



Primavera P6 Professional Advanced Rel 21

Student Guide
D1103179GC10

Copyright © 2021, Oracle and/or its affiliates.

Disclaimer

This document contains proprietary information and is protected by copyright and other intellectual property laws. The document may not be modified or altered in any way. Except where your use constitutes "fair use" under copyright law, you may not use, share, download, upload, copy, print, display, perform, reproduce, publish, license, post, transmit, or distribute this document in whole or in part without the express authorization of Oracle.

The information contained in this document is subject to change without notice and is not warranted to be error-free. If you find any errors, please report them to us in writing.

Restricted Rights Notice

If this documentation is delivered to the United States Government or anyone using the documentation on behalf of the United States Government, the following notice is applicable:

U.S. GOVERNMENT END USERS: Oracle programs (including any operating system, integrated software, any programs embedded, installed or activated on delivered hardware, and modifications of such programs) and Oracle computer documentation or other Oracle data delivered to or accessed by U.S. Government end users are "commercial computer software" or "commercial computer software documentation" pursuant to the applicable Federal Acquisition Regulation and agency-specific supplemental regulations. As such, the use, reproduction, duplication, release, display, disclosure, modification, preparation of derivative works, and/or adaptation of i) Oracle programs (including any operating system, integrated software, any programs embedded, installed or activated on delivered hardware, and modifications of such programs), ii) Oracle computer documentation and/or iii) other Oracle data, is subject to the rights and limitations specified in the license contained in the applicable contract. The terms governing the U.S. Government's use of Oracle cloud services are defined by the applicable contract for such services. No other rights are granted to the U.S. Government.

Trademark Notice

Oracle and Java are registered trademarks of Oracle and/or its affiliates. Other names may be trademarks of their respective owners.

Intel and Intel Inside are trademarks or registered trademarks of Intel Corporation. All SPARC trademarks are used under license and are trademarks or registered trademarks of SPARC International, Inc. AMD, Epyc, and the AMD logo are trademarks or registered trademarks of Advanced Micro Devices. UNIX is a registered trademark of The Open Group.

Third-Party Content, Products, and Services Disclaimer

This documentation may provide access to or information about content, products, and services from third parties. Oracle Corporation and its affiliates are not responsible for and expressly disclaim all warranties of any kind with respect to third-party content, products, and services unless otherwise set forth in an applicable agreement between you and Oracle. Oracle Corporation and its affiliates will not be responsible for any loss, costs, or damages incurred due to your access to or use of third-party content, products, or services, except as set forth in an applicable agreement between you and Oracle.

1011102021

Table of Contents

Lesson 1 – Resource and Role Analysis	1
Resource and Role Usage	3
Resource and Role Limits.....	4
Resolving Overallocation	5
Logging In	8
Resource Usage Profile.....	9
Resource Analysis Settings	10
Displaying the Profile.....	11
Displaying Activities for a Selected Time Period	12
Viewing Allocation.....	13
Formatting the Profile.....	15
Formatting the Timescale	17
Stacked Resource Histogram	18
Viewing Role Allocation.....	20
Analyzing Resources via Spreadsheet	25
Left Pane.....	27
Middle Pane	28
Right Pane	29
Editing the Resource Usage Spreadsheet	30
Lesson 2 – Resource Assignments Window	33
Resource Assignments Window	35
Customizing the Spreadsheet.....	37
Working in Assignment Details	39
General Tab.....	39
Planning Tab.....	40
Adjusting Assignments	41
Viewing Nonlinear Allocation.....	42
Lesson 3 – Manual Resource Allocation	44
Linear and Non-Linear Distribution of Work	46
Resource Lag and Resource Duration.....	47
Resource Curves	48
Adding Lag and Duration to a Resource Assignment.....	50
Viewing Resource Curves.....	53

Assign a Curve to a Resource Assignment.....	54
Lesson 4 – Bucket Planning	57
Linear Distribution.....	59
Bucket Planning	60
Specifying the Activity Duration Type.....	63
Editing Future Period Buckets.....	64
Editing Future Period Buckets for Multiple Assignments	66
Tracking Manual Curves.....	67
Lesson 5 – Leveling Resources	70
Leveling Overview	72
Handling Resource Conflict	73
Resource Leveling.....	76
Leveling Rules.....	78
Leveling Priorities	79
Leveling Resources.....	83
Selecting Resources	85
Adding Leveling Priorities.....	86
Analyzing the Leveled Project.....	88
Viewing the Leveling Log.....	89
Leveling Based on Activity Priority	91
Leveling Based on Project Priority	94
Lesson 6 –Storing Period Performance	99
Financial Periods.....	101
Past Period Actuals.....	105
Selecting Financial Periods	106
Displaying Financial Periods in Columns.....	107
Storing Past Period Information.....	108
Editing Past Period Actual Data	110
Case Study: Analyzing Resource Usage	112
Lesson 7 –Duration Types	117
Time and Work.....	119
Duration Type.....	121
Choosing a Duration Type	122
Recalculating the Time/Work Equation.....	123

Duration Type: Fixed Units/Time	124
Duration Type: Fixed Duration and Units/Time	126
Duration Type: Fixed Units	128
Duration Type: Fixed Duration & Units	130
Assigning a Duration Type	133
Modifying an Activity with Fixed Units/Time Duration Type.....	135
Changing Units	135
Changing Duration	136
Changing Units/Time	137
Adding a Resource.....	138
Lesson 8 – Calculating Percent Complete	140
Percent Complete	142
Duration Percent Complete	143
Units Percent Complete.....	144
Weighted Steps	146
Assigning a Percent Complete Type.....	148
Updating Activities Based on Physical Percent Complete	150
Updating Activities Based on Duration Percent Complete	151
Updating Activities Based on Units Percent Complete.....	152
Weighted Steps	154
Setting Up Weighted Steps	154
Adding Weighted Steps to Activities.....	156
Updating Weighted Steps	157
Lesson 9 – Earned Value	159
Earned Value Analysis	161
Essential Performance Variables	162
Planned Value Cost.....	164
Earned Value Cost.....	165
Actual Cost	166
Summary of Performance Variables.....	167
Schedule Variance	168
Cost Variance.....	169
Variance vs. Performance Index	170
Schedule Performance Index	171
Cost Performance Index	172
Estimate to Complete.....	173

Performance Factor	174
Earned Value Graph	175
Earned Value Project Background	178
Calculating Planned Value Cost	179
Calculating Actual Cost	180
Calculating Earned Value Cost	181
Performance % Complete	182
Weighted Milestones	183
Creating Weighted Milestones	184
Updating Weighted Milestones	185
Effect of Weighted Milestones on Activities	186
50/50	187
Activity Percent Complete	188
Conclusions Based on Earned Value	189
Schedule Performance	189
Cost Performance	189
Cost and Schedule Performance Indices	190
Cost Performance Index (CPI)	190
Schedule Performance Index (SPI)	191
Calculating Estimate to Complete	192
Using Remaining Cost for Activity to Calculate ETC	193
Using CPI to Calculate ETC	194
Using CPI and SPI to Calculate ETC	196

Lesson 10 – Advanced Scheduling **199**

Critical Path	201
Multiple Float Paths	203
Scheduling Out-of-Sequence Activities	204
Calendar Effect on Lag	205
Multiple Float Paths	208
Scheduling Out-of-Sequence Activities	212
Using Retained Logic	213
Using Progress Override	214
Calendar Effect on Lag	215
Using the Predecessor Calendar	216
Using the Successor Calendar	218

Lesson 11 – User-Defined Fields and Global Change	220
User-Defined Fields.....	223
Creating a User-Defined Field	224
Displaying User-Defined Fields and Assigning User- Defined Field Values.....	225
Global Change	226
Creating a New Global Change	227
Global Change Report Dialog Box	228
Viewing Global Change Results	229
Creating a Global Change with If..Then..Else Logic	230
If Statement	230
Then Statement	231
Else Statement	232
Viewing Global Change Results	233
Workshop: User-Defined Fields And Global Change	234
Lesson Review	236
Review Questions	236
Lesson 12 – Managing Multiple Projects	237
Benefits of Multiple Projects	239
Viewing Multiple Project Activities.....	242
Scheduling Multiple Projects.....	243
Setting the Default Project.....	244
How Project Elements are Handled in Multi-Project Mode	245
Appendix A – Case Study Solutions	247

Course Objectives

Primavera P6 Professional Advanced will cover the following topics:

Section I: Advanced Resource Management

Lesson 1 – Resource and Role Analysis

- Analyze resource usage using the Resource Usage Profile.
- Analyze resource usage using the Resource Usage Spreadsheet.
- Compare staffed vs. unstaffed role allocation.

Lesson 2 – Resource Assignments Window

- Identify sections in the Resource Assignments window.
- Use the Resource Assignments window to view and edit resource allocation.
- Select data to display in the Resource Usage Spreadsheet.

Lesson 3 – Manual Resource Allocation

- Assign resource lag and duration to resource assignments.
- View and assign resource curves to manually spread allocation.

Lesson 4 – Bucket Planning

- Explain the difference between bucket planning and linear distribution.
- Edit period buckets for a resource assignment.
- Track manual curves in the project.

Lesson 5 – Leveling Resources

- Set resource leveling options.
- Level a project to resolve resource conflicts.
- Level based on activity and project priorities.

Lesson 6 – Storing Period Performance

- Display financial periods as columns.
- Store past period performance.

Case Study 1 – Analyzing Resource Usage

Section II: Advanced Project Management

Lesson 7 – Duration Types

- Determine which Duration Type works best in a given situation.
- Assign a Duration Type to an activity.

Lesson 8 – Calculating Percent Complete

- Describe the three Percent Complete Types.
- Determine which Percent Complete Type to use based on how your organization reports progress.
- Explain how activity percentages are calculated based on the Percent Complete Type chosen.
- Use weighted steps to calculate Percent Complete.

Lesson 9 – Earned Value

- Define earned value.
- Define Performance Percent Complete.
- Review the results of different earned value techniques.
- Recognize the benefits of using earned value analysis.

Lesson 10 – Advanced Scheduling

- Calculate multiple float paths when scheduling.
- Explain the difference between scheduling logic options.
- Describe a calendar's effect on lag.

Lesson 11 – User-Defined Fields and Global Change

- Create a user-defined field.
- Run a global change.

Lesson 12 – Managing Multiple Projects

- Filter and apply progress to multiple projects.
- Set the default project for multiple projects.
- Explain how project elements are handled in multi-project mode.