



Getting Started in P3: Basic Tips and Techniques

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PRIMAVERA® 21ST ANNUAL CONFERENCE

E X E C U T E A S P L A N N E D

Getting Started in P3: Basic Tips & Techniques

WELCOME

Ladies and Gentlemen

Focus of Presentation

- To give the occasional user or beginning scheduler a higher comfort level with the P3 software.
- To teach those basic skills needed to start using Primavera Project Planner for scheduling projects.
- To teach the tips and tricks to using the P3 software most effectively.

Aspects to be addressed

1. Capturing the overall project scope of work
2. Defining the Activity Codes structure
3. Establishing the Cost Accounts Codes structure
4. Defining the Resources
5. Establishing the Calendar ID structure
6. Creating activities and their relationships
7. Organizing activities



1. Capturing the overall project scope of work

1.1 Using the Contract

[1.1.1 Instructions to Bidders](#)

[1.1.2 The Agreement \(Contract Terms and Conditions\)](#)

[1.1.3 Project Schedule Requirements](#)

[1.1.4 Special Provisions](#)



1. Capturing the overall project scope of work

Figure 1.1.1: Instruction to Bidders

A Project description shall be provided, which illustrates the functional characteristics and particular features of the design, through text and drawings, in at least the detail indicated, for each of the Project elements below.

The Bidder shall provide a plan, which addresses how the final design and engineering, permitting, interface management, commissioning and testing will be completed within the constraints of the Project Schedule, while maintaining the railroad operation.



1. Capturing the overall project scope of work

Figure 1.1.2: The Agreement

The Project's scope of Work includes the design and construction of a new twin-track high-level fixed bridge over the South Fork of the New River, positioned within the existing right-of-way and approximately 1.7 miles of new twin-track alignment.



1. Capturing the overall project scope of work

Figure 1.1.3: Project Schedule Requirements

The Contractor shall at its own expense prepare, maintain and update detailed Project Schedules for the review and acceptance of (The Owner), all as described in this Section 5. The Project Schedules shall be prepared in such a manner as to permit the orderly planning, organization, and execution of the Work and shall be sufficiently detailed to accurately depict all the Work required for Final Acceptance and Revenue Ready Status. The Contractor's and Subcontractors' management personnel shall actively participate in its development and implementation.



1. Capturing the overall project scope of work

Figure 1.1.4: Special Provisions

(The Owner) has created a Work Breakdown Structure (WBS) for the Project. The WBS is intended to provide a hierarchy of work to be accomplished to complete the Project. The hierarchical structure subdivides all of the Work elements into successively smaller increments of Work. Each division of the Work is defined as a level. The number of levels is determined based on the necessary detail required to track the Project elements. The level of detail provides a breakdown of the Project which facilitates the Project team with tracking and monitoring Project progress. The WBS provides a hierarchical structure to segregate Project elements to facilitate the collection and analysis of Project Data and to serve as a mechanism for payment and scheduling for Project design, procurement and construction.



1. Capturing the overall project scope of work

1.2 Developing the Work Breakdown Structure (WBS)

1.2.1 Levels

- Width – number of characters
- Separators – type of symbol

1.2.2 Codes

- Use typical abbreviations and standards
- Keep it simple



1. Capturing the overall project scope of work

Screen 1.2:
 Opening the
 “WBS” dialog box

The screenshot shows the Primavera Project Planner interface. A menu is open over the 'WBS...' option, which is highlighted. The background displays a project activity table and a Gantt chart for the year 1999.

Activity ID	Activity Description	Priority	Total Float
AM.01.1 Design Engineering			
AS100	Define System		
AS101	System Design		
AS204	Prepare Drawings for Temp Control Equipment		
AS216	Prepare Drawings for System Controller	10	174
AS102	Approve System Design	10	
AS205	Review and Approve Temp Control Equipment	5	
AS217	Review and Approve System Controller	10	174
AM.01.2 System Engineering			
AS240	Installation Begins	0	
AS310	Site Preparation	10	155
AS315	Install Electrical Power	24	155
AS109	Test & Debug Line A	24	155
AS110	Test & Debug Line B	24	155
AS111	Pilot Start Line A	1	155
AS112	Start-Up Line B	1	155
AS265	Path Refinement and	10	155
AS275	Path Refinement and	10	155
AM.01.2.A Temperature Control Equipment			
AS200	Prepare and Solicit Bids for Temp Control Equipment	5	
AS201	Review Bids for Temp Control Equipment	2	
AS202	Award Contract for Temp Control Equipment	1	
AS206	Fabricate & Deliver Temp Control Equipment	20	165
AS105	Install Temperature Control Equipment	20	165
AM.01.2.B Robot Controller			



1. Capturing the overall project scope of work

Screen 1.2.1:
 Operating within the “WBS” dialog box - defining the WBS levels

The screenshot displays the Primavera Project Planner interface. The main window shows a Gantt chart for the project 'Acme Motors Expansion Project' from July 1999 to January 2000. The chart is divided into activity bars for Design Engineering, System Engineering, and Robot Controller. A 'Work Breakdown Structure' dialog box is open in the foreground, showing a tree view of the project hierarchy and a grid for defining levels and widths. The grid has 10 columns for levels and 10 rows for widths. The 'Separator' row is currently empty. The dialog box also includes fields for 'Code' and 'Title'.

Activity ID	Activity Description	Orig Dur	Early Start	Early Finish	Total Float
AM.01.1 Design Engineering					
AS100	Define System	10	20JUL99A	04AUG99A	
AS101	System Design	20	03AUG99A	31AUG99A	
AS204	Prepare Drawings for Temp	10	17AUG99A	31AUG99A	
AS216	Prepare Drawings for	10	23AUG99A	01OCT99	176
AS102	Approve System Design	10			
AS205	Review and Approve Temp	5			
AS217	Review and Approve	10			
AM.01.2 System Engineering					
AS240	Installation Begins	0			
AS310	Site Preparation	10			
AS315	Install Electrical Power	24			
AS109	Test & Debug Line A	24			
AS110	Test & Debug Line B	24			
AS111	Pilot Start Line A	1			
AS112	Start-Up Line B	1			
AS265	Path Refinement and	10			
AS275	Path Refinement and	10			
AM.01.2.A Temperature Control Equipment					
AS200	Prepare and Solicit Bids for	5	07SEP99A	16SEP99A	
AS201	Review Bids for Temp	2	20SEP99A	21SEP99A	
AS202	Award Contract for Temp	1	21SEP99A	21SEP99A	
AS206	Fabricate & Deliver Temp	20	22SEP99A	18OCT99	166
AS105	Install Temperature Control	20	02NOV99	01DEC99	157
AM.01.2.B Robot Controller					



1. Capturing the overall project scope of work

Screen 1.2.2:
 Operating within the “WBS” dialog box - creating the WBS codes

The screenshot shows the Primavera Project Planner interface. The main window displays a Gantt chart for the project 'Acme Motors Expansion Project' from July 1999 to January 2000. A 'WBS' dialog box is open, showing a tree structure of work breakdown structure (WBS) codes. The tree is as follows:

- AM - Acme Motors Expansion Project
 - AM.01 - Automated System
 - AM.01.1 - Design Engineering
 - AM.01.2 - System Engineering
 - AM.01.2.A - Temperature Control Equipment
 - AM.01.2.B - Robot Controller
 - AM.01.2.C - System Controller
 - AM.01.3 - Software Engineering
 - AM.01.4 - Training
 - AM.01.4.A - Manuals
 - AM.02 - Conveyor System



2. Defining the Activity Codes structure

2.1 Codes (category)

2.1.1 Name

2.1.2 Length

2.1.3 Description

2.2 Values (items within category)

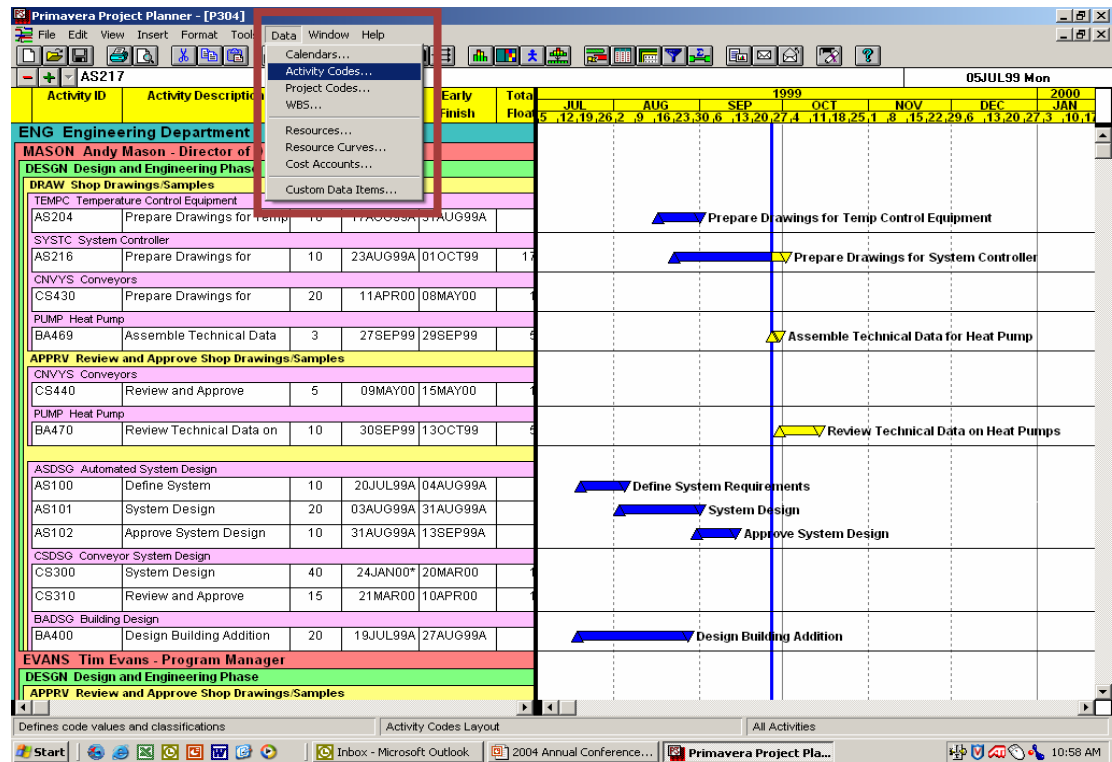
2.2.1 Value Code

2.2.2 Description



2. Defining the Activity Codes structure

Screen 2.:
Opening the
“Activity Codes”
dialog box



2. Defining the Activity Codes structure

Screen 2.1:

Operating within the “Activity Codes” dialog box - entering activity codes

The screenshot shows the Primavera Project Planner interface with the 'Activity Codes' dialog box open. The dialog box has two main sections: 'Activity codes' and 'Values'. The 'Activity codes' section shows a list of codes with columns for Name, Length, and Description. The 'Values' section shows a list of values with columns for Value, Description, and Order. The 'Values' section also includes a checkbox for 'When new code values occur in project, validate against dictionary'.

| Name | Length | Description |
|---------|--------|----------------|
| 1 DEPT | 3 | Department |
| 2 IRESP | 5 | Responsibility |
| 3 IPHAS | 5 | Phase |
| 4 ISTEP | 5 | Step |

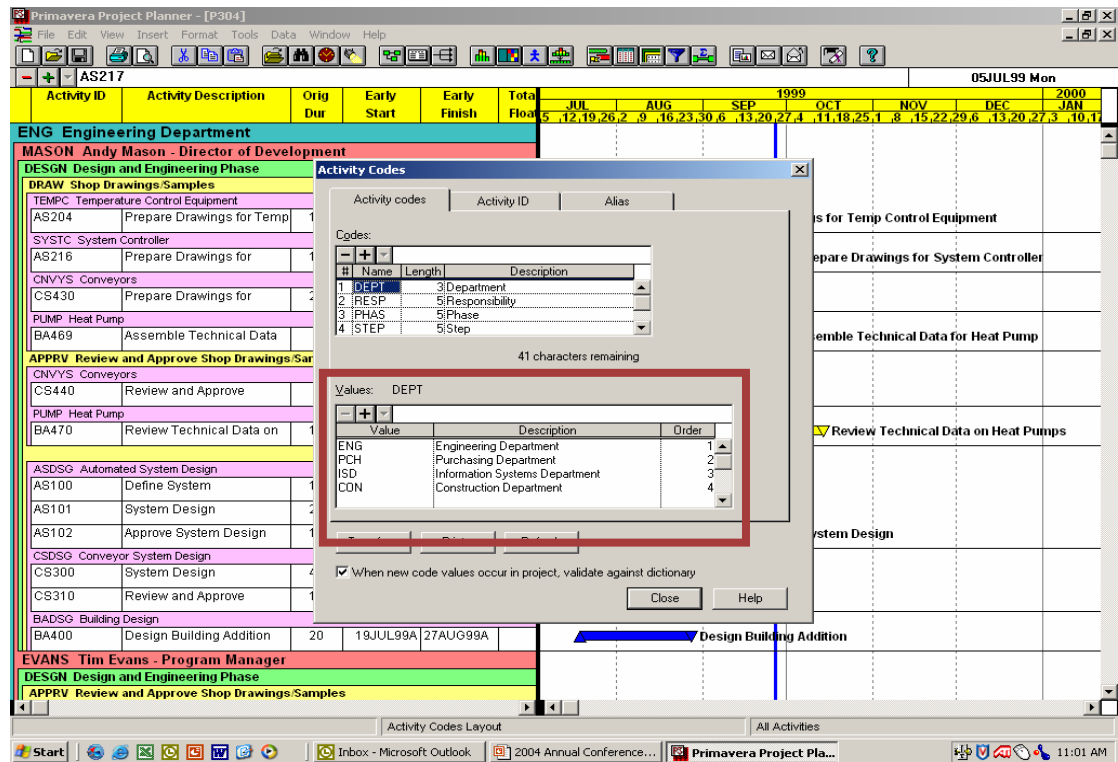
| Value | Description | Order |
|-------|--------------------------------|-------|
| ENG | Engineering Department | 1 |
| PCH | Purchasing Department | 2 |
| ISD | Information Systems Department | 3 |
| CON | Construction Department | 4 |



2. Defining the Activity Codes structure

Screen 2.2:

Operating within the “Activity Codes” dialog box – entering activity code values



3. Establishing the Cost Accounts Codes structure

3.1 Categories

3.1.1 Code

3.1.2 Category Title

3.2 Titles

3.2.1 Account Number

3.2.2 Account Title



3. Establishing the Cost Accounts Codes structure

Screen 3.:
 Opening the “Cost
 Accounts” dialog
 box



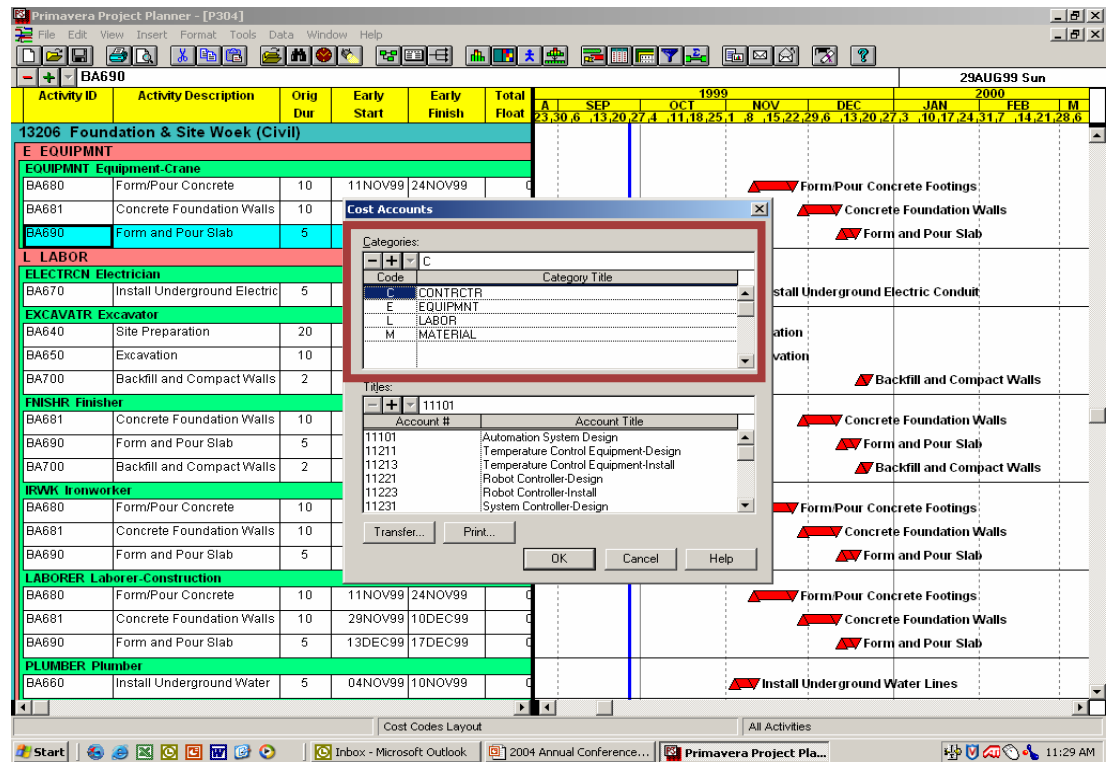
The screenshot shows the Primavera Project Planner interface. The main window displays a Gantt chart with activities listed on the left. A context menu is open over the 'Cost Accounts...' option. The activities listed include:

| Activity ID | Activity Description | Early Finish | Total Float | Start | Finish |
|-------------------------------------|------------------------------|--------------|-------------|-----------|----------|
| 13206 | Foundation & Site Work | | | | |
| EQUIPMNT Equipment-Crane | | | | | |
| BA680 | Form/Pour Concrete | | | 31 NOV99 | |
| BA681 | Concrete Foundation Walls | | | 29 NOV99 | 10 DEC99 |
| BA690 | Form and Pour Slab | 5 | | 13 DEC99 | 17 DEC99 |
| L LABOR | | | | | |
| ELECTRCN Electrician | | | | | |
| BA670 | Install Underground Electric | 5 | | 04 NOV99 | 10 NOV99 |
| EXCAVATR Excavator | | | | | |
| BA640 | Site Preparation | 20 | | 21 SEP99A | 20 OCT99 |
| BA650 | Excavation | 10 | | 21 OCT99 | 03 NOV99 |
| BA700 | Backfill and Compact Walls | 2 | | 20 DEC99 | 21 DEC99 |
| FNISHR Finisher | | | | | |
| BA681 | Concrete Foundation Walls | 10 | | 29 NOV99 | 10 DEC99 |
| BA690 | Form and Pour Slab | 5 | | 13 DEC99 | 17 DEC99 |
| BA700 | Backfill and Compact Walls | 2 | | 20 DEC99 | 21 DEC99 |
| IRVWK Ironworker | | | | | |
| BA680 | Form/Pour Concrete | 10 | | 11 NOV99 | 24 NOV99 |
| BA681 | Concrete Foundation Walls | 10 | | 29 NOV99 | 10 DEC99 |
| BA690 | Form and Pour Slab | 5 | | 13 DEC99 | 17 DEC99 |
| LABORER Laborer-Construction | | | | | |
| BA680 | Form/Pour Concrete | 10 | | 11 NOV99 | 24 NOV99 |
| BA681 | Concrete Foundation Walls | 10 | | 29 NOV99 | 10 DEC99 |
| BA690 | Form and Pour Slab | 5 | | 13 DEC99 | 17 DEC99 |
| PLUMBER Plumber | | | | | |
| BA660 | Install Underground Water | 5 | | 04 NOV99 | 10 NOV99 |

The Gantt chart shows activities as horizontal bars with red arrows indicating dependencies. The status bar at the bottom indicates 'Defines cost accounts/categories' and 'Cost Codes Layout'.

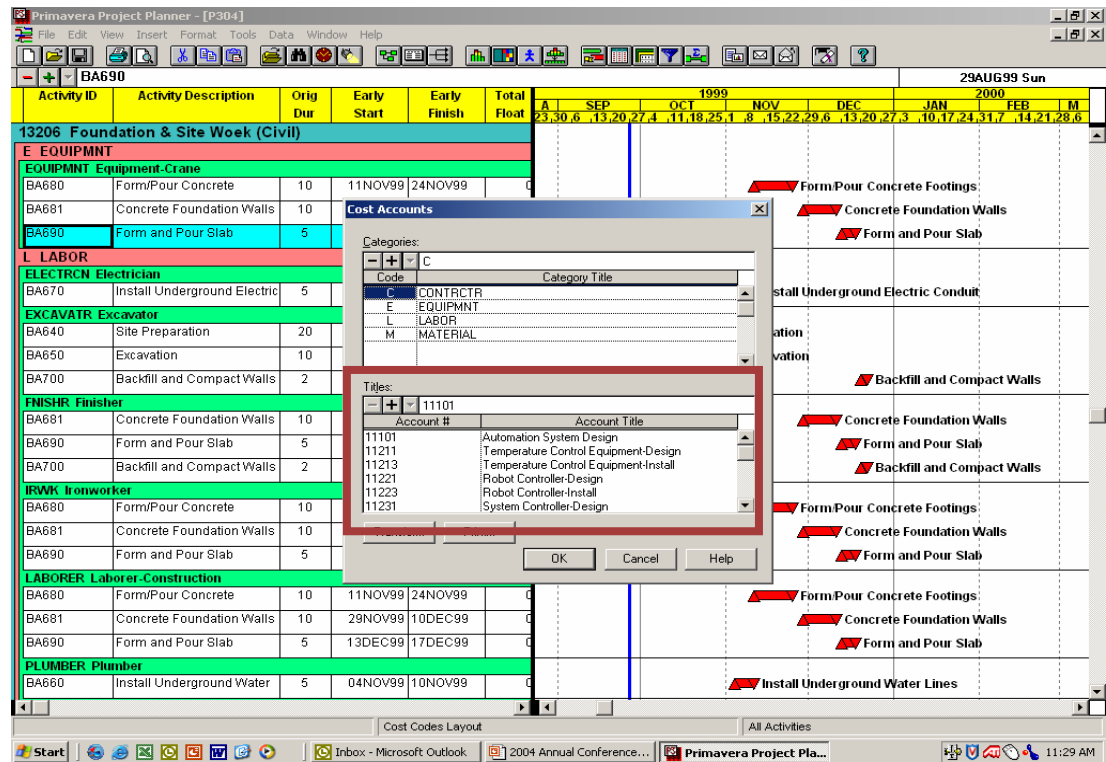
3. Establishing the Cost Accounts Codes structure

Screen 3.1:
 Operating within the “Cost Accounts” dialog box – defining cost categories



3. Establishing the Cost Accounts Codes structure

Screen 3.2:
 Operating within
 the “Cost
 Accounts” dialog
 box – defining cost
 accounts



4. Defining the Resources

4.1 Resources

4.1.1 Resource Code

4.1.2 Units

4.1.3 Driving

4.1.4 Base

4.1.5 Description

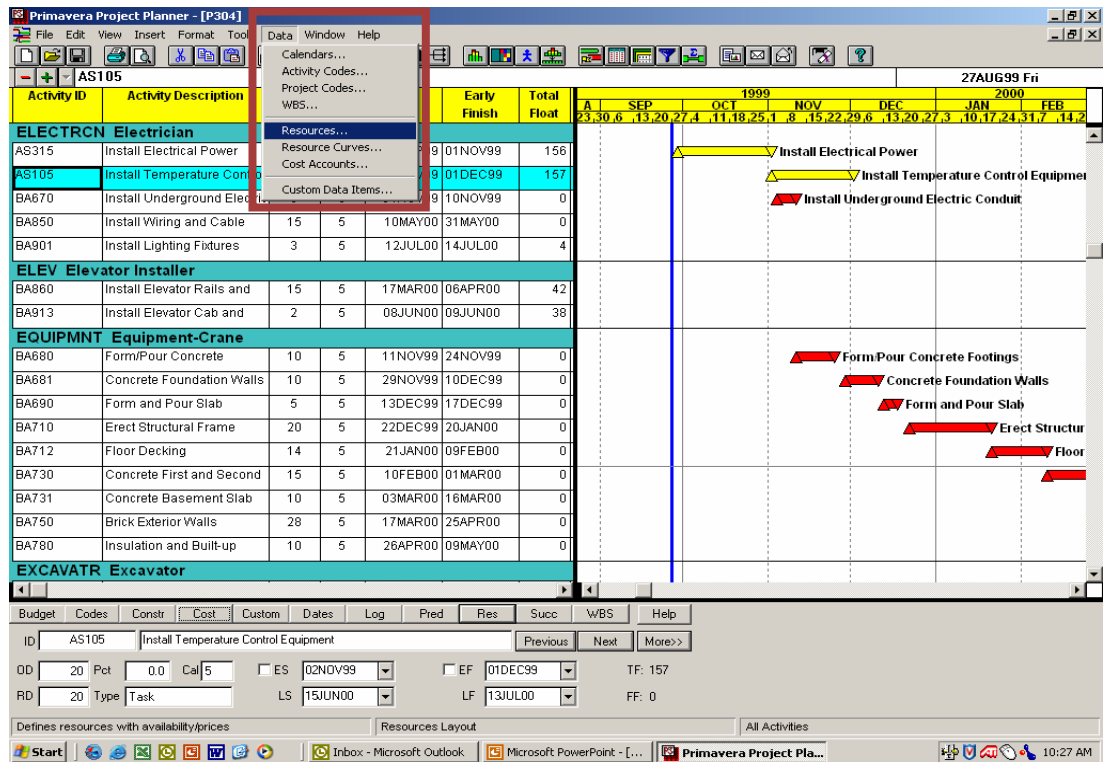
4.2 Limits

4.3 Prices



4. Defining the Resources

Screen 4.:
 Opening the
 “Resources” dialog
 box



4. Defining the Resources

Screen 4.1:
 Operating within
 the “Resources”
 dialog box –
 defining the
 resource

The screenshot displays the Primavera Project Planner interface. The main window shows a Gantt chart for project AS105. A 'Resources' dialog box is open, listing resources such as 'FLD ENG1' (Field Eng-Senior), 'FLD ENG3', and 'FLR LYL'. The 'FLD ENG1' resource is highlighted with a red box. The dialog box also shows 'Limits' and 'Prices' sections. The background Gantt chart shows activity bars for 'Install Electrical Power', 'Install Temperature Control Equipment', and 'Install Underground Electric Conduit'.



4. Defining the Resources

Screen 4.2:
 Operating within
 the “Resources”
 dialog box –
 defining the limits

The screenshot displays the Primavera Project Planner interface. The main window shows a Gantt chart for project AS105, with activity bars for 'Install Electrical Power', 'Install Temperature Control Equipment', and 'Install Underground Electric Conduit'. The 'Resources' dialog box is open, showing a list of resources including 'FLD ENG1' (Field Engineer-Senior) and 'FLD ENG2' (Field Engineer). The 'Limits' section is highlighted with a red box, showing a table with columns for 'Normal', 'Max', and 'Through' values. The 'Prices' section shows a table with 'Price/Unit' and 'Through' values. The background Gantt chart shows activity bars for 'Install Electrical Power', 'Install Temperature Control Equipment', and 'Install Underground Electric Conduit'.

| Resource | Units | Driving | Base | Description |
|----------|-------|--------------------------|------|------------------------|
| EQUIPMNT | Each | <input type="checkbox"/> | 1 | Equipment-Crane |
| EXCAVATR | Hrs | <input type="checkbox"/> | 1 | Excavator |
| FLD ENG* | Hrs | <input type="checkbox"/> | 1 | Field Eng-All |
| FLD ENG1 | Hrs | <input type="checkbox"/> | 1 | Field Eng-Senior |
| FLD ENG2 | Hrs | <input type="checkbox"/> | 1 | Field Engineer |
| FLD ENG3 | Hrs | <input type="checkbox"/> | 1 | Field Eng-Assistant |
| FLRLYR | Hrs | <input type="checkbox"/> | 1 | Floor and Carpet Layer |

| Normal | Max | Through |
|--------|-----|---------|
| 8 | 10 | |
| 0 | 0 | |
| 0 | 0 | |
| 0 | 0 | |
| 0 | 0 | |
| 0 | 0 | |

| Price/Unit | Through |
|------------|---------|
| 25.00 | |
| 0.00 | |
| 0.00 | |
| 0.00 | |
| 0.00 | |
| 0.00 | |



4. Defining the Resources

Screen 4.3:
 Operating within
 the “Resources”
 dialog box –
 defining the prices

The screenshot displays the Primavera Project Planner interface. The main window shows a Gantt chart for project AS105. A 'Resources' dialog box is open, showing a list of resources including 'FLD ENG1' (Field Engineer-All) and 'FLD ENG2' (Field Engineer). The 'Prices' tab is selected, showing a table with columns for 'Price/Unit' and 'Through'. The 'Price/Unit' field is highlighted with a red box and contains the value '25.00'. The 'Through' field is empty. The background Gantt chart shows activity bars for 'Install Electrical Power', 'Install Temperature Control Equipment', and 'Install Underground Electric Conduit'.



5. Establishing the Calendar ID structure

5.1 Calendars

5.1.1 Standard (daily information)

5.1.2 Holidays

5.1.3 Work periods/Non-work periods

5.2 Assigning

5.2.1 To activities

5.2.2 To resources



5. Establishing the Calendar ID structure

Screen 5.:
 Opening the
 “Calendar ID”
 dialog box



The screenshot shows the Primavera Project Planner interface. The 'Calendars...' dialog box is open, displaying options for Activity Codes, Project Codes, WBS, Resources, Resource Curves, Cost Accounts, and Custom Data Items. The background shows a Gantt chart with activities such as 'Design Building Addition', 'System Requirements', 'System Design', and 'Installation Begins' plotted against a timeline from August 1999 to February 2000.

| Activity ID | Activity Description | Early | Finish |
|-------------|------------------------------|----------|----------|
| BA400 | Design Building Addition | 27AUG99A | 31AUG99A |
| AS100 | Define System | 04AUG99A | |
| AS101 | System Design | 31AUG99A | |
| AS204 | Prepare Drawings for Temp | 17AUG99A | 31AUG99A |
| AS216 | Prepare Drawings for | 23AUG99A | 01OCT99 |
| BA501 | Review and Approve | 30AUG99A | 20SEP99A |
| AS102 | Approve System Design | 31AUG99A | 13SEP99A |
| AS205 | Review and Approve Temp | 31AUG99A | 13SEP99A |
| AS200 | Prepare and Solicit Bids for | 07SEP99A | 16SEP99A |
| AS240 | Installation Begins | 14SEP99A | |
| AS310 | Site Preparation | 14SEP99A | 28SEP99 |
| AS201 | Review Bids for Temp | 20SEP99A | 21SEP99A |
| BA450 | Assemble Brick Samples | 20SEP99A | 01OCT99 |
| BA630 | Begin Building | 21SEP99A | |
| AS202 | Award Contract for Temp | 21SEP99A | 21SEP99A |
| BA480 | Assemble and Submit | 21SEP99A | 05OCT99 |
| BA640 | Site Preparation | 21SEP99A | 20OCT99 |
| AS206 | Fabricate & Deliver Temp | 22SEP99A | 18OCT99 |
| BA469 | Assemble Technical Data | 27SEP99 | 29SEP99 |
| AS104 | Run Sealant, Air, and Water | 29SEP99 | 15OCT99 |
| AS103 | Install Robot Base | 29SEP99 | 22OCT99 |
| AS315 | Install Electrical Power | 29SEP99 | 01NOV99 |
| BA470 | Review Technical Data on | 30SEP99 | 13OCT99 |
| BA530 | Review and Approve Brick | 04OCT99 | 15OCT99 |

5. Establishing the Calendar ID structure

Screen 5.1:

Operating within the “Calendar ID” dialog box – adding a calendar

The screenshot displays the Primavera Project Planner interface. The main window shows a Gantt chart with various activities listed on the left, such as 'Design Building Addition', 'Define System', and 'System Design'. A 'Calendars' dialog box is open in the foreground, showing a list of calendars. The '5 - 5-day week w/h' calendar is selected and highlighted with a red box. Below the list is a calendar grid for July 1999, with the 19th highlighted. The dialog box also includes buttons for 'Add...', 'Delete', 'Standard...', 'Work', 'Nonwork', 'Transfer...', 'Print...', 'Close', and 'Help'.



5. Establishing the Calendar ID structure

Screen 5.2:
 Operating within the “Calendar ID” dialog box – assigning to resources

The screenshot displays the Primavera Project Planner interface. The main window shows a Gantt chart for a project titled 'Design Building Addition'. A 'Calendars' dialog box is open, allowing the user to assign a calendar to a resource. The dialog box has tabs for 'Base' and 'Resource'. Under the 'Resource' tab, a list of resources is shown, including 'ANALYST' and 'ATM ENG', each with a dropdown menu set to 'Standard 5-day'. Below the resource list is a calendar grid for July 1999, with the 19th (a Friday) highlighted. The Gantt chart in the background shows various activities with their durations and dates, such as 'Design Building Addition' from 19JUL99A to 27AUG99A.



6. Creating activities and their relationships

6.1 Adding New activities

6.1.1 Assigning Activity ID and Name

6.1.2 Assigning Calendar ID and Original Duration

6.1.3 Assigning Predecessors and Successors

6.2 Assigning the WBS

6.3 Assigning Activity Codes



6. Creating activities and their relationships

6.4 Assigning Resources

6.5 Assigning Cost Accounts



6. Creating activities and their relationships

Screen 6.1:
 Adding Activities

The screenshot displays the Primavera ProjectWise interface. The 'Activity' menu is open, showing options like 'Activity Assignment...', 'Autolink', 'Page Break', and 'Object...'. The main window shows a Gantt chart for the year 1999, with activities plotted as yellow bars. The activity list on the left includes:

| Activity ID | Description | Duration | Early Start | Early Finish | Total Float |
|-------------|-----------------------------|----------|-------------|--------------|-------------|
| AS240 | Installation Begins | 10 | 14SEP99A | 24SEP99 | 155 |
| AS310 | Site Preparation | 10 | 14SEP99A | 24SEP99 | 155 |
| AS104 | Run Sealant, Air, and Water | 13 | 29SEP99 | 15OCT99 | 174 |
| AS103 | Install Robot Base | 18 | 29SEP99 | 22OCT99 | 161 |
| AS315 | Install Electrical Power | 24 | 29SEP99 | 01NOV99 | 155 |
| AS105 | Install Temperature Control | 20 | 02NOV99 | 01DEC99 | 155 |
| AS106 | Set & Connect Robots | 18 | 02DEC99 | 28DEC99 | 155 |
| AS107 | Install System & Misc. | 30 | 29DEC99 | 09FEB00 | 155 |
| AS108 | Install System Controller | 16 | 10FEB00 | 03MAR00 | 165 |
| AS109 | Test & Debug Line A | 24 | 10FEB00 | 15MAR00 | 155 |
| AS110 | Test & Debug Line B | 24 | 10FEB00 | 15MAR00 | 155 |
| AS270 | Trim Robot Paths Line B | 24 | 10FEB00 | 15MAR00 | 155 |
| AS250 | Install Bar Rails | 20 | 17FEB00 | 16MAR00 | 165 |
| AS260 | Trim Robot Paths Line A | 15 | 24FEB00 | 15MAR00 | 155 |
| AS111 | Pilot Start Line A | 1 | 16MAR00 | 16MAR00 | 155 |



6. Creating activities and their relationships

Screen 6.1.1:
 Assigning Activity
 ID and Activity
 Name

The screenshot displays the Primavera Project Planner interface. The main window shows a Gantt chart for the year 1999 and 2000. The activity list on the left is as follows:

| Activity ID | Activity Description | Orig Dur | Early Start | Early Finish | Total Float |
|--|-----------------------------|----------|-------------|--------------|-------------|
| SYS1 System Integration Phase I | | | | | |
| AS240 | Installation Begins | 0 | 14SEP99A | | |
| AS310 | Site Preparation | 10 | 14SEP99A | 28SEP99 | 156 |
| AS320 | Set & Connect Robots | 1 | 27SEP99 | 27SEP99 | 0 |
| AS103 | Install Robot Base | 18 | 29SEP99 | 22OCT99 | 162 |
| AS315 | Install Electrical Power | 24 | 29SEP99 | 01NOV99 | 156 |
| AS105 | Install Temperature Control | 20 | 02NOV99 | 01DEC99 | 157 |
| AS106 | Set & Connect Robots | 18 | 02DEC99 | 28DEC99 | 157 |
| AS107 | Install System & Misc. | 30 | 29DEC99 | 09FEB00 | 157 |
| AS108 | Install System Controller | 16 | 10FEB00 | 02MAR00 | 167 |
| AS109 | Test & Debug Line A | 24 | 10FEB00 | 14MAR00 | 157 |
| AS110 | Test & Debug Line B | 24 | 10FEB00 | 14MAR00 | 157 |
| AS270 | Trim Robot Paths Line B | 24 | 10FEB00 | 14MAR00 | 157 |
| AS250 | Install Bar Rails | 20 | 17FEB00 | 15MAR00 | 167 |
| AS260 | Trim Robot Paths Line A | 15 | 24FEB00 | 15MAR00 | 156 |
| AS111 | Pilot Start Line A | 1 | 16MAR00 | 16MAR00 | 156 |
| AS112 | Start-Up Line B | 1 | 16MAR00 | 16MAR00 | 156 |

The bottom panel shows the details for activity AS320:

- ID: AS320
- Type: Task
- LS: 27SEP99
- LF: 27SEP99
- ISD: MILLS
- Dept: Resp
- Phas: SYS1
- Step: Item
- WBS: WBS



6. Creating activities and their relationships

Screen 6.1.2:
 Assigning Calendar
 ID and Original
 Duration

| Activity ID | Activity Description | Orig Dur | Early Start | Early Finish | Total Float |
|--|-----------------------------|----------|-------------|--------------|-------------|
| SYS1 System Integration Phase I | | | | | |
| AS240 | Installation Begins | 0 | 14SEP99A | | |
| AS310 | Site Preparation | 10 | 14SEP99A | 28SEP99 | 156 |
| AS320 | | 1 | 27SEP99 | 27SEP99 | 0 |
| AS104 | Run Sealant, Air, and Water | 15 | 29SEP99 | 15OCT99 | 176 |
| AS103 | Install Robot Base | 18 | 29SEP99 | 22OCT99 | 162 |
| AS315 | Install Electrical Power | 24 | 29SEP99 | 01NOV99 | 156 |
| AS105 | Install Temperature Control | 20 | 02NOV99 | 01DEC99 | 157 |
| AS106 | Set & Connect Robots | 18 | 02DEC99 | 28DEC99 | 157 |
| AS107 | Install System & Misc. | 30 | 29DEC99 | 09FEB00 | 157 |
| AS108 | Install System Controller | 16 | 10FEB00 | 02MAR00 | 167 |
| AS109 | Test & Debug Line A | 24 | 10FEB00 | 14MAR00 | 157 |
| AS110 | Test & Debug Line B | 24 | 10FEB00 | 14MAR00 | 157 |
| AS270 | Trim Robot Paths Line B | 24 | 10FEB00 | 14MAR00 | 157 |
| AS250 | Install Bar Rails | 20 | 17FEB00 | 15MAR00 | 167 |
| AS260 | Trim Robot Paths Line A | 15 | 24FEB00 | 15MAR00 | 156 |
| AS111 | Pilot Start Line A | 1 | 16MAR00 | 16MAR00 | 156 |
| AS112 | Start-Up Line B | 1 | 16MAR00 | 16MAR00 | 156 |

The screenshot also shows a Gantt chart on the right with activity bars for 'Installation Begins', 'Site Preparation', 'Run Sealant, Air, and Water Piping', 'Install Robot Base', 'Install Electrical Power', 'Install Temperature Control Equipment', 'Set & Connect Robots', and 'Install System Controller'. The activity details pane at the bottom shows 'Cal 1' selected for the calendar ID.



6. Creating activities and their relationships

Screen 6.1.3:

Establishing
 “Predecessor” and
 “Successor”
 relationships

The screenshot displays the Primavera Project Planner interface. The main window shows a Gantt chart for activity AS320, 'Installation Begins', with a start date of 27SEP99 and a finish date of 27SEP99. The activity is highlighted in blue. Below the Gantt chart, two dialog boxes are open: 'Predecessors' and 'Successors'. The 'Predecessors' dialog shows activity AS320 as a predecessor to itself. The 'Successors' dialog shows activity AS320 as a successor to itself. The 'Pred' and 'Succ' buttons in the bottom toolbar are highlighted with red boxes. The bottom status bar shows the activity ID AS320 and various scheduling parameters.

| Activity ID | Activity Description | Orig Dur | Early Start | Early Finish | Total Float |
|-------------|-----------------------------|----------|-------------|--------------|-------------|
| AS240 | Installation Begins | 0 | 14SEP99A | | |
| AS310 | Site Preparation | 10 | 14SEP99A | 28SEP99 | 155 |
| AS320 | Installation Begins | 1 | 27SEP99 | 27SEP99 | 0 |
| AS104 | Run Sealant, Air, and Water | 13 | 29SEP99 | 15OCT99 | 174 |
| AS103 | Install Robot Base | 18 | 29SEP99 | 22OCT99 | 161 |
| AS315 | Install Electrical Power | 24 | 29SEP99 | 01NOV99 | 155 |
| AS105 | Install Temperature Control | 20 | 02NOV99 | 01DEC99 | 155 |



6. Creating activities and their relationships

Screen 6.2:
 Assigning the WBS

The screenshot displays the Primavera Project Planner interface. On the left, a Gantt chart shows project activities from 1999 to 2000. Activity AS320 is highlighted in blue. A dialog box titled 'WBS' is open, showing a tree structure of Work Breakdown Structure (WBS) codes. The 'WBS' tab is selected, and the tree is expanded to show the hierarchy under 'AM - Acme Motors Expansion Project'. The 'WBS Code' field is populated with 'AM.01.2.A - Temperature Control Equipment'. The 'Title' field contains 'AM.01.2.A - Temperature Control Equipment'. The 'WBS' tab is highlighted in red in the original image.

| Activity ID | Activity Description | Orig Dur | Early Start | Early Finish | Total Float |
|-------------|-----------------------------|----------|-------------|--------------|-------------|
| AS240 | Installation Begins | 0 | 14SEP99A | | |
| AS310 | Site Preparation | 10 | 14SEP99A | 28SEP99 | 156 |
| AS320 | | 1 | 27SEP99 | 27SEP99 | 0 |
| AS104 | Run Sealant, Air, and Water | 13 | 29SEP99 | 15OCT99 | 176 |
| AS103 | Install Robot Base | 18 | 29SEP99 | 22OCT99 | 162 |
| AS315 | Install Electrical Power | 24 | 29SEP99 | 01NOV99 | 156 |
| AS105 | Install Temperature Control | 20 | 02NOV99 | 01DEC99 | 157 |
| AS106 | Set & Connect Robots | 18 | 02DEC99 | 28DEC99 | 157 |
| AS107 | Install System & Misc. | 30 | 29DEC99 | 09FEB00 | 157 |
| AS108 | Install System Controller | 16 | 10FEB00 | 02MAR00 | 167 |
| AS109 | Test & Debug Line A | 24 | 10FEB00 | 14MAR00 | 157 |
| AS110 | Test & Debug Line B | 24 | 10FEB00 | 14MAR00 | 157 |
| AS270 | Trim Robot Paths Line B | 24 | 10FEB00 | 14MAR00 | 157 |
| AS250 | Install Bar Rails | 20 | 17FEB00 | 15MAR00 | 167 |
| AS260 | Trim Robot Paths Line A | 15 | 24FEB00 | 15MAR00 | 156 |



6. Creating activities and their relationships

Screen 6.3:
 Assigning the
 Activity Codes

The screenshot displays the Primavera Project Planner interface. The main window shows a Gantt chart for the year 1999, with activity AS320 highlighted in blue. The activity description is 'Site Preparation', starting on 27SEP99 and ending on 27SEP99. A red box highlights the 'Activity Codes' dialog box, which is open over the activity. The dialog box shows a tree view of codes: ISD (Information Systems Department), RESP (Tom Mills - Director of Hardware Engineering), and SYS1 (System Integration Phase I). The 'Codes' tab is selected, and the 'Code' field is set to 'SYS1'. Below the dialog box, the 'Codes' tab is also highlighted in the main window's activity details pane. The activity details pane shows the following information:

| ID | Code | Value | Description |
|-------|------|-------|--|
| AS320 | ISD | | Information Systems Department |
| | RESP | MILLS | Tom Mills - Director of Hardware Engineering |
| | PHAS | SYS1 | System Integration Phase I |
| | STEP | | |
| | ITEM | | |

The activity details pane also shows the following information:

| Dept | Resp | Phas | Step | Item |
|------|-------|------|------|------|
| ISD | MILLS | SYS1 | | |



6. Creating activities and their relationships

Screen 6.4: Assigning Resources

The screenshot displays the Primavera Project Planner interface. The main window shows a Gantt chart with activity AS105, 'Install Temperature Control', highlighted in blue. The activity is scheduled from 02NOV99 to 01DEC99 with a total float of 157. A 'Resources' dialog box is open, showing the resource 'FLD ENG1' assigned to the activity. The dialog box has two main sections: 'Limits' and 'Prices'. The 'Limits' section shows a value of 8 for 'Normal' and 10 for 'Max'. The 'Prices' section shows a value of 25.00 for 'Price/Unit'. The background shows a Gantt chart with activity AS105 highlighted in blue.

| Activity ID | Activity Description | Orig Dur | Early Start | Early Finish | Total Float |
|-------------|-----------------------------|----------|-------------|--------------|-------------|
| AS315 | Install Electrical Power | 24 | 29SEP99 | 01NOV99 | 156 |
| AS105 | Install Temperature Control | 20 | 02NOV99 | 01DEC99 | 157 |
| AS106 | Set & Connect Robots | 18 | 02DEC99 | 28DEC99 | 157 |
| AS107 | Install System & Misc. | 30 | 29DEC99 | 09FEB00 | 157 |
| AS108 | Install System Controller | 16 | 10FEB00 | 02MAR00 | 167 |
| AS109 | Test & Debug Line A | 24 | 10FEB00 | 14MAR00 | 157 |
| AS110 | Test & Debug Line B | 24 | 10FEB00 | 14MAR00 | 157 |

| Resource | Units | Driving | Base | Description |
|----------|-------|--------------------------|------|---------------------|
| ELEV | Hrs | <input type="checkbox"/> | 1 | Elevator Installer |
| EQUIPMNT | Each | <input type="checkbox"/> | 1 | Equipment-Crane |
| EXCAVATR | Hrs | <input type="checkbox"/> | 1 | Excavator |
| FLD ENG1 | Hrs | <input type="checkbox"/> | 1 | Field Eng-Senior |
| FLD ENG3 | Hrs | <input type="checkbox"/> | 1 | Field Eng-Assistant |

| Resource | FLD ENG1 | HW/SPEC | ELECTRGN |
|--------------------|--------------------------|--------------------------|--------------------------|
| Resource | FLD ENG1 | HW/SPEC | ELECTRGN |
| Cost Acct/Category | 11213 L | 11213 L | 11213 L |
| Driving | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Curve | | | |
| Units per day | 10.00 | 4.00 | 10.00 |
| Budgeted quantity | 200.00 | 80.00 | 200.00 |
| Res Lag/Duration | 0 | 0 | 0 |
| Percent complete | | | |
| Actual this period | 0.00 | 0.00 | 0.00 |
| Actual to date | 0.00 | 0.00 | 0.00 |
| To complete | 200.00 | 80.00 | 200.00 |
| At completion | 200.00 | 80.00 | 200.00 |
| Variance (units) | 0.00 | 0.00 | 0.00 |

| Activity | Early start | Early finish | Late start | Late finish |
|----------|-------------|--------------|------------|-------------|
| CS311 | 02NOV99 | 02NOV99 | 02NOV99 | 02NOV99 |
| CS315 | 01DEC99 | 01DEC99 | 01DEC99 | 01DEC99 |
| CS700 | 15JUN00 | 15JUN00 | 15JUN00 | 15JUN00 |
| CS700 | 13JUL00 | 13JUL00 | 13JUL00 | 13JUL00 |



6. Creating activities and their relationships

Screen 6.5:
 Assigning Cost
 Accounts

The screenshot displays the Primavera Project Planner interface. The main window shows a Gantt chart with activity AS105 highlighted. A 'Resources' dialog box is open, showing the assignment of resource 'FLD ENG1' to activity AS105. A 'Cost' dialog box is also open, showing the assignment of cost account '11213' to resource 'FLD ENG1'. The 'Cost' dialog box has a red border, and the 'Resources' dialog box has a blue border. The 'Cost' dialog box shows the following data:

| Resource | FLD ENG1 | H |
|--------------------|--------------------------|-----|
| Cost Acct/Category | 11213 | L 1 |
| Driving | <input type="checkbox"/> | |
| Curve | | |
| Budgeted cost | 5000.00 | |
| Actual this period | 0.00 | |
| Actual to date | 0.00 | |
| Percent expended | 0.0 | |
| Percent complete | | |
| Earned value | 0.00 | |
| Cost to complete | 5000.00 | |
| At completion | 5000.00 | |
| Variance | 0.00 | |

The 'Resources' dialog box shows the following data:

| Resource | Units | Driving | Base | Description |
|----------|-------|--------------------------|------|------------------------|
| EQUIPMNT | Each | <input type="checkbox"/> | 1 | Equipment-Crane |
| EXCAVATR | Hrs | <input type="checkbox"/> | 1 | Excavator |
| FLD ENG* | Hrs | <input type="checkbox"/> | 1 | Field Eng-All |
| FLD ENG1 | Hrs | <input type="checkbox"/> | 1 | Field Eng-Senior |
| FLD ENG2 | Hrs | <input type="checkbox"/> | 1 | Field Engineer |
| FLD ENG3 | Hrs | <input type="checkbox"/> | 1 | Field Eng-Assistant |
| FLRLYR | Hrs | <input type="checkbox"/> | 1 | Floor and Carpet Layer |

The 'Limits' and 'Prices' sections in the 'Resources' dialog box show the following data:

| Normal | Max | Through | Price/Unit | Through |
|--------|-----|---------|------------|---------|
| 8 | 10 | | 25.00 | |
| 0 | 0 | | 0.00 | |
| 0 | 0 | | 0.00 | |
| 0 | 0 | | 0.00 | |
| 0 | 0 | | 0.00 | |



7. Organizing activities

7.1 Organize by

7.2 Group by

7.3 Sort by

7.4 Filtering



7. Organizing activities

Screen 7.:
 Opening the
 “Organize” dialog
 box

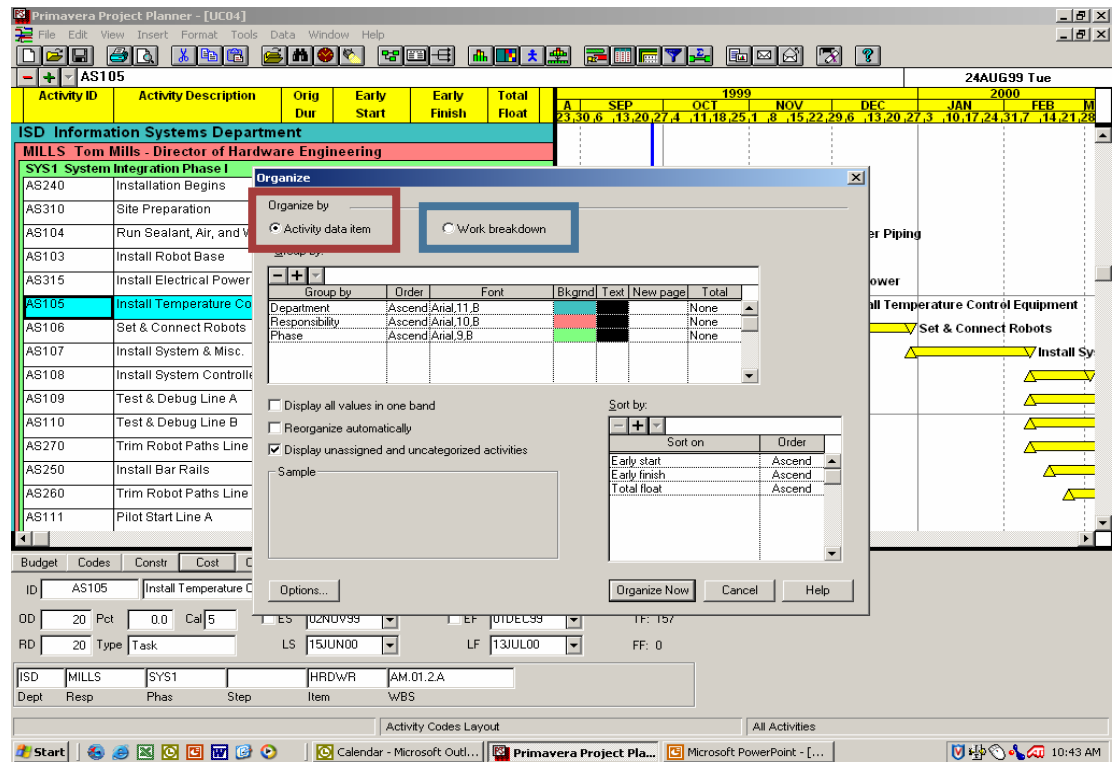
The screenshot displays the Primavera Project Planner interface. The 'Organize' dialog box is open, showing options such as 'Organize...', 'Reorganize Now', 'Filter...', 'Run Filter Now', 'Summarize', 'Summarize All...', 'Timescale...', 'Sight Lines...', 'Row Height...', 'Screen Colors...', 'Fonts...', and 'Dates...'. The dialog box is highlighted with a red border. The background shows a Gantt chart with activities from 1999 to 2000. The activity 'Install Temperature Control Equipment' (AS105) is selected and highlighted in blue. The Gantt chart shows a vertical blue line for the start of the activity on 02NOV99 and a yellow bar extending to 01DEC99. Other activities shown include 'Site Preparation', 'Run Sealant, Air, and Water Piping', 'Install Robot Base', 'Install Electrical Power', 'Install Temperature Control Equipment', 'Set & Connect Robots', and 'Install System Controller'.

| Activity ID | Activity Name | Early Start | Early Finish | Total Float | |
|-------------|---------------------------------------|-------------|--------------|-------------|-----|
| AS240 | Installation | SEP99A | | | |
| AS310 | Site Preparation | SEP99A | 28SEP99 | 156 | |
| AS104 | Run Sealant, Air, and Water Piping | 9SEP99 | 15OCT99 | 176 | |
| AS103 | Install Robot Base | 9SEP99 | 22OCT99 | 162 | |
| AS315 | Install Electrical Power | 9SEP99 | 01NOV99 | 156 | |
| AS105 | Install Temperature Control Equipment | 2NOV99 | 01DEC99 | 157 | |
| AS106 | Set & Connect Robots | 2DEC99 | 28DEC99 | 157 | |
| AS107 | Install System Controller | 9DEC99 | 09FEB00 | 157 | |
| AS108 | Install System Controller | 16 | 10FEB00 | 02MAR00 | 167 |
| AS109 | Test & Debug Line A | 24 | 10FEB00 | 14MAR00 | 157 |
| AS110 | Test & Debug Line B | 24 | 10FEB00 | 14MAR00 | 157 |
| AS270 | Trim Robot Paths Line B | 24 | 10FEB00 | 14MAR00 | 157 |
| AS250 | Install Bar Rails | 20 | 17FEB00 | 15MAR00 | 167 |
| AS260 | Trim Robot Paths Line A | 15 | 24FEB00 | 15MAR00 | 156 |
| AS111 | Pilot Start Line A | 1 | 16MAR00 | 16MAR00 | 156 |



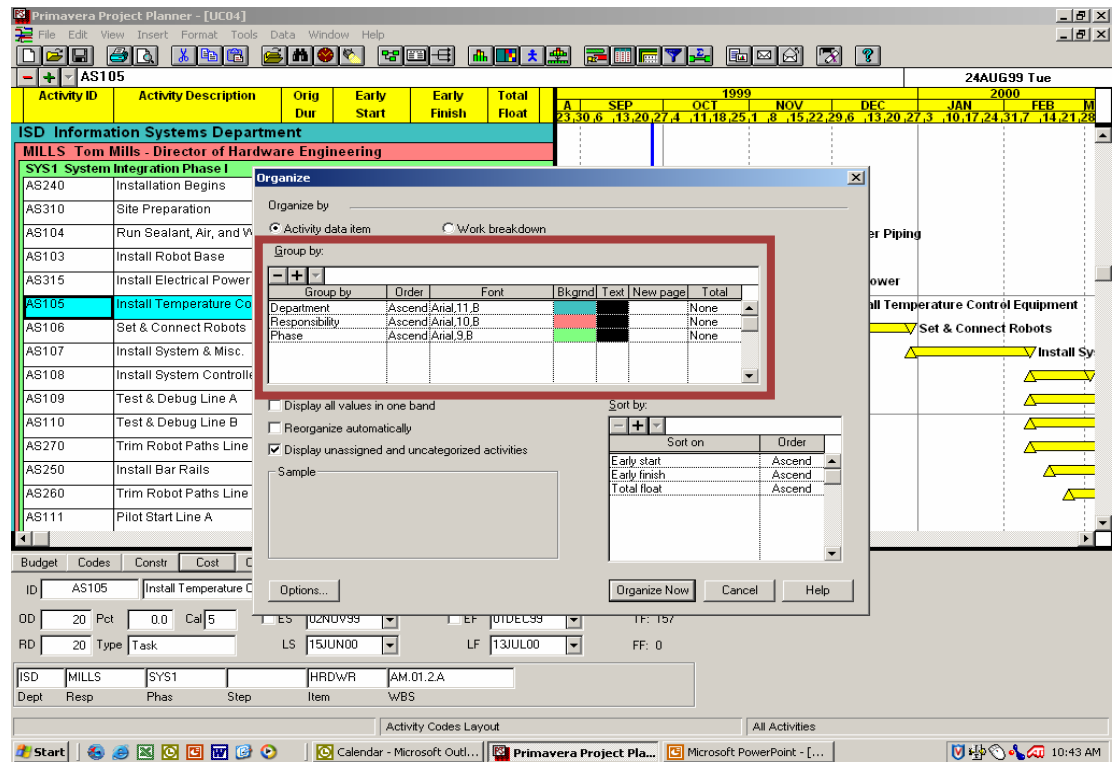
7. Organizing activities

Screen 7.1:
 Operating within
 the “Organize”
 dialog box –
 “Organize by”
 function



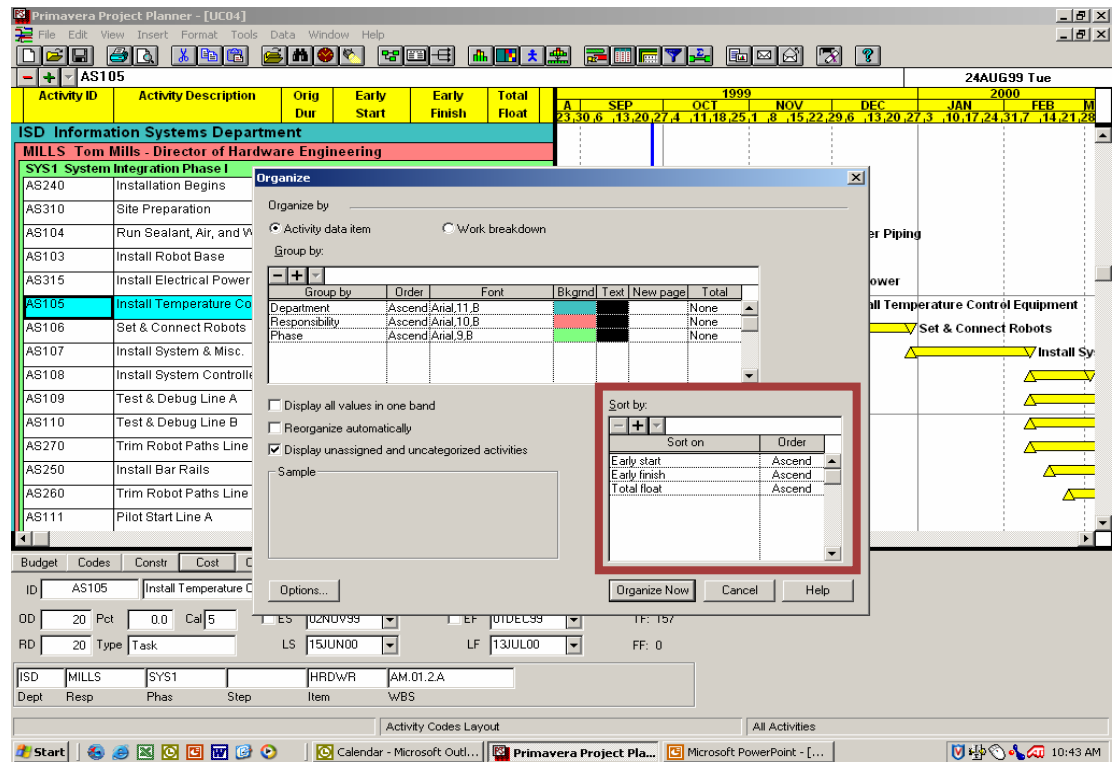
7. Organizing activities

Screen 7.2:
 Operating within
 the “Organize”
 dialog box –
 “Group by” function



7. Organizing activities

Screen 7.3:
 Operating within
 the “Organize”
 dialog box – “Sort
 by” function



7. Organizing activities

Screen 7.4:
 Opening the “Filter”
 dialog box

The screenshot displays the Primavera Project Planner interface. A red rectangle highlights the 'Filter' dialog box, which is open over the activity list. The activity list includes:

| Activity ID | Activity Name | Early Start | Early Finish | Total Float | |
|-------------|---------------------------|-------------|--------------|-------------|-----|
| AS240 | Installat... | SEP99A | | | |
| AS310 | Site Pres... | SEP99A | 28SEP99 | 156 | |
| AS104 | Run Sea... | 9SEP99 | 15OCT99 | 178 | |
| AS103 | Install R... | 9SEP99 | 22OCT99 | 162 | |
| AS315 | Install E... | 9SEP99 | 01NOV99 | 156 | |
| AS105 | Install T... | 2NOV99 | 01DEC99 | 157 | |
| AS106 | Set & Co... | 2DEC99 | 28DEC99 | 157 | |
| AS107 | Install S... | 9DEC99 | 09FEB00 | 157 | |
| AS108 | Install System Controller | 16 | 10FEB00 | 02MAR00 | 167 |
| AS109 | Test & Debug Line A | 24 | 10FEB00 | 14MAR00 | 157 |
| AS110 | Test & Debug Line B | 24 | 10FEB00 | 14MAR00 | 157 |
| AS270 | Trim Robot Paths Line B | 24 | 10FEB00 | 14MAR00 | 157 |
| AS250 | Install Bar Rails | 20 | 17FEB00 | 15MAR00 | 167 |
| AS260 | Trim Robot Paths Line A | 15 | 24FEB00 | 15MAR00 | 156 |
| AS111 | Pilot Start Line A | 1 | 16MAR00 | 16MAR00 | 156 |

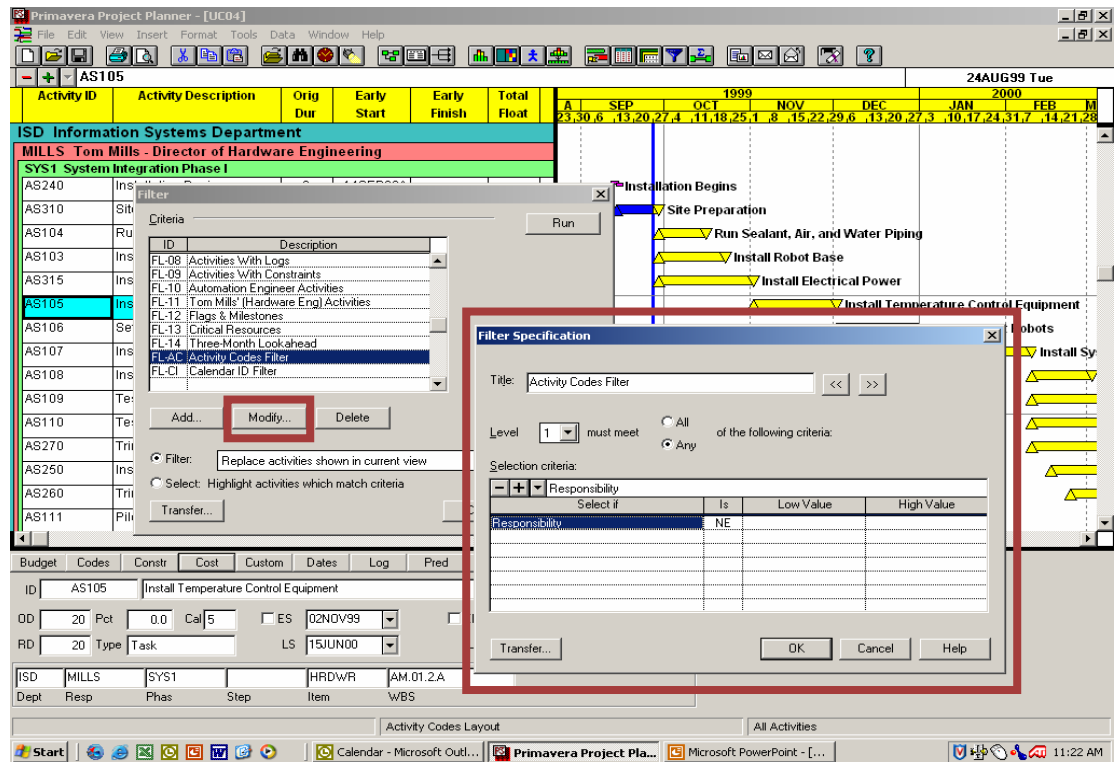
The Gantt chart shows activities from 1999 to 2000. Activity AS105 is highlighted in blue. The 'Filter' dialog box is open, showing options like 'Columns...', 'Bars...', 'Selected Bars...', 'Summary Bars...', 'Organize...', 'Reorganize Now', 'Filter...', 'Run Filter Now', 'Summarize', 'Summarize All...', 'Timescale...', 'Sight Lines...', 'Row Height...', 'Screen Colors...', 'Fonts...', and 'Dates...'. The 'Filter...' option is selected.



7. Organizing activities

Screen 7.4-a:

Operating within the “Filter” dialog box – modifying an existing filter



Summary

1. WBS
2. Activity Codes
3. Cost Accounts Codes
4. Resources
5. Calendar ID
6. Creating Activities
7. Organizing Activities



QUESTIONS ?





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E X E C U T E A S P L A N N E D

Getting Started in P3: Basic Tips & Techniques

THANK-YOU

Ladies and Gentlemen

Suggested Resources

- Construction Scheduling with Primavera Project Planner, 2nd edition by Leslie Feigenbaum
- Project Scheduling and Management for Construction by David R. Pierce
- Project Scheduling Handbook by Jonathan F. Hutchings



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E X E C U T E A S P L A N N E D

Getting Started in P3: Basic Tips & Techniques

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