce is Labor, Nonlabo d by this resource wi noose Labor or Nonlat e, choose Material and	<b>d</b> r or Material II be classifi	ed as Labor, Nure work in un	Ionlabor or I	Material
A Resource Wizard New Resource Resource Type Specify whether this resource the units of work performe to cording to this setting. Ch work in units other than tim Resource Type (C) Labor (People) (C) Nonlabor (Machinery)	DE rce is Labor, Nonlabo d by this resource wi noose Labor or Nonlat e, choose Material and	<b>d</b> r or Material II be classifi	ed as Labor, Nure work in un	Ionlabor or I	Material
New Resource Wizard New Resource Resource Typ Specify whether this resourche units of work performe according to this setting. Ch work in units other than tim Resource Type (* Labor ( People )	DE rce is Labor, Nonlabo d by this resource wi noose Labor or Nonlat e, choose Material and	<b>d</b> r or Material II be classifi	ed as Labor, Nure work in un	Ionlabor or I	Material

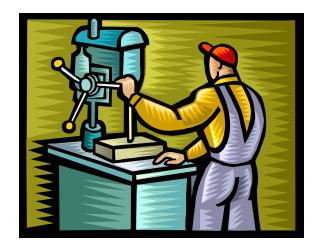
NI---- Deserves 14/

ew Resource Wizard	New Resource Wizard
New Resource Wizard	Units / Time & Prices Edit the resource's price, default and maximum units per time period (per hour, day, week, etc.).
Select Existing Calendar Select an existing calendar for this resource. Click on the View/Edit button to view and edit the calendar.	Default units/time is the value applied by default for new resource assignments. They are displayed either as a percentage or as units per duration. Maximum units per time is the maximum amount of work that this resource can perform per time on assigned activities, for example 8 hours per day.
Calendar Name	Price/Unit S100.00/h Default Units/Time 8/d Do not show this wizard again.
⊘ Cancel <u>N</u> ext ▶ SS Finish	Cancel <u>Prev</u> Next Finish
	New Resource Wizard
	Auto-Compute Actuals Primavera P6 Professional R8.2 will automatically update the actual units for this resource if you select this option. When auto-compute is selected, the actual units are updated assuming that work is proceeding according to plan. The actual units are based on the percent complete of the activity. This can be a
	<ul> <li>Significant time-saver in gathering actuals for your project.</li> <li>Auto-compute the actuals for this resource.</li> <li>Do not auto-compute actuals.</li> <li>Do not show this wizard again.</li> </ul>
	Cancel <u>Prev</u> Next <u>Next</u> <u>Finish</u>

New Resource Wizard



#### WORKSHOP Defining Resources



#### **Resource Dictionary**



ID	Name	Units	Price	Туре
MEX	Marketing Executive	Hour	100	Labor
PM	Project Manager	Hour	500	Labor
ITO	IT Officer	Hour	200	Labor
ΤM	Training Material	Number	100	Material
DAR	Design Architect	Hour	300	Labor

#### Assigning Resources



- Depending on numerous factors; including the type of activity or type of resource, you may need to adjust Budgeted Units or Units/Time when assigning a resource
  - Budgeted Units The number of units (e.g. hours) that a resource is assigned to work on activity
  - Units/time The no. of units (hours) a resource is scheduled to work in a specific time period (e.g. 8 hrs/day)

#### Assigning a Labor Resource



- Assign a resource directly from the Resource Dictionary. Resources in the dictionary can be used on any activity. An unlimited no. of resources can be assigned.
- The Search feature can help you quickly search the resource item in the dictionary.
- Exercise
  - Steps
    - Select an Activity, A1020- Prepare Inventory List
    - In the Resources tab (bottom), click Add Resource
    - Select MEX-Marketing Executive, click Assign button
    - Close the Assign Resource Dialog

#### Assigning a Labor Resource



Primavera P6 Professional R8.2 : TUP (Technology Upgradation Project)

#### <u>File Edit View Project Enterprise Tools Admin Help</u>

#### 

Layout: Classic So		Filter: All A			-		27/2	2211				
vity ID	C Activity Name	Original Duration	Remaining Duration	Schedule % Start Complete	*	, 2010 lov	Qtr 1	, 2011	23	Qtr 2, 2011 May	Jun	Jul
TUP.1 M	larket Research	33	33	0% 01-Feb-12								
😑 A1010	Review Literature Search	10	10	0% 01-Feb-12			✓ Display: All Resource	es				
🚍 A1020	Prepare Inventory List	2	2	0% 15-Feb-12			Search					1
🔲 A1030	Prepare Vendor List	2	2	0% 16-Feb-12			Resource ID	E Resource Name				
😑 A1040	Perform Market Survey	10	10	0% 20-Feb-12			🗄 🤦 CharlesM	Mandy Charles,	1			1
😑 A1050	Formulate Survey Findings	5	5	0% 05-Mar-12			LaffertyV	Vanessa Laffert	у 🐺			
🔲 A1060	Perform SWOT Analysis	3	3	0% 12-Mar-12			👤 PaxsonE	) Dan Paxson	Em	L	1	1
🔲 A1070	Document Results and Hanc	1	2	0% 15-Mar-12			👤 ITCon	IT Consultant	Assi	gn		
TUP.2 C	onstruction Design	38	38	0% 16-Mar-12			💊 Material	Material Resour	c 💀			
- TUP.2.1	Building Design	30	30	0% 16-Mar-12			A MEX	Marketing Exec				
🔲 A1080	Prepare Concept Design	10	10	0% 16-Mar-12			🔔 PM	Project Manage	4 <u> </u>			1
😑 A1090	Prepare Tender Documents	10	10	0% 26-Mar-12			💄 ITO	IT Officer	2			1
😑 A1100	Develop 100% Design Docu	10	10	0% 04-Apr-12			💊 ТМ	Training Materia			1	1
	Network Infrastructure Desi		20	0% 12-Apr-12			🔔 DAR	Design Archited	t 🖵			
🖨 A1110		10	10	0% 12-Apr-12			•	,				
🔲 A1120	Prepare Domain/Hardware L	10	10	0% 26-Apr-12	-					J		1
		-	-1			•						1
eral Status Re	sources Predecessors Succe	ssors Feedback										
	Activity A1020	Prepare Invent			_				ct TUP			
•	ACTIVITY ATOZO	Prepare invention	ory List	- 454	192					0.21		
	Primary Resource Ty	pe Remaining Units / Tir	ne Original La	ig Start Finish	B	udgeted Units	Actual Regular Units Ren	naining Early Units Rol	e			
source ID Name	Labor		₩d	0 15-Feb-12 16-Feb-12								

### Adjusting Resource's Budgeted Units/Time

- You can adjust Budgeted Units/time after making a resource assignment. You can manually type Budgeted Units/Time value for a resource in Resources tab to adjust two laborers to perform an activity.
- Exercise
  - Steps
    - In Resources tab, enter 16/d in Budgeted Units/Time column

#### Assigning a Material Resource



- Material resources are not measured in units of time.
- You can add units of measurement in Admin→Admin Categories.
- After the units of measure is created, it is assigned to the material resource in the Resource Dictionary.
- Exercise
  - Select an Activity, A1240-Print Training Material
  - Add a Resource TM-Training Material from Resources tab
  - Enter 40 in Budgeted Units column

#### Assigning a Material Resource



Primavera P6 Professional R8.2 : TUP (Technology Upgradation Project)

<u>File Edit View Project Enterprise Tools Admin Help</u>

#### 

		s Resources	E.c.s	1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 -												
	yout: Classic Sch			Il Activities		1	1.00			01-1-00-1			01-0-00-1		1	
ctivity	y ID	∧     Crivity Name     √	Original Duration	Remaining Duration	Schedule % Complete		* , 20	Dec	Jan	Qtr 1, 2011 Feb	Mar	Apr	Qtr 2, 2011 May	Jun	Jul	_
	🔲 A1140	Prepare and Review RFP	2	2	0%	27-Mar-12										
	🔲 A1150	Advertise in Newspaper	2	2	0%	29-Mar-12	6			-		1		×		
	🚍 A1160	Open Technical Bids	0	0	0%	:		🙎 Assign Reso	ources							
	🔲 A1170	Review and Score Technica	10	10	0%	02-Apr-12		✓ Display: All I	Resources					j		35
	🚍 A1180	Open Financial Bids	0	0	0%	:		Search								
	🔲 A1190	Negotiate with Bidders	5	5	0%	16-Apr-12		- T.								
	🔲 A1200	Award Contract	0	0	0%	:		Resource ID		E Resource			Resource	<u>T)</u> ^ 🔁		
E	- 📑 TUP.3.2 T	raining Material	22	22	0%	23-Apr-12		Material		Material R			Material			
	🚍 A1210	Prepare and Review Draft M	8	8	0%	23-Apr-12		A MEX		Marketing			Labor	<b></b>		-
	🔲 A1220	Review Training Material by I	5	5	0%	03-May-12		🙎 PM		Project Ma	anager		Labor	<b></b>	sign	
	🚍 A1230	Finalize Training Material	5	5	0%	10-May-12		2 ITO		IT Officer			Labor		sign	
	🔲 🚍 A1240	Print Training Material	4	4	0%	17-May-12		TM		Training M			Material			
E	- <b>TUP.3.3</b> T	raining Delivery	13	13	0%	17-May-12		🙎 DAR		Design Arc	chitect		Labor	• 😨		
	🚍 A1250	Deliver Training Course	5	5	0%	17-May-12		<								
	🔲 A1260	Prepare & Submit Assessmer	8	8	0%	24-May-12	+	1	_	1	1	1	1	1		
		ources Predecessors Succes	ssors Feedback	g Material							Proj	ject TUP				
Res	ource ID Name	Primary Resource Remaining U	Inits / Time Original L	ag Start	Finish	Budgeted Unit	Budget	ed Units / Time A	ctual Requ	lar Units	Remaining Ur	nits Role	Ľ.			-
0000000	TM.Training Mate		10/d	2.7. BAU 110 2	22-May-12	4	-	10/d	(otau) i toga	0	rtemaining er	40				_
	the second second				ee may re		4	1000								
E.	Add Resource	Add Role	Assign by Role	Remove												

#### **Planning Costs**



- Costs are planned and managed at the activity level.
- There are two types of costs:
  - Resource Calculated based on resource assignments
  - Expense Lump sum costs that are manually entered

#### Planning Costs - Resources



- The cost of a resource can be calculated based on the Price/Unit defined in the Resource Dictionary and the Budgeted Units assigned to the activity
- Budgeted Cost = Budgeted Units x Price/Unit

#### Planning Costs - Expenses



- *Expenses* are non-resource costs associated with a project. They are typically one-time expenditures for non-usable items. E.g. Facilities, Travel, Overhead, and Training.
- Expenses are manually assigned at activity level. You can enter a single lump sum expense or you can enter the number of units and the Price/Unit.
- Expense categories can be assigned to classify the expense.
- Expenses can be accrued at the start, end, or uniformly over the duration of an activity.
- A unit of measure can be used to label the quantity. E.g. each, pounds, square feet.

#### Planning Costs - Expenses

- Exercise
  - Steps
    - Select an Activity, A1030- Perform Market Survey
    - Click the Expense tab (bottom)
    - Click Add
    - Type a Expense Item <Market Travel>
    - Double-click in the Expense Category field
    - Select an Expense Category <Travel>
    - In the Accrual Type field, verify Uniform over Activity
    - In the Budgeted Units field, type <10.00>, press Enter
    - In the Unit of Measure field, type <visit> and press Enter
    - In the Price/Unit field, type <500> and press Enter.

#### Planning Costs - Expenses



Avera P6 Professional R8.2 : TUP (fechnology Upgradation Project)  Edit View Project Egterprise Jook Admin Help  Chivities  rojects Activities  rojects Activities  rojects Activities  Remaining Duration Duratio	Dito         Otr 1, 2011         Otr 2, 2011           Dec         Jan         Feb         Mar         Apr         May         Jun         Jul	
Image:	D10         Qtr 1, 2011         Qtr 2, 2011           Dec         Jan         Feb         Mar         Apr         May         Jun         Jul             Image: state stat	
tivities         Complete Activities         Complete Start         Complete Start <th col<="" td=""><td>D10         Qtr 1, 2011         Qtr 2, 2011           Dec         Jan         Feb         Mar         Apr         May         Jun         Jul             Image: state stat</td></th>	<td>D10         Qtr 1, 2011         Qtr 2, 2011           Dec         Jan         Feb         Mar         Apr         May         Jun         Jul             Image: state stat</td>	D10         Qtr 1, 2011         Qtr 2, 2011           Dec         Jan         Feb         Mar         Apr         May         Jun         Jul             Image: state stat
tivities         Complete Activities         Complete Start         Complete Start <th col<="" td=""><td>D10         Qtr 1, 2011         Qtr 2, 2011           Dec         Jan         Feb         Mar         Apr         May         Jun         Jul             Image: state stat</td></th>	<td>D10         Qtr 1, 2011         Qtr 2, 2011           Dec         Jan         Feb         Mar         Apr         May         Jun         Jul             Image: state stat</td>	D10         Qtr 1, 2011         Qtr 2, 2011           Dec         Jan         Feb         Mar         Apr         May         Jun         Jul             Image: state stat
Activities       Resources	Dec     Jan     Feb     Mar     Apr     May     Jun     Jul       Image: solution of the second state of	
v Layout: Classic Schedule Layout       Filte: All Activities         tivity ID       Activity Name       Original Duration       Remaining Duration       Schedule % Complete       Start       Image: Schedule %       Schedule %       Start       Image: Schedule %       Schedule %       Schedule %       Sc	Dec     Jan     Feb     Mar     Apr     May     Jun     Jul	
Activity Name         Original Duration         Remaining Duration         Schedule % Complete         Start         Activity Name         Otr 2, 2011         Otr 2, 2011         Otr 2, 2011           TUP. Technology Upgradation         104         00         00, 01, Feb:12         0v         Dec         Jan         Feb         Mar         Apr         May         Jun         0           A1000         Project Kickoff         0         00, 00, 01, Feb:12         0, 00, 01, Feb:12         0, 00, 01, Feb:12         0, 00, 01, Feb:12         0, 00, 00, 01, Feb:12         0, 00, 00, 00, 00, 00, 01, Feb:12         0, 00, 00, 00, 00, 00, 00, 00, 00, 00,	Dec     Jan     Feb     Mar     Apr     May     Jun       Jun     Jun     Jun     Jun     Jun	
TUP. Technology Upgradation       104       04       0%       01-Feb-12         A 1000       Project Kickoff       0       0%       01-Feb-12         A 1280       Handover Design (Project Cc       5       5       0%       20-Jun-12         A 1280       Handover Design (Project Cc       5       5       0%       20-Jun-12         A 1280       Handover Design (Project Cc       5       5       0%       20-Jun-12         A 1010       Review Literature Search       33       33       0%       01-Feb-12         A 1010       Review Literature Search       10       10       0%       01-Feb-12         A 1020       Prepare Inventory List       2       2       0%       15-Feb-12         A 1050       Pormulate Survey       10       10       0%       20-Feb-12         A 1050       Pormulate Survey       10       10       0%       20-Feb-12         A 1050       Pormulate Survey Findings       5       5       0%       05-Mar-12         A 1060       Perform SWOT Analysis       3       3       0%       12-Mar-12         Activity       A1040       Perform Market Survey       Project       TUP         Activity       <	Dec     Jan     Feb     Mar     Apr     May     Jun       Jun     Jun     Jun     Jun     Jun	
TUP. Technology Upgradation       104       104       000       01+Feb-12         A 1000       Project Kickoff       0 <td< td=""><td>s Summary WPs &amp; Docs</td></td<>	s Summary WPs & Docs	
A 1000       Project Kickoff       0       0       0 % 01-Feb-12         A 1280       Handover Design (Project Cc       5       5       0% 20-Jun-12         Image: Construction of the constr	s Summary WPs & Docs	
A 1280       Handover Design [Project Cc       5       5       0% 20 Jun 12         TUP.1       Market Research       33       33       0% 01 Feb 12         A 1010       Review Literature Search       10       10       0% 01 Feb 12         A 1020       Prepare Inventory List       2       2       0% 15 Feb 12         A 1030       Prepare Vendor List       2       2       0% 16 Feb 12         A 1050       Formulate Survey       10       10       0% 20 Feb 12         A 1060       Perform Market Survey       10       10       0% 20 Feb 12         A 1060       Perform SW0T Analysis       3       3       0% 12 Har-12         A 1060       Perform SW0T Analysis       3       3       0% 12 Har-12         Activity       A1040       Perform Market Survey       Perform Market Survey       Perform Market Survey         Expense Item       V       Resources       Predecessors       Codes       Expense       Feedback       Notebook       Relationships       Risk       Steps       Summary       WPs & Docs         Project       TUP       Project       TUP       Activity       Activity       Actor       Auto Compute Actuals <td>s Summary WPs &amp; Docs</td>	s Summary WPs & Docs	
Image: Status       Perform SWOT Analysis       3       33       0%       01-Feb-12         Image: Allogo       Prepare Inventory List       2       2       0%       01-Feb-12         Image: Allogo       Prepare Inventory List       2       2       0%       15-Feb-12         Image: Allogo       Prepare Vendor List       2       2       0%       16-Feb-12         Image: Allogo       Prepare Vendor List       2       2       0%       16-Feb-12         Image: Allogo       Perform Market Survey       10       10       0%       20-Feb-12         Image: Allogo       Perform SWOT Analysis       3       3       0%       12-Mar-12         Image: Allogo       Perform SWOT Analysis       3       3       0%       12-Mar-12         Image: Allogo       Perform Market Survey       Image: Telepare Vendor List       Image: Telepare Vendor Vendor       Image: Telepare Vendor         Image: Allogo       Perform SWOT Analysis       3       3       0%       12-Mar-12       Image: Telepare Vendor       Image: Telepare Vendor         Image: Allogo       Perform Market Survey       Project       Image: Telepare Vendor	s Summary WPs & Docs	
A 1010 Review Literature Search 10 10 0% 01-Feb-12 A 1020 Prepare Inventory List 2 2 0% 15-Feb-12 A 1030 Prepare Vendor List 2 2 2 0% 16-Feb-12 A 1040 Perform Market Survey 10 10 0% 20-Feb-12 A 1050 Formulate Survey Findings 5 5 0% 05-Mar-12 A 1060 Perform SW0T Analysis 3 3 0% 12-Mar-12 A 1060 Perform SW0T Analysis 3 3 0% 12-Mar-12 A 1060 Perform SW0T Analysis 3 3 0% 12-Mar-12 A 1060 Perform SW0T Analysis 3 0% 12-Mar-12 A 1060 Perform SW0T Analysis 3 0% 12-Mar-12 A 1060 Perform SW0T Analysis 9 Prefecessors Successors Codes Expenses Feedback Notebook Relationships Risks Steps Summary WPs & Docs A ctivity A 1040 Perform Market Survey Project TUP Expense Item C Expense Category A ccrual Type Budgeted Units Price / Unit Budgeted Cost A ctual Cost Remaining Cost Unit of Measure Vendor Auto Compute Actuals	s Summary WPs & Docs	
A1020 Prepare Inventory List 2 2 0 3 15 Feb-12 A1030 Prepare Vendor List 2 2 0 3 16 Feb-12 A1040 Perform Market Survey 10 0 0	s Summary WPs & Docs	
A1030 Prepare Vendor List 2 2 0% 16 Feb-12     A1040 Perform Market Survey 10 10 0% 20 Feb-12     A1050 Formulate Survey Findings 5 5 0% 05 Mar-12     A1060 Perform SWOT Analysis 3 0% 12 Mar-12     A1060 Perform SWOT Analysis 3 0% 12 Mar-12     A1060 Perform SWOT Analysis 3 0% 12 Mar-12     Ativity A1040 Perform Market Survey     Project TUP Expense ttem    Expense Category Accrual Type     Budgeted Units     Price / Unit     Budgeted Cost     Actual Cost     Remaining Cost     Unit of Measure     Vendor     Auto Compute Actuals	s Summary WPs & Docs	
A1040       Perform Market Survey       10       0% 20-Feb-12         A1050       Formulate Survey Findings       5       5       0% 05-Mar-12         A1060       Perform SWOT Analysis       3       3       0% 12-Mar-12         A1060       Perform SWOT Analysis       3       0% 12-Mar-12       +         Image: Analysis       Status       Resources       Predecessors       Successors       Codes       Expenses       Feedback       Notebook       Relationships       Risks       Steps       Summary       WPs & Docs         Activity       A1040       Perform Market Survey       Project       TUP         Expense Item       C       Expense Category       Accrual Type       Budgeted Units       Price / Unit       Budgeted Cost       Actual Cost       Remaining Cost       Unit of Measure       Vendor       Auto Compute Actuals	s Summary WPs & Docs	
A1050 Formulate Survey Findings 5 5 0% 05-Mar-12     A1060 Perform SWOT Analysis 3 3 0% 12-Mar-12     A1060 Perform SWOT Analysis 3 0% 12-Mar-12     Ativity A1040 Perform Market Survey Project TUP Expense Item      Expense Category Accrual Type Budgeted Units Price / Unit Budgeted Cost Actual Cost Remaining Cost Unit of Measure Vendor Auto Compute Actuals	s Summary WPs & Docs	
A1060 Perform SWOT Ánalysis 3 3 0% 12-Mar-12     Activity A1040 Perform Market Survey      Expense tem      Expense Category Accrual Type Budgeted Units Price / Unit Budgeted Cost Actual Cost Remaining Cost Unit of Measure Vendor Actuals	s Summary WPs & Docs	
Seneral Status Resources Predecessors Successors Codes Expenses Feedback Notebook Relationships Risks Steps Summary WPs & Docs         Activity A1040       Perform Market Survey         Expense Item          \[	s Summary WPs & Docs	
Activity       A1040       Perform Market Survey       Project       TUP         Expense Item	s Summary WPs & Docs	
Activity     A1040     Perform Market Survey     Project     TUP       Expense Item          \[		
Activity     A1040     Perform Market Survey     Project     TUP       Expense Item     7     Expense Category     Accrual Type     Budgeted Units     Price / Unit     Budgeted Cost     Actual Cost     Remaining Cost     Unit of Measure     Vendor     Auto Compute Actuals	Project TUP	
Expense Item 🗸 Expense Category Accrual Type Budgeted Units Price / Unit Budgeted Cost Actual Cost Remaining Cost Unit of Measure Vendor Auto Compute Actuals		
Harket Travel Uniform over Activity 10.000 \$500.00 \$5,000.00 \$5,000.00 Visit		
	\$0.00 \$5,000.00 Visit	

#### Summary Tab



- Use the *Summary tab* to display unit, cost, or date information for the selected activity
- Select Display Cost at the bottom of the page to display the itemized and total cost of the selected activity. The activity's costs are broken into
  - Labor Cost
  - No-Labor Cost
  - Material Cost
  - Expenses
  - Total Cost
- Exercise
  - Steps
    - Verify an Activity, A1020-Prepare Inventory & Vendor List
    - Click the Summary tab (bottom)
    - Select Display Cost (option)

#### Summary Tab



Primavera P6 Professional R8.2 : TUP (Technology Upgradation Project)

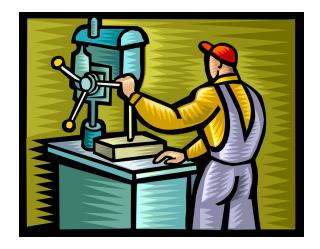
<u>File Edit View Project Enterprise Tools Admin Help</u>

#### 

ctivity ID	hedule Layout Activity Name	Original Duration	All Activities Remaining	Schedule % S	itart	A .2	010			Qtr 1, 2011		1	Qtr 2, 2011	_	T	-
Sarry ID		original baration	Duration	Complete	i i i i i i i i i i i i i i i i i i i	lov		Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	_
늘 TUP Tech	nology Upgradation	104	104	0% 0	11-Feb-12											ĺ
😑 A1000	Project Kickoff	0	0	0% 0	11-Feb-12					1					1	
🚐 A1280	Handover Design (Project Cc	5	5	0% 2	0Jun-12					1					1	
🗆 🚰 TUP.1 M	arket Research	33	33	0% 0	11-Feb-12											
😑 A1010	Review Literature Search	10	10	0% 0	11-Feb-12		8			1		1				
📄 📥 A1020	Prepare Inventory List	2	2	2010 A 10	5-Feb-12					1		1	1	1	1	
😑 A1030	Prepare Vendor List	2	2		6-Feb-12											
😑 A1040	Perform Market Survey	10	10	200331023	0-Feb-12					1					1	
🖨 A1050	Formulate Survey Findings	5	5	8 G. 23 B. 165	15-Mar-12											
😑 A1060	Perform SWOT Analysis	3	3	0% 1	2-Mar-12	-				J		1	1	1		
	sources Predecessors Succes	ssors Codes Expen		Notebook Relation	nships Risk	ks Step	s Sum	nmary WPs	& Docs		Pro	ject TUP				
· • ·	Activity A1020	Prepare Inv	ventory List					J			Pro	ject TUP				
· • ·				Notebook Relation % Complete	e At	t Comple \$3,20	tion	nmary WPs Complete Va			Pro	ject TUP				
÷ ,	Activity A1020 Budgeted	Prepare Inv Actual	rentory List Remaining	% Complete	e At	t Comple \$3,200	tion	J	ariance		Pro	ject TUP				- 12
Labor Cost	Activity A1020 Budgeted \$3,200.00	Prepare Inv Actual \$0.00	Remaining \$3,200.00	% Complete	e At %	t Comple \$3,200 \$0	tion	J	ariance \$0.00		Pro	ject TUP				
Labor Cost Nonlabor Cost	Activity A1020 Budgeted \$3,200.00 \$0.00	Actual \$0.00 \$0.00	Remaining \$3,200.00 \$0.00	% Complete 0% 0%	e At % %	t Comple \$3,200 \$0 \$0	tion ).00 ).00	J	ariance \$0.00 \$0.00		Pro	ject TUP				
Labor Cost Nonlabor Cost Material Cost	Activity A1020 Budgeted S3,200.00 S0.00 S0.00	Prepare Inv           Actual           \$0.00           \$0.00           \$0.00	xentory List Remaining \$3,200.00 \$0.00 \$0.00	% Complete 0% 0% 0%	e At % % %	t Comple \$3,200 \$0 \$0	tion ).00 ).00 ).00 ).00	J	ariance \$0.00 \$0.00 \$0.00		Pro	ject TUP				



#### WORKSHOP Assigning Resources & Costs



#### Lesson Review



- Three steps in resource management are defining resource; assigning resources; and analyzing resources
- Assign a resource directly from the Resource dictionary
- When you assign a resource to an activity, the calculation is performed: Duration x Units/Time = Units
- When you assign a resource, you can adjust Units/Time or Budgeted Units
- You can also designate a primary resource



# Analyzing Resources

#### Analyzing Resources

ORACLE

- Objectives
  - Display the Resource Usage Profile
  - Format a Profile
  - Format the Timescale

#### **Resource Analysis Settings**



- The *Resource Usage Profile* which can be displayed in the Activities Window, enables you to view resources/ role unit and cost distribution over the period of time. You can specify how data is played in the profile via the Resource Analysis tab in User Preferences:
- All Projects
  - All closed projects (except what-if projects) Displays resource/ cost usage data for
    - All projects that are open, and
    - All projects that are closed (except what-if projects)
  - All closed projects with a leveling priority When electing to show remaining values for open vs. closed projects, choose this option to include data for all closed projects with the specific leveling priority
  - Opened projects only Focus on resource/ cost usage in the projects currently opened
- Time-Distributed Data
  - Display data based on Remaining Early or Forecast dates
  - Select the time interval for displaying live resource allocation: hour, day, week, or month

#### **Resource Analysis Settings**

ORACLE

- Exercise:
  - Steps
    - In the Edit menu, click User Preferences
    - Click the Resource Analysis tab
    - Verify All closed projects (except what-if-projects)
    - is selected
    - In the Interval for time-distributed resource calculations dropdown, select Day
    - Close the User Preferences dialog box

#### **Resource Analysis Settings**



Time Units	All Projects	
<u>D</u> ates	When All Projects are shown in the Resource Usage Profile and	
Currency	Spreadsheet, all opened projects are included as well as the closed projects specified below.	
E-Mail	All closed projects (except what-if projects)	
A <u>s</u> sistance	C All closed projects with a leveling priority	
Application	equal/higher than 1	
Password	C Opened projects only	
Resource Analysis	Time-Distributed Data	
Calculations	In the Resource Usage Profile and Spreadsheet, display	
Startup <u>F</u> ilters	time-distributed Remaining Early data using Remaining Early dates Forecast dates Interval for time-distributed resource calculations: Display the Role Limit based on Custom role limit Calculated primary resources' limit	
	Image: Second	

#### Resource Usage Profile



- The *Resource Usage Profile* provides a graphical view of unit/ cost distributions over the period of time. It displays the amount of effort needed from each resource/ role on the project during each time period.
- Use the profile to determine how many hours each resource is scheduled to work; identify over-allocated resources; track expenditures per time period; and display a "banana-curve" to compare early and late dates.
- View unit/cost distributions from a specific project or all projects to which you have access.
- Display separate bars for one of the following:
  - Budgeted units/costs
  - Actual units/costs
  - Remaining Early units/costs
  - Remaining Late units/costs

#### Resource Usage Profile



- The Resource Usage Profile timescale matches the timescale for the Gantt Chart
  - Formats columns, group, sort, and filter resources/ roles in the profile
  - It can be saved as a part of a layout
- You can use Resource Usage Profile information to determine which resources/ roles are over-allocated and which of them are underutilized.

### Displaying Resource Usage Profile



- Exercise
  - Steps
    - Open a project, EC00515 City Center Office Building Addition
    - Confirm you are in Activities Window
    - In the Layout Option bar, click Layout, Open
    - Select a layout, Resource Overallocation Profile, and then click Open
    - In the Layout Option bar, click Show on Bottom, Resource Usage Profile
    - In the Left Pane of Display Option bar of Resource Usage Profile, click Filter by, Current Project's Resources
    - Select a Resource, Operator
    - Right-Click in Histogram area, select Resource Usage Profile Options...;
    - In Data tab  $\rightarrow$  Additional Data Options, mark Show Overallocation

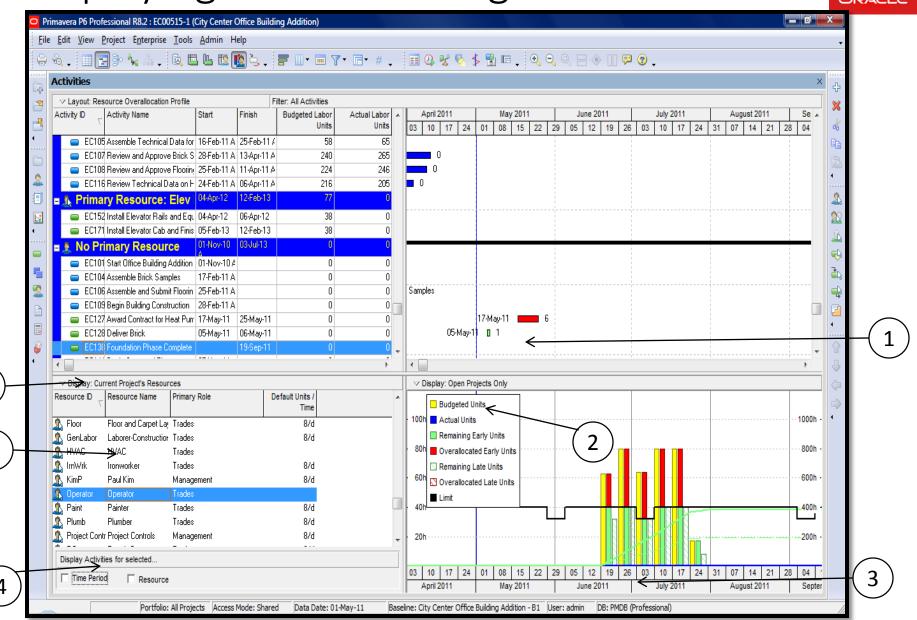
#### **Displaying Resource Usage Profile**

6

5



291



© Primavera Training @ BU - 2016 by M. Waseem Khan

### Displaying Resource Usage Profile



Item	Functionality
1. Right Pane Display Option bar	Displays a menu of the following options available for the Resource/ Role profile
2. Legend	Displays a legend for the profile's bar and/or lines. This will change depending on the data/formatting options selected.
3. Timescale	Displays the date intervals: major increment displayed on the bottom and minor increment displayed on the top.
4. Display Activities for Selected	When viewing Open Projects Only, you can mark Time Period or Resource to filter the activities in the top layout.
5. Resource/ Role Hierarchy	Lists the names of the resources/ roles. Can be filtered to show a shorter list of hierarchy. E.g. the Current Project's Resources.
6. Left Pane Display Option bar	Displays a menu of the formatting options available for the Resource/Role Hierarchy.

## Viewing All Projects or Open Projects Only

- When you select the User Preferences setting to All closed projects (except what-if-projects), you can toggle the Resource Usage Profile to display either:
  - All open projects
  - All closed projects except what-if-projects
- This option is available on the Right Pane Display Options bar
- Once you have only the open projects displayed, you can filter the top layout by either Time Period or Resource
- Exercise
  - Steps
    - In the right-pane Display Option bar, clear Show All Projects
    - In the Display Activities for Selected section, mark Time Period
    - In the right-pane, click a Time Period, 19-June-2011
    - Select a Resource, Operator

# Viewing All Projects or Open Projects Only

D Pi	rimavera P6 P	rofessional R8.2 : ECO	0515-1 (City Center (	Office Building Addition)									_ 0 _	×
Eile	<u>E</u> dit <u>V</u> iew	<u>P</u> roject E <u>n</u> terprise	<u>T</u> ools <u>A</u> dmin H	elp										•
0	& i=	<b>⊡</b> a₀ h₀ .≾	<u>а п. н. го</u> (	 <u> </u>			n 🖳 🔨 ≮	🗣 🕞	• •		E 💿			
				<u>s</u> •;- ш •		3	4 4 V 7	•••••••••••			~ • •			
4	Activities												×	÷
2		Resource Overallocation		Filter: All Activit										33
Ą	Activity ID	∧     C Activity Name     √	Start	Finish Budgeted L	abor Actual Labor Jnits Units		April 2011	May 201		June 2011	July 2011	August 2011	Septer	k
	- 6 Driv	nary Resource:	Im 10/ 21. Jup 11		152 0	03	10 17 24 0	1 08 15	22 2	9 05 12 19	26 03 10 17 24	31 07 14 21 2 26 Jul 11, Primary Resource		Do.
		134 Form/Pour Concrete			152 0					21Jun-11 💻		24		
		134 Form/Pour Concrete	Pooling: 21-Jun-11	26-30-11	0					21-501-11		24		
2									1					
									1					2
<u>8</u>									1					22
****														æ
•									1					
														1
									1					P. 1
2														<b>1</b>
									1					•
8									1					
	•				Þ	•					1	1	•	J.
	✓ Display:	Current Project's Resou	rces				)isplay: Open Projec	ts Only						
	Resource ID	Resource Name	Primary Role	Default Units / Time			Budgeted Units							
	🕵 Floor	Floor and Carpet La	L Trades	8/d		100	Actual Units						1000h	۰.
	🔔 Fillion 🤦 GenLabo			8/d			Remaining Earl	y Units						
	K HVAC	HVAC	Trades	0/4		801	Overallocated	-					800h -	
	🕵 ImWrk	Ironworker	Trades	8/d			Remaining Late							
	🤱 KimP	Paul Kim	Management	8/d		601	Overallocated	Late Units					600h -	
	S Operator		Trades				Limit							
	🤱 Paint	Painter	Trades	8/d		401	۱ <u>ــــــــــــــــــــــــــــــــــــ</u>					-	400h -	
	🥼 Plumb 🥼 Project C	Plumber Contr Project Controls	Trades Management	8/d 8/d		201								
			- ·			201							2000 -	
	Display Ac	tivities for selected												
	Time Pe	eriod 🗌 Resource	•				10 17 24 0 April 2011	1 08 15 May 201		9 05 12 19 June 2011	26 03 10 17 24 July 2011	31 07 14 21 2 August 2011	28 04 1 Septer	
	_ [	Portfolio	All Projects Access	Mode: Shared Data Da	te: 01-May-11 Bas	eline: Ci	ty Center Office Bui	ilding Addition	-B1 Us	er: admin DB: PMD	B (Professional)			11

© Primavera Training @ BU - 2016 by M. Waseem Khan



- The Resource Usage Profile can be modified by adjusting Data and Graph settings in the Resource Usage Profile Options dialog box
- Data Settings (Data Tab)
  - Display Select to display units or costs
  - Show Bars/Curves Mark to display By Date (periodic) bars and/or Cumulative curves and format their colors.
  - Show Remaining Bars As Select a solid color to display early bars and a hatched color to display late bars.
  - Additional Data Options Mark to display a line indicating resource limits; resource/role over-allocation; resource availability; or resource overtime units.



- Exercise
  - Steps
    - In the right-pane
       Display Option bar,
       click Resource Usage
       Profile Options
    - In the Remaining Early row, mark Cumulative

Resource Usage Profile Options		Print 1	x
Data	Graph		ОК
Display		0	Cancel
• Units		_	
C Cost Display Actual u	ising Financial Period data		Apply
Show Bars/Curves		Refe	erences
By Date Cu Budgeted 🔽	mulative Color	1	Help
Actual		<u> </u>	
Remaining Early			
Remaining Late	<b>v</b>		
Show Remaining Bars As			
Total Remaining			
Additional Data Options			
Show Limit 🗌 Sh	ow Overtime		
Show Overallocation			



- Graph Settings (Graph Tab)
  - *Vertical Lines* Choose to display major/minor sight lines based on the timescale interval.
  - *Horizontal Lines* Choose the line style and color.
  - Additional display options
    - *Show Legend* Display the data item; each color represents units
    - *3D Bars* Add a third dimension to the bars
    - Background Color Specify the color displayed in the background of the Resource Usage Profile
    - Calculate Average Specify the values you want to use to divide the timescale interval to

#### Show Legend

- Check 3D Bars
- Click Ok

298

- Exercise
  - Steps
    - Click the Graph tab
    - Clear the checkbox,

Resource Usage Profile Options			×
Data	Graph	<b>√</b>	ок
Vertical Lines		0	Cancel
Major			
Minor			Apply
Horizontal Lines		<b>P</b>	references
Dotted     Line Color		(?)	Help
C Solid			
O None			
Additional Display Options			
Show Legend     Background Co       3D Bars     Image: Constraint of the second constrain	blor		
Calculate Average			
Divide interval totals by:	Time Davied		
1 🗖 Base on Hours per	Time Period		
Unit of Measure:			





- Exercise
  - Steps
    - In the Display Activities for selected section, clear Time Period
    - Double-click the bar for the week of 19-June-2011, and review data
    - Close the window



Primavera P6 Professional R8.2 : EC00515-1 (City Center Office Building Addition)

#### <u>File Edit View Project Enterprise Tools Admin Help</u>

#### 

ļ	Activities																							>
1	∠ Layout: Res	source Overallocation Pro	ofile	F	ilter: All Activities		_										_							_
	Activity ID	Activity Name	Start	Finish	Budgeted Labor Units	Actual Labor Units		pril 2011	24	01	May 2011 08 15		29		2011	9 26	03	July	2011	24	Augus		Septen 28 04 1	_
	🗉 🤱 Prima	ry Resource: O	per 20Jan-12	26-Jun-13	576	0																	-	_
	😑 EC144	4 Set Mechanical and Ele	etrica 20-Jan-12	12-Mar-12	288	0							0						_	_				
	😑 EC16	5 Set Heat Pump	04-Jan-13	22-Jan-13	96	0								O We	ek of	Jun 19	)						x	
	😑 EC167	7 Relocate HVAC Chiller	22-Jan-13	01-Feb-13	134	0								Ba	r				To	tal	Cur	nulative		
	😑 EC16	8 Startup and Test HVAC	01-Feb-13	05-Feb-13	19	0								Bu	dgeted	Units			63	h	63h	1		
		3 Test and Balance HVA		26-Jun-13	38	0								Ac	tual Re	gular U	Jnits		0h		0h			
	🗉 🤱 Prima	ry Resource: P	roje <sup>18-Mar-11 A</sup>	23-Jan-13	6413	780										rtime			0h		0h			
	💷 EC117	7 Prepare and Solicit Bids	for F 04-Apr-11 A	06-May-11	192	225				!	5					g Early			63		63h			
	😑 EC118	8 Prepare and Solicit Bids	for B 18-Mar-11 A	13-Apr-11 A	115	207		<b>0</b>								ated Ea		nits	23		31h			
	💷 EC119	9 Prepare and Solicit Bids	for H 14-Apr-11 A	04-May-11	115	150				2					-	Late L			32		32h			
		2 Review Bids for Brick		28-Apr-11 A		192				Þ						ated La	ate ur	nts	0h 40		0h 0h			
		4 Review Bids for Heat P			77	0			/lay-11		1	0		LIN	IIL				40	n	UN			
		Review Bids for Flooring	· ·	27-May-11	115	0			S-May-1				15											
		6 Award Contract for Brick			38	6		r-11 A 🗧		4	0514 44			_										
	EU12	Fabricate and Deliver H	eat F 25-May-11	23-Jan-13	3379	0	-				25-May-11													
	•					Þ		•																Þ.
	⊲ Display: Cu	rrent Project's Resource						🗢 Displ	ay: Op	en Proje	ects Only													
	Resource ID	Resource Name Pr	imary Role	D	efault Units / Time		*		-	eted Uni														
	🤱 Floor	Floor and Carpet Lay T	ades	•	8/d			- 100h 🗖		-														000h
	🤱 GenLabor	Laborer-Construction T			8/d						me Units													
	🔔 HVAC		ades								rly Units		••			·   🔳			· 📶 · · ·				8	300h
	🤱 ImWrk		ades		8/d						I Early Uni	ts			_									
	🤱 KimP		anagement		8/d			60h	Remai	ining La	te Units												6	600h
	Cperator		ades						Overa	llocated	I Late Unit	s												
	🤱 Paint		ades		8/d			40h	Limit											_				100h
	🤱 Plumb		ades		8/d																			
	Project Con	tr Project Controls M	anagement		8/d - · ·		Ŧ	20h · · ·															2	200h ·
	Display Activi	ties for selected														81	N i i							
	Time Perio	d 🗌 Resource						10 17 pril 2011	24	01	08 15 May 2011		29		2 19 2011	9 26	03		17 2011	24	31 07 Augus		28 04 1 Septen	11 mber:

© Primavera Training @ BU - 2016 by M. Waseem Khan

#### Formatting the Timescale



- You can specify the timescale you want to display in the Resource Usage Profile and the Gantt Chart
  - Timescale Start Specify the date from which the timescale should start for the profile or Gantt Chart
  - **Date Interval** Choose the units of the timescale in years, quarters, months, weeks, days, hours, and shifts

#### Formatting the Timescale

- Exercise
  - Steps
    - In the right pane Display Option bar, click Timescale
    - In the Timescale Start field, click Browse button to select the date
    - Click Custom date, and then select, 01-June-2011
    - In the Type field, verify Calendar
    - In the Date Interval drop-down list, select Week/Day 1
    - Click Ok

	<u> </u>	
	🖌 ок	
	O Cancel	
	Apply	
z Default For	nt 🕐 Help	
•		
•		
Y		
	z Default For	Z Default Font Cancel



### Formatting the Timescale



- You can also format the timescale by clicking and dragging
- Place your mouse on the minor date interval on the timescale. Click and drag to expand or contract the timescale.
- Place your mouse on the major date interval on the timescale. Click and drag to move the entire timescale
- Exercise
  - Steps
    - In the minor date interval, compress the timescale
    - In the major date interval, adjust the time frame to show the week of 1-June-2011

#### Lesson Review



- The Resource Usage Profile provides a graphical view of unit/cost distributions over the period of time. It displays the amount of effort needed from each resource/role on the project during each time period.
- Use the profile to determine how many hours each resource is scheduled to work; identify over-allocated resources; track expenditures per time period; and display a "banana-curve" to compare early and late dates.
- You can specify settings for resource analysis in the Resource Analysis tab in User Preferences.
- You can further customize the profile by using the two Display Option bars (left pane and right pane).



# Optimizing the Project Plan

© Primavera Training @ BU - 2016 by M. Waseem Khan

#### Optimizing the Project Plan

- Objectives
  - Analyze schedule dates
  - Shorten a project schedule
  - Analyze resource availability
  - Remove resource over-allocation
  - Analyze project costs



#### Analyzing the Project



- Once you have created the project plan, verify that it meets the project stakeholders' date, resource, and cost requirements. If any inconsistency exists between the project information in the project plan and the project requirements, you will be able to identify the source of the problem and define a solution
  - Analyze schedule dates Evaluate the schedule to ensure that milestone dates and project dates are achieved
  - Analyze resource allocation Evaluate the resources to ensure that the resources are not over-allocated
  - Analyze cost budget Evaluate project costs



### Analyzing the Schedule Dates



- The most important date in the schedule is the calculated project Finish Date. If the calculated Finish Date of the project is beyond the Must Finish By date, the project must be shortened. In addition, each deliverable in the project should be scheduled to finish by the dates imposed by the project stakeholders
- Steps for analysis
  - Compare the calculated Finish with the Must Finish By date
  - Back up your project plan
  - Focus on critical activities
  - Shorten the project

#### Comparing Finish Date with Must Finish By Date

- You can quickly determine whether the project will finish on time by viewing the Dates tab in the Projects Window.
- The project EC00515 must be finished by 28-Jun-13, however, the schedule indicates that the project will not finish until 23-Jul-13. (Note that the project actually must finish by the close of the business on 27-Jun-13 as the Must Finish By constraint is at 12:01 am on 28-Jun.)
- Exercise
  - Steps
    - Open a project, EC00515 City Center Office Building Addition
    - In the Directory bar, click Projects
    - Select a project EC00515
    - In the Project Details, click the Dates tab and compare the Must Finish By Date with the calculated Finish date

#### Finish Date & Must Finish By Date



	-	
imavera P6 Professional R8.2 : EC00515-1 (City Center Office Building	Addition)	
<u>Edit View P</u> roject E <u>n</u> terprise <u>T</u> ools <u>A</u> dmin Help		
	록 ▥▾ ▥ ◹▾ ◲▾ # ↓   ▦ थ₄ 喘 ♥ ≶ ฿ ▥ ₊ ! ◕, ◕, ◕, 믐 ◈ Ⅲ Ҏ ⑳ ₊	
Projects		×
Projects Activities		
✓ Layout: Projects		
Project ID Project Name	Total Stra November 2010 December 2010 January 2011 February 2011 March 2011	April 2011 🔺
	Activities 31 07 14 21 28 05 12 19 26 02 09 16 23 30 06 13 20 27 06 13 20 27	27 03 10 17
∎ 🐟 Enterprise All Initiatives	2325	
■ E&C Engineering & Construction	679 679	
EC00515 City Center Office Building Addition	71	
EC00530 Nesbid Building Expansion	71	
EC00501 Haitang Corporate Park     EC00515-1 City Center Office Building Addition		
EC00610 Harbour Pointe Assisted Living Center	131	1
EC00620 Juniper Nursing Home	132	
💼 EC00630 Saratoga Senior Community	132	
Energy Energy Services	689	
NRG00870     Baytown, TX - Offline Maintenance Work     Section 2010 - D ( 10)	132	
		•
General Notebook Budget Log Spending Plan Budget Summary Dat	es Funding Codes Defaults Resources Settings Calculations	
Schedule Dates	Anticipated Dates	
Project Planned Start	Must Finish By Anticipated Start	
01-Nov-10	27-Jun-13	]
Data Date	Finish Anticipated Finish	
01-May-11	23-Jul-13	
		- III
Actual Start	Actual Finish	
01-Nov-10		

#### Focusing on Critical Activities



- To shorten the project, focus on critical activities.
- These represent the longest continuous path of activities through a project that determines the project Finish Date.
- If you adjust a critical activity, the finish is likely affected.
- Exercise
  - Steps
    - Click the Settings tab (bottom)
    - In the Defined Critical Activities section, select Longest Path

#### Focusing on Critical Activities



	2 : EC00515-1 (City Center Office Building	Addition)						
	terprise <u>T</u> ools <u>A</u> dmin Help							
] 🗉 💽 🦻 🐜	#. 💽 🖪 🕒 🖻 🖄 . 📑	🖥 🛄 • 🔳 🍸 •	□ # . ] □	04 😴 🗞 💲 🔡 !	e 🚬 🔍 🔍 🔍 🗖	* 🔲 🖻 😨 🖕		
ojects								:
ojects Activities								
✓ Layout: Projects Project ID	Project Name	Total S	Stra November 20	010 December 201	0 January 2011	February 2011	March 2011	April 2011 🔺
TOJOCI ID	rigotitano	Activities		21 28 05 12 19				
🐟 Enterprise	All Initiatives	2325						
= 📣 E&C	Engineering & Construction	679						
🚞 EC00515	City Center Office Building Addition	71						
EC00530	Nesbid Building Expansion	71						
EC00501	Haitang Corporate Park City Center Office Building Addition	71						
EC00515-1	Harbour Pointe Assisted Living Center	131			1	1	1	
EC00620	Juniper Nursing Home	132						
📄 EC00630	Saratoga Senior Community	132						
🗉 📣 Energy	Energy Services	689	7					
NRG00870     NRG00870	Baytown, TX - Offline Maintenance Work	132				01 14 11 4		<b>.</b>
			• •		-			Þ
3eneral Notebook Budge	et Log Spending Plan Budget Summary Dat	es Funding Codes	Defaults Resource	s Settings Calculations				
Summarized Data	Project Setting	gs						
Last Summarized On	Character for	separating code fields	s for the WBS tree					
07-Oct-10	Fiscal year be	gins on the 1st day of	f			Janua	arv	
Summarize to WBS Level	Baseline for e	arned value calculation	Ine			1º4iide	i y	
0			113					
	Project bas	seline			O User's primary t	baseline		
	Define Critical	Activities						
								0h
		t less than or equal to					1	UI
	C Longest P	ath						

#### Focusing on Critical Activities

- Exercise
  - Steps
    - In the Directory bar, click Activities
    - In the Layout Option bar, click Layout, Open
    - Select a layout, Classic WBS Layout
    - In the Layout Option bar, click Filters
    - Select a filter, Critical, and then click Ok



#### Shortening the Project (Methods)



- If the schedule analysis leads you to conclude that the Must Finish By date cannot be met, concentrate your efforts on shortening the schedule. Several methods can help you accomplish this goal:
  - 1. Refine duration estimates (Crashing)
    - a. Break-down long activities
    - b. Assign additional resources to reduce duration
  - 2. Use relationships to overlap activities (Fast-Tracking)
  - 3. Apply/ modify constraints
  - 4. Change calendar assignments
    - a. Put critical activities on a longer workweek
    - b. Add exceptions to non-work time

### **Refining Duration Estimates**



- Begin the analysis by reviewing the activities with the longest duration. In general, these activities offer the greatest flexibility in altering durations.
- Exercise
  - Steps
    - Select an activity, EC1790 Install Floor and Carpeting
    - Click the Status tab (bottom)
    - In the Original Duration field, type <10>, and press Enter
    - Press F9, and then click Schedule
    - See Changes in Total Float column

#### **Refining Duration Estimates**



\_ 0 X

× +

#### Primavera P6 Professional R8.2 : EC00515-1 (City Center Office Building Addition)

# File Edit View Project Enterprise Tools Admin Help

#### Projects Activities

$\Delta$	Layout: Classis	WBS Layout		Filter All: Critic	cal																	
ctiv	rity ID	Activity Name	Start	Finish	Total Float	1		Qt	ir 1, 201	3	Q	tr 2, 201	3	C	0tr 3, 20	13	C	itr 4, 201	13	Q	tr 1, 201	4
		` l					Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar
	Doors an	d Windows			0	Т					1		1		1	1	1	1				
Ξ	Interior Finis	hes	21-Feb-13	19-Jul-13	-15								1	1	1 <mark>9Jul-1</mark> 3	Interior	Finishes	1				
	EC1700	Drywall in Offices	21-Feb-13	12-Apr-13	-15			21-Feb	13 📫		<b>—</b> 12	Apr-13		1	1		1	1				
	EC1820	Touch-up and Clean-up	05-Jul-13	10-Jul-13	-15						1	05	Jul-13	📕 10-	Jul-13		1	1				
	EC1840	Finishes Complete		12-Jul-13	-15						1			🔶 Fir	nishes Co	omplete	1	1				
	EC1850	Punch List	12-Jul-13	19-Jul-13	-15				T I			1	12-Jul-13	3 🔳 1	19Jul-13	6	T I I		1	; ; ;		
	EC1860	Building Addition Complete		19-Jul-13	-15						1			🔶 E	3¦uilding /	Addition (	Complete					
	Plumbing	and Lighting Fixtures			0						1				1		1	1				
	Floor and	Carpeting	04-Jun-13	18-Jun-13	-15						1		<b></b> 1	8-Jun-13	3, Floor a	and Carp	eting	1				
	EC17	30 Install Floor and Carpeting	04-Jun-13	18Jun-13	-15						04-	Jun-13	<b>—</b> 1	8-Jun-13	3		1	1				
	<ul> <li>Carpentry</li> </ul>	ı	12-Apr-13	05-Jul-13	-15			-,	T I		-			🔻 05J	ul-13, Ca	arpentry	T I I		1			
	EC17-	40 Install Ceiling Grid	12-Apr-13	04-Jun-13*	-15				1	2-Apr-13	3 💻		<b>0</b> 4Ju	ųn-13*	1		1	1				
	EC18	00 Finish Carpentry and Millwork	18Jun-13	05-Jul-13	-15							18Jun-1	13 💻	📮 05J	ų́l-13							
	Paint				0									1								

#### General Status Resources Predecessors Successors Codes Notebook Steps Feedback WPs & Docs Expenses Summary

- Act	ivity EC1790	Install Floor a	nd Carpeting				Project EC00515-1		
Duration		Status					✓ Labor Units		
Original	10	Started	04-Jun-13	Physical %		0%	Budgeted	80	
Actual	0	Finished	18-Jun-13	Suspend			Actual	0	
Remaining	10	Exp Finish		Resume			Remaining	80	
At Complete	10						At Complete	80	
		Constraints							
Total Float	-15	Primary	< None >	<ul> <li>Secondary</li> </ul>	< None >	Ψ.			
Free Float	0	Date		Date					
	Portfolio: All Projects Acces	ss Mode: Shared [	ata Date: 01-May-11	Baseline: City Center Office Buildin	g Addition - B1 User: ad	dmin DB: PMDE	B (Professional)		

### Modifying Relationships



- If you need to further compress the schedule, review relationships between activities on the critical path.
- Currently there is a Finish-to-Start (FS) relationship between activities EC1740-Install Ceiling Grid and EC1790-Install Floor and Carpeting. You determine that these activities can be performed at the same time. Therefore, change the relationship to Start-to-Start (SS) with 5 days of lag.
- Exercise
  - Steps
    - Verify an activity, EC1740-Install Ceiling Grid is selected
    - Click the Relationships tab (bottom)
    - Double-click in the Relations for EC1790 (Successors Pane)
    - In the Lag field, type <5> and press Enter
    - Press F9 and then press Schedule
    - Now observe Total Float column

#### Modifying Relationships



Primavera P6 Professional R8.2 : EC00515-1 (City Center Office Building Addition)

<u>File Edit View Project Enterprise Tools Admin Help</u>

#### ⇔ & . | == => ¼ ∴ . | © = ਘ ײ ײ ੮ . | = □ • = ∀ • = • # . | = 0, ¥ % ≸ 🕏 ⊏ . | 0, 0, 0, = ◈ □ 🗭 🔊 .

	ities																					
Droid	_	Activities																				
	•	Classis WBS La	1		1																	
Projects Activities   Projects Activity D Projects Activity D Project D Pro																						
_		15.2 1					ļ.,		Dec	Jan Fe	b Mar	Apr	May	Jun	Jul	Aug Sep	Oct	Nov	Dec	Jan	Feb	Mar
			OWS		01 5-6 10	10 1									  0.1	Laterier Finishe						
E			Dunnellin Officer							21 Eab 12		- 1	2 Apr 12		i souri-i .	o, irilehoi Firiisrie	38					
	_		-							21-Feb-13				<b>a</b> 10.	lun.12							
				hb	06-Jun-13								Joouring	. –		molete						
			· · ·		12 Jun 12							+	12.lup.11		1	• •	+		÷			
				plata	125001913								- P2-0 GIFT		1	I I						
				biere		raturna								Ψï	salang A	saakion complet						
					06-Mau-13	20-Mau-13							-	20-Mau-1	3 Eloor	and Carneting						
				etina				_			06	- Mau-13				and collecting						
	- C		ninal ricer and carps	ong.		-	-									arpentry	+		÷			
Projects Activities  Varyat: Canas W85 Layout Activity D  Activity Name Start Face A: Critical  Activity D  Activity Name Start Face A: Critical  Activity D  Constraint Note Start Face A: Critical  Constraint Note Constrai																						
Projects Activities  Projects Activity Insee  Projects Ac																						
	P	aint			-							1					1					
							1 U	)				1			1		1		1			-
_							ļ				1	1	1	1	1		1	1				•
					 			-				;		1	8							•
Gene	eral St	tatus Resourc	ces Predecessors Su	uccessors C	odes Notebool	k Steps Fee		-		s Summary	Relations	hips R	Risks		1		1					•
	<b></b>							-		Summary	Relations	hips R	Risks		8 9	Project 1	EC0051	5-1				•
	▲ ▼	Activi						-	xpenses		Relations	hips R	Risks		1	Project	EC0051	5-1				
Pre	▲ ▼ decess	Activi	ity EC1740		Install Ceiling G	Grid	dback WPs	₹ & Docs E	Expenses	essors		·			3 3		EC0051					
Pre	decess oject ID	Activi sors	Activity ID	Activity Nar	Install Ceiling C	Grid	dback WPs	₹ & Docs E Lag A	Expenses	essors ct ID V	/BS	 A	ctivity ID			ne	EC0051	Re				
Pre	decess oject ID	Activi sors	Activity ID	Activity Nar	Install Ceiling C	Grid	dback WPs	₹ & Docs E Lag A	Succe	essors ct ID V :C00515-1 E	/BS C00515-1.	Int-I EC	ctivity ID C1760	Inst	tall Lighti	ne ng Fixtures		Re	5	8	Not Sta	rted
Pre	decess oject ID	Activi sors	Activity ID	Activity Nar	Install Ceiling C	Grid	dback WPs	₹ & Docs E Lag A	Succe Project	essors ct ID V :C00515-1 E :C00515-1 E	/BS C00515-1. C00515-1.	Int-I EC	ctivity ID C1760 C1770	Inst Inst	tall Lightii tall AC G	ne ng Fixtures rills and Registe		Re SS SS	5 5	8 8	Not Sta Not Sta	arted
Pre	decess oject ID	Activi sors	Activity ID	Activity Nar	Install Ceiling C	Grid	dback WPs	₹ & Docs E Lag A	Succe Project	essors ct ID V :C00515-1 E :C00515-1 E	/BS C00515-1. C00515-1.	Int-I EC	ctivity ID C1760 C1770	Inst Inst	tall Lightii tall AC G	ne ng Fixtures rills and Registe		Re SS SS	5 5	8 8	Not Sta Not Sta	arted
Pre	decess oject ID	Activi sors	Activity ID	Activity Nar	Install Ceiling C	Grid	dback WPs	₹ & Docs E Lag A	Succe Project	essors ct ID V :C00515-1 E :C00515-1 E	/BS C00515-1. C00515-1.	Int-I EC	ctivity ID C1760 C1770	Inst Inst	tall Lightii tall AC G	ne ng Fixtures rills and Registe		Re SS SS	5 5	8 8	Not Sta Not Sta	arted
Pre	decess oject ID	Activi sors	Activity ID	Activity Nar	Install Ceiling C	Grid	dback WPs	₹ & Docs E Lag A	Succe Project	essors ct ID V :C00515-1 E :C00515-1 E	/BS C00515-1. C00515-1.	Int-I EC	ctivity ID C1760 C1770	Inst Inst	tall Lightii tall AC G	ne ng Fixtures rills and Registe		Re SS SS	5 5	8 8	Not Sta Not Sta	arted
Pre	decess oject ID	Activi sors	Activity ID	Activity Nar	Install Ceiling C	Grid	dback WPs	₹ & Docs E Lag A	Succe Project	essors ct ID V :C00515-1 E :C00515-1 E	/BS C00515-1. C00515-1.	Int-I EC	ctivity ID C1760 C1770	Inst Inst	tall Lightii tall AC G	ne ng Fixtures rills and Registe		Re SS SS	5 5	8 8	Not Sta Not Sta	arted
Pre	edecess	Activi sors	Activity ID	Activity Nar	Install Ceiling C	Grid	dback WPs	Lag A	xpenses Succe Projet ⊒ E ⊒ E	essors ct ID V (C00515-1 E (C00515-1 E	/BS C00515-1. C00515-1.	Int-I EC	ctivity ID C1760 C1770	Inst Inst	tall Lightii tall AC G	ne ng Fixtures rills and Registe		Re SS SS	5 5	8 8	Not Sta Not Sta	arted
Pre	edecess oject ID	Activi sors WBS 515-1 EC0051	Activity ID S	Activity Nar	Install Ceiling C	Grid	dback WPs	Lag A	Succe Project	essors ct ID V (C00515-1 E (C00515-1 E (C00515-1 E	/BS C00515-1. C00515-1. C00515-1.	Article Control Intelligence	ctivity ID C1760 C1770 C1790	Inst Inst	tall Lightii tall AC G	ne ng Fixtures rills and Registe		Re SS SS	5 5	8 8	Not Sta Not Sta	arted
Pre Pro	edecess oject ID	Activi sors WBS 515-1 EC0051	Activity ID S	Activity Nar	Install Ceiling C	Grid	dback WPs	Lag A	Succe Project	essors ct ID V (C00515-1 E (C00515-1 E (C00515-1 E	/BS C00515-1. C00515-1. C00515-1.	Article Control Intelligence	ctivity ID C1760 C1770 C1790	Inst Inst	tall Lightii tall AC G	ne ng Fixtures rills and Registe		Re SS SS	5 5	8 8	Not Sta Not Sta	arted
Pre Pro	edecess oject ID	Activi sors WBS 515-1 EC0051	Activity ID S	Activity Nar	Install Ceiling C	Grid	dback WPs Relations	Lag A	Succe Project	essors ct ID V (C00515-1 E (C00515-1 E (C00515-1 E	/BS C00515-1. C00515-1. C00515-1.	Article Control Intelligence	ctivity ID C1760 C1770 C1790	Inst Inst	tall Lightii tall AC G	ne ng Fixtures rills and Registe		Re SS SS	5 5	8 8	Not Sta Not Sta	arted

© Primavera Training @ BU - 2016 by M. Waseem Khan

### Modifying Constraints



- Constraints assigned earlier in the project lifecycle may needed to be modified based on the latest information from the project team. If you modify a constraint, be sure to also modify the Notebook topic that was created to document the constraint.
- A resource is available to work on the activity EC1740-Install Ceiling Grid. You can now remove the Finish On or Before constraint from the activity.
- Exercise
  - Steps
    - Select an Activity, EC1740-Install Ceiling Grid
    - Click the Status tab (bottom)
    - In the Primary drop-down list in the Constraint section, select a Constraint Type, None
    - Click the Notebook topic, Constraints and Assumptions, and click Delete
    - Press F9 and then press Schedule
    - Now observe Total Float column

#### Modifying Constraints



#### Primavera P6 Professional R8.2 : EC00515-1 (City Center Office Building Addition)

<u>File Edit View Project Enterprise Tools Admin Help</u>

#### ⊜ & , Ⅲ 🕞 ୬· ¼ ሐ , 🔞 ⊑ ╚ ╚ \, ≓ Ш · ⋿ ७ · ╔ · # , │ ☶ थ, ㎏ % ≴ 🕏 ╔ , ○ , ○ , ⊟ ◈ Ⅲ 🗭 ୭ .

vities																			
jects Activities																			
Layout: Classis WBS	Layout		Filter All: Criti	çai	1	_													
vity ID	C Activity Name	Start	Finish	Total Float			Qtr 1, 20		Qtr 2, 20			0tr 3, 2013			4, 2013			r 1, 2014	
						Dec	Jan Feb	Mar	Apr May	Jun	Jul	Aug Se	00	xt N	Nov	Dec	Jan	Feb	Mar
Doors and Win	dows			0															
Interior Finishes		21-Feb-13	19Jun-13	5			•				19-Jun-1	3, Interior Finis	hes						
EC1700	Drywall in Offices	21-Feb-13	12-Apr-13	5			21-Feb-13		12-Apr-13										
EC1820	Touch-up and Clean-up	06Jun-13	10Jun-13	5					06Jun-13	_	1								
EC1840	Finishes Complete		12-Jun-13	5							hishes Co								
EC1850	Punch List	12Jun-13	19Jun-13	5					12Jun-1		1	1							
EC1860	Building Addition Complete		19Jun-13	5						•	Building	Addition Comp	lete						
	ighting Fixtures			0							1								
Floor and Carp		06-May-13	20-May-13	5					1 1 1 1		1.1	and Carpeting							
EC1790	Install Floor and Carpeting	06-May-13	20-May-13	5				06-	May-13 💻										
Carpentry		12-Apr-13	06-Jun-13	5						1.1		arpentry							
EC1740	Install Ceiling Grid	12-Apr-13	04-Jun-13	5				12-Apr-13	1 1	_	un-13								
EC1800	Finish Carpentry and Millwork	< 20-May-13	06-Jun-13	5					20-May-13 📃	🛑 06-J	lµn-13					1			
eral Status Resou	rces Predecessors Success	sors Codes Noteboo	k Steps Fee	dback WPs & [	T Docs E	xpense	s Summary F	Relationsh	nips Risks										•
	ivity EC1740	Install Ceiling (										Project	EC005	515-1					-
Juration	- 1	Status											·						
															_				_
Original	36	Started	12-Ap	r-13		PI	hysical %	L			0%	Budgete	d					28	8
Actual	0	Finished	04-Jur	n-13		S	uspend	Γ				Actual			Γ				0
Remaining	36	Exp Finish				R	esume	Γ				Remaini	ng		Γ			28	8
At Complete	36											At Com	lete		Г			28	8
	,	Constraints																	
Total Float	5	Primary	< Non	e >		🖵 S	econdary	<	<none></none>		-								
Free Float	0	Date				<u></u> D	ate	Γ											
100 Hoat																			
		ļ				_													_

### Verifying Project Dates



- To see if the project will now finish on time, verify that no negative Total Float exists on any of the activities in the project.
- The Total Float for the project equals 5 days and the calculated Finish Date is 19-Jun-13. Therefore, the project is scheduled to finish before the Must Finish By date of 28-Jun-13.
- Exercise
  - Steps
    - In the Directory bar, click Projects
    - Select a project, EC00515
    - Click the Dates tab (bottom) and view Finish date and Must Finish By date
    - View Total Float column in Project Table

#### Verifying Project Dates



D Pr	mavera P6 Professional R8.2	2 : EC00515-1 (City Center Office Building A	Addition)										
<u>File E</u> dit <u>V</u> iew <u>P</u> roject E <u>n</u> terprise <u>T</u> ools <u>A</u> dmin Help													
e	🗞 🖕 🔳 💽 Bo ५ d	# . 💽 🖪 🕒 🖻 🖄 . 🚍		• 🗗 #	🐛 🗐 🖓 😼 🗞 🖇 🖞	🖣 🖪 🖕 🔍	🔍 🔍 ⊟	* 🔲 🖻 😨 🖕					
÷	Projects								× 4				
2	Projects Activities				_				*				
-9									<b>L</b>				
	✓ Layout:Projects     Project ID	Project Name	Total	Total Float	November 2010 Dec	ember 2010	January 20	011 February 2011 March 2011	1 Apri A				
·····			Activities		31 07 14 21 28 05	12 19 26	02 09 16	23 30 06 13 20 27 06 13 2	20 27 03 10				
2	Enterprise	All Initiatives	2325	5									
	⊨ 📣 E&C	Engineering & Construction	679	5									
	EC00515	City Center Office Building Addition	71	0									
	EC00530	Nesbid Building Expansion Haitang Corporate Park	71 71	0									
	EC00501	City Center Office Building Addition	71	0 5	L								
	EC00610	Harbour Pointe Assisted Living Center	131	0	1			! !					
<b>6</b>	EC00620	Juniper Nursing Home	132	0									
2	🚞 EC00630	Saratoga Senior Community	132	0									
	🗉 📣 Energy	Energy Services	689	0	7	1							
	☐ NRG00870	Baytown, TX - Offline Maintenance Work	132	0				01 M 11 A					
	Image: 1 minute of the second seco			+	•				•				
	General Notebook Budget Log Spending Plan Budget Summary Dates Funding Cod				Resources Settings Calculatio	IS							
	Schedule Dates	Schedule Dates           Project Planned Start         Must Finish           01-Nov-10						Anticipated Dates Anticipated Start Anticipated Finish					
	Project Planned Start												
	01-Nov-10												
	Data Date Finish 01-May-11												
				;									
			,					-					
	Actual Start Actual Finish												
	P	Portfolio: All Projects Access Mode: Shared	Data Date: 01-	Mav-11	Baseline: City Center Office Buik	ling Addition - B1	User: admin	DB: PMDB (Professional)					

© Primavera Training @ BU - 2016 by M. Waseem Khan

#### Analyzing Resource Allocation



- The project plan is now scheduled to be completed by the deadline. Before proceeding, verify that the resources are appropriately allocated.
- You can use the Resource Usage Profile to determine which resources are over-allocated/underutilized. You can the re-assign resources to help even the workload.
- Exercise
  - Steps
    - Open a project, EC00515-City Center Office Building Addition
    - In the Directory bar, click Activities
    - In the Layout Option bar, click Layout, Open
    - Select a layout, Resource Overallocation Profile
    - Select a Resource, Operator
    - View Over-allocation marked by Red

#### Analyzing Resource Allocation



D Pr	imavera	P6 Prof	essional R8.2 : EC00	515-1 (City Center	Office Building Additio	n)			x				
File	ile <u>E</u> dit <u>V</u> iew <u>P</u> roject E <u>n</u> terprise <u>T</u> ools <u>A</u> dmin Help												
						<b>■ ▼</b> • <b>□</b> • #		፤ 04 😴 🇞 ≸ 🔢 ा≣ ၞ 🔍 ♀, ♀, 금 ◈ 🕕 🖻 🕲 ၞ					
			<b>1</b> 87 <b>%</b>		<u>™</u> 9;=	······································	; ==						
4	Activi	ties						X	÷				
24			source Overallocation		Filter: All Act				*				
R	Activity		Activity Name	Start	Finish Budgeted	Labor Actual Labor Units Units		April 2011         May 2011         June 2011         July 2011         August 2011         Septer	J.				
	- 6	Drime	ry Resource:	1m104 21.Jup.11	26-Jul-11	1152 0	03	3 10 17 24 01 08 15 22 29 05 12 19 26 03 10 17 24 31 07 14 21 28 04 1 • • • • • • • • • • • • • • • • • • •	90 Ebs				
			Form/Pour Concrete		26Jul-11			21 Jun-11 24					
		EU134	Form/Pour Concrete	Footing: 21-Jun-11	26-JUETT	1152 0		213un-11 24	4				
2													
									2				
									22				
									<u>e</u>				
									<b>a</b> .				
2													
B													
									4				
8													
	•					4	1		J				
	✓ Display: Current Project's Resources												
	Resour			Primary Role	Default Units								
		V			Time			Budgeted Units					
	🤱 Flor		Floor and Carpet Lay		8/0		100	100h Actual Units					
		GenLabor Laborer-Construction Trades 8/d			i i	8	Remaining Early Units     80h     Overallocated Early Units     80h						
					4	1							
	🔝 Imv		Ironworker Paul Kim	i rages Management	8/0		60	© Remaining Late Units 60h © Overallocated Late Units ····································					
			Operator	Trades	071								
	🕵 Pai		Painter	Trades	8/6	i 💷	40	40h					
	🕵 Plu	mb	Plumber	Trades	8/0	ł 👘							
	🤱 Pro	iject Cont	tr Project Controls	Management	8/0	· · · · · · · · · · · · · · · · · · ·	20	20h					
Display Activities for selected													
							03						
								April 2011         May 2011         June 2011         July 2011         August 2011         Septer					
Portfolio: All Projects Access Mode: Shared Data Date: 01-May-11 Baseline: City Center Office Building Addition - B1 User: admin DB: PMDB (Professional)													

© Primavera Training @ BU - 2016 by M. Waseem Khan

## Analyzing Resource Allocation

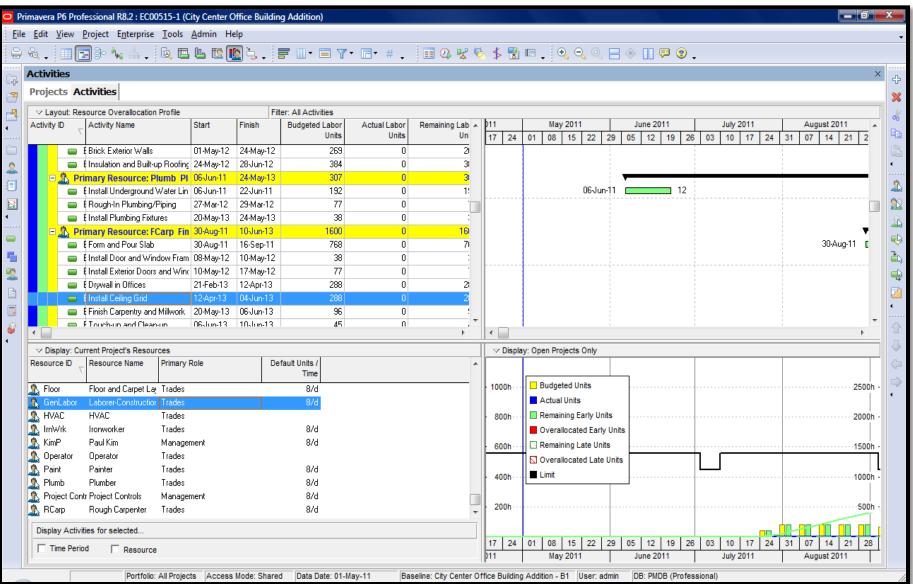


- The Resource Usage Profile allows you to run a filter to focus on the activities that are contributing to a resource's over-allocation.
- Using a filter in the Resource Usage Profile, identify the activities contributing in Operator's over-allocation in Jun-Jul 2011.
- Exercise
  - Steps
    - In the Display Activities for Selected section at the bottom, mark Time Period
    - In the histogram timescale, select a week, 19-Jun-11, and view activities causing over-allocation
    - In the histogram timescale, select a week 26-Jun-11, and view activities causing over-allocation



- If over-allocation is identified, choose a method to remove over-allocation from the specific resource.
  - Replace the over-allocated resource with an available resource
  - Increase the resource's workweek
  - Increase the hours/day of the resource
  - Assign additional resources to the activity
- Exercise
  - Steps
    - Select a resource, Operator
    - In the Display Activities for Selected section at the bottom, clear Time Period
    - Verify that GenLabor Labor Construction is available to work on the activity during the week of 26-Jun-11





© Primavera Training @ BU - 2016 by M. Waseem Khan



- If the selected activities have an associated role assignment, you can quickly change the resources in the multiple activities by first selecting the activities and then clicking Assign Resource button in the Command bar
- Exercise
  - Steps
    - Select a resource, Operator
    - In the Activity Table, select Activities EC1340-Form Pour Concrete Footings
    - In the Command bar, click Assign Resources button
    - Click Replace button
    - Select GenLabor and press Assign button.





#### <u>File Edit View Project Enterprise Tools Admin Help</u>

#### 

Activities														
Projects A	Activities													
✓ Layout: R	Resource Overallocation F	Profile	F	Filter: All Activi	ties									
Activity ID	C Activity Na		Start	Finish	Budgeted Labor Units	Actual Labor Units	Remair			ne 2011	July 2		Augus	
a Deter			00 June 11	27-Jul-11	1152			17 24 01 08 15	22 29 05	12 19 26	03 10			14 21 28 ary Resource:
Second	ary Resource: I		22-Jun-11			0		_		•		• 2	1	
	imary Resource:			27-Jul-11	1152	0		Assign Resources				_	X	ary Resource:
	Primary Resource: Irn			27-Jul-11	1152	0		✓ Display: Current Pr	oject's Resources					ary Resource:
	EC1340 Form/Pou	r Concrete Footings 2	22Jun-11	27-Jul-11	1152	0		Search						
								Resource ID	Resource N	ame		Resource		
								Operator	Operator	univ		Labor	<u>`</u> 🖾	
								Project Controls	Project Cont	trols		Labor	<b>E</b>	
								🕵 Elec	Electrician			Labor		
								🕵 Paint	Painter			Labor		
								A HVAC	HVAC			Labor	₽3	
								Exc	Excavator			Labor	- 🕐	
•					_									
	Current Project's Resourc	es.			2 Replace	selected resour	e(s) with	X	hly					6
Resource ID		Primary Role		) Default Units /	→ Display:	: Current Project's	Resources	1						
	7			Time	Search									
🕵 Floor	Floor and Carpet Lay			8/d			Deserve	N	B					
🕵 GenLabor				8/d	Resource ID	Ē	Resource Electricia							
🕵 HVAC 🕵 ImWik		Trades Trades		8/d	A Elec		Painter	' 	y Units					800I
🖺 Imwrk 🕵 KimP		Trades Management		8/d 8/d			HVAC		Early Units Select nits					
🚯 Operator		Trades		5/0	🕵 Exc		Excavato	r –						600I
🕵 Paint		Trades		8/d	👖 🧕 Floor		Floor and	Carpet Layer 👘 😨	Late Units					
🕵 Plumb	Plumber	Trades		8/d	🥼 🔝 İmWr		Ironworke							
	•	Management		8/d	🤱 GenL			onstruction						
🤱 RCarp	Rough Carpenter	Trades		8/d	A Plumt		Plumber Rough Ca	vnontor						200I
Display Acti	ivities for selected				ACarı		Finish Ca							
Time Per	riod 🗌 Resource				MimD		Doub Kim		22 29 05	12 19 26	03 10			14 21 28
I THICK OF	Resource							• •	Ju	ne 2011	July 2	2011	Augus	st 2011

© Primavera Training @ BU - 2016 by M. Waseem Khan

#### **Reviewing Allocation**



- Use the Resource Usage Profile to check allocation for Pete Lopez, who was replaced from the activities with Katy Dunn.
- Exercise
  - Steps
    - In the File menu, click Refresh Data or Press F5
    - Now observe Resource Usage Profile

## Analyzing Budget



- There are many options for analyzing budget. By displaying cost columns in the Activity Table, you can analyze the budget cost of the entire project as well as each individual activity.
- \$830,000 has been allocated for the project EC00515. You will display a layout that shows budgeted cost information so you can determine whether the project is within the budget or not.
- Exercise
  - Steps
    - Open project, EC00515 City Center Office Building Addition
    - In Project Table, Add column Original Budget
    - In Activities Window, Open Layout Project Cost
    - Add column Budget At Completion and observe budget (CPI)

## Analyzing Budget

Portfolio: All Projects Access Mode: Shared



#### \_ 0 X Primavera P6 Professional R8.2 : EC00515-1 (City Center Office Building Addition) File Edit View Project Enterprise Tools Admin Help Projects × ÷ 4 Projects Activities 2 × - 6 06 Cost Performance Schedule Last Summarized Total Budget At At Completion Total 2001 Project ID Project Name Original Performance Index Date Activities Completion Q3 Q4 Q1 Q2 Q3 Q4 Q Index Budget Cost 🖃 📣 Enterprise \$44.063.088.04 \$45,266,692,18 All Initiatives 0.93 0.97 2325 175.000.00 2 4 🖃 📣 E&C 0.98 Engineering & Construction 0.89 679 \$14,907,537,10 \$15,450,553.65 EC00501 Haitang Corporate Park 1.03 1.00 07-Oct-10 71 830.000.00 \$636,980,80 \$632,455,80 泪 0.91 \$734,195.20 EC00515 City Center Office Building Addition 0.93 07-Oct-10 71 830,000.00 \$745,785.91 M City Center Office Building Addition 0.93 07-0ct-10 \$1,227,213.92 EC00515-1 71 830,000.00 \$734,195.20 \$550.470.40 EC00530 Nesbid Building Expansion 0.00 0.00 07-Oct-10 71 830.000.00 \$550,470,40 EC00610 Harbour Pointe Assisted Living Center 0.97 0.98 06-Oct-10 131 700.000.00 \$4,550,500.56 \$4,568,202.00 EC00620 Juniper Nursing Home 0.95 0.99 06-Oct-10 132 500,000.00 \$3,605,744.44 \$3,630,975.12 -EC00630 Saratoga Senior Community 0.00 0.00 06-0 ct-10 132 000,000.00 \$4.095.450.50 \$4.095.450.50 2 0.99 \$3,638,923,54 \$3,711,665,60 🖃 💧 Energy Energy Services 0.91 689 Sunset Gorge - Routine Maintenance Work 0.95 1.00 13-Aug-10 132 \$87,000.00 \$92,259,86 \$97,259,19 NRG00800 B \$75,960.00 NRG00820 Johnstown - Routine Maintenance Work 0.00 0.00 13-Aug-10 131 \$87,000.00 \$75,960.00 .... - - -. . . . . . . . . . . . . . . . -- - - - - -----• 4 8 General Dates Notebook Budget Log Spending Plan Budget Summary Funding Codes Defaults Resources Settings Calculations Project ID Project Name EC00515-1 City Center Office Building Addition Status Responsible Manager Project Leveling Priority Active Ŧ 👰 E&C 10 \* Check Out Status Checked Out By Date Checked Out Checked In • Project Web Site URL 모 Launch..

© Primavera Training @ BU - 2016 by M. Waseem Khan

Baseline: City Center Office Building Addition - B1 User: admin

DB: PMDB (Professional)

Data Date: 01-May-11

#### Lesson Review



- Optimizing the project plan is the last step in planning your project. Ensure that the project plan meets its date, and cost requirements.
- If the calculated Finish date of the project is beyond the Must Finish By date, the project must be shortened.
- Compare the dates in the Dates tab in Project Details
- You can use various methods to shorten the project, such as refining durations, modifying relationships, applying constraints, and focusing on critical activities.
- Use the Resource Usage Profile to ensure resources are not over-allocated.
- Evaluate costs to ensure that the project can be completed within budget.



# Baselining the Project Plan

© Primavera Training @ BU - 2016 by M. Waseem Khan

#### Baselining the Project Plan

ORACLE

- Objectives
  - Create a baseline plan
  - Display baseline bars on the Gantt Chart
  - Modify the bars on the Gantt Chart

#### Baseline



- A *baseline* is a copy of a project that you can compare to the current project to evaluate progress. Create a baseline plan before updating a schedule for the first time.
- Baseline provides a target against which you can track a project's cost, schedule, and resource performance.
- Baseline functionality in Primavera enables you to:
  - Save an unlimited no. of baselines per project
  - Designate one project baseline and up to three user baselines at a time for comparison to the current project
  - Assign a baseline type to categorize a baseline. Examples include initial planning, what-if, or mid-project baselines
  - Baseline types can help you benchmark performance across multiple projects

### Creating a Baseline



- You can create a baseline either by:
  - Copying the currently opened project, or
  - Converting another project into a baseline
- When you create a baseline, you must select the project to which it is associated. Baselines can be assigned only to opened projects. All opened projects are displayed in the *Maintain Baselines dialog box*
- Exercise
  - Steps
    - Select a project, EC00515-City Center Office Building Addition
    - Confirm you are in Activities Window
    - In the Layout Option bar, click Layout, Open
    - Select a layout, Classic Schedule Layout
    - In the Project menu, click Maintain Baselines
    - Verify that the project to which you are associating the baseline, City Center Office Building Addition-B1, is selected

#### Creating a Baseline



O Maintain Baselines	-	x
Project Name/Baseline Name	Ē	Close
E City Center Office Building Addition		
City Center Office Building Addition - B1	÷	Add
	×	Delete
	8	Сору
		Update
	▶	Restore
Baseline Name	•	Help
City Center Office Building Addition - B1		
Baseline Type Data Date Last Update Date		
	_	

#### Creating a Baseline



- Exercise
  - Steps
    - Click Add
    - Verify that Save a copy of the current project as a new baseline is selected
    - Click Ok

roject Name/Baseline Name	Desilation of Antalities of			₫	Close
City Center Office Build	e Building Addition			÷	Add
Add New Baseline				×	Delete
What would you like to do?		<b>/</b>	ОК	8	Сору
Save a copy of the curve of	urrent project as a new baseline		Cancel	₽	Update
Convert another proje	ct to a new baseline of the current pr	oject	Help	▶	Restore
Baseline Name City Center Office Building Ad	tition B1			•	Help
,		Last Update Date			
Baseline Type	Data Date	Last Update Date			

© Primavera Training @ BU - 2016 by M. Waseem Khan

## Categorizing the Baseline



- Assign a *Baseline Type* to categorize the baseline based on how you intend to use it. For example, the Initial Plan baseline type can be used for your initial project plan. Another baseline type, Mid Project Status, can be used after the project is underway. Baseline types are also useful in organizing multiple baselines in the project.
- Exercise
  - Steps
    - Select a baseline, City Center Office Building Addition-B2
    - In the Baseline Name field, type <City Center Office Building Addition– Initial Plan>
    - In the Baseline Type drop-down list, select Initial Planning Baseline
    - Click Close

#### Categorizing the Baseline



O Maintain Baselines		×
Project Name/Baseline Name	Ē	Close
E City Center Office Building Addition		
City Center Office Building Addition - B1	÷	Add
City Center Office Building Addition - Initial Plan	×	Delete
	e <sub>b</sub>	Сору
		Update
	▶	Restore
Baseline Name	•	Help
City Center Office Building Addition - Initial Plan		
Baseline Type Data Date Last Update Date		
Initial Planning Baseline   O1-May-11   31-Jan-12		

#### Assigning a Baseline



- Use the Assign Baselines dialog box to choose a project baseline and/or user baseline for the project.
   If no baseline is designated as Active, the current project plan is used as the baseline.
- Project Baseline selected by the Project Manager for the project
  - Used for schedule, resource, and cost comparison
  - Controlled by the security privilege, Maintain Project Baselines
- User Baseline assignments are user-specific
  - Used for schedule comparison only
  - Each user can choose a different baseline for comparison to the current project

#### Assigning a Baseline

- Exercise
  - Steps
    - In the Project menu, click Assign Baselines
    - In the Project Baseline drop-down list, select City Center Office Building Addition – Initial Plan
    - In the Primary drop-down list in User Baselines section, select City Center Office Building Addition-Initial Plan
    - Click Ok

Assign Baselines	X
Project EC00515-1 : City Center Office Building Addition	✓ OK Ø Cancel
Project Baseline City Center Office Building Addition - Initial Plan	Help
User Baselines	
Primary City Center Office Building Addition - Initial Plan	
Secondary None>	
Tertiary None>	

#### Viewing Baseline Bars



- The *Bars dialog box* allows you to modify the type, size, color, row position, and shape of the bars displayed in the Gantt Chart
  - Timescale Bar is drawn on the timescale selected, e.g. Actual Bar drawn from Actual Start date to Actual Finish date
  - Filter Bar is drawn for all activities that match the criteria listed in the filter displayed

#### Bar Style Tab



- The Bar Style tab in Bars dialog box enables you to specify the shape, color, and pattern of the bars and endpoints
  - Shape Shape of the selected bar's start endpoint, the bar itself, and the finish endpoint
  - Color Choose the selected bar's start endpoint color, the color of the bar itself, and the color of the finish endpoint
  - *Pattern* The fill pattern of the selected bar
  - *Row* Displays the position of the bar on the Gantt Chart

## ExerciseSteps

Bar Style Tab

- In the Layout Option bar, click Bars
- Or Right-click the Gantt Chart area, click Bars

Bars	a provide the	our Practice of an	our Agent Parate			-			X
Displ	y Name	Timescale	User Start Date	User Finish Date	Filter	Preview		1	ок
<b>T</b>	Remaining Level (	User Dates			Level of Effort				
	Actual Level of E	Actual Bar			Level of Effort			0	Cancel
	Primary Baseline	Primary Baseline E			Normal				
	Actual Work	Actual Bar			Normal			<b>-</b>	Apply
	Remaining Work	Remain Bar			Normal and Non-cri				
	Critical Remaining	Remain Bar			Normal and Critical			÷	Add
	Start Constraint	Remain Bar			Has Start Constrain			×	Delete
	Finish Constraint	Remain Bar			Has Finish Constrai		Ŧ		Delete
								Ba .	Copy From
	Bar Style		Bar Setting	IS	Bar Lat	els			Shift up
Sh Co	ape or	•		•				▼	Shift down Options
Pat	tern	<b>→</b>		<b>_</b>			- 1	_	
Ro	N 1	 •							Default
								<b>?</b>	Help
رك									

## **Displaying Baseline Bar**



- By displaying baseline bars in the Gantt Chart, you can visually compare the baseline plan's schedule dates to the current project plan's schedule dates
- In addition to bars displayed by default, you can create additional bars based on date fields and filters
- Select a value in the Row field to determine placement of a bar in the Gantt Chart
- Exercise
  - Steps
    - In the Display column, mark a check box Primary baseline
    - In the Row field in the Bar Style tab, verify 2
    - In the Display column, mark a checkbox, Baseline Milestone
    - In the Row field, verify 2
    - Click Ok to close the Bars dialog box

## **Displaying Baseline Bar**



B	ars	Trans Transition	and the second second		1	i ii	a the second			-	×
	Display	Name	Timescale	User Start Date	User Finish Date	Filter	Preview	П	*	1	ок
		Remaining Level (	User Dates			Level of Effort				•	
		Actual Level of E	Actual Bar			Level of Effort				0	Cancel
		Primary Baseline	Primary Baseline Bar			Normal					
		Actual Work	Actual Bar			Normal				<b>-</b>	Apply
		Remaining Work	Remain Bar			Normal and Non-cri					
		Critical Remaining	Remain Bar			Normal and Critical				÷	Add
		Start Constraint	Remain Bar			Has Start Constrain				×	Delete
		Finish Constraint	Remain Bar			Has Finish Constrai	C	2		~	Delete
		Baseline Mileston	Primary Baseline Bar			Milestone	<ul> <li>♦</li> <li>♦</li> </ul>		Ŧ	Ba -	Copy From
		Bar Style		Bar Setting	JS	Bar L	abels.			•	Shift up
	Shape	•	•	<b></b>	•					•	Shift down
	Color										Options
	Patter	n	▼	<b>_</b>	•						Default
	Row	2	•							•	Help

#### **Displaying Baseline Bar**



Primavera P6 Professional R8.2 : EC00515-1 (City Center Office Building Addition)

<u>File Edit View Project Enterprise Tools Admin Help</u>

#### 

Council Counci Council Council Council Council Council Council Council Council Co			Filter: All Activities		ayout: Classic Sche
EC00515-1       City Center Office Building Addition       572       545 <ul> <li>EC00515-1.D&amp;E Design and Engineering</li> <li>EC1000</li> <li>Design Building Addition</li> <li>EC1010</li> <li>Statu Office Building Addition Project</li> <li>EC1050</li> <li>Assemble Technical Data on Heat Pumps</li> <li>EC1030</li> <li>EC1030</li> <li>EC1030</li> <li>EC1030</li> <li>Ec104</li> <li>Ec104</li> <li>Ec1050</li> <li>Ec1050</li> <li>Ec104</li> <li>Ec1050</li> <li>Ec1050&lt;</li></ul>			Original Duration	Activity Name     ∇	ity ID
ECO0515-1.D&E Design and Engineering     107     10     EC1000     Design Building Addition     55     0     EC1010     Stat Office Building Addition Project     0     0     EC1030     Review and Approve Designs     22     0     EC1050     Assemble Technical Data for Heat Pump     7     0     EC1030     Review Technical Data on Heat Pumps     27     0     EC1030     Begin Building Construction     10     102     EC1330     Install Underground Water Lines     12     EC1330     Install Underground Water Lines     12     EC1330     Install Underground Water Lines     24     EC1330     Install Underground Water Lines     24     EC1330     Install Underground Water Lines     24     EC1330     Concrete Foundation     Verter			1 Ad( 672	1 City Center Office Building Ad	EC00515-1
EC1010 Start Office Building Addition Project 0   0 </td <td>0 06.4pr-1 A, EC00515-1.D&amp;E Design and Engineering</td> <td>0</td> <td></td> <td></td> <td></td>	0 06.4pr-1 A, EC00515-1.D&E Design and Engineering	0			
E EC1030       Review and Approve Designs       22       0         E EC1050       Assemble Technical Data for Heat Pump       7       0         E EC1050       Review Technical Data on Heat Pumps       27       0         F       EC00515-1.1       Foundation       150       100         E EC1030       Begin Building Construction       0       0         E EC1030       Site Preparation       43       0         E EC1320       Install Underground Water Lines       12       12         E EC1330       Install Underground Water Lines       12       12         E EC1350       Concrete Foundation Walls       24       24         E EC1350       Concrete Foundation Walls       24       24       24         Activity       Project       Project       Project	0 Design Building Addition	0	- 55	Design Building Addition	EC1000
E EC1050 Assemble Technical Data for Heat Pump 7 0   E EC1050 Review Technical Data on Heat Pumps 27 0   E EC1050 Review Technical Data on Heat Pumps 27 0   E EC1050 Begin Building Construction 0 0   E EC1020 Site Preparation 43 0   E EC1320 Excavation 24 24   E EC1320 Install Underground Water Lines 12 12   E EC1300 Install Underground Electric Conduit 12 12   E EC1300 Concrete Footings 24 24   E EC1300 Concrete Footings 24 24   E EC1300 Concrete Footings 24 24   Activity Project	0 It Office Building Addition Project, 01 Nov-10 A	0	0	Start Office Building Addition Project	😑 EC1010
EC1160       Review Technical Data on Heat Pumps       27       0         EC00515-1.       Sound Foundation       150       102         E EC1090       Begin Building Construction       0       0         E EC1100       Site Preparation       43       0         E EC1300       Excavation       24       24         E EC1300       Install Underground Water Lines       12       12         E EC1300       Install Underground Electric Conduit       12       12         E EC1300       Concrete Footings       24       24         E EC1350       Concrete Footings       24       24         E EC1350       Concrete Footings       24       24         etril       Status       Resources       Predecessors       Successors         erral       Status       Resources       Predecessors       Successors	0 Review and Approve Designs	0	22	Review and Approve Designs	😑 EC1030
EC00515-1.       Found Foundation       150       102         E EC1090       Begin Building Construction       0       0         E EC100       Site Preparation       43       0         E EC120       Excavation       24       24         E EC1300       Install Underground Water Lines       12       12         E EC1300       Install Underground Water Lines       12       12         E EC1300       Form/Pour Concrete Footings       24       24         E EC1350       Concrete Foundation Walls       24       24         E EC1350       Concrete Foundation Walls       24       24         ereral       Status       Resources       Predecessors       Successors         Activity       Project       Project       Project	0 Assemble Technical Data for Heat Pump	0	o 7	Assemble Technical Data for Heat Pump	😑 EC1050
EC1090       Begin Building Construction       0       0         E EC100       Site Preparation       43       0         E EC1230       Excavation       24       24         E EC1320       Install Underground Water Lines       12       12         E EC1330       Install Underground Electric Conduit       12       12         E EC1340       Form/Pour Concrete Footings       24       24         E EC1350       Concrete Footings       24       24         E EC1350       Concrete Footings       24       24         eral       Status       Resources       Predecessors       Successors         Activity       Project	0 Review Technical Data on Heat Pumps	0	27	Review Technical Data on Heat Pumps	😑 EC1160
EC1100 Site Preparation     At 3 0     EC1230 Excavation     EC1230 Excavation     EC1230 Install Underground Water Lines     12     12     EC1330 Install Underground Electric Conduit     12     12     EC1350 Concrete Footings     24     24     EC1350 Concrete Footings     24     24		102	150	-1.Found Foundation	EC00515-1
EC1230 Excavation 24 24 EC1320 Install Underground Water Lines 12 12 EC1330 Install Underground Electric Conduit 12 12 EC1340 Form/Pour Concrete Footings 24 24 EC1350 Concrete Foundation Walls 24 24 	0 Begin Building Construction, 28-Feb-11 A	0	0	Begin Building Construction	EC1090
EC1320 Install Underground Water Lines 12 12   EC1330 Install Underground Electric Conduit 12 12   EC1340 Form/Pour Concrete Footings 24 24   EC1350 Concrete Foundation Walls 24 24	0	0	43	Site Preparation	😑 EC1100
EC1330 Install Underground Electric Conduit 12 12   EC1340 Form/Pour Concrete Footings 24 24   EC1350 Concrete Foundation Walls 24 24   eral Status Resources Predecessors   Successors Successors Project	24 Excavation	24	24	Excavation	😑 EC1230
■ EC1340       Form/Pour Concrete Footings       24       24         ■ EC1350       Concrete Foundation Walls       24       24         •       •       •       •	12 Install Underground Wa	12	12	Install Underground Water Lines	😑 EC1320
EC1350 Concrete Foundation Walls     24     24	12 Install Underground Elec	12	12	Install Underground Electric Conduit	😑 EC1330
Image: Status     Resources     Predecessors     Successors       Activity     Project	24 Form/P	24	24	Form/Pour Concrete Footings	😑 EC1340
Image: status     Resources     Predecessors     Successors       Activity     Image: status     Project	24 -	24 🚽	24	Concrete Foundation Walls	😑 EC1350
Activity Project	Ĩ	4			
Activity Project					
Activity     Project					
Astraction and a second track of the order of the second sec	Project			Activity	ΔC
Activity Type Duration Type % Complete Type Activity Calendar	% Complete Type Activity Calendar		Туре	Duration Type	Activity Type
				)	
WBS Responsible Manager Primary Resource	·	ible Manager	Respon		
					<b> </b>

© Primavera Training @ BU - 2016 by M. Waseem Khan

#### Customizing the Activity Table



- You can further customize the layout by choosing display options for the Activity Table.
- These include the font of the text and the height of the rows, which can be specified in the *Table, Font,* and Row dialog box

## Customizing the Activity Table

- Exercise
  - Steps
    - In the Layout Option bar, click Show on bottom, No Bottom Layout
    - In the Layout Option bar, click Table, Font and Row
    - In the Row Height section, clear a checkbox,

Keep Current Row Height

- Select an option,Select height for all rows
- Use arrows to increase row height to 25
- Click Ok

Table, Font and Rov	V.		<b>X</b>
Font and Color		<	ок
Font	AaBbYyZz	0	Cancel
Color			Apply
Row Height		▶	Default
Keep Currer	it Row Heights	(?)	Help
C Don	Int AaBbYyZz Nor V Height V Heigh		
Show Icons			

#### Bar Labels Tab



- Labels can be placed on any of the bars listed in the dialog box. By adding dates to the bars, you can quickly determine the Start and Finish dates of activities in the Gantt Chart
- Exercise
  - Steps
    - In the Layout Option bar, click Bars
    - Select a bar, Current Bar Labels
    - Click the Bar Labels tab
    - Click Add
    - In the Position column drop-down list, select Right
    - In the Label column drop-down list, select Activity % Complete
    - Click Ok to close the Bars dialog box

#### Bar Labels Tab



B	ars										×
	Display	Name		Timescale	User Start Date	User Finish Date	Filter	Preview		1	ок
	•	Remainin	g Work	Remain Bar			Normal and Non-cri				
	$\checkmark$	Critical R	emaining	Remain Bar			Normal and Critical			0	Cancel
		Start Con	straint	Remain Bar			Has Start Constrain				
		Finish Co		Remain Bar			Has Finish Constrai			Ŧ	Apply
				Primary Baseline E			Milestone	<ul><li>♦</li><li>♦</li></ul>			
				Current Bar			Normal or Level of I			÷	Add
		Milestone		Current Bar			Milestone	<b>* *</b>		×	Delete
		% Compl	ete	User Dates			Normal		-		
	•							4		eg.	Copy From
		В	ar Style		Bar Setting	IS	Bar Lat	pels			Shift up
	Positio	n	Label						-1		
	Right		Activity	Name					-1	•	Shift down
	Right		Activity	% Complete					- 1		
							_				Options
										►	Default
										?	Halp
	÷	Add 1	🗙 Delei	ha						•	Help
	57	Add	A Delei	le							

## Saving the Layout



- If you are pleased with the layout, save it with a new name
- Exercise
  - Steps
    - In the Layout Option bar, click Layout, Save As
    - Type a layout name <Classic Schedule Layout Current vs Baseline>
    - Click Save

Save Layout As	X
Layout Name Classic Schedule Layout-curr	ant ve haseling
Available to	User
Current User 💌	admin admin
	Project
🕐 Help F	Save 🧭 Cancel

#### Saving the Layout



#### Primavera P6 Professional R8.2 : EC00515-1 (City Center Office Building Addition)

<u>File Edit View Project Enterprise Tools Admin Help</u>

#### ╘ ९ . | = = > N, . . | 0, = ╚ ╚ `, . . | = □ - = 7 - = + . | = 0, ¥ ♦ ≸ 🗄 = . | 9, 9, 0, = ♦ 11 🗭 0 .

cti	vities												
roj	ects Activities	6											
٦L	ayout: Classic Sche	A	ter: All Activities										
Activ	rity ID	Activity Name	Original Duration	Remaining A	, 2010		Qtr 1, 2011			Qtr 2, 2011			Qtr 3, 2011
			070	Duration	lov Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug
		City Center Office Building Ad		545									
-	ni EC00515-1	.D&E Design and Engineering	107	0					🔫 06-Apr-1	1 A, EC00515-	1.D&E Desig	n and Enginee	fing
	😑 EC1000	Design Building Addition	55	0		De	sign Building	Addition, 100%	:		1		1
	😑 EC1010	Start Office Building Addition Project	0	0	rt Office Building Addi	ion Project, 01	Nov-10 A				1		1
	😑 EC1030	Review and Approve Designs	22	0		┟┲	Re	eview and Appr	ove Designs,	00%			
	😑 EC1050	Assemble Technical Data for Heat Pump	7	0				🛌 Assemb	le Technical	ata for Heat f	<sup>9</sup> ump, 100%		
	😑 EC1160	Review Technical Data on Heat Pumps	27	0			│ <mark>│</mark> ₽ <mark>┤</mark> ┣		Review	Technical Data	a on Heat Pur	nps, 100%	1
	ni EC00515-1	Found Foundation	150	102			+				1		1 1 1
	😑 EC1090	Begin Building Construction	0	0			╎╎┺	🛉 Begin Buildir	ng Constructio	n, 28-Feb-11 /	4		
	😑 EC1100	Site Preparation	43	0			│┡∎			Site Preparatio	n, 100%		
	😑 EC1230	Excavation	24	24					4		Excavat	ion, 0%	L
	😑 EC1320	Install Underground Water Lines	12	12							┍	nstall Undergro	und Water Li
	😑 EC1330	Install Underground Electric Conduit	12	12								nstall Undergro	und Electric
	😑 EC1340	Form/Pour Concrete Footings	24	24							╘╼		Form/Pour C
	😑 EC1350	Concrete Foundation Walls	24	24								_∎_	
	😑 EC1360	Form and Pour Slab	12	12							• • • • • • • • • • • • • •		
	😑 EC1370	Backfill and Compact Walls	5	5									
	😑 EC1380	Foundation Phase Complete	0	0							1		1
	💾 EC00515-1	Structure Structure	154	154							1		1
	😑 EC1390	Erect Structural Frame	48	48									
	😑 EC1410	Begin Structural Phase	0	0									•
	😑 EC1420	Floor Decking	34	34 👻									
•				+	•								+
		Portfolio: All Projects Access Mode: Share	d Data Date: 01-May	-11 Base	line: City Center Office	Building Additi	on - Initial Pla	an User: adm	in DB: PN	IDB (Professio	nal)		

© Primavera Training @ BU - 2016 by M. Waseem Khan

#### Lesson Review



- A baseline is a copy of a project that you can compare to the current project to evaluate progress. Create a baseline plan before updating a schedule for the first time
- You can create a baseline either by copying the currently opened project or converting another project into a baseline
- Assign a baseline type to categorize the baseline based on how you intend to use it
- A project baseline is the baseline selected by the project manager for the project and is controlled by a security privilege. A user baseline can be designated by each user and is used for schedule comparison only



# Project Execution & Control Lesson 17

© Primavera Training @ BU - 2016 by M. Waseem Khan

#### **Project Execution & Control**



- Objectives
  - Describe several methods for updating the project schedule
  - Use Progress Spotlight
  - Status activities
  - Reschedule the project

### Updating a Project



 Once a project has started, you need to update actual schedule information and resource usage at regular intervals. Your company will establish a standard update procedure, including how data is collected and how often it is updated

#### How Often



• You may need to update daily, weekly, or monthly, depending on the length of your project and how frequently you want to adjust your forecasts

#### How Data is Collected



- Project Managers manually enter the actual date, resource, and cost information
  - Record actual dates and progress, actual resource usage and cost, and expense cost
- Approve and apply time
  - Team members use timesheets to update activities
  - Project managers review and approve timesheets
  - Project managers apply timesheets to the project
- Auto compute actuals
  - Progress of activities is automatically calculated according to the project plan

#### The Data Date



- When updating a project, actuals are recorded for each activity relative to the data date.
- The data date is the date upto which actual performance data is reported and the date from which future work is scheduled.
- By default, the data date is set to the beginning of the day (project) considering project is not started yet.

#### Updating Process

- Create a baseline plan
- Identify the new data date with the Progress Spotlight
- Enter activity progress
- Report resource use and costs to date
- Use Suspend and Resume dates as necessary
- Apply actuals to the project
- Perform target analysis
  - Compare the current plan to the target plan to analyze variances
- Calculate the schedule
  - Be sure to verify the new data date
- Monitor project progress with reports
  - Determine whether project objectives are being met
    - Will the project finish on time?
    - Is it within budget?
    - Are project resources being used effectively?

#### **Updating Process**

ORACLE

- Create a baseline plan
- Use Activity Details tabs or the Activity Table
- Use Progress Spotlight to identify activities to be updated
- Use filters and grouping to create a status layout
  - Use rolling dates for a time period look-ahead
  - Select only activities to be updated
  - Organize in a useful sequence via activity codes, resources, and dates

### Defining a Status Period



- Define the status period before you begin to update activities. In general, the status period begins at the current data date and ends at a point in future. The length of the status period depends on the frequency of your updates. You could, e.g. create a status period that extends one week from the current data date. The end of the status period will become the new data date – the date upto which actual performance is measured
- There are two options to define the status period in the Gantt Chart
  - Activity Progress Spotlight
  - Drag the Data Date
- Note that even as you establish a new status period, the new data date must still be manually changed in the Schedule dialog box

#### Progress Spotlight



- **Progress Spotlight** creates a visible status period between the current data date and the next status date. It also provides a highlighted list of activities that should have progress during the update period.
- Exercise
  - Steps
    - Open a project, EC00515-City Center Office Building Addition
    - Confirm you are in Activities Window
    - In the Layout Option bar, click Layout, Open
    - Select a layout, Baseline vs. Current
    - Click Kicon in the Activity Toolbar to activate Progress Spotlight
    - Click this icon again to deactivate Progress Spotlight

#### **Progress Spotlight**



\_ 0 X

× ÷

June 2011

12

06-Jun-11

22-Jun-11

22

22

19

05

29

06-Jun-11

×

00

۰.

2

Â

Ę.

۲.

**e** 

#### Primavera P6 Professional R8.2 : EC00515-1 (City Center Office Building Addition) File Edit View Project Enterprise Tools Admin Help 응 & . ] = [=] > ¼ ∴ . ] [3] 🗳 🐚 🐚 🐚 ५ ळ . ] हा 🏾 • 🚍 ७ • [= + . ] = 0. જ 🐼 🖓 🖷 . ] 0. 0. 0. = ♦ 🔲 🖻 3 . Activities Progress Spotlight Projects Activities ✓ Lavout: Baseline vs. Current Filter: All Activities Activity Name Variance - BL1 Start Start **BL1** Finish Finish Variance - Resources pril 2011 May 2011 . BL1 Labor BL1 Finish 10 17 15 22 24 01 08 🖃 🗁 EC00515-1 City Center Office Building Addition 19-Jun-13 -1418 01-Nov-10 01-Nov-10 A 19-Jun-13 0 🖃 🖬 EC00515-1.D&E Design and Engineering -1117 01-Nov-10 01-Nov-10 A 04-Apr-11 06-Apr-11 A -2 6 😑 Design Building Addition 01-Nov-10 A 20-Jan-11 19-Jan-11 A 1 Paul Kim, Paul Kim -1097 01-Nov-10 Start Office Building Addition Project 0 01-Nov-10 01-Nov-10 A n. M Review and Approve Designs -24 17-Jan-11 17-Jan-11 A 15-Feb-11 17-Feb-11 A -2 Paul Kim Assemble Technical Data for Heat Pump -7 01-Mar-11 16-Feb-11 A 10-Mar-11 25-Feb-11 A 9 Paul Kim 06-Apr-11 A Review Technical Data on Heat Pumps 11 24-Feb-11 24-Feb-11 A 04-Apr-11 -2 Paul Kim 5-Apr-11 A 🖃 📑 EC00515-1.Found Foundation 41 23-Feb-11 23-Feb-11 A 23-Sep-11 23-Sep-11 0 -18 Apr-11 A Site Preparation Begin Building Construction 0 01-Mar-11 28-Feb-11 A 1 -0 Excavator, Excavator Excavation 0 02-May-11 02-May-11 06-Jun-11 06-Jun-11 02-May-11 Install Underground Water Lines 0 06-Jun-11 06-Jun-11 22-Jun-11 22-Jun-11 0 Plumber, Plumber 06-Jun-11

22-Jun-11

07.1.144

Form/Por	ir Concrete Footings		U	22-Jun-11	22-Jun-TT	27-JuHT	27-Jul-TT	U	Laborer-Lonstruction,	Hough Larpent		
Concrete	Foundation Walls	undation Walls			27-Jul-11	30-Aug-11	30-Aug-11	0	Ironworker, Laborer-C	onstruction, Ro		
Form and	Pour Slab		0	30-Aug-11	30-Aug-11	16-Sep-11	16-Sep-11	0	Rough Carpenter, Lab	orer-Constructic		
Backfill ar	nd Compact Walls		0	16-Sep-11	16-Sep-11	23-Sep-11	23-Sep-11	0	Excavator, Finish Carp	enter, Excavat	- I	
										÷.	٠ 🗌	
Status Re	sources Predecess	sors Succ	essors									
	Activity EC1100			ite Dreparation							Project	EC00515 1
	ACTIVITY JECTION		] <sup>2</sup>	site Preparation							Fibject	EC00515-1
rce Name 🔻	Cost Account	Jany Resou	Resource	l a Units / Time	Original Lag	Start	Finish	Jageted Units	Actual Regular Units	ning Early Units	Role	
ICE Maille /	COSt ACCOUNT	any nesse	Resource	. g								
cavator	00800	I III y Resol	Labor	6/d		23-Feb-11 A		346	-		Civil/Structural Crev	
				-				-	-			
				-				-	-			
	Concrete Form and Backfill an Status Re	Concrete Foundation Walls Form and Pour Slab Backfill and Compact Walls Status Resources Predecess Activity EC1100	Concrete Foundation Walls Form and Pour Slab Backfill and Compact Walls Status Resources Predecessors Succe Activity EC1100	Concrete Foundation Walls     O     Form and Pour Slab     Backfill and Compact Walls     Status Resources Predecessors Successors     Activity EC1100	Concrete Foundation Walls     O     27.Jul-11     Form and Pour Slab     O     30.Aug-11     Backfill and Compact Walls     O     16-Sep-11      Status Resources Predecessors Successors     Activity EC1100     Site Preparation	Concrete Foundation Walls       0       27.Jul-11       27.Jul-11         Form and Pour Slab       0       30.Aug-11       30.Aug-11         Backfill and Compact Walls       0       16.Sep-11       16.Sep-11         Status       Resources       Predecessors       Successors         Activity       EC1100       Site Preparation	Concrete Foundation Walls       0       27.Jul-11       30.Aug-11         Form and Pour Slab       0       30.Aug-11       30.Aug-11       16.Sep-11         Backfill and Compact Walls       0       16.Sep-11       16.Sep-11       23.Sep-11         Status       Resources       Predecessors       Successors       Site Preparation	Concrete Foundation Walls         0         27.Jul-11         27.Jul-11         30.Aug-11         30.Aug-11           Form and Pour Slab         0         30.Aug-11         30.Aug-11         16.Sep-11         16.Sep-11           Backfill and Compact Walls         0         16.Sep-11         16.Sep-11         23.Sep-11         23.Sep-11           Status         Resources         Predecessors         Successors         Ste         Preparation	Concrete Foundation Walls         0         27.Jul-11         30.Aug-11         30.Aug-11         0           Form and Pour Slab         0         30.Aug-11         30.Aug-11         16.Sep-11         16.Sep-11         0           Backfill and Compact Walls         0         16.Sep-11         16.Sep-11         23.Sep-11         0	Concrete Foundation Walls       0       27Jul-11       27Jul-11       30Aug-11       30Aug-11       0       Ironworker, Laborer-Cr         Form and Pour Slab       0       30Aug-11       30Aug-11       16-Sep-11       16-Sep-11       0       Rough Carpenter, Lab         Backfill and Compact Walls       0       16-Sep-11       16-Sep-11       23-Sep-11       0       Excavator, Finish Carpenter, Lab         Status       Resources       Predecessors       Successors       Site Preparation	Concrete Foundation Walls       0       27 Jul-11       27 Jul-11       30 Aug-11       0       Ironworker, Laborer-Construction, Ro         Form and Pour Slab       0       30 Aug-11       16 Sep-11       16 Sep-11       0       Rough Carpenter, Laborer-Construction, Ro         Backfill and Compact Walls       0       16 Sep-11       16 Sep-11       0       Rough Carpenter, Laborer-Construction         Status       Resources       Predecessors       Successors       Site Preparation	Concrete Foundation Walls       0       27 Jul-11       27 Jul-11       30 Aug-11       30 Aug-11       0       Ironworker, Laborer-Construction, Ro         Form and Pour Slab       0       30 Aug-11       16 Sep-11       16 Sep-11       0       Rough Carpenter, Laborer-Construction         Backfill and Compact Walls       0       16 Sep-11       16 Sep-11       23 Sep-11       23 Sep-11       0       Excavator, Finish Carpenter, Excavator         Status       Resources       Predecessors       Successors       Site Preparation       Project

22-Jun-11

07.1.144

0 Electrician, Electrician

0 1 1

0 1 1

Add Resource 5 Add Role Assian by Role Remove

0 06-Jun-11

0 00 1 44

06-Jun-11

00.1 44

....

8

5

😑 Install Underground Electric Conduit

Portfolio: All Projects Access Mode: Shared Data Date: 01-May-11 Baseline: City Center Office Building Addition - Initial Plan User: admin DB: PMDB (Professional)

#### Dragging the Data Date



- Highlight the activities to be updated by dragging the status line to the desired date
- Exercise
  - Steps
    - Use your mouse cursor to click and drag the data date line to the morning of 15-May-11

#### Dragging the Data Date



Primavera P6 Professional R8.2 : EC00515-1 (City Center Office Building Addition)	
File Edit View Project Enterprise Tools Admin Help	
	•
≳ ᇲ ↓ ▥ () ) * ¼ ሐ ↓ () 🖾 🗳 🛍 ♥ 🗁 ↓ 🚍 Ⅲ *  🍸 * () * # ↓ 💷 थ 🧏 () () () () 🔍 🔍 ♡ ↓	
Activities	× ÷
	X
Variance - BL1 Start     Filter: All Activities       Activity Name     Variance - BL1 Start       Start     BL1 Finish       Finish     Variance - Resources	June 2011
Activity Name         Variance - BL1 Start         Start         BL1 Finish         Variance - Resources         Ipril 2011         May 2011           Image: Market Control of Contro of Control of Control of Contro of Control of Control o	Do.
EC00515-1 City Center Office Building Additio     -1418 01-Nov-10 01-Nov-10 A 19-Jun-13 19-Jun-13 0	
EC00515-1.D&E Design and Engineering -1117 01-Nov-10 01-Nov-10 A 04-Apr-11 06-Apr-11 A -2	•
🚍 Design Building Addition	
Cost office Building Addition Project     O	2
1 🖕 Review and Approve Designs -24 17-Jan-11 17-Jan-11 A 15-Feb-11 17-Feb-11 A -2 Paul Kim	20
Assemble Technical Data for Heat Pump -7 01-Mar-11 16-Feb-11 A 10-Mar-11 25-Feb-11 A 9 Paul Kim 15-May-11	
Review Technical Data on Heat Pumps     11     24-Feb-11     24-Feb-11     04-Apr-11     06-Apr-11     A     2     Paul Kim     6-Apr-11     A	
ELUUDID-1.Found Foundation 41 23-Feb-11 23-Feb-11 23-Sep-11 0	
Site Preparation 41 23-Feb-11 23-Feb-11 23-Feb-11 18-Apr-11 A 5 Excavator 18	<b>≧</b> ₀
Begin Building Construction 0 01-Mar-11 28-Feb-11 A 1	
Excavation         0 02-May-11         02-May-11         06-Jun-11         0 Excavator, Excavator         02-May-11           Image: Install Underground Water Lines         0 06-Jun-11         06-Jun-11         0 2-Jun-11         0 Plumber         02-May-11         02-Jun-11         00-Jun-11         00-Jun-11 <td>06Jun-11</td>	06Jun-11
Install Underground Electric Conduit     0 06Jun-11     06Jun-11     22Jun-11     22Jun-11     0 Electrician, Electrician     06Jun-11     06Jun-11     07Jun-11     0	
Image: Source Footings         0         22Jun-11         22Jun-11         27Jul-11         0         Laborer-Construction, Rough Carpent           Image: Source Footings         0         27Jul-11         27Jul-11         30-Aug-11         0         Laborer-Construction, Rough Carpent	22Jun-11 🔚 🔐
Image: Concrete Foundation Walls       0       27Jul-11       27Jul-11       30Aug-11       30Aug-11       0       Ironworker, Laborer-Construction, Rome         Image: Form and Pour Slab       0       30Aug-11       30Aug-11       16-Sep-11       0       Rough Carpenter, Laborer-Construction	J
Backfill and Compact Walls     0 16-Sep-11 16-Sep-11 23-Sep-11 0 Excavator, Finish Carpenter, Excavat	- <-
	4
General Status Resources Predecessors Successors	•
Activity EC1050 Assemble Technical Data for Heat Pump Project EC00515-1	
Resource Name 🗸 Cost Account 🛛 hary Resou Resource 1 g Units / Time Original Lag Start Finish Jdgeted Units Actual Regular Units Ining Early Units Role	
Q         Paul Kim         00800         Image: Contract of the second	
The Add Resource     The Add Role     The Assign by Role     The Remove	
Portfolio: All Projects Access Mode: Shared Data Date: 01-May-11 Baseline: City Center Office Building Addition - Initial Plan User: admin DB: PMDB (Professional)	

#### **Entering Actuals**



- Once a project is underway, you must enter actual schedule data, resource usage, and expense costs at regular intervals. You may need to update daily, weekly, or monthly, depending on the length of your project and how frequently you want to adjust your forecasts
- Actual data is different than planned data actual data is the real-time and cost associated with an activity gives actual expenditure
- Enter schedule, resource, and cost data in the following order
  - Completed Activities
    - Actual Start and Actual Finish dates
    - Actual Regular Units/Costs
    - Actual Cost for Expenses
  - Activities in Progress
    - Actual Start date
    - Percent Complete and/or Remaining Duration
    - Actual Regular Units/Costs and Remaining Units/ Costs
    - Actual and Remaining Costs for Expenses

#### Updating Milestone Status



- To update a start milestone, mark the Started checkbox and enter the Actual Start date.
- You do not need to enter data in the Finish field because the Activity Type is Start Milestone, which has zero duration.



- Three steps must be performed to update the status of the activity to completion
  - Enter Actual Start and Actual Finish dates
  - Enter Actual Regular Units for resources
  - Enter Actual Cost for expenses
- Exercise
  - Select an activity, EC1260-Award Contract for Brick
  - Click the Status tab (bottom)
  - Mark the Finished checkbox
  - Verify the Actual Finish date, 05-May-11



🗆 Pri	mavera P6 Professional R8.2 : EC0051	5-1 (City Center Office Buildi	ng Addition)										×
<u>F</u> ile	<u>E</u> dit <u>V</u> iew <u>P</u> roject E <u>n</u> terprise <u>T</u> o	ools <u>A</u> dmin Help											
9	a. 🔳 🖃 🦻 🐂 🚠 . 🖻	] 🖪 🕒 🔝 🐚 与 🚠	. 🖻 💷 • 🗐 🖓 • 🛛	<b>∃•</b> # <b>.</b> [E	0, 😴 🔇	₹ <b> </b> ≸ 🛃 🖪	a 🚬 🔍 🔍 🤅	2 🗄 🛞		. €			
÷	Activities												×
-# 24	Projects Activities												
-9	✓ Layout: Baseline vs. Current		Filter: All Activities										
	Activity ID Activity Name		Variance - BL1 Star BL1 Labor	Start	BL1 Finish	Finish	Original Duration	Vari ▲ BL1	011 17 24	May 2011 01 08 15 1	June 2011 22 29 05 12 19	) 26	Ê
	😑 EC1660 Connect Equipr	nent	0 08-Feb-1	3 08-Feb-13	11-Feb-13	11-Feb-13	1						
2	🖃 🔁 EC00515-1.Ex-Finish Exterior Fi	inishes	-161 24-Feb-1	1 17-Feb-11 A	28-Jun-12	28-Jun-12	343						4
	🛑 EC1590 Close-In Phase	-	0 24-May-1	2 24-May-12			0						1
	EC1620 Building Enclose		0		28-Jun-12	28-Jun-12	0						
	EC00515-1.Ex-Finish.Brick B		-161 24-Feb-1		24-May-12	24-May-12	319						
	EC1040 Assemble Brick		0 01-Mar-1				0						1
	EC1070 Review and Ap	· ·	-25 24-Feb-1		· ·	13-Apr-11 A	30		3-Apr-11 A				=
	EC1180 Prepare and So		-92 18-Mar-1			13-Apr-11 A	15		3-Apr-11 A				
	EC1220 Review Bids for		-77 08-Apr-11			28-Apr-11 A	15			28-Apr-11 A		_	2
2	EC1260 Award Contract	for Brick	32 28-Apr-11			05-May-11 A			<u>م</u>	05-May-11 A			
B	EC1280 Deliver Brick		0 05-May-1		06-May-11	06-May-11	1		05-May-1	06-May-11			
	EC1550 Brick Exterior W		0 01-May-1	-	24-May-12	24-May-12	17						
	E 🖶 EC00515-1.Ex-Finish.Roof R		0 24-May-1		28-Jun-12	28-Jun-12	24						
8	EC1600 Insulation and E	Built-up Roofing	0 24-May-1	2 24-May-12	28-Jun-12	28-Jun-12	24	-				•	- 1
	<							F.	•			F	_ 0
	General Status Resources Predece	essors Successors											4
	Activity EC1260	Awar	d Contract for Brick					_	Pro	oject EC00515-1		_	
	Duration	Status								, abor Units			•
	Original	5 🔽 Started	21-Apr-11		Physical 9	/6		8	% Buc	dgeted		38	
	Actual	10 Finishe	05-May-11		Suspend				Act	tual		6	
	Remaining	0 Exp Finish			Resume				Rer	maining		0	
	At Complete	10							At	Complete		6	
		Constraints	i de la companya de l								I	Ŭ	
	Total Float	Primary	< None >		<ul> <li>Secondar</li> </ul>	у [	< None >		-				
	Free Float	Date			Date	Γ							
		1											1
	Portfolio: All	Projects Access Mode: Shar	ed Data Date: 01-May-11	Baseline: C	ty Center Offic	e Building Addi	tion - Initial Plan U	ser: admin	DB: PMD	B (Professional)			



- Below you will check the Actual Regular Units for the activity.
- Note that in this example, data in the Actual Regular Units field is automatically completed because Recalculate Actual Units and Cost when duration % complete changes is selected in the Calculations tab in the Projects Window for the project.
- Exercise
  - Steps
    - Click the Resources tab (bottom)
    - In the Actual Regular Units column, verify the no. of hours, 19



Primavera P6 Professional R8.2 : EC00515-1 (City Center Office Building Addition)

<u>File Edit View Project Enterprise Tools Admin Help</u>

#### 

Activity ID       Activity Name       Variance - BL 1 Start       Start       BL1 Ends       Finish       Original Duration       Variance - BL 1       BL1       May 2011       June 2011         EC1680       Connect Equipment       00 8Feb-13       11Feb-13       11       1	Activity ID       Activity Name       Variance BL1 Start BL1 Finish       Start BL1 Finish       Finish Original Duration       Varia       D11       May 2011       June 2011         Image: Discourse Equipment       0       0.96Feb-13       11Feb-13       11Feb-13       1       2       2       0       0       1       2       2       2       0       1 </th <th><math>\nabla</math></th> <th>Layout: Baseline va</th> <th>s. Current</th> <th></th> <th></th> <th>1</th> <th>Filter: All A</th> <th>ctivities</th> <th></th>	$\nabla$	Layout: Baseline va	s. Current			1	Filter: All A	ctivities										
<ul> <li>             EC005151.Ex+Finish Exterior Finishes             <ul></ul></li></ul>	<ul> <li>             EC00515-1.Ex-Finish Exterior Finishes             <ul> <li></li></ul></li></ul>	Acti	ivity ID	Activity Name					BL1 Start	Start	BL1 Finish	Finish	Original Duration			-			 ⊥ ^ 6
EC1530       Close-In Phase Begins       0       24May-12       24May-12       28Jun-12       28Jun-12       0         EC1520       Building Enclosed       0       133       24Feb11       17.Feb11A       24May-12       24Jun-12       319         EC1620       Brick Samples       0       0.Har11       17.Feb11A       24May-12       24Jun-12       319         EC1070       Review and Approve Brick Samples       2.52       24Feb11       28-Feb11A       06-Apr-11       13Apr-11A       30         EC1070       Review and Approve Brick Samples       2.52       24Feb11       28-Apr-11       13Apr-11A       30         EC1200       Review and Approve Brick Samples       2.52       24Feb11       28-Apr-11       13Apr-11A       30         EC1200       Review Bids for Brick       -77       09-Apr-11       08-Apr-11       128-Apr-11A       15       3Apr-11A         EC1280       Defiver Bick       0       0.5May-11       <	EC1590       Close-In Phase Begins       0       24-May-12       24-May-12       28-Jun-12       0         EC1520       Building Enclosed       0       28-Jun-12       28-Jun-12       29-Jun-12       0         EC1520       Brick Samples       0       0       14-Ba-11       17-Feb-11A       24-May-12       29-Jun-14       319         EC1070       Review and Approve Brick Samples       25       24-Feb-11       27-Feb-11A       0-Feb-11A       0-Feb-11		😑 EC1660	Connect Equipm	ent			0	08-Feb-13	08-Feb-13	11-Feb-13	11-Feb-13	1						
<ul> <li>             EC1620             Building Enclosed             <ul> <li></li></ul></li></ul>	EC1620       Building Enclosed       0       0       28Jun-12       28Jun-12       0         EC100515-11.Ex-Finish.Brick       Brick       -193       24Feb-11       17Feb-11A       24May-12       319         EC1040       Assemble Brick Samples       0       01-Mar-11       17Feb-11A       0       0         EC1070       Review and Approve Brick Samples       -25       24Feb-11       28Feb-11A       06Apr-11       13Apr-11A       30         EC1200       Review and Approve Brick Samples       -25       24Feb-11       06Apr-11       13Apr-11A       30         EC1200       Review and Approve Brick Samples       -25       24Feb-11       06Apr-11       13Apr-11A       30         EC1202       Review Brids for Brick       -77       08Apr-11       28Apr-11       28Apr-11       28Apr-11       28Apr-11       28Apr-11       28Apr-11       30         EC1280       Deliver Brick       0       05May-11       05May-11       06May-11       1       0       06May-11       1       0       06May-11       1       0       06May-11       1       0       0       06May-11       1       0       06May-11       1       0       0       0       0       0       0	E	🛛 🛀   EC00515-1.Ex	k-Finish Exterior Fin	hishes			-193	24-Feb-11	17-Feb-11 A	28-Jun-12	28-Jun-12	343					1	 ۳.
<ul> <li>EC0005151.Ex-Finish.Brick. Brick.</li> <li>174 Feb-11</li> <li>184 Feb-111</li> <li>184 Feb-1</li></ul>	• FeC005151ExFinish.Brick. Brick.           • 193           24 Feb-11           17 Feb-11A           24 May-12           319           0             • EC1040         Assemble Brick. Samples           0				-			0	24-May-12	24-May-12			0					1	ł.
<ul> <li>EC1040</li> <li>Assemble Brick Samples</li> <li>0</li> <li>01-Mar11</li> <li>17-Feb-11A</li> <li>0</li> <li>EC1070</li> <li>Review and Approve Brick Samples</li> <li>25</li> <li>24-Feb-11</li> <li>28-Feb-11A</li> <li>06-Apr-11</li> <li>13-Apr-11A</li> <li>30</li> <li>34-pr-11A</li> <li>34-pr-14</li> <li></li></ul>	<ul> <li>EC1040</li> <li>Assemble Brick Samples</li> <li>0</li> <li>0<td></td><td></td><td>-</td><td></td><td></td><td></td><td>0</td><td></td><td></td><td></td><td>28-Jun-12</td><td>0</td><td></td><td></td><td></td><td></td><td></td><td></td></li></ul>			-				0				28-Jun-12	0						
<ul> <li>EC1070</li> <li>Review and Approve Brick Samples</li> <li>25</li> <li>24 Feb-11</li> <li>28 Feb-11A</li> <li>06 Apr-11</li> <li>13 Apr-11A</li> <li>30</li> <li>34 pr-11A</li> <li>36 pr-11A</li></ul>	<ul> <li>EC1070</li> <li>Review and Approve Brick Samples</li> <li>25</li> <li>24 Feb-11</li> <li>28 Feb-111</li> <li>13 Apr-11A</li> <li>30</li> <li>34 pr-11A</li> /ul>							-193	24-Feb-11		24-May-12	24-May-12	319						
<ul> <li>             EC1180             Prepare and Solicit Bids for Brick</li> <li>             32             18-Mar-11         </li> <li>             19-Mar-11         </li> <li>             19-Mar-11</li></ul>	<ul> <li>EC1180</li> <li>Prepare and Solicit Bids for Brick Exterior</li> <li>92</li> <li>18-Mar-11</li> <li>19</li> <li>19</li> <li>19</li> <l< td=""><td></td><td></td><td></td><td>•</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>0</td><td></td><td>II</td><td></td><td></td><td></td><td></td></l<></ul>				•								0		II				
<ul> <li>EC1220</li> <li>Review Bids for Brick</li> <li>Project</li> <li>EC1260</li> <li>Award Contract for Brick</li> <li>OS-May-11</li> <li>OS-May-11<td><ul> <li>EC1220</li> <li>Review Bids for Brick</li> <li>T77</li> <li>08 Apr-11</li> <li>08 Apr-11</li> <li>09 Accounting</li> </ul> </td></li> <li>90 Accounting</li> <li>90 Accounting</li> <li>90 Accounting</li> <li>90 Accounting</li> </ul> <ul> <li>91 0 Accounting</li> <li>91 0 Accounting</li> </ul>	<ul> <li>EC1220</li> <li>Review Bids for Brick</li> <li>T77</li> <li>08 Apr-11</li> <li>08 Apr-11</li> <li>09 Accounting</li> </ul>					•									3-Apr-11 A			1	
EC1260       Award Contract for Brick       0       28Apr-11       21-Apr-11 A       05-May-11       05-May-11 A       5         EC1280       Deliver Brick       0       05-May-11       05-May-11       06-May-11 A       05-May-11 A       05-Ma	EC1260       Award Contract for Brick       0       28Apr-11       21-Apr-11 A       05-May-11       05-May-11 A       5                EC1280       Deliver Brick       0       05-May-11       06-May-11       06-May-11       1                EC1280       Deliver Brick       0       01-May-12       24-May-12       24-May-12       17                EC10505       Brick Exterior Walls       0       01-May-12       24-May-12       28-Jun-12       28-Jun-12       24-May-12       24-May-12       28-Jun-12       24-May-12       24-May-12       28-Jun-12       24-May-12       24-May-12       28-Jun-12       24-May-12       28-Jun-12 <t< td=""><td></td><td></td><td></td><td></td><td>ick Exterior</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>3-Apr-11 A</td><td></td><td></td><td></td><td></td></t<>					ick Exterior									3-Apr-11 A				
EC1280       Deliver Brick       0       05-May-11       05-May-11       06-May-11       1         EC1550       Brick Exterior Walls       0       01-May-12       01-May-12       24-May-12       24-May-12       24-May-12       24-May-12       24-May-12       24-May-12       24-May-12       24-May-12       28-Jun-12       28-Jun-12       24       4 <t< td=""><td>EC1280       Deliver Brick       0       05-May-11       06-May-11       06-May-11       1         EC1280       Brick Exterior Walls       0       01-May-12       01-May-12       24-May-12       24-May-12       17         EC00515-1. Ex-Finish. Roof Roof       0       24-May-12       24-May-12       28-Jun-12       28-Jun-12       28-Jun-12       24         EC1600       Insulation and Built-up Roofing       0       24-May-12       24-May-12       28-Jun-12       28-Jun-12       24      </td><td></td><td>😑 EC1220</td><td>Review Bids for B</td><td>Brick</td><td></td><td></td><td>-77</td><td>08-Apr-11</td><td>08-Apr-11 A</td><td>28-Apr-11</td><td>28-Apr-11 A</td><td>15</td><td></td><td></td><td>28-Apr-11 A</td><td></td><td></td><td>1</td></t<>	EC1280       Deliver Brick       0       05-May-11       06-May-11       06-May-11       1         EC1280       Brick Exterior Walls       0       01-May-12       01-May-12       24-May-12       24-May-12       17         EC00515-1. Ex-Finish. Roof Roof       0       24-May-12       24-May-12       28-Jun-12       28-Jun-12       28-Jun-12       24         EC1600       Insulation and Built-up Roofing       0       24-May-12       24-May-12       28-Jun-12       28-Jun-12       24		😑 EC1220	Review Bids for B	Brick			-77	08-Apr-11	08-Apr-11 A	28-Apr-11	28-Apr-11 A	15			28-Apr-11 A			1
<ul> <li>EC1550</li> <li>Brick Exterior Walls             <ul> <li>0</li> /ul></li></ul>	<ul> <li>EC1550</li> <li>Brick Exterior Walls             <ul> <li>0</li> <li>01-May-12</li> <li>01-May-12</li> <li>024-May-12</li> /ul></li></ul>				for Brick				28-Apr-11	21-Apr-11 A	05-May-11	05-May-11 A	5			05-Ma	y-11 A		ł.
• • • • • • • • • • • • • • •	<ul> <li></li></ul>		😑 EC1280	Deliver Brick				0	05-May-11	05-May-11	06-May-11	06-May-11	1		05-May-1	06-M	ay-11		
Ceneral Status Resources   Predecessors Successors     Activity   EC1600   Insulation and Built-up Roofing   0   24-May-12   28-Jun-12   28-Jun-12   28-Jun-12   24-May-12   28-Jun-12   28-Jun-12   28-Jun-12   24-May-12   28-Jun-12   28-Jun-12   28-Jun-12   24-May-12   28-Jun-12	Ceneral Status Resources   Project Cost Account   1ary Resource 1g Units / Time   Original Lag Start   Finish Budgeted Units   Activity EC1260   EC00515-1		_					0	01-May-12	01-May-12	24-May-12	24-May-12	17					1	
General Status       Resources       Predecessors       Successors         Activity       EC1260       Award Contract for Brick       Project       EC00515-1         Resource Name       Cost Account       nary Resou       Resource 1 g Units / Time       Original Lag       Start       Finish       Budgeted Units       Actual Regular Units       Remaining Early Units       Role         Project Controls       00800       Image: 2/d       0       21-Apr-11 A       05-May-11 A       19       19       0       Accounting	General Status       Resources       Predecessors       Successors         Activity       EC1260       Award Contract for Brick       Project       EC00515-1         Resource Name       Cost Account       1ary Resou       Resource1       g Units / Time       Original Lag       Start       Finish       Budgeted Units       Actual Regular Units       Remaining Early Units       Role         Project Controls       00800       Image: 2/d       0       21-Apr-11 A       05-May-11 A       19       19       0       Accounting		🖃 📥 EC00515-1	.Ex-Finish.Roof Ro	oof			0	24-May-12	24-May-12	28-Jun-12	28-Jun-12	24						
General       Status       Resources       Predecessors       Successors	General       Status       Resources       Predecessors       Successors         Activity       EC1260       Award Contract for Brick       Project       EC00515-1         Resource Name 7       Cost Account       1ary Resou       Resource1       g Units / Time       Original Lag       Start       Finish       Budgeted Units       Actual Regular Units       Remaining Early Units       Role		😑 EC1600	Insulation and Bu	uilt-up Roofing	g		0	24-May-12	24-May-12	28-Jun-12	28-Jun-12	24	-					1.
Activity       EC1260       Award Contract for Brick       Project       EC00515-1         Resource Name 7       Cost Account       harry Resou       Resource 1       g Units / Time       Original Lag       Start       Finish       Budgeted Units       Actual Regular Units       Remaining Early Units       Role <ul> <li>Project Controls</li> <li>00800</li> <li>Labor</li> <li>2/d</li> <li>0</li> <li>21-Apr-11 A</li> <li>05-May-11 A</li> <li>19</li> <li>19</li> <li>0</li> <li>Accounting</li> </ul>	Activity       EC1260       Award Contract for Brick       Project       EC00515-1         Resource Name       Cost Account       hary Resou       Resource I       g Units / Time       Original Lag       Start       Finish       Budgeted Units       Actual Regular Units       Remaining Early Units       Role         Project Controls       00800       Image: Above Controls       021-Apr-11 A       05-May-11 A       19       19       0       Accounting	ŧ١												P.	•				Þ.
Activity     EC1260     Award Contract for Brick       Resource Name     Cost Account     hary Resou     Resource 1     g Units / Time     Original Lag     Start     Finish     Budgeted Units     Actual Regular Units     Remaining Early Units     Role       Project     Cost Account     Iary Resou     Resource 1     g Units / Time     Original Lag     Start     Finish     Budgeted Units     Actual Regular Units     Remaining Early Units     Role       Project     Controls     00800     Image: 2/d     0     21-Apr-11 A     05-May-11 A     19     19     0     Accounting	Activity     EC1260     Award Contract for Binck     Project     Ec00515-1       Resource Name     Cost Account     hary Resou     Resource 1     g Units / Time     Original Lag     Start     Finish     Budgeted Units     Actual Regular Units     Remaining Early Units     Role       Project Controls     00800     Image: August 2     0     21-Apr-11     05-May-11     19     19     0     Accounting	Ge	eneral Status Res	ources Predeces	ssors Succe	essors													
Project Controls 00800       Image: Controls 00800     Image: Controls 00800     Image: Controls 00800     Image: Controls 00800     Controls 00	Project Controls 00800       Image: Controls 00800     Image: Controls 00800     Image: Controls 00800     Image: Controls 00800     Controls 00800     Image: Controls 00800     Cont	_		Activity EC1260	_		-									,	15-1		
		R	esource Name 🛛 🖓	Cost Account	-	Resource	1 g Units / Time	Original	-		-	ted Units Actua	al Regular Units Re	emaining E	arly Units Ro	le			
Project Controls 00800       Labor     2/d     0     21-Apr-11 A     05-May-11 A     19     19     0     Accounting	Reproject Controls 00800 I Labor 2/d 0 21-Apr-11 A 05-May-11 A 19 19 0 Accounting	1	• •		-	Labor						19				-			
		.5	Project Controls	00800		Labor	2/d		0 21-Apr-	11 A 05-May-	11 A	19	19		0 A	counting			
																j			
			Add Resource	e 🗔 Add F	Role 🖽	Assign	oy Role 🛛 🚟	Remove											



- Five Steps must be performed to update an activity in progress
  - Enter Actual Start date
  - Enter Percent Complete and/or Remaining Duration
  - Enter Actual Regular Units and Remaining Units for resources
  - Enter Actual Cost and Remaining Cost for expenses
- Exercise
  - Steps
    - Select an activity, EC1230-Excavation
    - Click the Status tab (bottom)
    - Mark the Started checkbox, and verify date 02-May-11
    - In the Physical %field, type <35>
    - Press Enter



				)515-1 (City Center <u>T</u> ools <u>A</u> dmin I													
5		<b>1</b> 🔁 🦻	₩. A [	🗟 🖪 🖳 🔯	1 2 2		7.0	• # . 🗉	1 Q. ¥ 💽	<b>1</b>	■ . 🔍	0,0,8	s 🔲 🗭	. €			
ti	ivities	s															
0	jects	s Activitie	s														
/	Layou	ut: Baseline vs	a. Current			Filter: All Ac	ctivities	_								_	
ctiv	ivity ID		Activity Name	e		Variance - BL1 Labor	BL1 Start	Start	BL1 Finish	Actual Duration		Original Dur 🔺	011 17 24	May 2	2011 15 22 29	June 2011	And the second sec
_	- 14. States			Building Addition		-1434	01-Nov-10	01-Nov-10 A	19-Jun-13	131	19Jun-13						
E	1 💾 E	2C00515-1.D?	&E Design and	J Engineering		-1117	01-Nov-10	01-Nov-10 A	04-Apr-11	109	06-Apr-11 A						- 11
		EC1000	Design Buildi				01-Nov-10				19Jan-11 A						
		EC1010	Start Office B	Building Addition Proj	uject	0	01-Nov-10			0	1						- 81
		EC1030		Approve Designs			17Jan-11	17-Jan-11 A	1.0.0.0.0000000000000000000000000000000		17-Feb-11 A						
		EC1050		echnical Data for He	See 1997 1998 1998		01-Mar-11	16-Feb-11 A			25-Feb-11 A						
		EC1160	1	chnical Data on Heat	, Pumps		24-Feb-11	24-Feb-11 A			06-Apr-11 A		-11 A				
E			ound Foundatio				23-Feb-11	23-Feb-11 A			3 23-Sep-11						1
	and the second second	EC1100	Site Preparati				23-Feb-11	23-Feb-11 A			8 18-Apr-11 A		18	B <mark>Apr-11 A</mark>			
	1.	EC1090	-	ng Construction		1.1.1	01-Mar-11	28-Feb-11 A		0	3	1.1.1.1					
		EC1230	Excavation				02-May-11	02-May-11 A	And a second		) 06-Jun-11		:May-11 A			06Jun-11	
	_					_	06-Jun-11	06-Jun-11	22-Jun-11		) 22-Jun-11				06-Jun-11		22-Jun-
					duit		06Jun-11	06-Jun-11	22-Jun-11		) 22-Jun-11				06-Jun-11		22-Jun-
Ļ		£ EC1340	Form/Pour Ur	oncrete Hootings		U	22-Jun-11	22-Jun-11	27-Jul-11	0	) 27-Jul-11		e			22-Jun-11	
											_	Þ	•				F
Ge	eneral	Status Res	ources Prede	ecessors Succes	sors Codes Expe	nses Feedback	Notebook	Relationships	Risks Steps	Summary	WPs & Docs						
	+	A	ctivity EC123	0	Excavation	n							Pro	oject EC0051	15-1		
D	Duration	Activity EC1230							_	_			TIT	Labor Units			
1	Original	al		24	Started	02-1	lay-11		Physical %		35%		Bur	dgeted			384
3	Actual	i i		0	Finished	06-J	lun-11		Suspend				Ac	tual			0
1	Remaini	ning		24	Exp Finish	Ē			Resume				Ren	maining			384
3	At Com	molata		24							*			Complete			384
	At Com	ipiere	1	24	Constraints									50mpiero			304
1000	Total Flo	loat		131	Primary	< Nr	one >		Secondary		< None >		<u> </u>				
1	Free Flo	loat		0	Date				Date								

- Actual Regular Units are the no. of units that resource(s) actually worked on the activity.
- Remaining Units represents the amount of work (units) that is required to complete the activity
- The formula for calculating Remaining Units is:
  - Remaining Units = Remaining Duration x Remaining Units/Time
- Exercise
  - Steps
    - Click the Resources tab (bottom)
    - In the Actual Regular Units column, verify that Excavator has worked 72 hours
    - In the Remaining Units column, verify 122 hours



- 1 Primavera P6 Professional R8.2 : EC00515-1 (City Center Office Building Addition) File Edit View Project Enterprise Tools Admin Help Activities × ÷ **Projects Activities** × -5 ✓ Layout: Baseline vs. Current Filter: All Activities 00 Activity Name Variance - BL1 Start Start **BL1** Finish Actual Finish Original Dur 🔺 011 May 2011 June 2011 Activity ID Duration **BL1 Labor** 17 24 01 08 15 22 29 05 12 19 26 EC00515-1 City Center Office Building Addition -1438 01-Nov-10 01-Nov-10 A 19-Jun-13 131 19-Jun-13 🖃 📇 EC00515-1.D&E Design and Engineering 01-Nov-10 A 04-Apr-11 109 06-Apr-11 A -1117 01-Nov-10 4 ġ EC1000 **Design Building Addition** -1097 01-Nov-10 01-Nov-10 A 20-Jan-11 54 19 Jan-11 A 創 1 EC1010 Start Office Building Addition Project 0 01-Nov-10 01-Nov-10 A 0 2 M EC1030 Review and Approve Designs -24 17-Jan-11 17-Jan-11 A 15-Feb-11 24 17-Feb-11 A Assemble Technical Data for Heat Pump EC1050 -7 01-Mar-11 16-Feb-11 A 10-Mar-11 7 25-Feb-11 A 1 EC1160 Review Technical Data on Heat Pumps 11 24-Feb-11 24-Feb-11 A 04-Apr-11 29 06-Apr-11 A -11 A Ę. EC00515-1.Found Foundation 37 23-Feb-11 23-Feb-11 A 23-Sep-11 48 23-Sep-11 20 -EC1100 Site Preparation 41 23-Feb-11 23-Feb-11 A 25-Apr-11 38 18-Apr-11 A 18 Apr-11 A 1 EC1090 **Begin Building Construction** 0 01-Mar-11 28-Feb-11 A 0 -EC1230 -May-11 A 06-Jun-11 EC1320 Install Underground Water Lines 0 06-Jun-11 06-Jun-11 22-Jun-11 0 22-Jun-11 06-Jun-11 22-Jun-4 🔲 EC1330 Install Underground Electric Conduit 0 06-Jun-11 06-Jun-11 22-Jun-11 0 22-Jun-11 22-Jun-06-Jun-11 EC1340 Form/Pour Concrete Footings 0 22-Jun-11 22-Jun-11 27-Jul-11 0 27-Jul-11 22-Jun-11 . 4 Ь. General Status Resources Predecessors Successors Codes Expenses Feedback Notebook Relationships Risks Steps Summary WPs & Docs . Activity EC1230 Project EC00515-1 Excavation \* 4 nary Resou g Units / Time Original Lag Start Remaining Units Role Resource Name Cost Account Finish Budgeted Units Actual Regular Units to Compute Actua 2 122 Civil/Structural Crev V 0 Excavator 00800 5/d 0 02-May-11 A 06-Jun-11 192 72 122 Civil/Structural Crev V Add Resource 딙 Add Role 2 Assian by Role Remove Portfolio: All Projects Access Mode: Shared Data Date: 01-May-11 Baseline: City Center Office Building Addition - Initial Plan User: admin DB: PMDB (Professional)



- When an activity starts but is unexpectedly delayed or stopped for a period time, you may suspend it
- A suspended activity must have an Actual Start
- Use the Status tab to enter Suspend and Resume dates
  - Suspend date The last day that work was conducted on the activity
  - *Resume date* The first day that work will continue on the activity
- The actual duration excludes suspension time
- Use the Notebook tab to document the reason for the suspension
- Exercise
  - Steps
    - Select an Activity, EC1240-Review Bids for Heat Pump
    - Click the Status tab (bottom)
    - Mark the Started checkbox
    - Select the Actual Start Date, 04-May-11
    - In the Physical % field, verify <50>
    - Click Browse button in Suspend field, select a date 09-May-11
    - Click Browse button in Resume field, select a date 11-May-11



#### \_ 0 × Primavera P6 Professional R8.2 : EC00515-1 (City Center Office Building Addition) File Edit View Project Enterprise Tools Admin Help ⇔ & , ! = = > ¼ ∴ , | 🔊 ⊑ ⊑ 監 🖄 ≒ ă , ! = □ + = ∀ + ⊡ + . ! = 0, ⊮ 🐼 ≸ 🗄 ⊏ , ! Q Q Q = ◈ 🛯 🗭 ⊘ , Activities × ÷ Projects Activities 24 -9 ✓ Layout: Baseline vs. Current Filter: All Activities Variance - BL1 Start April 2011 May 2011 June 2011 Jul 🖌 Activity ID Activity Name Start BL1 Finish Finish BL1 Labor 27 03 10 17 24 01 08 15 22 29 05 12 19 26 03 11 EC1710 Install Elevator Cab and Finishes 0 21-Feb-13 21-Feb-13 28-Feb-13 28-Feb-13 🖃 📥 EC00515-1.Mechanicals.HVAC HVAC -59 13-Apr-11 14-Apr-11 A 12-Jun-13 12-Jun-13 4 Ô. EC1190 Prepare and Solicit Bids for Heat Pump -59 13-Apr-11 14-Apr-11 A 04-May-11 04-May-11 4-Apr-11 A 04-May-11 1 0 04-May-11 EC1240 Review Bids for Heat Pump 04-May-11 A 17-May-11 M 0 17-May-11 EC1270 Award Contract for Heat Pump 17-May-11 25-May-11 25-May-11 17-May-11 25-May-11 EC1290 Fabricate and Deliver Heat Pump and Controls 0 25-May-11 25-May-11 23-Jan-13 23-Jan-13 25-May-11 0 21-Mar-12 EC1500 Install HVAC Ducts 21-Mar-12 24-Apr-12 24-Apr-12 E) EC1630 Insulate Ducts 0 28-Jun-12 28-Jun-12 06-Jul-12 06-Jul-12 ₹c EC1650 Set Heat Pump 0 23-Jan-13 23-Jan-13 08-Feb-13 08-Feb-13 EC1670 Relocate HVAC Chiller 0 08-Feb-13 08-Feb-13 19-Feb-13 19-Eeb-13 Startup and Test HVAC 0 19-Feb-13 19-Feb-13 21-Feb-13 21-Feb-13 EC1680 EC1770 Install AC Grills and Registers 0 24-Apr-13 24-Apr-13 01-May-13 01-May-13 4 .... EC1830 Test and Balance HVAC Equipment 0 10-Jun-13 10-Jun-13 12-Jun-13 12-Jun-13 EC00515-1.Mechanicals.Systems Plumbing and Electrical 0 31 Jan 12 31-Jan-12 11-Feb-13 11-Feb-13 8 — EC1M0 Set Mechanical and Electrical Equipment 0 31. Jan. 12 21. Jan.12 21.Mar.12 21.Mar.12 .€ 1 b. ь General Status Resources Predecessors Successors Codes Expenses Feedback Notebook Relationships Risks Steps Summary WPs & Docs ۰ Activity EC1240 Project EC00515-1 Review Bids for Heat Pump • 4 Duration Status Labor Units 04-May-11 Original 10 Started Physical % 50% Budgeted 77 09-May-11 Actual 0 Finished 17-May-11 Suspend Actual 0 Exp Finish Resume 11-May-11 Remaining 10 Remaining 77 At Complete At Complete 77 8 Constraints Primary < None > Ŧ Secondary < None > Total Float 5 Date Date Free Float 0 Portfolio: All Projects Access Mode: Shared Data Date: 01-May-11 Baseline: City Center Office Building Addition - Initial Plan User: admin DB: PMDB (Professional)

ORACLE

- Exercise
  - Steps
    - Right-click in the Activity Details, and then click Customize Activity Details...
    - Add the Notebook tab to the Activity Details
    - Click the Notebook tab
    - Click Add, and then select a Notebook topic, Delay Impacts
    - Type a description <Review suspended due to non-availability of resource person>

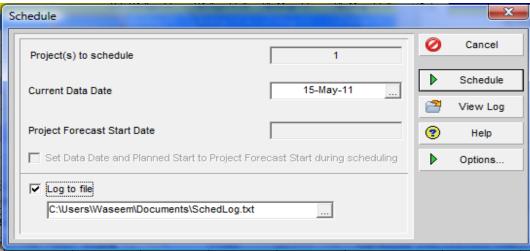


Primavera P6 Professional R8.2 : EC00515-1 (City Center Office Building Addition) File Edit View Project Enterprise Tools Admin Help ⇔ & , ! = = > ¼ ∴ , | 🔊 ⊑ ⊑ 監 🖄 ५ ४ , ! = ॥ • = ∀ • ╔ • # , ! = 0, ㎏ 🖏 🖏 ⊑ , ! ९, ९, ९, ⊟ ◈ 🛯 🗭 ७ , Activities × ÷ Projects Activities 2 × -5 ✓ Layout: Baseline vs. Current Filter: All Activities Ob Activity ID Activity Name Variance - BL1 Start Start **BL1** Finish April 2011 May 2011 June 2011 Jul Finish BL1 Labor 08 15 22 29 05 12 19 26 27 03 10 17 24 01 03 11 EC1710 Install Elevator Cab and Finishes 0 21-Feb-13 21-Feb-13 28-Feb-13 28-Feb-13 EC00515-1.Mechanicals.HVAC HVAC -59 13-Apr-11 14-Apr-11 A 12-Jun-13 12-Jun-13 ۰. Ó 04-May-11 EC1190 Prepare and Solicit Bids for Heat Pump 14-Apr-11 A 04-May-11 -59 13-Apr-11 4-Apr-11 A 04-May-11 1 EC1240 Review Bids for Heat Pump 04-May-11 A 17-May-11 M EC1270 Award Contract for Heat Pump 0 17-May-11 17-May-11 25-May-11 25-May-11 25-May-11 7-May-11 EC1290 Fabricate and Deliver Heat Pump and Controls 0 25-May-11 25-May-11 23-Jan-13 23-Jan-13 25-May-11 Install HVAC Ducts 0 21-Mar-12 24-Apr-12 24-Apr-12 EC1500 21-Mar-12 Ę. 0 28-Jun-12 06-Jul-12 Insulate Ducts 28-Jun-12 06-Jul-12 EC1630 ₹c EC1650 Set Heat Pump 0 23-Jan-13 23-Jan-13 08-Feb-13 08-Feb-13 0 08-Feb-13 08-Feb-13 19-Feb-13 19-Feb-13 Relocate HVAC Chiller EC1670 ÷ Startup and Test HVAC 0 19-Feb-13 19-Feb-13 21-Feb-13 21-Feb-13 EC1680 Install AC Grills and Registers 0 24-Apr-13 24-Apr-13 01-May-13 01-May-13 EC1770 .... EC1830 Test and Balance HVAC Equipment 0 10-Jun-13 12Jun-13 12-Jun-13 10-Jun-13 EC00515-1.Mechanicals.Systems Plumbing and Electrical 0 31-Jan-12 31Jan-12 11-Feb-13 11-Feb-13 P — EC1M0 Set Mechanical and Electrical Equipment 0 31. Jan. 12 31. Jan. 12 21.Mar.12 21.Mar.12 ٠ – General Status Resources Predecessors Successors Codes Expenses Feedback Notebook Relationships Risks Steps Summary WPs & Docs ٠ Project EC00515-1 Activity EC1240 Review Bids for Heat Pump • Notebook Topic Changes 🚳 Changes Review suspended due to non-availability of resource person ٢ 💆 Modify Print Ba -Copy 슈 X Delete Add Portfolio: All Projects Access Mode: Shared Data Date: 01-May-11 Baseline: City Center Office Building Addition - Initial Plan User: admin DB: PMDB (Professional)

#### Rescheduling the Project



- Now that actuals have been entered, it is time to reschedule the project based on the new data date. Any activities that did not finish on time will delay their successor activities.
- Exercise
  - Steps
    - In the Tools menu, click Schedule
    - In the Current Data Date field, select 15-May-11
    - Click Schedule button



### Viewing the Results of Rescheduling



- After the project has been rescheduled,
  - Analyze the activities on the critical path
  - Review the project's performance to date
  - Develop strategies for getting the project back on track
  - Gain agreement within your project team
  - Implement the revised project plan
- Exercise
  - Click Spotlight icon to deactivate the Progress Spotlight
  - Hide the bottom layout

#### Viewing the Results of Rescheduling



Primavera P6 Professional R8.2 : EC00515-1 (City Center Office Building Addition)

<u>File Edit View Project Enterprise Tools Admin Help</u>

#### 

	vout: Baseline vs.	Current .	Filter: All Activities													
✓ Lay Activity		Activity Name	Variance - BL1 Start BL1 Labor	Start	BL1 Finish	Finish	*	27	Apr 03 10	il 2011 ) 17 24	01		2011	June 2 29 05 12		Jul 03 10
	😑 EC1540	Structure Complete	0		01-May-12	15-May-12	-					-				
	EC00515-1.Med	chanicals Mechanical/Electrical Systems	-42 13-Apr-11	14-Apr-11 A	12-Jun-13	24-Jun-13										
	😑 EC1490	Rough-In Phase Begins	0 21-Mar-12	04-Apr-12							L					
	😑 EC1690	Rough In Complete	0		21-Feb-13	05-Mar-13					$\left  \right\rangle$					
	💾 EC00515-1.N	Mechanicals.Lifts Elevator	0 13-Apr-12	27-Apr-12	28-Feb-13	12-Mar-13										
	😑 EC1520	Install Elevator Rails and Equipment	0 13-Apr-12	27-Apr-12	17-Apr-12	01-May-12					14					
	😑 EC1710	Install Elevator Cab and Finishes	0 21-Feb-13	05-Mar-13	28-Feb-13	12-Mar-13					$  \rangle$					
	💾 EC00515-1.N	fechanicals.HVAC_HVAC	-42 13-Apr-11	14-Apr-11 A	12-Jun-13	24-Jun-13			•							
	😑 EC1190	Prepare and Solicit Bids for Heat Pump	-43 13-Apr-11	14-Apr-11 A	04-May-11	04-May-11 A		4-Ápi	r-11 A			04-Ma	11 A			
	💼 EC1240	Review Bids for Heat Pump	1 04-May-11	04-May-11 A	17-May-11	27-May-11				04-May-11 A	V F	~	2	27-May-11		
	😑 EC1270	Award Contract for Heat Pump	0 17-May-11	27-May-11	25-May-11	07-Jun-11					27-N	lay-11	· •	🛑 07-Ju	n-11	
	😑 EC1290	Fabricate and Deliver Heat Pump and Controls	0 25-May-11	07-Jun-11	23-Jan-13	04-Feb-13	Ť					07.	un-11			
	😑 EC1500	Install HVAC Ducts	0 21-Mar-12	04-Apr-12	24-Apr-12	08-May-12					17					
	😑 EC1630	Insulate Ducts	0 28Jun-12	13-Jul-12	06-Jul-12	20-Jul-12					ΞŲ					
	😑 EC1650	Set Heat Pump	0 23Jan-13	04-Feb-13	08-Feb-13	20-Feb-13					11			1		
	😑 EC1670	Relocate HVAC Chiller	0 08-Feb-13	20-Feb-13	19-Feb-13	01-Mar-13					-					
	😑 EC1680	Startup and Test HVAC	0 19-Feb-13	01-Mar-13	21-Feb-13	05-Mar-13										
	😑 EC1770	Install AC Grills and Registers	0 24-Apr-13	06-May-13	01-May-13	13-May-13										
	😑 EC1830	Test and Balance HVAC Equipment	0 10Jun-13	20-Jun-13	12-Jun-13	24-Jun-13										
-	🖶 EC00515-1.N	dechanicals.Systems Plumbing and Electrical	0 31 Jan-12	14-Feb-12	11-Feb-13	21-Feb-13					11			1		
	😑 EC1440	Set Mechanical and Electrical Equipment	0 31 Jan-12	14-Feb-12	21-Mar-12	04-Apr-12					11					
	😑 EC1510	Rough-In Plumbing/Piping	0 27-Mar-12	10-Apr-12	29-Mar-12	12-Apr-12					H					
	😑 EC1640	Install Wiring and Cable	0 02Jul-12	13Jul-12*	22-Aug-12	04-Sep-12					E					
	😑 EC1660	Connect Equipment	0 08-Feb-13	20-Feb-13	11-Feb-13	21-Feb-13										
	EC00515-1.Ex-F	Finish Exterior Finishes	-193 24-Feb-11	17-Feb-11 A	28-Jun-12	13-Jul-12								1		
	😑 EC1590	Close-In Phase Begins	0 24-May-12	08Jun-12							11					
	😑 EC1620	Building Enclosed	0		28-Jun-12	13-Jul-12					ΞŲ					
	🖶 EC00515-1.8	x-Finish.Brick Brick	-193 24-Feb-11	17-Feb-11 A	24-May-12	08-Jun-12										
	😑 EC1040	Assemble Brick Samples	0 01-Mar-11	17-Feb-11 A							1					
	😑 EC1070	Review and Approve Brick Samples	-25 24-Feb-11	28-Feb-11 A	06-Apr-11	13-Apr-11 A	-			13-Apr-11 A				1		
		1		· · • · · · · · · · · · · · · · · · · ·	· · · ·	- 1 - <b>-</b>					1	- 1				

#### Controlling the Project



• After scheduling a project, analyze schedule dates, resource allocation, and the cost budget

#### Analyzing Schedule Dates



- Analyze the schedule to determine if milestone dates and project dates are being met
  - Compare the calculated Finish date to the Must Finish By date to see if you will complete the project on time
  - If the project is behind schedule, analyze the critical activities
  - Adjust the project to meet your project Finish date

#### Analyzing Resource Allocation



• After adjusting the project, determine if resources are being used effectively

#### Analyzing the Cost Budget



• After adjusting the project, view At Completion Total Cost to determine if you are within your budget

#### Compressing the Schedule



- If the calculated Finish date id later than the Must Finish By date, you can use several methods to shorten the project (already discussed)
  - Use relationships to overlap activities
  - Add resources to reduce durations
  - Break-down long activities
  - Change calendar assignments
    - Put critical activities on a longer workweek
    - Add exceptions to non-worktime

#### Compressing the Schedule



- You can use the following set of questions to help you decide how to most appropriately adjust the schedule
  - Can the Finish date of the project slip
    - The project may need to be delayed if no other options are available
    - If the delay is approved, adjust the affected milestones
    - If the delay is not approved, find another way to meet the project milestones and Finish date of the project
  - Can scope of the activity/project decrease?
    - In some cases, in order to meet the project milestones and finish date, you can decrease the total amount of work that will be accomplished, i.e. decrease the scope of the project
    - If the scope change is approved, decrease the scope by reducing the total hours work on activities. This will change the duration of the activities. Break down long activities
    - If the scope change is not approved, find another way to meet the project milestones and Finish date of the project

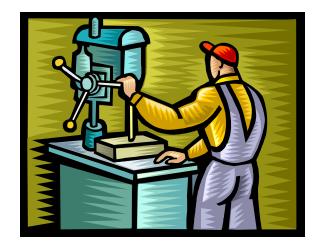
#### Compressing the Schedule



- Were the budgeted hours over-or-under estimated
  - You may have over-estimated the no. of hours to complete activities; the scope of work can be accomplished in fewer hours
  - You can decrease the total hours work on activities, which decreases the duration of the activities
- Can an additional resource be assigned
  - You can assign another resource to the activity to finish it on time
  - This may be possible if another resource with the necessary skills is available
  - If a resource is available, you can assign it to make up the hours
- Can the resource work overtime
  - The resource may need to work overtime to complete an activity on time
  - If this is possible, you can decrease the duration of the activity, then enter the original remaining hours
  - The hours the resource works each day will increase



#### WORKSHOP Project Execution & Control



#### Lesson Review

- Once a project has started, use one of three options to update actual schedule
  - Manually enter the actual dates and resource/cost information
  - Approve and apply timesheets
  - Auto compute actuals
- When updating a project, actuals are recorded for each activity relative to the data date. The data date is the date upto which actual performance data is reported, from which future work is scheduled
- To status complete activities, update Actual Start and Actual Finish dates, Actual Regular Units/Cost for Resources & Expenses
- To status activities in progress, update Actual Start date, Percent Complete and/or Remaining duration, Actual Regular Units/Costs, Remaining Units/Costs, and Actual and Remaining Costs for expenses
- After actuals are entered, reschedule the project based on the new data date, activities that do not finish on time will delay successor activities
- After scheduling, analyze schedule dates, resource allocation, and cost budget. If the calculated Finish date is later than the Must Finish By date, try to shorten the project duration using optimization methods





# Reporting Performance

## **Reporting Performance**

- Objectives
  - Describe reporting methods
  - Run a schedule report
  - Create a resource report with the Report Wizard
  - Create a report using the current layout
  - Reporting Resource Profiles (Cost & Units Based)
  - Reporting Activity Usage Profiles (Cost & Units Based)
  - Getting S-Curve with Resource Loading
  - Displaying S-Curve with Earned Value Cost & Units
  - Experiencing Primavera Visualizer for customized Gantt Charts & TSLDs

## Methods for Performance Reporting



- There are many methods to distribute schedule, resource, and cost performance information to the project team, including:
  - Printed layouts
  - Printed reports from the Report Wizard
  - Printed reports from the Report Writer
  - Project Website
  - Timesheets
  - Primavera Web Applications

#### **Reports Window**

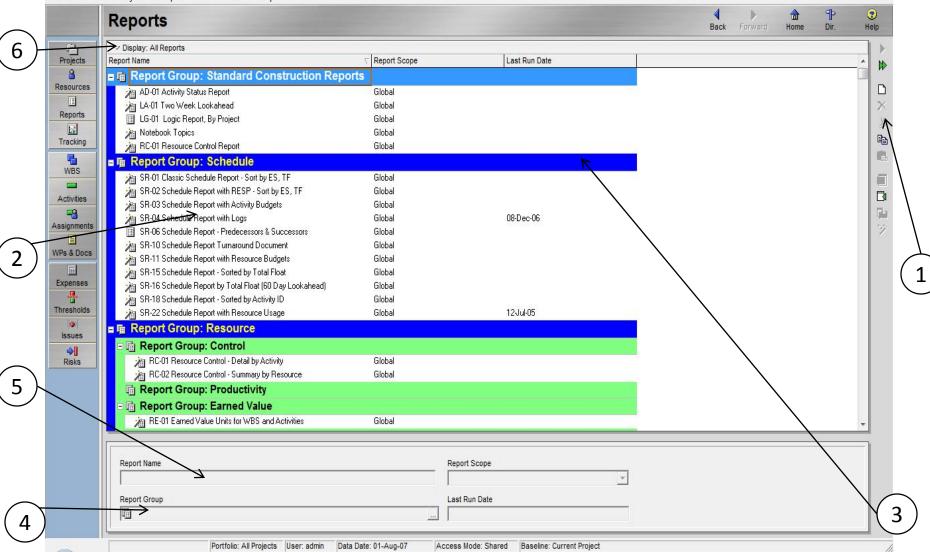


- The *Reports Window* displays reports for schedule, resource and cost
- Exercise
  - Open project, City Center Office Building Addition
  - In the Directory bar, click Reports

#### **Reports Window**

#### 🍌 Primavera : Bldg-1 (Office Building Addition)

File Edit View Project Enterprise Tools Admin Help





\_ 0 X

#### Reports Window



Item	Functionality
1. Command Bar	Displays options for adding, editing, or running reports
2. Reports List	Displays the list of reports available to this project
3. Report Scope	Reports can be global or project-specific. Global reports link to Portfolio Analysis
4. Report Group	Every report can belong to one report group
5. Report Name	Displays the user-defined name of the report
6. Display Option bar	Click to sort and filter the reports, define fonts/colors

## Running an Existing Report



- You can report schedule performance using a predefined schedule report
- Exercise
  - Steps
    - Locate a Report Group title band, Schedule
    - Select a report, SR-18 Schedule Report Sorted by Activity ID
    - In the Command bar, click Run Report

#### © Primavera Training @ BU - 2016 by M. Waseem Khan

#### Run Report Dialog Box

- Exercise
  - Steps
    - In the Run Report dialog box, verify that Print Preview is selected
    - Click Ok

	$\checkmark$	OK
100	-	Cancel
-	-	
	?	Help
	Text Qualifier	Text Qualifier



## Run Report Dialog Box



- Use the *Run Report* dialog box to compile and print the selected report
  - *Print Preview* Preview the report
  - *Directly to Printer* Compile and print the report
  - HTML File Compile and save the report as an HTML file
  - ASCII Text File Choose to compile and save the report as a delimited text file (.txt)
    - Field Delimiter Select the character used to separate categories of information that you save in delimited text format (i.e. comma, tab, space)
    - Text Qualifier Select the character used to separate categories of data that you save in delimited text format if the data contains the field delimiter you specify, such as quote marks (")
  - Output File If you choose HTML File or ASCII Text File, click to specify the file name and location where you want to save the report
  - View file when done Mark this checkbox to automatically open the report in your default Web Browser for an HTML file or default text viewer for an ASCII text file
  - Notes Use to add a comment to the report. Comment appears directly under the report title

#### **Print Preview**



- Print Preview allows you to make modifications to the layout before printing
  - Page Setup
  - Print Setup
  - Print
  - Publish
  - Left/Right/Up/Down
  - Last/First Page
  - Zoom In/ Out
  - Help
  - Close

#### Run Report Dialog Box



- Printing reports is an effective way to communicate project information with resources and other project managers
- The report below displays Original Duration, Remaining Duration, Percent Complete, Activity Name, Early Start, Early Finish, Late Start, Late Finish, and Total Float of all activities in the project

#### Run Report



**Print Preview** 

4

#### ####

Office Building Addition

Report Date 14-Feb-10 13:26

#### SR-18 Schedule Report - Sorted by Activity ID

Project Start Date 05-Feb-07 Project Finish Date 25-Dec-07 Data Date 01-Jul-07

Activity ID		Rem Dur	Calendar	% lepartment	Activity Name	Early Start	Early Finish	Late Start	Late Finish	Total Float
B-PE	51	51	Standard 5 Day Workweek	0	Plumbing & Electrical Summary	16-Aug-07	25-Oct-07	11-Sep-07	29-0 d-07	18
BA-B	136	7	Standard 5 Day Workweek	€4.85	Brick Summary	21-Mar-07 A	26-Sep-07	20-Sep-07	28-Sep-07	2
BA-C	23	23	Standard 5 Day Workweek	0	Ceiling Summary	19-Nov-07	19-Deo07	21-Nov-07	21-Deo-07	2
BA-DE	45	0	Standard 5 Day Workweek	100	Design & Engin eering Summary	05-Feb-07 A	08-Apr-07 A			
BA-DW	3	3	Standard 5 Day Workweek	0	Doors and Windows Summary	25-Sep-07	27-Sep-07	10-Od-07	12-0 d-07	11
BA-E	36	36	Standard 5 Day Workweek	0	Elevator Summary	11-Sep-07	30-Oct-07	30-Oct-07	21-Deo-07	35
BA-EXT	148	17	Standard 5 Day Workweek	38.36	Exterior Finishes Summary	21-Ma⊫07 A	10-Oct-07	20-Sep-07	27-Deo07	2
BA-F	62	0	Stan d ard 5 Day Workweek	100	Found ation Summary	21-Mar-07 A	14-Jun-07 A			
BA-FC	191	118	Standard 5 Day Workweek	38.22	Floor and Carpeting Summary	21-Mar-07 A	12-De007	04-Deo07	14-Dec-07	111
BA-HVAC	185	125	Standard 5 Day Workweek	32.43	HVAC Summary	09-Apr-07 A	21-De007	31-Aug-07	25-Deo-07	44
BA-IF	200	127	Standard 5 Day Workweek	38.5	In terior Finishes Summary	21-Mar-07 A	25-Deo07	31-Oct-07	27-Deo-07	87
BA-ME	185	125	Stan d ard 5 Day	32.43	Mech/Electrical Summary	09-Apr-07 A	21-Deo07	31-Aug-07	25-Deo07	44





j,

#### Report Wizard



- The *Report Wizard* enables you to easily create a wide variety of adhoc reports.
- The reports can be modified as they are built, or they can be reopened later to be modified
- To create a wizard report
  - Select a base table and pertinent data fields
  - Organize the data via grouping, sorting, and filtering options

## Create or Modify Report



- You will use the wizard to create a report that shows the resource assignments on the project and related Notebook topics
- Exercise
  - Steps
    - In the Command bar, Click Add
    - Verify the option,
       New Report
    - Click Next

Cre	ate or I	<b>Nodify</b>	Report						
You ca	n create a nev	report, or a	eport based on	the previous s	creen displa	y(e.g. <mark>,</mark> Activ	ities, W	BS, Ex	penses)
To mod button.	ify a report cre	ated by the w	rizard, go to the	Reports scree	n, select the	report, and	click on	the Wi	izard
ſ	New Report								
С	Use Current S	creen							
С	Modify Wizard	Report							

### Select Subject Area



- Exercise
  - Steps
    - Select a Subject Area, Resources
    - Click Next

Report Wizard		
Select Subject Are	a	
Select the subject area for the report.	-	
	o see which information may be displayed over time.	
Time Distributed Data		
Report Groups		
Reports		
A Resource Code Assignments		
Resource Code Values		
ā		
Resource Codes		
Resource Codes		
Resource Curves		
Resource Curves		
Resource Curves Resource Prices Resource Role Assignments		
Resource Curves Resource Prices Resource Role Assignments Resources		

© Primavera Training @ BU - 2016 by M. Waseem Khan

# Select Additional Subject Area

- Exercise
  - Steps
    - Select a subject area, Activity Notebook

Report Wizard

- Click Arrow button to include in selection
- Click Next

elect Additional Sub	e	
Available Subject Areas Activity Code Assignments Activity Notebook Activity Past Period Actual Activity Resource Assignments Activity Resource and Role Activity Resource Assignments Activity Steps Document Assignments Activity Steps Activity S	H	Selected Subject Areas



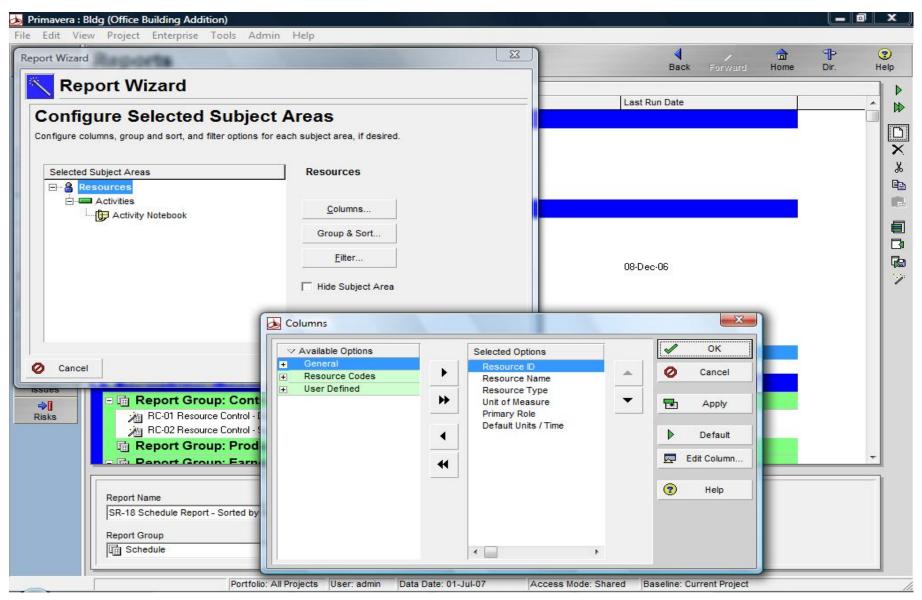
# Configure Selected Subject Area



- Select the columns you would like to use in the report
- Exercise
  - Steps
    - Select Resources
    - Click Columns
    - Use left arrow to remove all the columns from the selected option section except Resource ID and Resource Name
    - Click Ok

## Configure Selected Subject Area





© Primavera Training @ BU - 2016 by M. Waseem Khan

## Adding Filter to the Report



- Select a filter you would like to use in the report
- Exercise
  - Steps
    - Click Filter
    - Click Add
    - Double-click on any of the following and Select All
    - In the second row, click the Parameter cell and select a data item, Assign to Current Project
    - Double-click in the Is Cell to select a filter criteria, Equal
    - Double-click in the Value cell to select Yes
    - Click Ok
    - Click Next

## Adding Filter to the Report



✓ Disp	lay: Filte	r				1	OK
isplay a	all rows	Parameter	ls	Value	High Value		3033
]		(Any of the following)	•		· · · · · · · · · · · · · · · · · · ·	0	Cancel
	Where	Active	equals	Yes			
	Or	Assigned to Current Proj	equals	Yes		•	Apply
						D	Add
						×	Delete
						¥	Cut
						8	Сору
							Paste
						•	▲ ▼
					,	•	Help

## Adding a Report Title

ORACLE

- Exercise
  - Steps
    - Type a descriptive report title <Bldg: Resource Activity Assignment with Notebook>
    - Click Next

port Wizard					_
Report Title				 	
Add a title for your report.					
Bldg: Resource Activity Assignments with Noteb					
Cancel	4	Prev	Next	83	Finish

#### Generating the Report

- Exercise
  - Steps
    - Click the Run Report button
    - Verify that Print Preview is selected
    - Click Ok

Report G	enerated						
-	en created. Click the F	Run Report but	ton to previ	iew and prir	nt the report		
	Run Report	1					
Format Numb	ers						

#### **Print Preview**



• You can preview the report before printing. To print, click the Print icon

Print Preview			- 8
b 🃔 🛎 💔			
	Office Building Addition	14-Feb-10 13:57 Bldg: Resource Activity Assignments with Notebook	
	Resource ID	Resource Name	
	Innovative Resources	Innovative Construction Internal Resources	
	Management	Management	
	Schedulers	Project Managers	
	PE3	Planning Engineer	
	Exec	Executive	
	PEXEC	Project Executive	
	PMs	Project Managers	
	PM1BOBP	Bob Patterson, Project Manager	
	PM1 SUEW	Sue White, Project Manager	
	Design Engineers	Design Engineering Department	
	StructEng	Structural Engineers	
	ST1LISAH	Lisa Hall, Structural Designer	
	ST2GREGM	Greg Miller, Structural Engineer	
	ST2JENM	Jen Martin, Structural Engineer	
	InstrEng	Instrumentation Engineers	
	IE1BRETS	Bret Sanders, Instrumentation Engineer	

## Saving a Report



- After reviewing your report, you can save it and assign it to specific report group
- Exercise
  - Steps
    - Click Next
    - Click Save Report
    - When prompted Click Ok
    - Click Finish

Congratulat	ions
	you can rerun it later from the Reports screen, otherwise, it will be lost.
[	Save Report
<u></u>	
	6
	Primavera
	The report was saved as Bldg: Resource Activity
	The report was saved as Bldg: Resource Activity

## Assigning a Report to a Report Group



- To easily locate a report, you can assign it a report group.
- Exercise
  - Steps
    - Select the new report, Bldg: Resource Activity Assignment with Notebook
    - In the Report Group field, click Browse button
    - Select a report group (bottom), Resource-Loading, and then click Assign button
    - Press F5 to refresh the data
    - In the Report Scope drop-down list in the Report Details,

click Current Project

✓ Display: Report Groups	
Search	
Report Group	E - E
E Resource	
- Control	
- Productivity	×
Earned Value	
Tabular	(2)
Loading	
Cost	
- In Control	
Earned Value	
Tabular	
Loading	420
The second Market	+=0



- The Report Wizard can also be used to create reports based on the layout that is currently displayed.
   Reports can be modified as they are built through the wizard
- Exercise
  - Steps
    - In the Directory bar, click Activities
    - In the Layout Option bar, click Layout, Open
    - Select a Layout, Resources-Budgeted Total Units, click Open
    - In the Tools menu, click Report Wizard
    - In the Create or Modify Window, select use Current Screen
    - Click Next



Create or Modify Repo	ort		
You can create a new report, or a report bas		ay(e.g., Ac <mark>tivi</mark> ties	, WBS, Expenses
To modify a report created by the wizard, go button.	to the Reports screen, select th	e report, and click	k on the Wizard
C New Report			
Use Current Screen			
C Modify Wizard Report			



- Exercise
  - Steps
    - On the Report Title Screen, type a title
    - Click Next
    - Click Run Report
    - Verify Print Preview is selected
    - Click Ok
    - Click Close
    - Click Next
    - Click Save
    - Click Ok
    - Click Finish
- This will show you the report with the **Columns** which are displayed on the Current ACTIVITY LAYOUT



- 0 ×

Print Preview

\_\_\_\_\_ D\_1 🗞 😄 💔 🛛 🕢

🕐 🗳

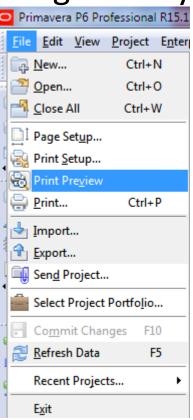
City Center Office Building /	Addition	ļ	Activities					20-Feb-16 09:1	9 PM		
Activity ID	Original Duration	Remain i ng Durati on	Schedule % Complete		Finish	Total Float	Budgeted Total Cost				
EC00515-1 City Center Office Building Addition	694d 3.52h	587d 3.52h	16.67%	01-No v- 10 08:00 AM A		Od	's. 119,688,966.40				
EC00515-1.D8 Design and Engineering	132d	5d	100%	01-Nov-10 08:00 AM A		562d 3.52h	Rs. 8,216, 328.00				
EC00515-1.Fo Foundation	149d 4.40h	101d 4.40h	22.02%	23-Feb-11 08:00 AM A		465d 7.12h	Rs.25,179,132.80				
EC 005 15-1 .Sti Structure	153d 5.80h	153d 5.80h	0%	23-Sep-11 01:24 PM	01-May-12 10:12 AM	312d 1.32h	Rs.20,982,336.00				
EC00515-1.Me	575d 1.03h	562d 5.12h	2.63%	14-Apr-11 01:05 PM A	16-Jul-13 02:07 PM	0d	Rs.33,586,404.80				
Me ch an ical/E											
EC 005 15-1. Elevator	223d 2.92h	223d 2.92h	0%	13-Apr-1 2 10:12 AM	28-Feb-13 02:07 PM	91d 1.60h	Rs.830,592.00				
EC00515-1. HVAC	575d 1.03h	562d 5.12h	3.85%	14-Apr-11 01:05 PM A	16-Jul-13 02:07 PM	Od	Rs.24,211,756.80				
EC00515-1. Plumbing	262d 7.72h	262d 7.72h	0%	31-Jan-12 10:12 AM	11-Feb-13 09:55 AM	6d 1.60h	Rs. 8,544,056.00				
EC00515-1.Ex Exterior	343d 2.40h	296d 2.40h	43.02%	17-Feb-11 08:00 AM A		271d 1.12h	Rs. 6,928,851.20				
EC00515-1. Brick	319d 1.40h	272d 1.40h	59.15%	17-Feb-11 08:00 AM A		126d 0.12h	Rs. 4,667, 136.00				
EC00515-1. Roof	24d 1.00h	24d 1.00h	0%	24-May-12 09:24 AM	28-Jun-12 10:24 AM	126d 0.12h	Rs. 1,466, 720.00				
EC00515-1.	7d 3.40h	7d 3.40h	0%	08-May-12	17-May-12	154d 4.92h	Rs.794,995.20				

© Primavera Training @ BU - 2016 by M. Waseem Khan

- You can prepare Report of Activity Columns & Gantt Chart using Activities Window by customizing Activity Layouts.
- There are two options to this Report:
  - Using File Menu → Print Preview or Print

 Using Tool Bar → Print Preview or Print (button)









🗢 Print Preview

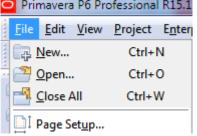
🗏 😨 🔎 🔍 🛋 🗖 🕨

	e Building Addition	Classic Schedule L						20-Feb-16 12:5	
ctivity ID	Activity Name	Original Duration	Remaining Duration	Schedule % Complete	Start	Finis h	Total Float	Budgeted Total Cost	
🚔 EC 0051	5-1 City Center Office Building	Ad 694d 3, 52h	567d 3.52h	16.67%	01-Nov-10	23-Jul-13	Od	3.119,688,986.40	F
📇 EC005	15-1.D&E Design and Engineering	132d	5d	100%	01-Nov-101	06-May-11	562d	Rs.8,216,928.00	⊢
🚍 EC100	0 Design Building Addition	55d 1.60h	0d	100%	01-Nov-101	19-Jan-11 (	0.505	Rs.5, 458, 176.00	
EC101	0 Start Office Building Addition Project	Od	0d	100%	01-Nov-10			Rs.0.00	i) :
EC102	0 New Activity	5d	5d	0%	02-May-11 (	06-May-11	562d	Rs.0.00	
EC103	0 Review and Approve Designs	21d 4.80h	0d	100%	17-Jan-11 0	17-Feb-11		Rs.1,067,904.00	đ**
EC105	0 Assemble Technical Data for Heat Pump	7d 1.60h	0d	100%	16-Feb-11 (	25-Feb-11		Rs. 355, 968.00	ī –
EC1110	0 New Activity	5d	5d	0%	02-May-11 (	06-May-11	562d	Rs.0.00	1
EC116	0 Review Technical Data on Heat Pumps	27d	0d	100%	24-Feb-11 (	06-Apr-11 (		Rs.1,334,880.00	ī –
EC005	15-1.Found Foundation	149d 4.40h	101d 4.40h	22.02%	23-Feb-11 (	23-Sep-11		₹s.25, 179, 132.8	
EC109	0 Begin Building Construction	Od	0d	100%	28-Feb-11 (		7.4.95	Rs.0.00	1
EC110	0 Site Preparation	43d 1.60h	0d	100%	23-Feb-11 (	18-Apr-11 (		Rs.2, 491,776.00	
EC123	0 Excavation	24d 1.00h	24d 1.00h	41.67%	02-May-11 (	06-Jun-11 (	126d	Rs.2,768,640.00	
EC132	0 Instal Underground Water Lines	12d 1.00h	12d 1.00h	0%	06-Jun-11 0	22-Jun-11	126d	Rs.1,087,680.00	
EC133	0 Instal Underground Electric Conduit	12d 1.00h	12d 1.00h	0%	08-Jun-11 0	22-Jun-11 1	126d	Rs.1,878,720.00	
EC134	0 Form /Pour Concrete Footings	24d 1.00h	24d 1.00h	0%	22-Jun-11 1	27-Jul-11 1	126d	Rs.6, 410, 720.00	t
EC135	0 Concrete Foundation Walls	24d 1.00h	24d 1.00h	0%	27-Jul-11 11	30-Aug-11	126d	Rs.5, 421, 920.00	1
EC138	0 Form and Pour Slab	12d 1.00h	12d 1.00h	0%	30-Aug-11 (	16-Sep-11	126d	Rs.4,035,952.00	
EC137	0 Backfil and Compact Wals	4d 7.40h	4d 7.40h	0%	16-Sep-11 (	23-Sep-11	126d	Rs.1,083,724.80	
EC138	0 Foundation Phase Complete	Od	b0	0%		23-Sep-11	465d	Rs.0.00	1
EC005	15-1.Structure Structure	153d 5.80h	153d 5.80h	0%	23-Sep-11 (	01-May-12	312d	₹s.20,982,336.0	1
EC139	0 Erect Structural Frame	48d 1.00h	48d 1.00h	0%	23-Sep-11 (	01-Dec-11	126d	Rs.4,515,520.00	
EC141	0 Begin Structural Phase	Od	0d	0%	01-Dec-11 (		417d	Rs.0.00	
EC142	0 Floor Decking	33d 4.80h	33d 4.80h	0%	01-Dec-11 (	20-Jan-12	126d	Rs.4,683,616.00	
🔤 EC143	0 Concrete First Floor	36d	36d	0%	20-Jan-12 1	12-Mar-12	126d	Rs.3, 119,664.00	1
EC146	0 Erect Stairwell and Elevator Walls	24d	24d	0%	12-Mar-12 1	13-Apr-1.2	138d	Rs. 692, 160.00	d
EC147	0 Concrete Basement Slab	24d	24d	0%	12-Mar-12 1	13-Apr-1.2 *	138d	Rs.4,851,712.00	1
🚍 EC148	0 Concrete Second Floor	36d	36d	0%	12-Mar-12 1	01-May-12	126d	Rs.3, 119,664.00	1
EC154	0 Structure Complete	0d	b0	0%		01-May-12	126d	Rs.0.00	1
EC005	15-1.Mechanicals Mechanical/Electr	ica 575d 1.03h	562d 5.12h	2.63%	14-Apr-11 0	16-Jul-13 0	0d	₹s.33,586,404.8	
EC149	0 Rough-In Phase Begins	DO	b0	0%	21-Mar-12 1		233d	Rs.0.00	1
EC169	0 Rough In Complete	b0	0d	0%		21-Feb-13	0d	Rs.0.00	1
Actual Actual	Level of Effort Remaining Work	Page 1	of 12	1	TASK filter: A	II Activities		© Oracle Corpor	

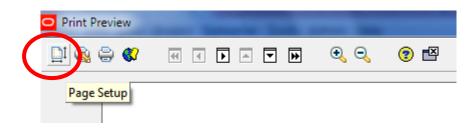
© Primavera Training @ BU - 2016 by M. Waseem Khan



- You can take Customize the Print Preview using:
   *Page Setup* Option
   Primavera P6 Professional R15.1
   Etal Edit View Project Entern
  - File Menu → Page Setup
     OR



Print Preview → Page Setup (button)





- Page Setup → Page (Tab)
  - Page Orientation, Page Fit, Timescale Fit, Paper Size

Page Setup		-			X
Page Margins	Header	Footer	Options	<b>√</b>	ок
Orientation				0	Cancel
A C Portrait A C Land	iscape				Apply
Scaling				►	Default
	normal size			•	Help
	age(s) wide by 0	tall			
C Fit timescale to:	age(s) wide				
Paper Size					
Paper size: Letter 8.5"x11" 22x28cm	•				
Width: 11 🖨 Height:	8.5				



- Page Setup → Options (Tab)
  - Timescale START & FINISH
  - Print (Top Layout View or Profile View or Both)
  - Profile View is only for Activity Usage Profile & Resource Usage Profile

Page Setup					×
Page Margins	Header	Footer	Options	<b>√</b>	ок
Timescale Start: PS				0	Cancel
Timescale Finish: PF					Apply
Print					Default
Activity Table				(2)	Help
✓ All Columns ✓ Grid Lines				<u> </u>	
Gantt Chart					
Profile					
C Spreadsheet					
Trace Logic					
Page Settings					
🗖 Break Page Every Group					

#### Resource Usage Profile Settings

- Use Resource Usage Profile
- Display: Current Project's Resources
- Display: Open Projects Only

O Pri	imavera P6 P	rofessional R15.1 : ECO	0515-1 (City Center Office B	Building Additio	n)				Succession of the local division of the loca	-				x
<u>F</u> ile	<u>E</u> dit <u>V</u> iew	<u>P</u> roject E <u>n</u> terprise	<u>T</u> ools <u>A</u> dmin <u>H</u> elp											•
8	🙈 🗸 📃 🔳	🔁 3- 🍋 🖽 📧	?   🖎 🖪 🖳 💽	y. 🚠 📜 🗖		] - 📼	7. 6.	# 🕌 💷	0, 😴 🌾	è 🚺 😨	E 🔰 🕄	Q Q E	3 🛞 🔲 🗭	» •
C.	Activities		R	esource Usage P	rofil	e							×	ۍ ا
2	Activities	Projects												×
-5	⊂ ∠ayout:	Classic Schedule Layout	- MSPM-3B	Filter: All Activ	ities		1							d
۰ ا	Activity ID	_ Activity Na	ame	Origi	ir 🔺		Otr 4, 2010			Qtr 1, 2011			Qtr 2, 2011 🔺	E B
						Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	
	EC(	00515-1 City Ce	nter Office Building	Additic										
2	E(	C00515-1.D&E De	esign and Engineerin	a			÷						🔫 06-May	
創			ilding Addition			1	-		De	sian Building.	Addition			1
			e Building Addition Project			"	🕹 Start 🕼 fice	Building Addit	ion Project, 0	1-Nov-10 08:0	D AM A			22
4		EC1020 New Activ					1						🗖 New Ac	
		EC1030 Review ar	d Approve Designs					1		Re	view and App	rove Designs		<u>a</u>
		EC1050 Assemble	Technical Data for Heat Pump				1		1		Assemble Te	hnical Data f	r Heat Pump	-
	-	EC1110 🔄 New Activ	ity					<u> </u>	1				🗖 New Ac	2
<b>.</b>		CONTRO Deview Tr	schnical Data on Heat Pumps		-		i					Raviau	achnical D =	
				P									P	
2		Current Project's Resour			_	🗸 🗸 Dis	play: Open Pro	ojects Only						
	R source ID	Resource Name	Primary Role	Default Units / Time										4
	A Elec	Electrician	Trades	8.00h/d			Budge	eted Units	<u> </u>					
	Elec Elev Inst		Trades	8.00h/d		1500h	Actua	l Units					1000h -	J
	S Exc	Excavator	Trades	8.00h/d			Remai	ining Early Units	s					
	S FCarp	Finish Carpenter	Trades	8.00h/d		- 1200h		Illocated Early					800h -	
	S Floor	Floor and Carpet Lay		8.00h/d				care carry						

## Resource Usage Profile Options

- Use Display Option bar on Right-Pane
- Click

	Display: Open Projects Only	
	Show All Projects	
	Stacked Histogram	 -
-	Timescale	-
• • •	Resource Usage Profile Options	
	User Preferences	-
•	Zoom In	
9	Zoom Out	1

	Resource Usage Profile	Options					×
• Use Data (Tab)	Da	ta		Graph	1	<b>√</b>	ок
	Display					0	Cancel
	Units     C Cost	Display A	ctual using Finar	ncial Period data		<b>•</b>	Apply
	Show Bars/Curves					R P	references
<ul> <li>Use Units or Cost</li> </ul>	Burgeted	By Date	Cumulative	Color		•	Help
	Actual Remaining Early	<u> </u>	<u> </u>			_	
<ul> <li>Show Bars/Curves</li> </ul>	Remaining Late	V	V				
	Show Remaining Ba	ars As	Early	Late			
<ul> <li>Use Additional Data</li> </ul>	C Total Remaining						
				<			
Options	Additional Data Option		Show Overti	me			
-	Show Overalloc	ation					

ORACLE

#### **Resource Usage Profile Options**



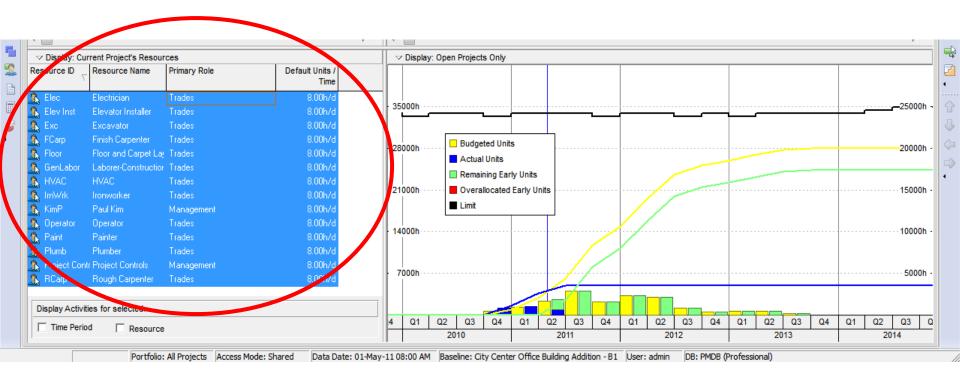
• Use Graph (Tab) to display Legend and 3D Bars

Da	e Options	Graph		ОК
Vertical Lines			0	Cancel
Major				
Minor			<b>B</b>	Apply
Horizontal Lines				Preferences
Dotted	Line Color			Help
C Solid				
C None				
Additional Display Op	ptions			
Show Legend	Background Color	r		
☑ 3D Bars				
Calculate Average				
Divide interval	totals by: Base on Hours per Tim	e Deriod		
1		ic Feriou		

## Resources' Units Profiling



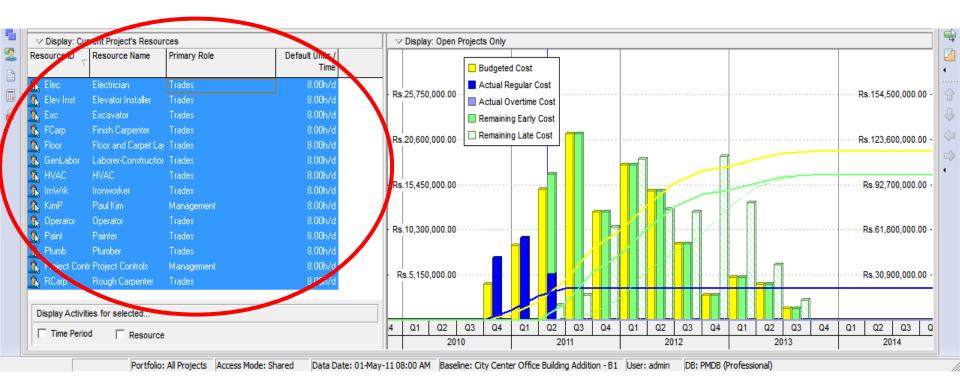
Select all "Current Project's Resources" on Left-Pane



## Resources' Cost Profiling

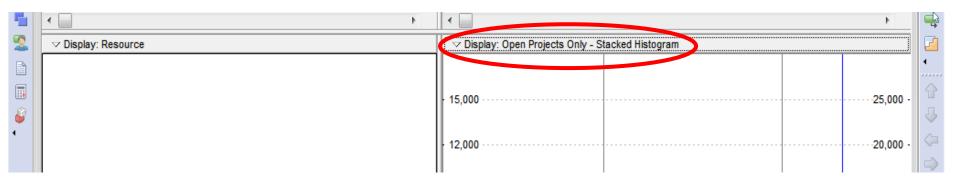


Select all "Current Project's Resources" on Left-Pane

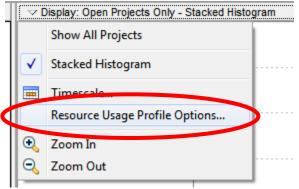




Display: Open Projects Only – Staked Histogram

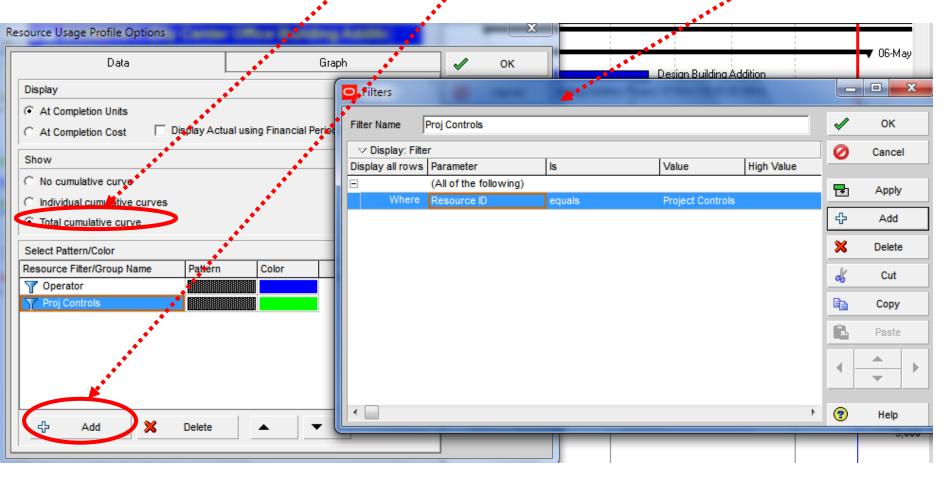


 Now, Select Resource Usage Profile Options from Display Options



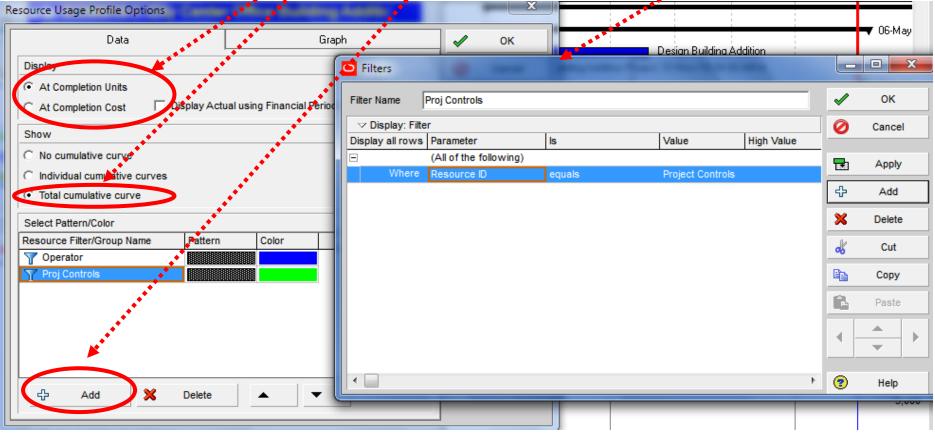


- Now, Add Resources using Add (button) using Filters
- Select Total Cumulative Curve (for S-Curve)



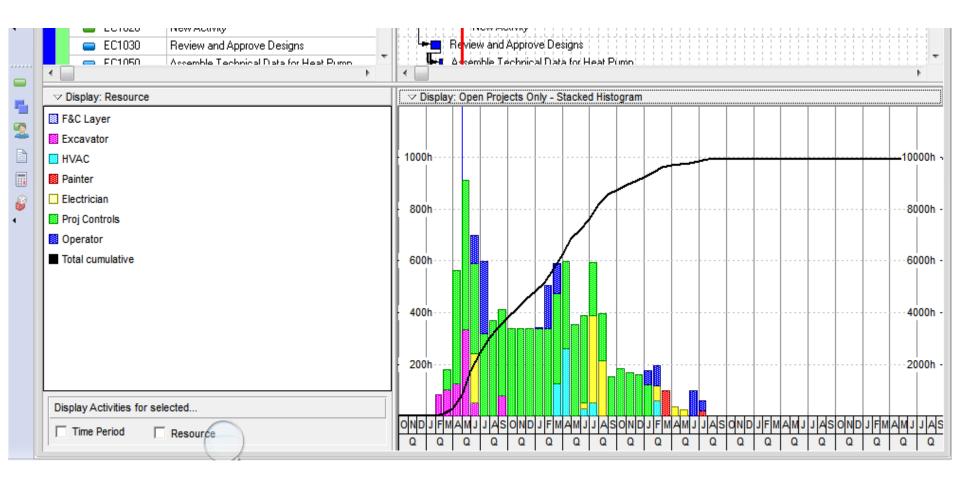


- Now, Add Resources using Add (button) using Filters
- Select Total Cumulative Curve (for S-Curve)
- You can use Cost or Units





#### • See Results





• Take Print using:

#### Print Preview → Page Setup →Options (Tab) → Profile

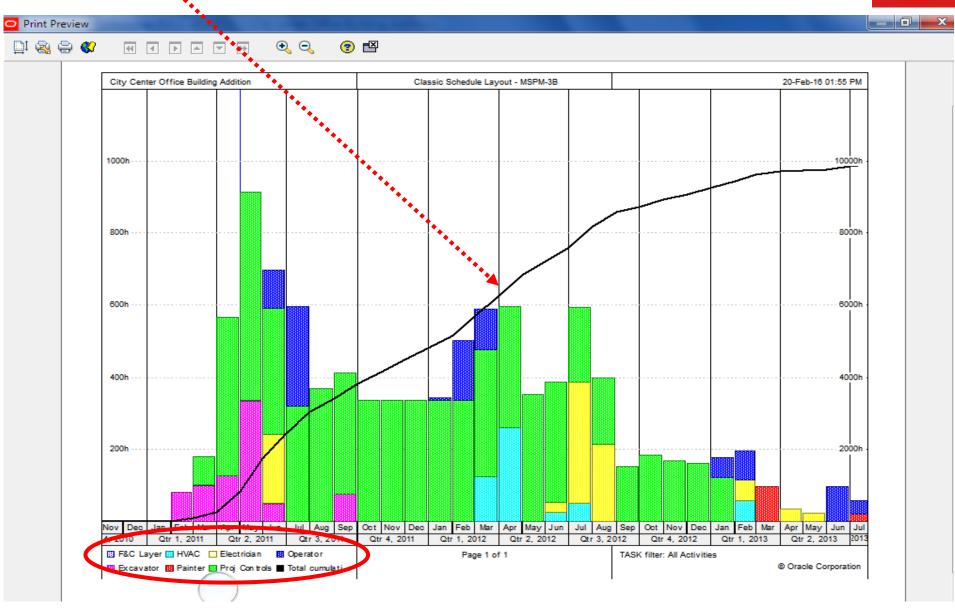
age Setup		<i>≫</i> ••• ⊡•	<b>Q</b> 😨				<b></b> >
Page	Margins	Head	ler	Footer	Options		ок
Timescale Start:		PS				0	Cancel
Timescale Finish:		PF				-	Apply
							Арріу
Print						▶	Default
Activity Table						2	Help
All Columns							nop
Grid Lines							
Profile							
Spreadsheet							
Trace Logic							
Page Settings							
🔲 Break Page Ev	erv Group						



• Take Print using:

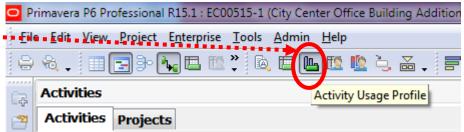
#### Print Preview → Page Setup →Options (Tab) → Profile

age Setup		<i>≫</i> ••• ⊡•	9				<b></b> >
Page	Margins	Head	ler	Footer	Options		ок
Timescale Start:		PS				0	Cancel
Timescale Finish:		PF					Apply
							Арріу
Print						▶	Default
Activity Table						•	Help
All Columns							nop
Grid Lines							
Profile							
Spreadsheet							
Trace Logic							
Page Settings							
🔲 Break Page Ev	erv Group						

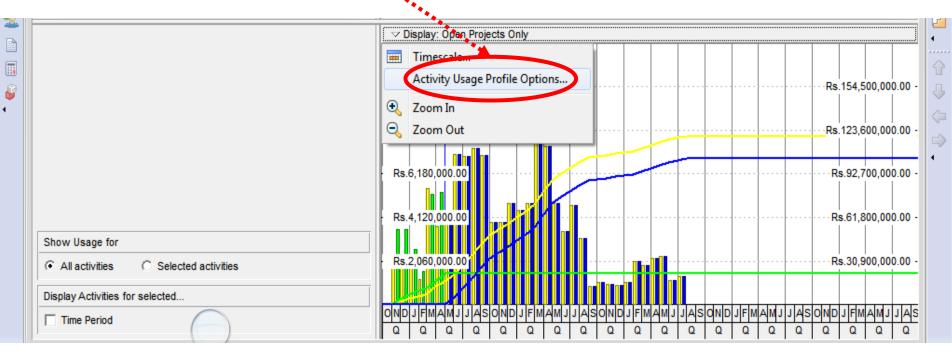


### S-Curve with Earned Value Costs

Use Activity Usage Profile



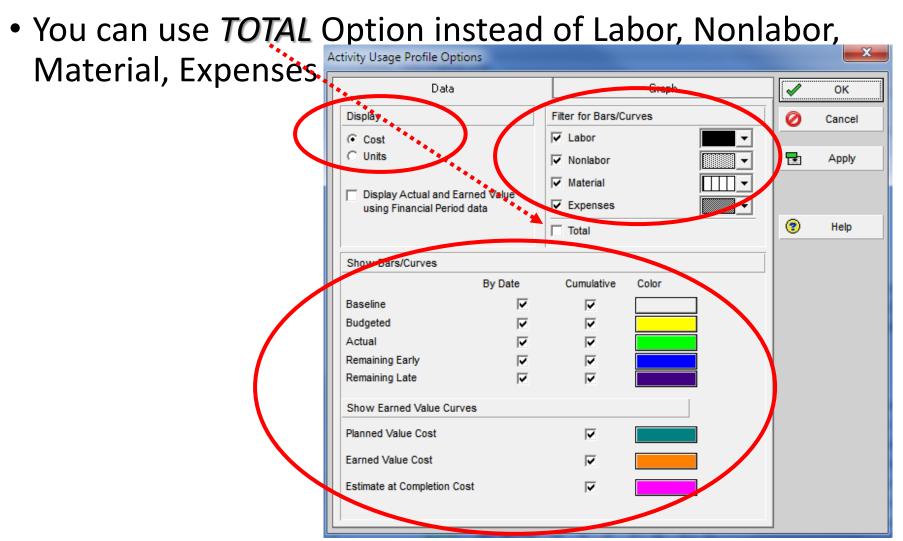
• Use Display: Activity Usage Profile Options



## S-Curve with Earned Value Costs



#### • Use Highlighted Options



#### S-Curve with Earned Value Costs

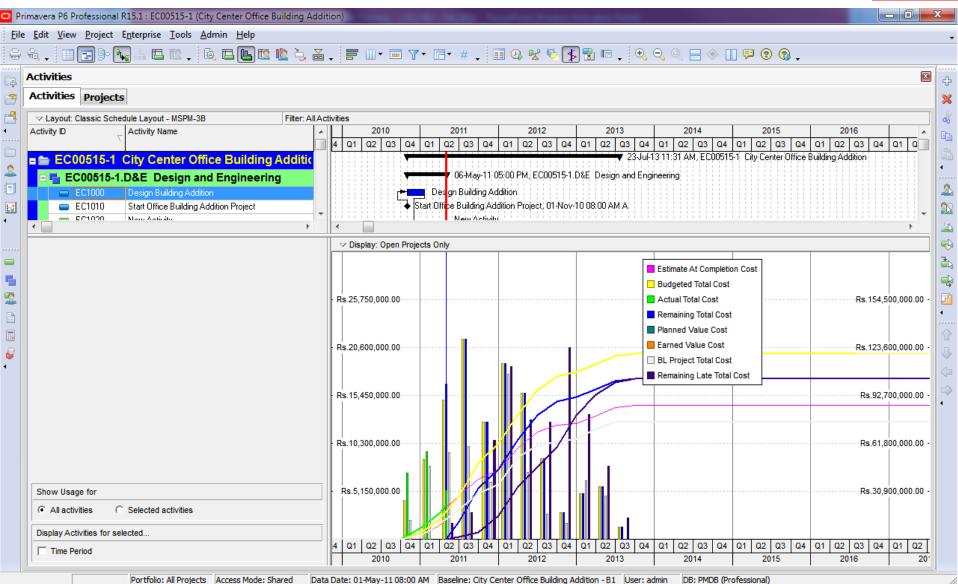


Pr	mavera P6 Professional R15.1 : EC00515-1 (City Center Office Building Add	litio	on)					and a strength of the strength os strength of the strength os stre					x
<u>F</u> ile	<u>E</u> dit <u>V</u> iew <u>P</u> roject E <u>n</u> terprise <u>T</u> ools <u>A</u> dmin <u>H</u> elp												-
9	& .   II 🕞 3- Ng 🚠 🖪 III .   🔯 🖪 🖪 🖪 🖄 🎍 🕁	7	i 📰 🔟 • 🗐 🍸	-	• # .	0	<u>م</u> 👷 🖗 🖪	. 🗣 📧 🛓 🔍		1 🖻 😨 🔞 _			
		-			• • • • • •			· · · · · · · · · · · · · · · · · · ·					
4	Activities											×	) +
2	Activities Projects												×
٩	V Layout: Classic Schedule Layout - MSPM-3B Filter: All A	ctiv	ities										do
	Activity ID C Activity Name	:	2010		2011		2012	2013	2014	2015	2016	÷	Ee
	۲		<ul> <li>i</li> </ul>									F.	(Å
6			🗢 Display: Open Proje	ects Or	ıly								4
									Estimate At Com	pletion Cost			1
									Budgeted Labor				
									Budgeted Nonla	bor Cost			20
			Rs.25,750,000.00						Budgeted Mater	al Cost	Rs.154,5	00,000.00 -	<u> </u>
									Budgeted Exper	ise Cost			-
╸║									Actual Labor Co	st			2
									Actual Nonlabor	Cost			
2		ŀ	Rs.20,600,000.00						. Actual Material (		Rs.123,6	00,000.00 -	
									Actual Expense				•
									Remaining Labo				
									Remaining Nonla				
		l	Rs.15,450,000.00						. D Remaining Mater		Rs.92,7	00,000.00 -	
								1	Planned Value C				
							1/1/1		Earned Value Co				
			Rs.10,300,000.00			K.	K		BL Project Labo		Rs 61 8	00,000.00 -	1
						1/			BL Project Nonla		100.01,0		
					I A	K/			BL Project Mater	rial Cost			
						K			BL Project Expe	nse Cost			
			Rs.5,150,000.00			1.	1		. Remaining Late	Labor Cost	Rs.30,9	00,000.00 -	
	Show Usage for	Ī				$\mathbb{V}$			Remaining Late	Nonlabor Cost			
	All activities     C Selected activities					1			Remaining Late				
	Display Activities for selected	Ī		1									
	Time Period	4	4 Q1 Q2 Q3 Q4 2010	Q1	Q2 Q3 Q4 2011	Q1	Q2 Q3 Q4 2012	Q1 Q2 Q3 Q4 2013	Q1 Q2 Q3 Q4 2014	Q1 Q2 Q3 Q4 2015	Q1 Q2 Q3 Q4 2016	Q1 Q2 201	

Portfolio: All Projects Access Mode: Shared Data Date: 01-May-11 08:00 AM Baseline: City Center Office Building Addition - B1 User: admin DB: PMDB (Professional)

### S-Curve with Earned Value Total Cost





## S-Curve with Earned Value Units



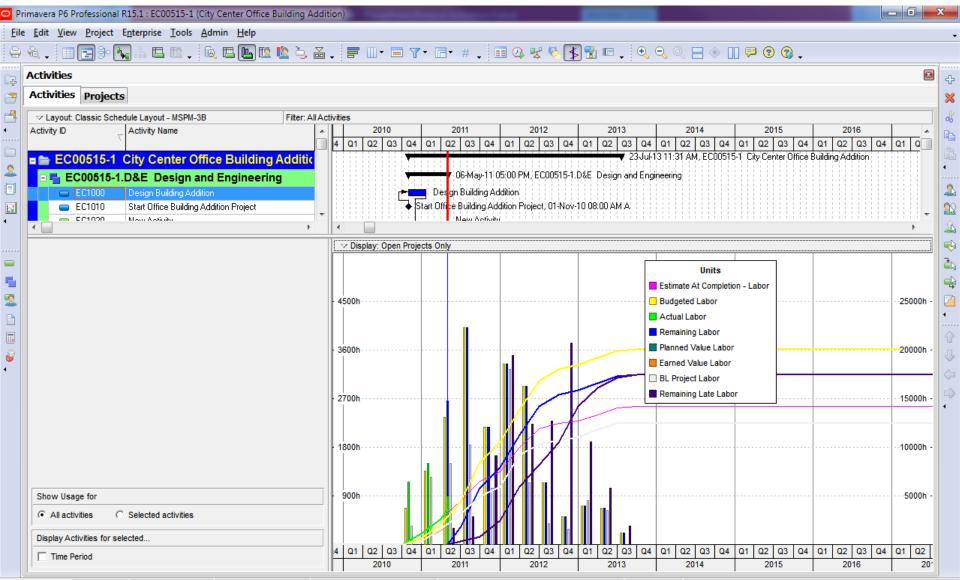
• You can switch between *Labor* Units and *Nonlabor* 

Units

Data			Graph		✓	ок
Display		Filter for Bars/C	urves			Cance
C Cost		Labor		-		
O Units		Nonlabor				Apply
		Material		-		
Display Actual and E using Financial Period		🖵 Expenses				
using rindholdri ene		Total			1	Help
		I Total				
Show Bars/Curves						
	By Date	Cumulative	Color			
Baseline						
Budgeted						
Actual	<b>v</b>					
Remaining Early	$\checkmark$					
Remaining Late	$\checkmark$	$\overline{\mathbf{v}}$				
Show Earned Value Cu	rves					
Planned Value Labor Un	its					
Earned Value Labor Uni	ts					
Estimate at Completion -	Labor Units					

#### S-Curve with Earned Value Units





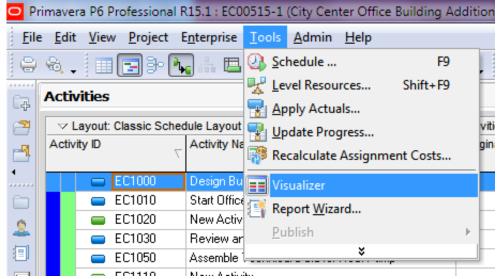
Portfolio: All Projects Access Mode: Shared Data Date: 01-May-11 08:00 AM Baseline: City Center Office Building Addition - B1 User: admin DB: PMDB (Professional)



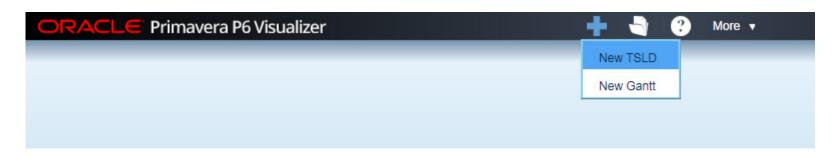
- Visualizer is a feature that supports graphical reporting by enabling users to create customizable Gantt charts and TimeScaled Logic Diagrams (TSLDs).
- Visualizer enables a user to:
  - Stack columns & use word wrapping in the Gantt chart
  - Use notebook topics or a list of steps as a bar label or as an field in the activity table
  - Apply various fonts to individual labels and fields
  - Color-code and apply different shapes for bars and endpoints
  - Draw bars on top of each other, for example, to show critical highlighting



• Click Tools (Menu) → Visualizer



• Use Add (Button) to select New TSLD or New Gantt





#### • Select your Project(s) then Click Next (Button)

	🕂 🚽 🕐 More 🗸	
Cre	eate New Timescaled Logic Diagram	×
	1. Select your projects 2. Create your layout	
1. 9	Select your projects	
	Available Projects Selected Projects	
	Enterprise       All Initiatives       EC00515-1       City Center Office Building Addition         E&C       Engineering & Construction       EC00501       Haitang Corporate Park         EC00515       City Center Office Building Addition       EC00515	
	EC00515-1     City Center Office Building Add       EC00530     Nesbid Building Expansion       EC00610     Harbour Pointe Assisted Livinc	
	EC00620 Juniper Nursing Home EC00630 Saratoga Senior Community MSPM-3 Technology Upgradation Proje	
<ul> <li>(€)</li> <li>(€)</li> <li>(€)</li> </ul>	Energy Energy Services Manufacturing Manufacturing	
	ProdDev Product Development	
	elp Cancel Next >	



- Create a Layout by <u>Creating New from existing</u>; write Name of the Layout in the field
- Select any Layout from GLOBAL
- Click Draw (button)

	. Select your projects		20				
. Cro			2. 0	eate your layou	ıt		
	eate your layo	out					
Name	e MSPM						
) Crea	ate New 💿 Create N	lew from	n existing				
2							
L	.ayout 🔺	Туре	Project ID	Project Name			
Θ	Global (3 items)						
B	aseline vs Current	TSLD			×		
T	SLD with Bar Necking	TSLD					
	SLD with Steps	TSLD					
T	aco with ateps						
_	Project (0 items)						
• F							

## Primavera Visualizer (Report)



- Use *Options (button)* to explore options related to filters, bars relationships etc.
- Use Print (button) to take/ set Printouts

			Close Layout	Print v Save As Opt
roject: EC00515-1 - City Center Office Bui	Iding Addition			
2010 November December v 1 Nov 8 Nov 1{Nov 2{Nov 2{Dec 6 Dec 1{Dec	January February 2(Dec 21 Jan 3 Jan 10Jan 17Jan 24Jan 31 Feb 7 Feb 14Feb 21F	March Feb 28 Mar 7 Mar 14 Mar 21 Mar 28 Apr 4		May June May 1(May 2(May 3) Jun 6 Jun 1
	19-Jan-11 D9:38 AM	04-Apr-11 03:38 PM	06-May-11	1 D4:38 PM
			06-May-11 04:38 PM	27-May-11 11:50 AM
		18-Mar-11 03:00 PM	13-Apr-11 09:12 AM 27-May	uy-11 11:50 AM
		14-Apr-11 01:05	5 PM	8:12 AM
	17-Feb-11 08:00 AM 🔶 17-Feb-11 0	08:00 AM	04-May-11 D8:12 AM	17-May-11 02:43 PM
	16-Feb-11 08:00 AM	25-Feb-11 09:36 AM	17-May-11 02:43 P	25-May-11 02:43 PM
	25-Feb-11 08:00 AM 🔶 25	5-Feb-11 08:00 AM 08-Apr-11 09:12 AM	28+Apr-11 01:24 PN	٨
	17-Jan-11 09:36 AM	3:24 PM 21-Apr	r-11 01:24 PM	11:24 AM
	24-Feb-11 09:36 AM	08-	Apr-11 D9:36 AM 25-May-1	11 02:43 PM
	28-Feb-11 08:00 AM		13-Apr-11 08:00 AM	08-Jun-11 11:14 AM
	25-Feb-11 08:00 AM		11-Apr-11 05:00 PM	06-Jun-11 09:00 AM
		28-Feb-11 08:00 AM	05-May-11 11:24 AM	1 11:24 AM 22-Jun-11 10:00

#### Lesson Review



- The reports window displays reports for schedule, resource, and cost
- You can report schedule performance by choosing one of the pre-defined schedule reports listed in the Reports Window
- The Report Wizard enables you to easily create a wide variety of adhoc reports. The reports can be modified as they are built, or they can be reopened later to be modified. To create a wizard report
  - Select a base table and pertinent data fields
  - Organize the data via grouping, sorting, and filtering options

#### Lesson Review



- The Report wizard can also be used to create reports based on the layout that is currently displayed
- Reports can also be used to Print Bottom Layouts (Profile)
  - S-Curve & Earned Value Reports using Activities Window Layouts (Activity Usage Profile & Resource Usage Profile)
- Primavera Visualizer is used to display/ print Gantt Charts & TSLDs



- Objectives
  - Create a launch a project website
  - Customize the appearance of a project website
  - Publish activity layouts as HTML pages



- The *Project Website* feature is used to publish a project plan as a website on an intranet or in internet. Using a web browser, the project team and other interested parties can view project documents that contain hyperlinks to other pages, enabling them to move between projects and from page to page within a report
- You can browse a project plan at a high level and quickly view more detailed information about specific activities, work products and documents, resources, etc. You can also navigate a project website using project's WBS, resource hierarchy, reference documents outline, activity codes and values, risks, and issues
- Among the Website features
  - Customize the webpage design
  - Create a website that contains one or more multiple projects
    - The project(s) must be opened when publishing
  - Control the level of detail published, e.g. limiting activity information and personal information about resources



- Control the information including
  - Activity Layouts
  - Tracking Layouts
  - Project Reports
  - Global Data Dictionaries
- Test project website locally prior to publishing publicly
- Exercise
  - Steps
    - Tools Menu  $\rightarrow$  Publish  $\rightarrow$  Project Website

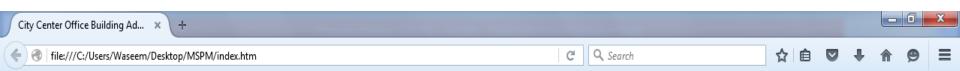


<mark>O</mark> Pr	rimavera P6 Prof	essional R	(15.1 : ECO	0515	-2 (City Center Office Building Add	dition)				
<u>F</u> ile	e <u>E</u> dit <u>V</u> iew <u>I</u>	<u>P</u> roject E	i <u>n</u> terprise	Ιo	ols <u>A</u> dmin <u>H</u> elp					
1 e	8.	30 🖡	- A. I	0	<u>S</u> chedule	F9	7.	<b>⊡</b> • #	. ! [	. 0
	Activities			¥	Level Resources SI	hift+F9	-			
Ē.				7	Apply Actuals					
2	✓ Layout: Cla Activity ID	ssic Sched	lule Layout Activity Na		<u>U</u> pdate Progress		aining	Scher 🔺	10	
-	ACTIVITY ID	$\overline{\nabla}$	ACTIVITY INS	7	Recalculate Assignment Costs		ation	Co	Q3	3 Q4
4	= 🚔 EC00	515-2 (	City Cer		Summarize	+	04.64	2		
<u> </u>	EC0	0515-2.	D&E De	t	Store Period Performance		0.00			
2		1000				ift+F12	0.00			┎┲╼┣═
ā		1010	Start Office		Global Change		0.00			L•
		1030	Review ar	-			0.00			
		1050	Assemble	рÖ	Monitor Thresholds		0.00			
•	😑 EC	1160	Review Te	Ð	Issue Navigator		0.00			
		0515-2.		==	Visualizer		65.55	3		
	EC	1090	Begin Buik				0.00			
_	😑 EC	1100	Site Prepa	1000	Reports	,	0.00			
-	😑 EC	1230	Excavation	1	Report <u>W</u> izard		0.00			
2	_	1320	Install Und		<u>P</u> ublish	×.	🚱 Pi	oject Web S	ite	
		1330	Install Und		Set La <u>n</u> guage			ctivity Layou		
	General State	us Resou	rces Pred	<b>8</b> .	Top Down <u>E</u> stimation		m	acking Layo		Relat

- ORACLE
- Use General (Tab) for Website Name, Description, Publish Directory (Path)
- Use Topics (Tab) to include topics of your choice
- Use Graphics (Tab) to include layouts
- Use Reports (Tab) to add Reports in your website
- Press *Publish (button)* to launch the website
   in the publish directory

iblish Project Web Site		×
General Topics Graphics Reports		
Web Site Name City Center Office Building Addition-MSPM	Ľ	Close
Web Site Description	▶	<u>P</u> ublish
	•	Help
Publish Directory		
C:\Users\Waseem\Desktop\MSPM		
Last Publish Date		
22-Nov-15		
Scheme		
abc Edit Scheme		
Automatically launch web site preview after publishing		





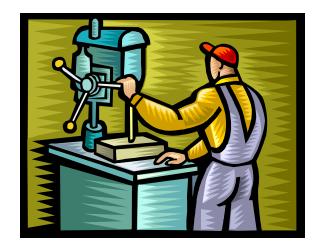
#### City Center Office Building Addition-MSPM

Published February 20, 2016

Click to Enter



#### WORKSHOP Project Website



#### Lesson Review



- The project website feature is used to publish a project plan as a website on an intranet or in internet.
- The website can include activity layouts, tracking layouts, project reports, and global data dictionaries
- You can use default scheme or create your own scheme by adding graphics, fonts, and colors
- You can also save activity layouts as HTML files that are not linked to any project website you previously created. These layouts represent a static picture of the project

## CONGRATULATIONS



