

PeopleSoft®

PeopleSoft EnterpriseOne Tools
8.95 PeopleBook: Development
Tools: Report Design Aid

August 2005

PeopleSoft EnterpriseOne Tools 8.95 PeopleBook: Development Tools: Report Design Aid
SKU E1_TOOLS895TRD-B 0805
Copyright © 2005, Oracle. All rights reserved.

The Programs (which include both the software and documentation) contain proprietary information; they are provided under a license agreement containing restrictions on use and disclosure and are also protected by copyright, patent, and other intellectual and industrial property laws. Reverse engineering, disassembly, or decompilation of the Programs, except to the extent required to obtain interoperability with other independently created software or as specified by law, is prohibited.

The information contained in this document is subject to change without notice. If you find any problems in the documentation, please report them to us in writing. This document is not warranted to be error-free. Except as may be expressly permitted in your license agreement for these Programs, no part of these Programs may be reproduced or transmitted in any form or by any means, electronic or mechanical, for any purpose.

If the Programs are delivered to the United States Government or anyone licensing or using the Programs on behalf of the United States Government, the following notice is applicable:

U.S. GOVERNMENT RIGHTS

Programs, software, databases, and related documentation and technical data delivered to U.S. Government customers are “commercial computer software” or “commercial technical data” pursuant to the applicable Federal Acquisition Regulation and agency-specific supplemental regulations. As such, use, duplication, disclosure, modification, and adaptation of the Programs, including documentation and technical data, shall be subject to the licensing restrictions set forth in the applicable Oracle license agreement, and, to the extent applicable, the additional rights set forth in FAR 52.227-19, Commercial Computer Software–Restricted Rights (June 1987). Oracle Corporation, 500 Oracle Parkway, Redwood City, CA 94065.

The Programs are not intended for use in any nuclear, aviation, mass transit, medical, or other inherently dangerous applications. It shall be the licensee’s responsibility to take all appropriate fail-safe, backup, redundancy and other measures to ensure the safe use of such applications if the Programs are used for such purposes, and we disclaim liability for any damages caused by such use of the Programs.

The Programs may provide links to Web sites and access to content, products, and services from third parties. Oracle is not responsible for the availability of, or any content provided on, third-party Web sites. You bear all risks associated with the use of such content. If you choose to purchase any products or services from a third party, the relationship is directly between you and the third party. Oracle is not responsible for: (a) the quality of third-party products or services; or (b) fulfilling any of the terms of the agreement with the third party, including delivery of products or services and warranty obligations related to purchased products or services. Oracle is not responsible for any loss or damage of any sort that you may incur from dealing with any third party.

Oracle, JD Edwards, PeopleSoft, and Retek are registered trademarks of Oracle Corporation and/or its affiliates. Other names may be trademarks of their respective owners.

Open Source Disclosure

Oracle takes no responsibility for its use or distribution of any open source or shareware software or documentation and disclaims any and all liability or damages resulting from use of said software or documentation. The following open source software may be used in Oracle’s PeopleSoft products and the following disclaimers are provided.

This product includes software developed by the Apache Software Foundation (<http://www.apache.org/>). Copyright © 1999-2000 The Apache Software Foundation. All rights reserved. THIS SOFTWARE IS PROVIDED “AS IS” AND ANY EXPRESSED OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE APACHE SOFTWARE FOUNDATION OR ITS CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

Contents

General Preface

- About This PeopleBook Prefacexix**
- PeopleSoft Application Prerequisites.....xix
- PeopleSoft Application Fundamentals.....xix
- Documentation Updates and Printed Documentation.....xx
 - Obtaining Documentation Updates.....xx
 - Ordering Printed Documentation.....xx
- Additional Resources.....xxi
- Typographical Conventions and Visual Cues.....xxii
 - Typographical Conventions.....xxii
 - Visual Cues.....xxiii
 - Country, Region, and Industry Identifiers.....xxiv
 - Currency Codes.....xxiv
- Comments and Suggestions.....xxiv
- Common Elements Used in PeopleBooks.....xxv

Preface

- PeopleSoft EnterpriseOne Tools Development Tools: Report Design Aid Preface... ..xxvii**
- Development Tools: Report Design Aid Companion Documentation.....xxvii

Part 1 Creating Reports

Chapter 1

- Getting Started with PeopleSoft EnterpriseOne Tools Development Tools: Report Design Aid.....3**
- Development Tools: Report Design Aid Overview.....3
- Development Tools: Report Design Aid Implementation.....3
 - Development Tools: Report Design Aid Implementation Steps.....3

Chapter 2

Understanding PeopleSoft EnterpriseOne Report Writing.....5
 Report Writing.....5
 Report Design Aid.....5
 Report Processing.....6
 Report Components.....6
 Introduction to Reports.....7
 Report Objects.....7
 Report Templates.....7
 Batch Versions.....7
 Report Sections.....7

Chapter 3

Creating Report Objects.....13
 Understanding the Report Design Process.....13
 Understanding Report Object Naming.....15
 Creating Report Objects.....15
 Understanding Default Settings for Reports.....16
 Understanding Report Objects.....16
 Understanding Deleting Report Objects From Multiple Locations.....17
 Understanding Opening Existing Reports.....17
 Creating Report Objects From Report Design Aid.....17
 Creating Report Objects From Object Management Workbench.....18
 Copying Report Templates From Object Management Workbench.....18
 Deleting Report Objects.....19
 Opening Report Objects From Object Management Workbench.....19
 Creating Detail Sections.....19
 Understanding Detail Sections.....20
 Adding Detail Sections.....23
 Selecting Business Views.....23
 Selecting Business Views from the Select Business View Tab.....23
 Selecting Business Views from the Favorite Business Views Tab.....23
 Adding Business View Columns Using Quick Section.....24
 Defining Section Data Sequencing.....24
 Defining Sort Properties.....25
 Defining Section Data Selection.....25

Chapter 4

Using the Report Director.....27

Understanding the Report Director.....27

Creating Columnar Sections.....28

 Understanding Columnar Sections.....28

 Prerequisite.....28

 Selecting Sections to Include in Columnar Section Reports.....29

 Selecting Business Views.....29

 Selecting Business View Columns.....29

 Defining Section Data Sequencing.....30

 Defining Sort Properties.....30

 Selecting Records to Include.....30

 Creating Batch Versions of Reports From the Director.....31

 Creating an Example Columnar Section Report.....31

Creating Group Sections.....32

 Understanding Group Sections.....32

 Prerequisite.....33

 Selecting Sections to Include in Group Section Reports.....34

 Selecting Business Views.....34

 Selecting Business View Columns.....34

 Defining Section Data Sequencing.....34

 Defining Sort Properties.....35

 Selecting Records to Include.....35

 Creating Batch Versions of Reports From the Director.....35

 Creating an Example Group Section Report.....35

Creating Tabular Sections.....37

 Understanding Tabular Sections.....37

 Prerequisite.....38

 Selecting Sections to Include in Tabular Section Reports.....38

 Selecting Business Views.....39

 Selecting Business View Columns.....39

 Defining Section Data Sequencing.....39

 Defining Sort Properties.....40

 Selecting Records to Include.....40

 Creating Batch Versions of Reports From the Director.....40

 Creating an Example Tabular Section Report.....40

Creating Application Reports.....42

 Understanding Application Reports.....43

 Understanding Smart Fields.....44

 Understanding Calculation Columns.....45

Prerequisite.....	45
Selecting Application Report Templates.....	45
Selecting Business Views.....	46
Selecting Smart Fields.....	46
Creating Calculation Columns.....	47
Defining Section Data Sequencing.....	47
Defining Section Data Sequencing Using the Advanced Option.....	48
Selecting Records to Include.....	48
Defining Additional Properties.....	48
Creating Batch Versions of Reports From the Director.....	48
Saving and Reviewing Reports.....	49
Understanding Saving Reports.....	49
Understanding Reviewing Reports.....	49
Prerequisites.....	49
Saving Reports.....	50
Reviewing Results of the Director.....	50
Previewing Reports.....	50

Part 2 Basic Report Enhancements

Chapter 5

Configuring the Design Workspace.....	53
Understanding the Design Workspace.....	53
Customizing the Design Workspace.....	53
Understanding User Options.....	54
Understanding Grid Alignment.....	55
Prerequisites.....	55
Setting User Options.....	55
Setting the Grid Alignment.....	56
Showing and Hiding the Display Tree.....	56
Showing and Hiding the Business View Column Browser.....	56
Showing and Hiding the Data Dictionary Browser.....	56

Chapter 6

Viewing Properties for Report Sections, Fields, Columns, and Rows.....	59
Understanding Properties.....	59

Viewing Properties.....59

- Understanding Report Properties.....60
- Understanding Section Properties.....60
- Prerequisites.....61
- Viewing Report Properties.....62
- Viewing Section Properties.....62
- Viewing Field Properties.....62
- Viewing Column Properties.....62
- Viewing Row Properties.....63

Chapter 7

Working with Objects in Report Sections.....65

- Understanding Report Objects.....65
- Working With Report Objects.....65
 - Understanding Business View Columns.....65
 - Understanding Data Fields.....66
 - Prerequisites.....67
 - Adding and Removing Business View Columns.....68
 - Adding and Removing Data Fields.....68
 - Adding and Removing Data Dictionary Items.....68
 - Changing Column Heading Names.....68
 - Changing Data Field Names.....69
 - Disconnecting Constants From Variables in Group Sections.....69
 - Performing In-Section Totaling.....69

Chapter 8

Working with Objects Unique to Tabular Sections.....71

- Understanding Tabular Sections.....71
- Defining Decimal Scaling.....72
 - Understanding Decimal Scaling.....72
 - Prerequisites.....72
 - Changing Decimal Scaling for Individual Fields.....72
 - Changing Decimal Scaling for All Fields in a Tabular Section.....72
 - Changing Decimal Scaling for All Fields in All Tabular Sections of a Report.....73
- Creating Calculation Columns.....73
 - Understanding Calculation Columns.....73
 - Prerequisites.....73
 - Defining Calculation Columns.....74

Removing Column Calculations.....	74
Working with Row Description Columns.....	74
Understanding Row Description Columns.....	74
Prerequisites.....	75
Creating Row Description Columns Manually.....	75
Deleting Row Description Columns.....	75
Creating Percent Calculations.....	75
Understanding Percent Calculations.....	75
Prerequisites.....	75
Defining Percent Calculations.....	76
Working with Rows.....	76
Understanding Tabular Rows.....	76
Prerequisites.....	77
Adding Data Rows.....	77
Adding Calculation Rows.....	78
Adding Sum Rows.....	78
Adding Underline Rows.....	79
Adding Constant Rows.....	79
Generating Rows Automatically.....	79
Overriding the Properties of Individual Cells.....	80
Understanding Cell Properties and Overrides.....	80
Prerequisites.....	81
Overriding Data Row Variables.....	81
Overriding Data Row Variable Properties.....	81
Overriding Calculation Row Variable Properties.....	82
Overriding Underline Row Variable Properties.....	82
Overriding Constant Row Variable Properties.....	82

Chapter 9

Modifying the Appearance of Report Objects.....	83
Understanding the Appearance of Report Objects.....	83
Working with Section Descriptions.....	83
Understanding Section Descriptions.....	84
Prerequisites.....	84
Changing Section Descriptions.....	84
Hiding Report Sections.....	84
Understanding Hiding Report Sections.....	84
Prerequisites.....	85
Hiding and Displaying Report Sections Unconditionally.....	85

Displaying Detail Sections Conditionally..... 85

Aligning Fields and Columns..... 85

 Understanding Aligning Fields and Columns..... 86

 Prerequisites..... 86

 Aligning Fields Within Sections..... 87

 Aligning Fields and Columns Across Sections..... 87

Modifying Field Lengths and Column Widths..... 87

 Understanding Field Lengths and Column Widths..... 88

 Prerequisites..... 88

 Modify the Length of Fields..... 88

 Modify the Width of Columns..... 88

Using Absolute Position for Text Wrapping..... 89

 Understanding Absolute Position..... 89

 Prerequisites..... 89

 Activating Absolute Position..... 89

Changing Column Spacing..... 89

 Understanding Column and Row Spacing..... 90

 Prerequisites..... 90

 Modifying Column Spacing..... 90

 Modifying Row Spacing in Columnar Sections..... 90

 Modifying Row Spacing in Tabular Row Sections..... 91

Changing Font Properties..... 91

 Understanding Font Properties..... 91

 Prerequisites..... 94

 Changing Font Properties of Individual Fields..... 94

 Changing Font Properties for All Fields in a Section..... 94

 Changing Font Properties for All Fields in a Report..... 94

 Creating Objects with Bar Code Fonts..... 95

Activating Dynamic Positioning..... 95

 Understanding Dynamic Positioning..... 96

 Activating Dynamic Positioning for a Server or Client..... 96

Defining Font Substitutions..... 96

 Understanding Font Substitutions..... 97

 Prerequisite..... 97

 Viewing Font Substitutions by Language Type..... 97

 Defining Font Substitutions for Language and Line Printers..... 97

 Changing Font Substitutions by Language Type..... 97

 Overriding Font Substitutions for Reports..... 98

 Applying Font Substitutions to Report Templates..... 98

Using True Type Fonts..... 98

Understanding True Type Fonts.....	98
Assigning Fonts by Report Language.....	99
Justifying Text.....	99
Understanding Text Justification.....	99
Prerequisites.....	100
Changing Text Justification for Variables.....	100
Changing Numerical Formatting.....	100
Understanding Numerical Formatting.....	100
Prerequisites.....	100
Changing the Appearance of Numeric Fields.....	100
Associating Lines and Boxes.....	101
Understanding Lines and Boxes.....	101
Prerequisites.....	101
Adding Lines and Boxes to Fields.....	101
Reprinting the Last Line of a Page on the Succeeding Page.....	102
Prerequisites.....	102
Printing the Last Line of a Page as the First Line on the Succeeding Page.....	102
Inserting Page Breaks.....	102
Understanding Manual Page Breaks.....	102
Prerequisites.....	102
Inserting Manual Page Breaks.....	102

Chapter 10

Including Attachments and Comments.....	105
Understanding Attachments and Comments.....	105
Adding Attachments and Comments.....	105
Understanding Attachments.....	105
Understanding Comments.....	106
Prerequisites.....	106
Adding and Deleting Attachments.....	106
Adding, Modifying, and Deleting Comments.....	106

Chapter 11

Inserting Header and Footer Sections.....	107
Understanding Headers and Footers.....	107
Creating Headers and Footers.....	107
Understanding Headers.....	107
Understanding Footers.....	108

Prerequisites.....108
 Creating Report Headers.....108
 Creating Page Headers.....108
 Creating Page Footers.....109
 Creating Report Footers.....109

Chapter 12

Working with Level Break Sections.....111
 Understanding Level Break Header and Footer Sections.....111
 Creating Level Break Sections.....112
 Understanding Level Break Headers.....112
 Understanding Level Break Footers.....113
 Prerequisites.....114
 Creating Level Break Headers.....114
 Hiding the Level Break Field in the Detail Section.....115
 Associating Descriptions.....115
 Creating Level Break Footers.....115
 Inserting Descriptions into Level Break Footers.....116
 Adding Level Breaks to Detail Sections.....116

Chapter 13

Working with Smart Fields.....119
 Understanding Smart Fields.....119
 Using Smart Fields in Reports.....119
 Understanding Smart Field Columns.....119
 Prerequisites.....120
 Selecting Smart Field Templates in Existing Reports.....120
 Inserting Smart Fields.....121
 Selecting and Deleting Smart Fields.....121

Chapter 14

Setting Up Business Views as Favorites.....123
 Understanding Business View Favorites.....123
 Setting Up Business View Favorites.....123
 Understanding Favorites Folders and Subfolders.....124
 Forms Used to Create Business View Favorites.....124
 Adding Favorites Folders.....124

Adding Favorites Subfolders.....	125
Adding Business Views to Favorites Folders and Subfolders.....	126
Adding Notes for Favorites, Folders, and Subfolders.....	127
Modifying and Deleting Notes.....	128
Setting Up Favorites Description Translations.....	128
Viewing Favorites with Alternative Descriptions.....	130

Part 3 Advanced Report Enhancements

Chapter 15

Understanding Advanced Report Enhancements.....	133
Advanced Report Enhancements.....	133

Chapter 16

Joining Detail Sections.....	135
Understanding Subsection Joins.....	135
Creating Subsection Joins.....	135
Understanding the Join.....	136
Prerequisites.....	136
Creating Subsection Join Sections.....	136
Modifying and Severing Subsection Joins.....	137
Joining Two Existing Detail Sections.....	137

Chapter 17

Working with Event Rules.....	139
Understanding Events.....	139
Creating Event Rules.....	139
Understanding Event Rules.....	140
Prerequisites.....	142
Creating If/While Statements.....	142
Creating Simple Event Rule Assignments.....	142
Creating Assignments Using the Expression Manager.....	143
Creating and Using Text Variables.....	143
Understanding Text Variables.....	143
Prerequisites.....	143

Creating Text Variables.....143

Using Text Variables in Assignments.....144

Calling System Functions in Event Rules.....144

 Understanding System Functions.....144

 Prerequisites.....145

 Using System Functions in Event Rules.....145

Creating Event Rule Variables.....146

 Understanding Event Rule Variables.....146

 Prerequisites.....146

 Creating Event Rule Variables in Event Rules.....146

Using the Column Inclusion Versus the Do Section Event.....147

 Understanding the Do Section and Column Inclusion Events.....147

 Prerequisites.....147

 Using the Column Inclusion Event.....147

Creating Custom Sections.....148

 Understanding Custom Sections.....148

 Prerequisites.....148

 Setting Up Custom Sections.....149

Accessing BrowsER for Report Templates.....149

 Understanding BrowsER.....149

 Prerequisites.....150

 Accessing BrowsER.....150

Chapter 18

Including Text Attachments in Reports.....151

Understanding Text Attachments.....151

Adding Text Attachments to Reports.....151

 Understanding Text Attachments in Reports.....151

 Prerequisites.....152

 Including Text Attachments in Reports.....152

Chapter 19

Using Date Titles in Financial Reports.....155

Understanding Date Titles.....155

Using Date Titles in Financial Reports.....155

 Understanding Customizing Date Titles.....156

 Prerequisites.....157

 Forms Used to Define Custom Date Titles.....157

Defining Custom Date Titles.....	157
Previewing Date Titles.....	158
Adding Date Titles to Financial Reports.....	160
Assigning Accounting Periods to Column Headings.....	161
Understanding Accounting Periods.....	161
Forms Used to Assign Accounting Periods to Column Headings.....	161
Defining Column Headings for Accounting Periods.....	161

Chapter 20

Working with the Drill Down Feature.....	163
Understanding the Drill Down Feature.....	163
Defining the Drill Down Feature.....	163
Understanding Activating the Drill Down Feature.....	163
Prerequisites.....	165
Activating and Defining the Drill Down Feature.....	165
Reviewing Audit Trails.....	166
Purging Drill Down Work Files.....	166

Chapter 21

Setting Up Processing Option Templates.....	167
Understanding Processing Option Templates.....	167
Designing and Using Processing Option Templates in Reports.....	168
Understanding Processing Option Templates in Reports.....	168
Prerequisites.....	169
Creating Data Structure Objects.....	169
Creating Processing Option Templates.....	169
Adding Tabs to Processing Option Templates.....	170
Attaching Processing Option Templates to Reports.....	170

Chapter 22

Working with Database Output.....	173
Understanding Database Output.....	173
Using Database Output to Update Data.....	173
Understanding Database Output in PeopleSoft EnterpriseOne.....	173
Prerequisites.....	175
Defining Database Output.....	175
Overriding Environments for Database Output.....	175

Chapter 23

Working with Subsystem Jobs.....177
 Understanding Subsystem Jobs.....177
 Defining Subsystem Jobs.....179
 Understanding Subsystem Job Definitions.....179
 Understanding Adding Records to the Subsystem Table Using an API.....179
 Prerequisites.....179
 Defining Reports as Subsystem Jobs.....180
 Adding Records to the Subsystem Table.....180

Chapter 24

Creating Report Director Templates.....183
 Understanding Report Director Templates.....183
 Adding and Modifying Report Director Templates.....183
 Understanding Report Director Template Definitions.....183
 Prerequisite.....184
 Forms Used to Add Report Director Templates.....185
 Creating Custom Report Director Templates.....185

**Part 4
 Additional Information**

Chapter 25

**Understanding Additional Information for Designing Reports in PeopleSoft
 EnterpriseOne.....191**
 Additional Information for Designing Reports.....191

Chapter 26

Understanding Edit Codes.....193
 Edit Codes.....193

Chapter 27

Understanding Events.....195
 Events.....195
 Processing Option Logic.....195
 Event Levels.....196

Chapter 28

Understanding Report Processing.....201
 The Batch Process.....201
 Batch Processing.....201
 Section Processing.....204
 Level Break Processing.....211
 Batch Events.....214
 System Functions within Batch Events.....219

Chapter 29

Understanding Runtime Processing.....221
 Batch Runtime Processing.....221
 Available Objects.....221
 Typical Event Flow for Group Sections.....222

Chapter 30

Defining Batch Error Messages.....231
 Understanding Batch Error Messaging.....231
 Setting Up Batch Error Messages.....231
 Understanding Level Break Messages.....232
 Understanding Level Break Message Components.....234
 Sample Source Code.....236
 Understanding Work Center APIs.....239
 Prerequisites.....240
 Creating Data Items for Level Break Messages.....240
 Creating Business Function Data Structures.....240
 Creating Level Break Message Business Functions.....241
 Calling the Work Center Initialization API.....242
 Calling the Processing Work Center APIs.....242

Chapter 31

Working with Report Interconnects.....245
 Understanding Report Interconnects.....245
 Defining Report Interconnects.....245
 Understanding Report Interconnects in Batch Applications.....245
 Prerequisites.....246
 Creating Report Interconnects.....246

Chapter 32

Creating Smart Fields.....247

Understanding Smart Fields.....247

Creating Custom Smart Fields.....248

 Understanding Smart Field Components.....248

 Forms Used to Create Smart Fields.....253

 Creating Data Dictionary Items.....253

 Creating Data Structures.....254

 Defining Named Mappings.....255

 Performing Calculations Using Named Event Rules.....255

 Creating Data Dictionary Smart Field Items.....256

 Creating Smart Field Templates.....257

 Creating Report Director Templates.....259

 Designing Reports Using Custom Smart Fields.....261

Glossary of PeopleSoft Terms.....263

Index273

About This PeopleBook Preface

PeopleBooks provide you with the information that you need to implement and use PeopleSoft applications.

This preface discusses:

- PeopleSoft application prerequisites.
- PeopleSoft application fundamentals.
- Documentation updates and printed documentation.
- Additional resources.
- Typographical conventions and visual cues.
- Comments and suggestions.
- Common elements in PeopleBooks.

Note. PeopleBooks document only page elements, such as fields and check boxes, that require additional explanation. If a page element is not documented with the process or task in which it is used, then either it requires no additional explanation or it is documented with common elements for the section, chapter, PeopleBook, or product line. Elements that are common to all PeopleSoft applications are defined in this preface.

PeopleSoft Application Prerequisites

To benefit fully from the information that is covered in these books, you should have a basic understanding of how to use PeopleSoft applications.

You might also want to complete at least one PeopleSoft introductory training course, if applicable.

You should be familiar with navigating the system and adding, updating, and deleting information by using PeopleSoft menus, and pages, forms, or windows. You should also be comfortable using the World Wide Web and the Microsoft Windows or Windows NT graphical user interface.

These books do not review navigation and other basics. They present the information that you need to use the system and implement your PeopleSoft applications most effectively.

PeopleSoft Application Fundamentals

Each application PeopleBook provides implementation and processing information for your PeopleSoft applications.

Note. Application fundamentals PeopleBooks are not applicable to the PeopleTools product.

For some applications, additional, essential information describing the setup and design of your system appears in a companion volume of documentation called the application fundamentals PeopleBook. Most PeopleSoft product lines have a version of the application fundamentals PeopleBook. The preface of each PeopleBook identifies the application fundamentals PeopleBooks that are associated with that PeopleBook.

The application fundamentals PeopleBook consists of important topics that apply to many or all PeopleSoft applications across one or more product lines. Whether you are implementing a single application, some combination of applications within the product line, or the entire product line, you should be familiar with the contents of the appropriate application fundamentals PeopleBooks. They provide the starting points for fundamental implementation tasks.

Documentation Updates and Printed Documentation

This section discusses how to:

- Obtain documentation updates.
- Order printed documentation.

Obtaining Documentation Updates

You can find updates and additional documentation for this release, as well as previous releases, on the PeopleSoft Customer Connection website. Through the Documentation section of PeopleSoft Customer Connection, you can download files to add to your PeopleBook Library. You'll find a variety of useful and timely materials, including updates to the full PeopleSoft documentation that is delivered on your PeopleBooks CD-ROM.

Important! Before you upgrade, you must check PeopleSoft Customer Connection for updates to the upgrade instructions. PeopleSoft continually posts updates as the upgrade process is refined.

See Also

PeopleSoft Customer Connection, <https://www.peoplesoft.com/corp/en/login.jsp>

Ordering Printed Documentation

You can order printed, bound volumes of the complete PeopleSoft documentation that is delivered on your PeopleBooks CD-ROM. PeopleSoft makes printed documentation available for each major release shortly after the software is shipped. Customers and partners can order printed PeopleSoft documentation by using any of these methods:

- Web
- Telephone
- Email

Web

From the Documentation section of the PeopleSoft Customer Connection website, access the PeopleBooks Press website under the Ordering PeopleBooks topic. The PeopleBooks Press website is a joint venture between PeopleSoft and MMA Partners, the book print vendor. Use a credit card, money order, cashier's check, or purchase order to place your order.

Telephone

Contact MMA Partners at 877 588 2525.

Email

Send email to MMA Partners at peoplebookspres@mmapartner.com.

See Also

PeopleSoft Customer Connection, <https://www.peoplesoft.com/corp/en/login.jsp>

Additional Resources

The following resources are located on the PeopleSoft Customer Connection website:

Resource	Navigation
Application maintenance information	Updates + Fixes
Business process diagrams	Support, Documentation, Business Process Maps
Interactive Services Repository	Interactive Services Repository
Hardware and software requirements	Implement, Optimize + Upgrade, Implementation Guide, Implementation Documentation & Software, Hardware and Software Requirements
Installation guides	Implement, Optimize + Upgrade, Implementation Guide, Implementation Documentation & Software, Installation Guides and Notes
Integration information	Implement, Optimize + Upgrade, Implementation Guide, Implementation Documentation and Software, Pre-built Integrations for PeopleSoft Enterprise and PeopleSoft EnterpriseOne Applications
Minimum technical requirements (MTRs) (EnterpriseOne only)	Implement, Optimize + Upgrade, Implementation Guide, Supported Platforms
PeopleBook documentation updates	Support, Documentation, Documentation Updates
PeopleSoft support policy	Support, Support Policy
Prerelease notes	Support, Documentation, Documentation Updates, Category, Prerelease Notes
Product release roadmap	Support, Roadmaps + Schedules
Release notes	Support, Documentation, Documentation Updates, Category, Release Notes

Resource	Navigation
Release value proposition	Support, Documentation, Documentation Updates, Category, Release Value Proposition
Statement of direction	Support, Documentation, Documentation Updates, Category, Statement of Direction
Troubleshooting information	Support, Troubleshooting
Upgrade documentation	Support, Documentation, Upgrade Documentation and Scripts

Typographical Conventions and Visual Cues

This section discusses:

- Typographical conventions.
- Visual cues.
- Country, region, and industry identifiers.
- Currency codes.

Typographical Conventions

This table contains the typographical conventions that are used in PeopleBooks:

Typographical Convention or Visual Cue	Description
Bold	Indicates PeopleCode function names, business function names, event names, system function names, method names, language constructs, and PeopleCode reserved words that must be included literally in the function call.
<i>Italics</i>	Indicates field values, emphasis, and PeopleSoft or other book-length publication titles. In PeopleCode syntax, italic items are placeholders for arguments that your program must supply. We also use italics when we refer to words as words or letters as letters, as in the following: Enter the letter <i>O</i> .
KEY+KEY	Indicates a key combination action. For example, a plus sign (+) between keys means that you must hold down the first key while you press the second key. For ALT+W, hold down the ALT key while you press the W key.
Monospace font	Indicates a PeopleCode program or other code example.

Typographical Convention or Visual Cue	Description
“ ” (quotation marks)	Indicate chapter titles in cross-references and words that are used differently from their intended meanings.
... (ellipses)	Indicate that the preceding item or series can be repeated any number of times in PeopleCode syntax.
{ } (curly braces)	Indicate a choice between two options in PeopleCode syntax. Options are separated by a pipe ().
[] (square brackets)	Indicate optional items in PeopleCode syntax.
& (ampersand)	<p>When placed before a parameter in PeopleCode syntax, an ampersand indicates that the parameter is an already instantiated object.</p> <p>Ampersands also precede all PeopleCode variables.</p>

Visual Cues

PeopleBooks contain the following visual cues.

Notes

Notes indicate information that you should pay particular attention to as you work with the PeopleSoft system.

Note. Example of a note.

If the note is preceded by *Important!*, the note is crucial and includes information that concerns what you must do for the system to function properly.

Important! Example of an important note.

Warnings

Warnings indicate crucial configuration considerations. Pay close attention to warning messages.

Warning! Example of a warning.

Cross-References

PeopleBooks provide cross-references either under the heading “See Also” or on a separate line preceded by the word *See*. Cross-references lead to other documentation that is pertinent to the immediately preceding documentation.

Country, Region, and Industry Identifiers

Information that applies only to a specific country, region, or industry is preceded by a standard identifier in parentheses. This identifier typically appears at the beginning of a section heading, but it may also appear at the beginning of a note or other text.

Example of a country-specific heading: “(FRA) Hiring an Employee”

Example of a region-specific heading: “(Latin America) Setting Up Depreciation”

Country Identifiers

Countries are identified with the International Organization for Standardization (ISO) country code.

Region Identifiers

Regions are identified by the region name. The following region identifiers may appear in PeopleBooks:

- Asia Pacific
- Europe
- Latin America
- North America

Industry Identifiers

Industries are identified by the industry name or by an abbreviation for that industry. The following industry identifiers may appear in PeopleBooks:

- USF (U.S. Federal)
- E&G (Education and Government)

Currency Codes

Monetary amounts are identified by the ISO currency code.

Comments and Suggestions

Your comments are important to us. We encourage you to tell us what you like, or what you would like to see changed about PeopleBooks and other PeopleSoft reference and training materials. Please send your suggestions to:

PeopleSoft Product Documentation Manager PeopleSoft, Inc. 4460 Hacienda Drive Pleasanton, CA 94588

Or send email comments to doc@peoplesoft.com.

While we cannot guarantee to answer every email message, we will pay careful attention to your comments and suggestions.

Common Elements Used in PeopleBooks

Address Book Number	Enter a unique number that identifies the master record for the entity. An address book number can be the identifier for a customer, supplier, company, employee, applicant, participant, tenant, location, and so on. Depending on the application, the field on the form might refer to the address book number as the customer number, supplier number, or company number, employee or applicant id, participant number, and so on.
As If Currency Code	Enter the three-character code to specify the currency that you want to use to view transaction amounts. This code allows you to view the transaction amounts as if they were entered in the specified currency rather than the foreign or domestic currency that was used when the transaction was originally entered.
Batch Number	Displays a number that identifies a group of transactions to be processed by the system. On entry forms, you can assign the batch number or the system can assign it through the Next Numbers program (P0002).
Batch Date	Enter the date in which a batch is created. If you leave this field blank, the system supplies the system date as the batch date.
Batch Status	Displays a code from user-defined code (UDC) table 98/IC that indicates the posting status of a batch. Values are: <i>Blank:</i> Batch is unposted and pending approval. <i>A:</i> The batch is approved for posting, has no errors and is in balance, but it has not yet been posted. <i>D:</i> The batch posted successfully. <i>E:</i> The batch is in error. You must correct the batch before it can post. <i>P:</i> The system is in the process of posting the batch. The batch is unavailable until the posting process is complete. If errors occur during the post, the batch status changes to E. <i>U:</i> The batch is temporarily unavailable because someone is working with it, or the batch appears to be in use because a power failure occurred while the batch was open.
Branch/Plant	Enter a code that identifies a separate entity as a warehouse location, job, project, work center, branch, or plant in which distribution and manufacturing activities occur. In some systems, this is called a business unit.
Business Unit	Enter the alphanumeric code that identifies a separate entity within a business for which you want to track costs. In some systems, this is called a branch/plant.
Category Code	Enter the code that represents a specific category code. Category codes are user-defined codes that you customize to handle the tracking and reporting requirements of your organization.
Company	Enter a code that identifies a specific organization, fund, or other reporting entity. The company code must already exist in the F0010 table and must identify a reporting entity that has a complete balance sheet.

Currency Code	Enter the three-character code that represents the currency of the transaction. PeopleSoft EnterpriseOne provides currency codes that are recognized by the International Organization for Standardization (ISO). The system stores currency codes in the F0013 table.
Document Company	<p>Enter the company number associated with the document. This number, used in conjunction with the document number, document type, and general ledger date, uniquely identifies an original document.</p> <p>If you assign next numbers by company and fiscal year, the system uses the document company to retrieve the correct next number for that company.</p> <p>If two or more original documents have the same document number and document type, you can use the document company to display the document that you want.</p>
Document Number	Displays a number that identifies the original document, which can be a voucher, invoice, journal entry, or time sheet, and so on. On entry forms, you can assign the original document number or the system can assign it through the Next Numbers program.
Document Type	<p>Enter the two-character UDC, from UDC table 00/DT, that identifies the origin and purpose of the transaction, such as a voucher, invoice, journal entry, or time sheet. PeopleSoft EnterpriseOne reserves these prefixes for the document types indicated:</p> <p><i>P</i>: Accounts payable documents.</p> <p><i>R</i>: Accounts receivable documents.</p> <p><i>T</i>: Time and pay documents.</p> <p><i>I</i>: Inventory documents.</p> <p><i>O</i>: Purchase order documents.</p> <p><i>S</i>: Sales order documents.</p>
Effective Date	<p>Enter the date on which an address, item, transaction, or record becomes active. The meaning of this field differs, depending on the program. For example, the effective date can represent any of these dates:</p> <ul style="list-style-type: none">• The date on which a change of address becomes effective.• The date on which a lease becomes effective.• The date on which a price becomes effective.• The date on which the currency exchange rate becomes effective.• The date on which a tax rate becomes effective.
Fiscal Period and Fiscal Year	Enter a number that identifies the general ledger period and year. For many programs, you can leave these fields blank to use the current fiscal period and year defined in the Company Names & Number program (P0010).
G/L Date (general ledger date)	Enter the date that identifies the financial period to which a transaction will be posted. The system compares the date that you enter on the transaction to the fiscal date pattern assigned to the company to retrieve the appropriate fiscal period number and year, as well as to perform date validations.

PeopleSoft EnterpriseOne Tools Development Tools: Report Design Aid Preface

This preface discusses Development Tools: Report Design Aid companion documentation.

Development Tools: Report Design Aid Companion Documentation

Additional, essential information describing the setup and design of the PeopleSoft EnterpriseOne Tools resides in companion documentation. The companion documentation consists of important topics that apply to Development Tools: Report Design Aid as well as other PeopleSoft EnterpriseOne Tools. You should be familiar with the contents of these companion PeopleBooks:

- Object Management Workbench
- Development Tools: Batch Versions
- Development Tools: Event Rules and System Functions
- Development Tools: Tables and Business Views
- Development Tools: APIs and Business Functions
- Development Tools: Data Structure Design
- Development Tools: Data Dictionary
- Development Guidelines for Application Design

See Also

PeopleSoft EnterpriseOne Tools 8.95 PeopleBook: Object Management Workbench, “Understanding Object Management Workbench”

PeopleSoft EnterpriseOne Tools 8.95 PeopleBook: Development Tools: Batch Versions, “Getting Started with PeopleSoft EnterpriseOne Tools Development Tools: Batch Versions”

PeopleSoft EnterpriseOne Tools 8.95 PeopleBook: Development Tools: Event Rules and System Functions, “Getting Started with PeopleSoft EnterpriseOne Tools Development Tools: Event Rules and Systems Functions”

PeopleSoft EnterpriseOne Tools 8.95 PeopleBook: Development Tools: Tables and Business Views, “Getting Started with PeopleSoft EnterpriseOne Tools Development Tools: Tables and Business Views”

PeopleSoft EnterpriseOne Tools 8.95 PeopleBook: Development Tools: APIs and Business Functions, “Getting Started with PeopleSoft EnterpriseOne Tools Development Tools: APIs and Business Functions”

PeopleSoft EnterpriseOne Tools 8.95 PeopleBook: Development Tools: Data Structure Design, “Getting Started with PeopleSoft EnterpriseOne Tools Development Tools: Data Structure Design”

PeopleSoft EnterpriseOne Tools 8.95 PeopleBook: Development Tools: Data Dictionary, “Getting Started with PeopleSoft EnterpriseOne Tools Development Tools: Data Dictionary”

PeopleSoft EnterpriseOne Tools 8.95 PeopleBook: Development Guidelines for Application Design, “Getting Started with PeopleSoft EnterpriseOne Tools Development Guidelines for Application Design”

PART 1

Creating Reports

Chapter 1

Getting Started with PeopleSoft EnterpriseOne Tools Development Tools: Report Design Aid

Chapter 2

Understanding PeopleSoft EnterpriseOne Report Writing

Chapter 3

Creating Report Objects

Chapter 4

Using the Report Director

CHAPTER 1

Getting Started with PeopleSoft EnterpriseOne Tools Development Tools: Report Design Aid

This chapter discusses:

- Development Tools: Report Design Aid overview
- Development Tools: Report Design Aid implementation

Development Tools: Report Design Aid Overview

Development Tools: Report Design Aid is used to present business data stored in the PeopleSoft EnterpriseOne database. PeopleSoft EnterpriseOne data is stored in databases using relational tables. The data is typically presented using batch applications that access the data through business views.

Development Tools: Report Design Aid Implementation

This section provides an overview of the steps that are required to implement Development Tools: Report Design Aid.

Development Tools: Report Design Aid Implementation Steps

In the planning phase of your implementation, take advantage of all PeopleSoft sources of information, including the installation guides and troubleshooting information. A complete list of these resources appears in the preface in *About These PeopleBooks* with information about where to find the most current version of each.

This table lists the steps for the Development Tools: Report Design Aid implementation.

Step	Reference
1. Set up permission to access and use Object Management Workbench (OMW) using Security Workbench.	<i>PeopleSoft EnterpriseOne Tools 8.95 PeopleBook: Security Administration</i> , “Using Security Workbench,” Managing Application Security
2. Add yourself to the system in a developer role so that you have permissions to create PeopleSoft EnterpriseOne objects.	<i>PeopleSoft EnterpriseOne Tools 8.95 PeopleBook: Object Management Workbench</i> , “Configuring User Roles and Allowed Actions,” Setting Up User Roles
3. Set up permissions to create OMW projects.	<i>PeopleSoft EnterpriseOne Tools 8.95 PeopleBook: Object Management Workbench</i> , “Configuring User Roles and Allowed Actions,” Setting Up Allowed User Actions

Step	Reference
4. Set up activity rules to allow you to promote projects in OMW.	<i>PeopleSoft EnterpriseOne Tools 8.95 PeopleBook: Object Management Workbench</i> , “Configuring Activity Rules”
5. Set up save locations to enable you to save PeopleSoft EnterpriseOne objects that are not ready to be checked in.	<i>PeopleSoft EnterpriseOne Tools 8.95 PeopleBook: Object Management Workbench</i> , “Configuring Object Save Locations”
6. Set up default locations and printers.	<i>PeopleSoft EnterpriseOne Tools 8.95 PeopleBook: Development Tools: Report Printing Administration Technologies</i> , “Working with Report Printing Administration”

CHAPTER 2

Understanding PeopleSoft EnterpriseOne Report Writing

This chapter discusses:

- Report writing.
- Report Design Aid.
- Report processing.
- Report components.

Report Writing

PeopleSoft EnterpriseOne provides fully integrated applications for managing information across the enterprise. This information includes employee data, accounts receivable and payable information, financial data, and product information. PeopleSoft EnterpriseOne enables you to view and evaluate this information to make critical decisions to improve the business operation and profitability. You can also distribute this data to others with whom you do business, such as shareholders, employees, and business consultants.

PeopleSoft EnterpriseOne provides reports across the Financial Management, Human Capital Management, Logistics, and Manufacturing systems to meet many business needs. These reports can be easily processed to be viewed online, in Portable Document Format (PDF), and exported to a spreadsheet program. However, to help you meet all of the business needs, custom reports can be created using the PeopleSoft EnterpriseOne report design tool. Using this tool, you can extract and present information that is vital to the business.

Reports that are used primarily to manipulate data are referred to as batch processes. Reporting and batch processing can be combined in a single report.

The PeopleSoft EnterpriseOne reporting solution includes a report design tool to create reports and batch processes, a batch engine for processing, and an output management system to output information.

Report Design Aid

You can use Report Design Aid to create a variety of simple and complex reports. The interface is simple enough to use without programming expertise, yet powerful enough to create the most complex reports. You can also use Report Design Aid to create batch processes and reports.

Report Design Aid includes a director to guide you through the process of creating report templates. This Report Director presents multiple reporting options from which to choose. You can create custom Directors to aid in the creation of report templates. These Directors are configured to use report components to meet a specific reporting requirement.

After using the director to create the initial report, you can enhance the report by:

- Inserting additional report sections
- Modifying properties
- Adding logic
- Further organizing the data
- Calculating totals

The design work space in Report Design Aid can be configured to compliment individual work preferences. You can:

- Modify the report view options.
- Select which toolbars and windows to display.
- Arrange windows.

You can use Report Design Aid with terminal server. Just like in a traditional client server configuration, a report template that is checked out using terminal server cannot be accessed by other users.

Report Processing

You cannot process a report without a batch version. The batch version is submitted for processing and can be processed either locally or on the server. Typically, servers are faster, so processing on a server is more efficient. Once submitted, a batch version runs without user interaction. You do not interact with the report again until processing is complete.

Once you have submitted a batch version for processing, you have no control over the flow of the logic attached. You must make changes to the flow of logic in Report Design Aid and resubmit the batch version.

Report Components

This section discusses:

- Introduction to reports
- Report objects
- Report templates
- Batch versions
- Report sections

Introduction to Reports

A report exists as a set of specifications that are read by the PeopleSoft EnterpriseOne batch engine for processing. You can create variations of a single report template using batch versions. The first step in creating a report is to create a report object within PeopleSoft EnterpriseOne. This report is actually a template from which multiple versions can be created.

Each report is comprised of sections. These sections are the building blocks of all reports. Within the template, you can add, hide, remove, and rearrange sections as needed.

Report Objects

PeopleSoft EnterpriseOne is object-based. Each report template is considered a batch application with an object type of Universal Batch Engine (UBE). When you add a report object, the system creates a header record in the F9860 table. This header record contains information about the report, such as its name and description.

Report Templates

Report templates are the master specifications created in Report Design Aid. These specifications describe the report to the batch engine and define how the data is selected, sorted, displayed, and formatted.

Note. When you create batch versions from the Report Director, the system uses the current report level values. If you change the report level values prior to saving the report template and exiting Report Design Aid, the new values transfer to the version. However, if you save the report template and exit Report Design Aid, then reenter Report Design Aid and change the report level values, the modified report level values do not affect any existing versions. New batch versions that you create do reflect the modified report level values. Batch versions that you copy reflect the template specifications at the time the original version was created.

Batch Versions

Batch versions read the master specifications from the report template. However, batch versions typically differ slightly from the report template. You can define different data selection, data sequencing, and processing options for each batch version. There are also several report specifications that can be overwritten at the version level, including data selection, data sequencing, event rules, and section layout. Batch versions enable you to preserve template integrity while providing custom processing to meet a specific business need. Instead of creating a separate template for multiple variations of a report, you can create one report template with multiple batch versions.

See *PeopleSoft EnterpriseOne Tools 8.95 PeopleBook: Development Tools: Batch Versions*

Report Sections

Report sections are the basic components of a report. Most reports include more than one section. You can use some sections for special purposes, such as performing calculations and totaling. Section types include:

- Report header sections
- Report footer sections

A report header section appears once at the beginning of the report. A report footer section appears once at the end of the report on its own page. You typically populate these sections using constants and variables. You can only define one of each of these sections per report.

- Page header sections
- Page footer sections

A page header section appears at the beginning of each page of the report. A page footer section appears at the bottom of each page of the report. You typically populate these sections using constants and variables. You can only define one of each of these sections per report.

- Detail sections

Detail sections present the information that the report was designed to convey. The three types of detail sections are:

- Columnar
- Group
- Tabular

From the Report Director in Report Design Aid, there is a fourth option for creating Application Reports. This option actually uses one of the three types of detail sections already mentioned, columnar, group or tabular. The section layout of a detail section is typically populated using fields from a business view. Business views are used to access data from one or more database tables. Business views present a subset of data relevant to the immediate business requirement. Selecting fields from a business view provides a link between the data in the database and the report that you are creating.

In addition to the business view fields you select, you can define and add data fields to the detail report section, such as data dictionary fields, constants, and variables.

- Level break header sections

You can define level break fields for use in level break header sections. Level break header sections are used to further organize data.

- Level break footer sections

You define level break fields for use in level break footer sections. Level break footer sections are used to calculate and display totals.

A level break occurs during the processing of a report when the value of a data sequencing field, which is also defined as a level break field, changes. A set of records all with the same value for this defined field is in the same level. For example, in a report that is sequenced by telephone numbers, where the area code is defined as a level break field, all of the records having the same area code are in the same level. When the value of the area code field changes, a level break occurs. Level breaks are used to group large amounts of data into more manageable units. Level break headers provide a descriptive heading prior to the associated data. Level break footers are used to include aggregates with descriptive labels in the report.

Detail Sections

Detail sections present the data required by the business need. This data is fetched from the PeopleSoft EnterpriseOne database using a business view.

Within detail sections, you can:

- Attach a business view.
- Sequence data using business view fields.
- Define level breaks using fields from data sequencing.
- Filter data based on designated criteria.
- Present totals.
- Attach event rules (logic statements that you create and attach to report objects).

You can include multiple detail sections in a report template. The guideline for the size of a report template is not the number of sections but rather the physical size. A report design should not exceed a physical page size of 45 inches in length and width. The Report Design interface includes rulers to help you keep the report template within these parameters. Report templates that exceed this 45 inch parameter guideline may encounter problems at runtime.

Characteristics of Columnar Sections

The columnar section format consists of column headings with rows of data under the headings. Each row is considered a record. Due to the format of the columnar section, the column headings cannot be disconnected from their associated variables. If either the column heading or column variable is deleted, the other is also deleted.

This is an example of a columnar section:

Address Number	Alpha Name	Region Code	Search Type
1001	ABC Office Suppliers	DEN	C
1556	XYZ Manufacturing	NYC	C
1785	Abbot, Dominique	TOR	E
3452	Paper Suppliers, Inc.	CHI	V

A columnar section

You can include multiple columnar sections in a report.

You can include level break headers and level break footers in columnar section reports. The level break header displays above the column headings in columnar section reports. The level break footer displays totals and other aggregates.

When to Use Columnar Sections

Use columnar sections when you want to display rows of data with column headings. This format is beneficial when reviewing a large number of records with specific fields of interest. For example, you want to review the salary of all the employees in the company.

Columnar sections can be joined to other columnar sections or group sections. Each section can have a different business view attached. The sections are then joined on common fields.

You can define columnar sections as conditional, that is, the section is called from event rules only when stated criteria is met.

Characteristics of Group Sections

Group sections enable you to arrange fields in a free-form layout; they are not restricted to a standard column and row format. The group section type is the most flexible because you can place fields anywhere in the section. Business view fields within group sections are composed of constants and variables. Initially, the constant and variable are linked; however, you can disconnect the constant from the variable to meet the reporting needs. Because of the free-form layout, group sections are almost always used for level break footers and grand total sections.

This is an example of a group section:

1001	ABC Office Suppliers DEN
1556	XYZ Manufacturing NYC
1785	Abbot, Dominique TOR
3452	Paper Suppliers, Inc. CHI

A group section

You can include multiple group sections in a report. You must insert level break header and footer sections in group section reports to print organizational headers and totals.

When to Use Group Sections

Use group sections when a free-form layout is required to meet the reporting needs.

Group sections can be joined to other group sections or columnar sections. Each section can have a different business views attached. The sections are then joined on common fields.

You can define group sections as conditional, that is, the section is called from event rules only when stated criteria is met.

Characteristics of Tabular Sections

Tabular sections appear in the same column-and-row format as columnar sections. Three major differences between columnar and tabular sections are that tabular sections offer:

- Spreadsheet functionality.
- Drill-down functionality.
- Row description columns.

These features make tabular sections suitable for presenting numerical data that needs to be summarized with subtotals and grand totals. Typically, financial reports use tabular sections but tabular sections are not exclusive to financial reporting.

This is an example of a tabular section:

Account Description	Net June Posting
Revenue	376,697
Cost of Good	272,091
Gross Profit	104,606
General Expenses	63,911
Net Income	168,517

A tabular section

Within tabular sections, you can:

- Automatically calculate and display totals using level break fields.
- Automatically calculate and display grand totals.
- Define data selection at the column level.
- Define data selection at the row level.
- Define calculations at the cell level.
- Define the drill-down feature.

The drill-down feature enables you to research values in the report by creating a link between the report output file and the associated PeopleSoft EnterpriseOne application.

You can include multiple tabular sections in a report. Tabular sections processes data based on the fields you have defined as level break fields.

Tabular sections do not use level break headers or footers. You cannot join tabular sections to other sections.

Tabular sections automatically include a Row Description column. This column displays descriptions for rows, based on data sequencing and level break fields. It is typically the first column in the tabular section.

Totaling is dynamic in a tabular section. If a column does not require totaling, you can override the totaling function. Because the totaling logic is built into a tabular section, you do not have to use the level break footer sections for totals. Therefore you can change the totaling without redesigning the report.

Advantages of Using Tabular Sections

These are the advantages of using tabular sections:

- Totaling is automatic.
- Audit trails can be created using the drill-down feature.
- Totaling levels can be changed easily by changing which fields are designated as level breaks.
- Multiple descriptions can be displayed in the Row Description column.

When to Use Tabular Sections

Use this criteria to help you determine when tabular sections will meet the reporting needs. You need to:

- Perform row level processing, such as calculations.
- Work with individual cell properties.
- Include totaling that is flexible enough to change easily.
- Define data selection at the column, row, or cell level.
- Calculate grand totals.
- Review detail at the application level using the drill-down functionality.

Characteristics of Report Header Sections

A report can contain only one report header, which prints once at the beginning of the report. The report header can include the report title, the date when the report was processed, and a list of the names of the people who receive the report. Typically, report headers include data fields such as, constants, alpha, numeric, and date variables. You cannot attach business views to report headers.

This is an example of a report header on a report:

XYZ Manufacturing Fourth Quarter Financial Report For the Period Ending 12/31/05 For Internal Use Only

A report header

Characteristics of Page Header Sections

A report can contain only one page header, which prints once at the beginning of each page of the report. Page headers include a company name, page number, and date. Page headers are typically generated by the system. However, you can manually create the page header and include data fields such as, constants, runtime fields, alpha, numeric, and date variables.

This is an example of a page header on a report:

R55905	XYZ Manufacturing Quarterly Sales	9/24/2006 09:15:03 Page:1
--------	--------------------------------------	------------------------------

A page header

Characteristics of Page Footer Sections

A report can contain only one page footer, which prints once at the end of each page of the report. Page footers might present an explanation of the contents of the report. Typically, page footers include data fields such as, constants, alpha, numeric, and date variables.

This is an example of a page footer on a report:

This page reflects the revenue earnings for a single region or branch/plant.

Characteristics of Report Footer Sections

A report can contain only one report footer, which prints once at the end of the report. The report footer can contain a reminder that the contents of the report are for internal use only. Typically, report footers include data fields such as, constants, alpha, numeric, and date variables.

This is an example of a report footer on a report:

All information contained in this report is the legal and exclusive property of this company.

CHAPTER 3

Creating Report Objects

This chapter provides overviews of the report design process and report object naming, and discusses how to:

- Create report objects.
- Create detail sections.

Understanding the Report Design Process

Before you create a report, you should design it so that it is functional, useful, and complete. A successful report design begins with planning. Determine the report requirements by asking questions of the stakeholders, create a model of the report, and determine which sections to include.

Surveying Stakeholders

Answer these questions to determine the report requirements:

- What is the purpose of the report?
- Who will use the report?
- What do the users want to see in the report?
- What information in the report will come directly from the database and what information needs to be calculated?
- What are the best business views to use?
- Which data fields and records should be included in the report?
- In what order should the data be presented?
- What is the most effective format in which to present the information?
- Which reports are used to produce this information now?
- Does a report already exist that could be copied or modified?
- Will a new version of an existing report meet the business needs?
- How frequently will the report be run?
- Does the report output need to be exported to another software package using Output Stream Access (OSA) or Comma Separated Values (CSV)?

Creating Report Models

Once you have determined the report requirements, create a report model. The report model helps you determine the format of the data and what section types will meet the requirements.

For example, you are creating a report to be used for invoicing or ordering. This example illustrates a report model that meets this requirement:

R09450	34 Quarterly Revenues	12/31/05 Page: 1	09:15:54	Page Header Section
ABC Office Supplies - 1244				Level-Break Header (Group Section)
<u>Doc Type</u>	<u>Doc Number</u>	<u>Due Date</u>	<u>Amount</u>	Columnar Section
PV	101	07/31/05	225.00	
PV	102	08/15/05	225.00	
			Total Revenue 250.00	Level-Break Footer (Group Section)
XYZ Manufacturing - 8856				
<u>Doc Type</u>	<u>Doc Number</u>	<u>Due Date</u>	<u>Amount</u>	
PV	505	07/31/05	225.00	
PV	506	08/15/05	225.00	
			Total Revenue 450.00	Grand Total (Group Section)
			Grand Total 700.00	

Report model

Determining the Report Sections

After the you and the report requester agree on the model, determine the sections that are required to support the model. You might conclude that the report needs a page header section to provide general information, a level break header section to display each company's address number and description, a columnar section to display the business data, a level break footer section to calculate and display subtotals, and a grand total section.

To determine the sections that are required for a report, consider these questions:

- Is a report header required at the beginning of the report for clear and meaningful presentation of the information?
- Is a report footer required at the end of the report to highlight an important function or fact about the report?

- Is a page header required to present information on each page of the report?
- Is a page footer required to give the reader vital information on each page of the report?
- Does a business view exist that contains all of the data fields required by the report?
- Do you need to join two detail sections that use different business views?
- What is the best format to present the required information?
- Is the data best displayed in the free-form format of a group section?
- Is the data better presented in a columnar format of a columnar or tabular section?
- Do you need the flexibility of a tabular section to create rows in the report?
- If you use a group or columnar section, do you need to include level break footers for totaling?
- Would the automatic totaling features of a tabular section be more efficient?
- Can you use a Director template to help you create the report?
- Do you need to modify a Director template or create a new one?
- How should you sequence the fields and records from the business view?
- How should you filter the data from the business view?
- What enhancements can you apply to report objects to make the report more useful?

For example, do you want to emphasize the information in one column by changing the column spacing? Do you want to change the font size of the contents of a column to call attention to the information?

- Are event rules required to define conditional, mathematical, or other logic for the report?
- Is an audit trail required?

After you have finished planning the design of the report, create the report in Report Design Aid.

Understanding Report Object Naming

To provide consistency for developers and users, all PeopleSoft EnterpriseOne objects follow standard naming conventions. The naming conventions require that each object, such as a table, report, interactive application, or business view, has a unique name. The naming conventions help you identify objects and prevent users from creating objects with duplicate names.

See *PeopleSoft EnterpriseOne Tools 8.95 PeopleBook: Development Guidelines for Application Design*, “Understanding PeopleSoft EnterpriseOne Naming Conventions,” Object Naming Conventions.

Creating Report Objects

This section provides overviews of default settings for reports, report objects, deleting report objects from multiple locations, opening existing reports, and discusses how to:

- Create report objects from Report Design Aid.
- Create report objects from Object Management Workbench.

- Copy report templates from Object Management Workbench.
- Delete report objects.
- Open report objects from Object Management Workbench.

Understanding Default Settings for Reports

A report is a UBE (Universal Batch Engine) object type. You must provide a report with an object name, a description, and a product code to which the object is connected. After you create a report object, you can save it and add object specifications at a later time.

When you create a new report, or other batch application, the system automatically applies these standards:

Report Component	Default Standard
Font	Appears in 7 point, Arial font.
Report name	Appears in the upper-left corner of the page header.
Actual run date and runtime values	Appears in the upper-right corner of the page header.
Page number	Appears in the upper-right corner of the page header, under the date and time.
Company name	Appears in the center at the top of the page header.
Report titles	Appears in the center at the top of the page header under the company name.

Understanding Report Objects

When you create a new report object using Report Design Aid, you create a report template and, optionally, a batch version. This instance is the only time that you can use Report Design Aid to create batch versions; all other batch versions are created from the batch versions tools.

When you create a new report object, you need to provide information about the report:

Object Name	Identifies the name of the report. Begin report names with the letter R, followed by the product code, and then a unique identifier. The object name displays in the upper-left corner of the page header.
Description	Describes the purpose of the report. Enter a description that serves as a useful identifier, such as “General Ledger by Batch.” The description displays in the center of the page header below the company name.
Product Code	Use product codes to ensure that the custom objects remain unaltered by PeopleSoft EnterpriseOne software upgrades. Product codes 55–59 are reserved for customers.
Product System Code	Identifies the system where the required data resides. Typically, the report shares the same product system code as the business view to be attached.
Object Use	Use this range of codes to classify the report. Object use codes 160–166 are report-related classifications.

Update Report/No Update Report	Indicates whether the report updates data in the database. Only report developers with permissions can design an Update Report. If the developer has permissions, the Update Report option is selected by default.
---------------------------------------	--

Note. If you do not have permission to create an Update Report, the option does not display and the No Update Report option is selected. The system administrator defines permissions for the update option through PeopleSoft EnterpriseOne security.

Understanding Deleting Report Objects From Multiple Locations

You can delete batch versions and report templates from the system. If you delete a report template, all of its batch versions are deleted automatically.

You can delete report objects from these locations:

- The check-in server.
- The local environment.
- The Save location.
- The Transfer locations.
- All locations.

Note. The objects must be checked in and you must possess the proper role and permissions to delete objects.

See Also

PeopleSoft EnterpriseOne Tools 8.95 PeopleBook: Object Management Workbench, “Working with Objects,” Deleting Objects

Understanding Opening Existing Reports

You can open an existing report in Report Design Aid and make modifications.

You can open either a report template or a batch version. If you open and modify a report template, the changes are reflected in the associated versions (unless prohibited by overrides in the batch versions). You can open a batch version to modify it without affecting the report template or other associated versions.

When you open an existing report, the Report Director is not available to assist with changes. Rather, the report template or batch version opens automatically to the Report Design form. You can open a report object in the Report Design form, which you access directly from Solution Explorer or from Object Management Workbench. To open a report object in Object Management Workbench, you must add the report object to a project

Creating Report Objects From Report Design Aid

In Solution Explorer, select the Report Management menu (GH9111) and select Report Design Aid to access the PeopleSoft Report Design Aid form.

1. Click New.
2. On the Create New Report form, in the Report Name field, enter a name for the report template.
3. In the Description field, enter a description that identifies the purpose of the report.
4. In the Product Code field, enter a value between 55–59.

5. Select either the Update Report or No Update Report option and click OK.
6. Use the Report Director to design the report.
7. On the final page of the Report Director, select to create a version of the report template and name the version.

Creating Report Objects From Object Management Workbench

In Solution Explorer, from the Tools menu, select Object Management Workbench to access the Object Management Workbench form.

1. Click Find.
2. In the project view, expand the project to which the new report object will be added.
3. Click the Objects node of the project and click Add.
4. On the Add EnterpriseOne Object to the Project form, select to create a Batch Application, and click OK.
5. On the Add Object form, in the Object Name field, enter the name of the report template.
6. In the Description field, enter a description that identifies the purpose of the report.
7. In the Product Code field, enter a value between 55–59.
8. In the Product System Code field, enter the system code that reflects where the required data resides.
9. In the Object Use field, enter a value between 160–166.
10. Select either the Update Report or No Update Report option and click OK.
11. On the Batch Application Design form, select the Design Tools tab, and click Start Report Design Aid.
12. Use the Report Director to design the report.

See Also

PeopleSoft EnterpriseOne Tools 8.95 PeopleBook: Object Management Workbench, “Working with Objects,” Adding Objects to Projects

Copying Report Templates From Object Management Workbench

Access the Object Management Workbench form.

1. Click Find.
2. In the project view, expand the project where the report template you want to copy resides.
3. Expand the Objects node, click the report, and then click Copy.
4. On the Copy Object form, in the Copy to field, enter the name of the new report template.
5. In the Description field, enter a description that identifies the purpose of the report.
6. In the Product Code field, enter a value between 55–59.
7. In the Product System Code field, enter the system code that reflects where the required data resides.
8. In the Object Use field, enter a value between 160–166.
9. Select either the Update Report or No Update Report option and click OK.
10. On the Batch Application Design form, select the Design Tools tab, and click Start Report Design Aid.
11. Use the Report Director to design the report.

Deleting Report Objects

Access the Object Management Workbench form.

1. Click Find.
2. In the project view, expand the project where the report object resides.
3. Expand the Objects node, click the report, and then click Delete.
4. On the Delete of form, select one of these options and click OK:
 - Delete Object from Server.
 - Delete Object Locally.
 - Delete Object from the SAVE Location.
 - Mark Object to be Deleted from Transfer Locations.
 - Remove Object from ALL Locations.

Select this option to select all delete options.

The deleted object appears in bold text in the project view. If the system administrator has set options to allow immediate deletion, the system deletes the object when you exit PeopleSoft EnterpriseOne. Otherwise, the object is deleted when the project is advanced.

Opening Report Objects From Object Management Workbench

Access the Object Management Workbench form.

1. Click Find.
2. In the project view, expand the project where the report object resides.
3. Expand the Objects node, click the report object you want to open, and then click the Design action button.
4. If you select a report template, on the Batch Application Design form, select the Design Tools tab, and click Start Report Design Aid.
5. If you select a batch version, on the Batch Version Design form, select the Tools tab, and click Report Design.

Warning! Batch versions beginning with XJDE or ZJDE are owned by PeopleSoft EnterpriseOne and should not be modified. If you want to modify one of these batch versions, copy the version, name it according to the naming conventions, and modify the copied version. This ensures that the custom version is not altered by future releases or software updates.

Creating Detail Sections

This section provides an overview of detail sections and discusses how to:

- Add detail sections.
- Select business views.
- Select business views form the Select Business View tab.
- Select business views form the Favorite Business Views tab.
- Add business view columns using Quick Section.

- Define section data sequencing.
- Define sort properties.
- Define section data selection.

Understanding Detail Sections

In Report Design Aid, the Report Director initially guides you through the steps of creating a report template. You might, however, need to modify an existing section or add columnar, group, or tabular sections to an existing report template. You can accomplish these tasks in Report Design Aid.

To add detail sections to an existing report template, select the section type from the menu in Report Design Aid. The Report Director guides you through the steps of creating the new detail section. This topic describes how to add a detail section to a report template.

Note. PeopleSoft EnterpriseOne supports Arabic and the right-to-left display preferences for the Microsoft Windows client, web client, and UBEs. However, when designing a report, you must design it from left to right. When you generate the report by printing it or generating a PDF, it displays information right to left, including the alignment of text and numeric strings. The system displays strings that contain a mixture of Arabic and non-Arabic characters in accordance with generally accepted bidirectional standards.

Add Detail Sections

In Report Design Aid, you can create as many group, columnar, and tabular sections in a report template as required. You design each detail section by attaching a business view and then selecting individual columns from that business view to include in the section layout.

Select Business Views

Business views are the link between the report and the data in the PeopleSoft EnterpriseOne database. They present data fields from one or more tables and limit the column selection to columns relevant to the business requirement of the report. Business views also improve performance by moving only the required fields across the network.

You can select a business view for a detail section using one of two methods:

- Favorite Business Views

Select from a list of business views users have defined as favorites.

- Select Business Views

Use the QBE (Query by Example) line to filter through all business views in the system. You can filter by product code, business view name, entire or partial description, or leave the QBE line empty to return all business views.

Business view names begin with the letter V and contain a maximum of 10 characters. The name is formatted as *VxxzzzzzzzA*, where the variable characters represent this information:

- *xx* is the product code (55-59 is reserved for clients).
- *zzzzzzz* is the characters of the primary table.
- *A* indicates the sequence in which the business view was created over the primary table.

No matter which method you use to select a business view, the title bar of the detail section reflects the selected business view.

See *PeopleSoft EnterpriseOne Tools 8.95 PeopleBook: Development Tools: Tables and Business Views*, “Designing Business Views”.

Add Business View Columns to Detail Sections

Business views present data fields from one or more tables. They limit the column selection to only those columns that are relevant to the business requirement of the report. You select the required fields for the report layout from the attached business view.

Use Quick Section to manually select data fields from a business view for the *initial* section layout. This is necessary when you create a detail section manually, without the aid of the Report Director. After the design of the report template is complete, insert additional business view columns into a detail section using the Business View Columns Browser.

Define Section Data Sequencing

Use data sequencing to indicate the order in which the system should read records from the database and display them in the report section. For example, define data sequencing to display records in a report section by address book number and then by name.

PeopleSoft EnterpriseOne sorts records in a report section by any column included in the attached business view, regardless of whether you included the column in the section layout. Therefore, the business view columns that you select for data sequencing do not need to match the business view columns selected on the Section Layout form.

Define Sort Properties

After you select business view fields for use in data sequencing, you can define sort properties for those fields. The sort properties determine whether:

- Records are sorted in ascending or descending order.

The system displays an up arrow for ascending order by default. Click the arrow once to display a down arrow for descending order.

- Sequencing fields should trigger level breaks.

Select this option to trigger a level break when the value of the field changes.

- Level break field should produce a page break.

Select this option to begin each unique value for the level break field on a new page.

Note. To set an field as a page break, you must first define the field as a level break.

For example, you can sequence records by search type in ascending order, designate search type as a level break, and begin each unique search type on a new page.

Define Section Data Selection

Use data selection to define criteria whereby only specific, relevant records are included in the report section. For example, define data selection to display records for hourly employees only.

PeopleSoft EnterpriseOne filters data in a report section by any column included in the attached business view, regardless of whether you included the column in the section layout.

The operator for the first line of data selection is *Where*. The operator for additional lines of data selection is either *And* or *Or*. You complete the first line of the data selection by selecting a left operand, a comparison, and a right operand. The left operand must be a column from the attached business view.

To limit the records retrieved from the PeopleSoft EnterpriseOne database, specify data selection criteria using one of these comparisons:

- is equal to.
- is equal to or empty.
- is greater than.
- is greater than or equal to.
- is less than.
- is less than or equal to.
- is not equal to.

Use the valid comparisons between the left operand, data fields included in the business view, and the right operand. The options available in the right operand column depend on the selection you made in the Comparison column. Available options include:

Option	Description
<Blank>	Enters a blank (space) value.
<Literal>	Enables you to enter specific values.
<Null>	Indicates that no value is associated with the field.
<Zero>	Enters a value of zero.
BC	Indicates a business view column.
RI	Indicates a value passed through a report interconnect to this report.
PC	Indicates a previous business view column.
PO	Indicates a processing option value available for this report.
PV	Indicates the previous value for the variable.
RC	Indicates a constant from this report.
RV	Indicates a variable from this report.
SV	Indicates a system variable.
SL	Indicates a system value.
TV	Indicates a text variable.
VA	Indicates an event rule variable.

The Range of Values form enables you to enter:

- A single value
A single value might be a specific company.

- A range of values
A range of values might include companies 00001 to 00060. Only *is equal to* and *is not equal to* are valid comparisons when using range of values.
- A list of values
Enter a list of values that are not sequential and click Add after each entry. Delete a value by selecting the value, and then click Delete.
A list of values might include several user defined codes for search types such as C for Customers, E for Employees, and V for Suppliers. Only *is equal to* and *is not equal to* are valid comparisons when creating a list of values.

Adding Detail Sections

Access Report Design Aid.

1. Open a report template.
2. From the Section menu, select Create, and select one of these detail section types:
 - Group
 - Columnar
 - Tabular
3. Use the Report Director to design the section.

Selecting Business Views

Open a report template in Report Design Aid.

1. Click inside the detail section of the report.
2. From the Section menu, click Select Business View.
3. On the Business View Director, select a tab and proceed to the appropriate instructions:
 - Select Business View
 - Favorite Business Views

Selecting Business Views from the Select Business View Tab

Access the Business View Director.

1. Select the Select Business View tab.
2. On the Select Business View form, enter the business view name on the Object Name QBE line and click Find or press ENTER.
3. Select a business view, and click OK.

Selecting Business Views from the Favorite Business Views Tab

Access the Business View Director.

1. Select the Favorite Business Views tab.
2. From the Favorites view, click the + button to expand each folder until you locate the required business view.

3. Select the Description tab to view a brief description of the business view that you have selected.
4. Select the Columns tab to view the data fields that are included in the business view that you have selected.
5. When you are certain that you have selected the appropriate business view, click OK.

See Also

[Chapter 14, “Setting Up Business Views as Favorites,” page 123](#)

Adding Business View Columns Using Quick Section

Open a report template in Report Design Aid.

1. Click a detail section of the report that includes an attached business view but no fields.
2. From the Section menu, select Quick Section.
3. On the Quick Section form, from the Available Business View Columns, click a required column and perform one of these tasks:
 - Click the right arrow to move the column to Selected Columns.
 - Drag the column to Selected Columns.
You can move multiple columns to Selected Columns by using the SHIFT or CTRL keys.
 - Click the right double-arrow to move all columns to Selected Columns.
4. To remove columns from the report layout, click a column from the Selected Columns list and perform one of these tasks:
 - Click the left arrow or press Delete to remove the selected column.
You can remove multiple columns by using the SHIFT or CTRL keys.
 - Click the left double-arrow to remove all columns.
5. To change the order that the columns display on the report, click a column from the Selected Columns list and perform one of these tasks:
 - Click the up or down arrows to move the selected column up or down one position in the list.
 - Drag the selected column to another position in the list.
 - Click the up or down double arrows to move the selected column to the top or bottom of the list.
6. Complete the layout of the section and click OK.

Defining Section Data Sequencing

Open a report in Report Design Aid.

1. Click a detail section of the report in which the section layout is defined.
2. From the Section menu, select Define Data Sequence.
3. On the Data Sequencing form, select the Section Data Sequencing tab.
4. To select columns for data sequencing, from the Available Columns list, click a column, and perform one of these tasks:
 - Click the right arrow to move the column to Selected Columns.

- Drag the column to Selected Columns.
You can move multiple columns to Selected Columns by using the SHIFT or CTRL key.
 - Click the right double-arrow to move all columns to Selected Columns.
5. To remove columns from the data sequencing, from the Selected Columns list, click a column, and perform one of these tasks:
 - Click the left arrow or press Delete to remove the selected column.
You can remove multiple columns by using the SHIFT or CTRL key.
 - Click the left double-arrow to remove all columns.
 6. To change the order of the fields that are used to sort the section data, click a column in the Selected Columns list, and perform one of these tasks:
 - Click the up or down arrow to move the selected column up or down one position in the list.
 - Drag the selected column to another position in the list.
 - Click the up or down double arrows to move the selected column to the top or bottom of the list.

Defining Sort Properties

Access the Data Sequencing form.

1. Click the Define Sort Properties tab.
2. Complete the Sort Order field for each sort column.
3. Click these fields as appropriate and click OK:
 - Level Break
 - Page Break

Defining Section Data Selection

Open a report in Report Design Aid.

1. Click a detail section of the report that has a business view attached.
2. From the Section menu, select Define Data Selection.
3. On the Data Selection form, *Where* is displayed in the Operator column for the first set of criteria.
4. Click in the Left Operand column to display the list of available business view fields, and perform one of these tasks:
 - Scroll through the list until you find the required business view field, then double-click the field to populate the Left Operand column.
 - Begin entering the business view field name in the Left Operand field. The system presents the first business view field in the list that matches the criteria, continue entering the field name until the required field appears, then double-click the field.

When you double-click the business view field for the Left Operand column, the list in the Comparison column appears.
5. Select a comparison operator.

When you double-click the comparison operator, the list in the Right Operand column appears.

6. In the Right Operand column, select from the available objects, special values, and variables.
7. To delete a line of criteria on the Data Selection form, click the row header to highlight the row, and then click the Delete button at the top of the form.
8. To change the order of the criteria, click the row header to highlight the row, and then click the up or down button.

CHAPTER 4

Using the Report Director

This chapter provides an overview of the Report Director and discusses how to:

- Create columnar sections.
- Create group sections.
- Create tabular sections.
- Create application reports.
- Save and review reports.

Understanding the Report Director

The Report Director (Director) provides a quick start to designing reports by guiding you through a linear process to set up basic elements for a report template. Using the Director, you can include only one detail section in the report template. As you proceed through the Director, you answer simple questions, such as whether to include header and footer sections, which type of detail section to create, which business view to use to fetch the required data, which fields to include in the detail section, and how to sequence and sort the records in the detail section. Based on the answers to these questions, the Director creates a report template and opens it in Report Design Aid. You can then use Report Design Aid to format the data, enhance the report, and add additional detail sections.

The Director uses templates to guide you through the creation of application reports. These templates define default criteria, such as a recommended business view, smart fields, data selection, data sequencing and processing options. When you select a template from the Director, the Director reads the template specifications (which are stored in PeopleSoft EnterpriseOne tables) and presents the default criteria through the Director forms. Several Director templates are included in the PeopleSoft EnterpriseOne software. You can create custom templates from the Report Director Templates (P91400) application.

On the Welcome to the Report Design Director form, you can select from these section options:

- Report header
- Page header
- Columnar

Columnar report sections include a columnar format that includes column headings with rows of data.

- Group

Group report sections provide a free-form layout that enables you to place fields exactly where you want them.

- Tabular

Tabular report sections include a columnar format with additional features unique to the tabular section type.

- Application Reports

Application reports are reports that use the Report Director templates. The default application report is Financial Reports. Use the drop-down to select from available Report Director templates. The Report Director template determines the detail section type created by the system.

- Page footer
- Report footer

If you want to design a report without the assistance of the Director, you can click Finish or Cancel to exit the Director. Finish accepts the selections you have already made using the Director. Cancel ignores any options that you have selected. You can then build the report manually, section by section, within Report Design Aid.

Creating Columnar Sections

This section provides an overview of columnar sections, lists the prerequisite, provides a sample columnar section report, and discusses how to:

- Select sections to include in columnar section reports.
- Select business views.
- Select business view columns.
- Define section data sequencing.
- Define sort properties.
- Select records to include.
- Create batch versions of reports from the Director.

Understanding Columnar Sections

The columnar section report presents information from a business view in a columnar format. Each data field is a column and each record is a row.

Use the Report Director to design a columnar section report. The Report Director guides you through the process for creating a columnar section report by asking you questions about the structure and content of the report. The Report Director includes a navigation assistant that tracks where you are in the report development process. You can right-click the navigation assistant and click Hide to hide it for the current design process.

After you finish creating the report, you can enhance it by using additional features of Report Design Aid.

See Also

[Chapter 14, “Setting Up Business Views as Favorites,” page 123](#)

[Part 3, “Advanced Report Enhancements,” page 131](#)

Prerequisite

Create a batch application object. The system automatically opens the Welcome form of the Report Director as the last step in creating a batch application object.

Selecting Sections to Include in Columnar Section Reports

Access the Welcome to the Report Design Director form.

1. Select from the header and footer options available.
2. Select the Columnar option, and click Next.

If you selected to include a page header in the report, the Page Header Details form appears.

Note. If you did not select to include a page header in the report, the Business View Selection Option form appears. You may skip the rest of the steps in this task.

3. On the Page Header Details form, select these options to allow the system to automatically populate the page header section:

- Automatically add the default informational fields shown below to my page header section.
- Automatically add the default informational fields Page n or Total to my page header section.

Select this option to include the Page n of Total field in the page header. You must also select the first option if you want to include all fields in the page header.

Note. After you complete the design of the entire report using the Report Director, you can add or delete fields from the page header.

If you do not select either of these page header options, the system creates an empty page header. You can manually add fields to the page header from the Section menu in Report Design Aid.

4. Click Next.

The Business View Selection Option form appears.

Selecting Business Views

Access the Business View Selection Option form.

1. Select one of these business view options and click Next:
 - I'd like help finding an appropriate business view.
 - I'll find a business view myself.
2. Select the required business view and click Next.

Selecting Business View Columns

Access the Section Layout form.

1. From the Available Business View Columns list, select the columns to include in the columnar section, and click the right arrow to move them to the Selected Columns list.

You can select multiple columns using the CTRL or SHIFT keys. You can also drag each column individually into the Selected Columns list, or you can click the right double arrow to move all of the columns from the Available Business View Columns list to the Selected Columns list.

Columns appear in the columnar section from left to right in the order that they are listed in the Selected Columns list.

2. To remove columns from the section layout, select a column in the Selected Columns list, and click the left arrow to move it to the Available Business View Columns list.
You can also click the left double arrow to remove all of the columns from the Selected Columns list.
3. To change the display order of the columns in the columnar section, select a column in the Selected Columns list, and click the up or down arrows to move the selected column up or down one line in the list.
You can also drag a column to a new location in the list, or you can click the up or down double arrows to move the selected column to the top or bottom of the list.
4. When you complete the section layout, click Next.

Defining Section Data Sequencing

Access the Section Data Sequencing form.

1. Select columns for sequencing from the Available Columns list, and click the right arrow to move them to the Selected Columns list.
You can select multiple columns, remove columns and change the order of columns in the same manner as on the Section Layout form.

Note. To define sort properties in the next task, you must select columns in this task.

2. When you complete the data sequencing for the section, click Next.

Defining Sort Properties

Access the Define Sort Properties form.

1. Click the arrow in the Sort Order field until it reflect your preference of ascending or descending order.
2. To specify level and page breaks, click these fields:
 - Level Break
 - Page Break
3. When you are finished, click Next.

Selecting Records to Include

Access the Data Selection form.

1. Click the Operator field and select *Where* as the operator.
2. In the Left Operand field, select from the list of available business view columns.
3. In the Comparison field, select from the list of available options.
4. In the Right Operand field, select from the list of available objects.
5. To delete a line of criteria on the Data Selection form, click the row header to highlight the row, and then click the Delete button at the top of the form.
6. To change the order of the criteria, click the row header to highlight the row, and then click the up or down button.
7. When you have completed the selection criteria, click Next.

Creating Batch Versions of Reports From the Director

Access the Finish form of the Report Director.

1. Select Yes, create a version of this report to automatically generate a batch version of the report template.
2. Enter the version name in the field beneath Yes, create a version of this report.
3. To review the selections, click Back to move backwards through the Director forms.

On the Navigation Assistant, you can also click the name of the form that you want to review.

4. When you are satisfied, click Finish.

Important! When you click Finish, you can no longer access the Director for this report. Before you click Finish, you have an opportunity to review the selections on all forms of the Report Director.

Creating an Example Columnar Section Report

This sample columnar section report, which is used for annual salary reviews, was created using the Report Director. The V060116A - Employee Master business view is attached to the columnar section, and these business view columns were selected for the section layout:

- Address Number
- Name - Alpha
- Business Unit - Home
- Pay Class (H/S/P)
- Date - Original Employment
- Rate - Salary, Annual

A columnar section format was selected for this report because the information is best displayed in rows and columns. The columnar format makes it easy to review the salary column by employee.

Access Report Design Aid.

1. From the File menu, select New.
2. On the Create New Report form, in the Report Name field, enter *R55060116*.
3. In the Description field, enter *Annual Salary Review*.
4. In the Product Code field, enter *55*.
5. Select the No Update Report option and click OK.
6. On the Welcome to the Report Design Director form, select Page Header and Columnar, and click Next.
7. On the Page Header Details form, click Next to accept the default.
8. On the Business View Selection Option form, select the option I'll find a business view myself, and click Next.
9. On the Select Business View form, locate and select the *V060116A - Employee Master* business view, and click Next.
10. On the Section Layout form, use the horizontal arrow buttons to select these columns, in the order listed, and move them to the Select Columns list:
 - Address Number

- Name - Alpha
 - Business Unit - Home
 - Pay Class (H/S/P)
 - Date - Original Employment
 - Rate - Salary, Annual
11. When the selected columns are arranged as indicated, click Next.
 12. On the Data Sequencing form, use the horizontal arrow buttons to select and move the Name - Alpha column to Selected Columns, and click Next.
 13. On the Define Sort Properties form, sort the Name - Alpha field in ascending order and click Next.
 14. On the Data Selection form, click Next.
No data selection is required for this example.
 15. On the Finish form, select Yes, create a version of this report and enter *VER0001* as the version name.
 16. Click Finish.
 17. On the PeopleSoft Report Design Aid form, click Save on the toolbar to save the report.
 18. Select the Preview tab to view the report.
 19. On the Preview tab, select Yes.
 20. From the File menu, select Exit to exit Report Design Aid.

Creating Group Sections

This section provides an overview of group sections, lists the prerequisite, provides a sample group section report, and discusses how to:

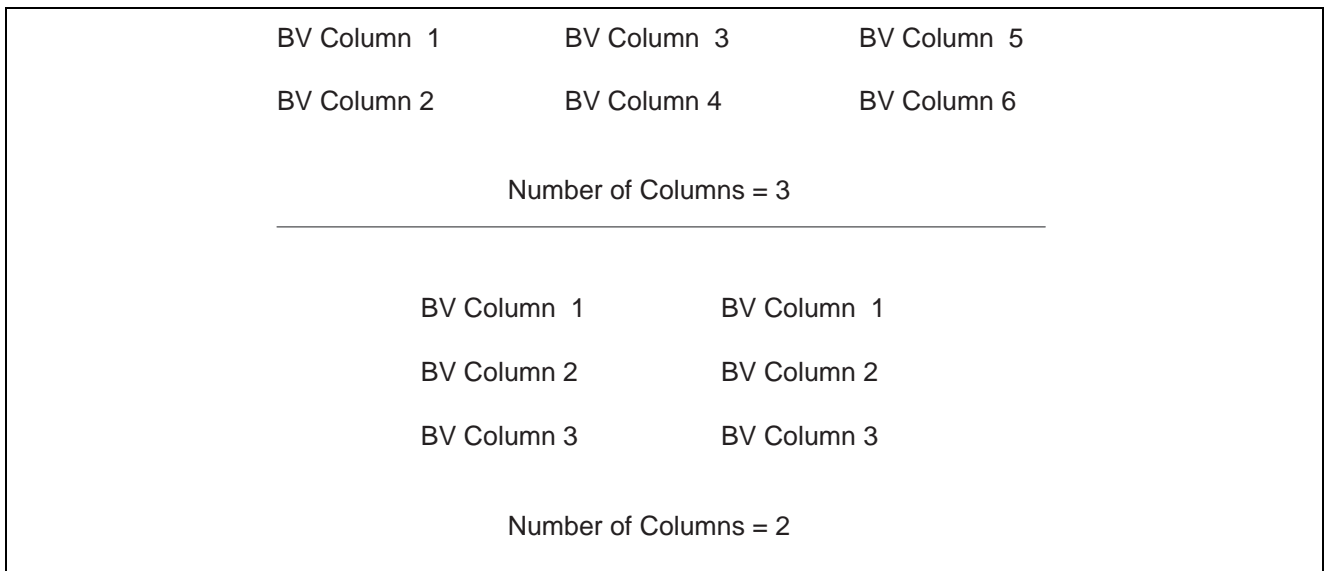
- Select sections to include in group section reports.
- Select business views.
- Select business view columns.
- Define section data sequencing.
- Define sort properties.
- Select records to include.
- Create batch versions of reports from the Director.

Understanding Group Sections

Group sections provide flexibility in arranging the data in the report section. A group of fields in a group section represents data from one record. Each business view field consists of a constant, or field description, and a variable.

When you select business view columns for the group section layout, you specify how many of the fields to list vertically before the next vertical grouping begins. The Number of Columns field appears below the Available Business View Columns list. The Number of Columns value determines how Report Design Aid organizes fields in a group section. For example, if you select six fields and enter 3 in the Number of Columns field, the fields in the section are organized in three columns, each including two business view fields. The first two fields display in the first column in the same order that they appear in the Selected Columns list. The next two fields display in the second column in the same order that they appear in the Selected Columns list. The last two fields display in the third column in the same order that they appear in the Selected Columns list. If you enter 2 in the Number of Columns field, the business view fields are arranged in two columns, each column includes three business view fields. The Number of Columns default value is 2.

This example illustrates how the columns are organized in a group section based on the number of columns indicated:



Number of columns

Note. The term business view column might be confusing when talking about group sections because group sections are not organized in a columnar format. A business view column refers to the column name in the table. In group sections, the business view column data is displayed in a columnar format, in columnar and tabular sections, and in a free-floating field in group sections.

After you create a new report object, use the Report Director to design a group section report. The Report Director directs you through a linear process for creating a group section report by asking you questions about its structure and content. When you have finished creating the report, you can enhance it by using additional features of Report Design Aid.

See Also

Part 2, “Basic Report Enhancements,” page 51

Part 3, “Advanced Report Enhancements,” page 131

Prerequisite

Create a batch application object. The system automatically opens the Welcome form of the Report Director as the last step in creating a batch application object.

Selecting Sections to Include in Group Section Reports

Access the Welcome to the Report Design Director form.

1. Select from the header and footer options available.
2. Select the Group option, and click Next.

If you choose to include a page header in the report, the Page Header Details form appears. If you do not choose to include a page header, the Business View Selection Option form appears. You may skip the rest of the steps in this task.

3. On the Page Header Details form, select these options to automatically populate the page header section:
 - Automatically add the default informational fields shown below to my page header section.
 - Automatically add the default informational fields "Page n or Total" shown below to my page header section.
4. Click Next.

Selecting Business Views

Access the Business View Selection Option form.

1. Select one of these business view options and click Next:
 - I'd like help finding an appropriate business view.
 - I'll find a business view myself.
2. Select the required business view and click Next.

Selecting Business View Columns

Access the Section Layout form.

1. From the Available Business View Columns list, select the columns to include in the columnar section, and click the right arrow to move them to the Selected Columns list.
2. To remove columns from the section layout, select a column in the Selected Columns list, and click the left arrow to move it to the Available Business View Columns list.
3. To change the display order of the columns in the columnar section, select a column in the Selected Columns list, and click the up or down arrows to move the selected column up or down one line in the list.
4. Enter a value in the Number of Columns field.
5. When you complete the section layout, click Next.

Defining Section Data Sequencing

Access the Data Sequencing form.

1. Select columns for sequencing from the Available Columns list, and click the right arrow to move them to the Selected Columns list.

You can select multiple columns, remove columns and change the order of columns in the same manner as on the Section Layout form.

Note. To define sort properties in the next task, you must select columns in this task.

2. When you complete the data sequencing for the section, click Next.

Defining Sort Properties

Access the Define Sort Properties form.

1. Click the arrow in the Sort Order field until it reflect your preference of ascending or descending order.
2. To specify level and page breaks, click these fields:
 - Level Break
 - Page Break
3. When you are finished, click Next.

Selecting Records to Include

Access the Data Selection form.

1. Click the Operator field and select *Where* as the operator.
2. In the Left Operand field, select from the list of available business view columns.
3. In the Comparison field, select from the list of available options.
4. In the Right Operand field, select from the list of available objects.
5. To delete a line of criteria on the Data Selection form, click the row header to highlight the row, and then click the Delete button at the top of the form.
6. To change the order of the criteria, click the row header to highlight the row, and then click the up or down button.
7. When you have completed the selection criteria, click Next.

Creating Batch Versions of Reports From the Director

Access the Finish form of the Report Director.

1. Select Yes, create a version of this report to automatically generate a batch version of the report template.
2. Enter the version name in the field beneath Yes, create a version of this report.
3. To review the selections, click Back to move backwards through the Director forms.
On the Navigation Assistant, you can click the name of the form that you want to review.
4. When you are satisfied, click Finish.

Important! When you click Finish, you can no longer access the Director for this report. Before you click Finish, you have an opportunity to review the selections on all forms of the Report Director.

Creating an Example Group Section Report

This sample group section report, which is used for reviewing inventory on hand, was created using the Report Director. The V41021E - Item Location, Item Master Join business view is attached to the group section, and these business view columns were selected for the section layout:

- Location.

- Item Number - Short.
- Primary Location (P/S).
- Category G/L.
- Quantity on Hand - Primary Units.
- Quantity on Backorder.
- Business Unit.

A group section format was selected for this report because all of the information for a specific inventory item is easily reviewed in a group. The data selection defined filters the data so that inventory items display for only one business unit, Business Unit 27.

Access Report Design Aid.

1. From the File menu, select New.
2. On the Create New Report form, in the Report Name field, enter *R5541021*.
3. In the Description field, enter *Inventory on Hand*.
4. In the Product Code field, enter *55*.
5. Select the No Update Report option and click OK.
6. On the Welcome to the Report Design Director form, select Page Header and Group, and click Next.
7. On the Page Header Details form, click Next to accept the default.
8. On the Business View Selection Option form, select the option I'll Find a business view myself, and click Next.
9. On the Select Business View form, locate and select the *V41021E - Item Location, Item Master Join* business view, and click Next.
10. On the Section Layout form, use the horizontal arrow buttons to select these columns, in the order listed, and move them to the Selected Columns list:
 - Location.
 - Item Number - Short.
 - Primary Location (P/S).
 - Category G/L.
 - Quantity on Hand - Primary units.
 - Quantity on Backorder.
 - Business Unit.

Use the vertical buttons to change the order of the selected columns, if necessary.
11. When the selected columns are arranged as indicated, enter *3* in the Number of Columns field, and click Next.
12. On the Data Sequencing form, use the horizontal arrow buttons to select and move the Location and Item Short columns to the Selected Columns list.
13. When the selected columns are arranged as indicated, click Next.
14. On the Define Sort Properties form, sort the data for both fields in ascending order, and click Next.

Note. These data selection steps filter the data so that the system displays only records that are associated with Business Unit 27.

15. On the Data Selection form, complete these fields:
 - Operator - *Where*
 - Left Operand - *Business Unit (F41021) (MCU) (BC)*
 - Comparison - *is equal to*
 - Right Operand - *<Literal>*
16. Select the Single value tab, enter 27 in the Business Unit field, and click OK.
17. On the Data Selection form, click Next.
18. On the Finish form, enter the version name.
19. Click Finish.
20. On the PeopleSoft Report Design Aid form, click Save to save the report.
21. Select the Preview tab to view the report.
22. On the Preview tab, select Yes.
23. From the File menu, select Exit to exit Report Design Aid.

Creating Tabular Sections

This section provides an overview of tabular sections, lists the prerequisite, provides a sample tabular section report, and discusses how to:

- Select sections to include in tabular section reports.
- Select business views.
- Select business view columns.
- Define section data sequencing.
- Define sort properties.
- Select records to include.
- Create batch versions of reports from the Director.

Understanding Tabular Sections

The format of tabular sections is similar to columnar sections; however, tabular sections provide additional features such as:

- Drill down

The drill down feature enables you to link the data in tabular sections to the data in the associated application. This enables users to click the data in the online PDF and review the entries in the application. This drill-down feature is especially beneficial to auditors and other users who need to view how an amount was derived.

See [Chapter 20, “Working with the Drill Down Feature,” page 163](#).

- Row description columns

The system creates Row Description columns based on the fields that you define as level break fields. Row description columns can display multiple fields, and include *all* fields defined as level break fields. The description of the level break fields are displayed when a description business function is attached to the data item in data dictionary, otherwise, the field value is displayed.

See [Chapter 8, “Working with Objects Unique to Tabular Sections,” Working with Row Description Columns, page 74](#).

- Automatic totalling

Automatic totalling is calculated by the system based on the fields that you define as level break fields.

- Spreadsheet functionality

You can add data to tabular sections using rows, defining each row individually. You can override individual cells of the rows by selecting Cell Mode.

See [Chapter 8, “Working with Objects Unique to Tabular Sections,” Working with Rows, page 76](#).

See [Chapter 8, “Working with Objects Unique to Tabular Sections,” Overriding the Properties of Individual Cells, page 80](#).

After you create a new report object, use the Report Director to design a tabular section report. The Report Director guides you through a linear process for creating a tabular section report by asking you questions about its structure and content. When you have finished creating the report, you can enhance it by using additional features of Report Design Aid.

See Also

[Chapter 8, “Working with Objects Unique to Tabular Sections,” page 71](#)

[Chapter 20, “Working with the Drill Down Feature,” page 163](#)

[Chapter 13, “Working with Smart Fields,” page 119](#)

Prerequisite

Create a batch application object. The system automatically opens the Welcome form of the Report Director as the last step in creating a batch application object.

Selecting Sections to Include in Tabular Section Reports

Access the Welcome to the Report Design Director form.

1. Select from the header and footer options available.
2. Select the Tabular option, and click Next.

If you choose to include a page header in the report, the Page Header Details form appears. If you do not choose to include a page header, the Business View Selection Option form appears. You may skip the rest of the steps in this task.

3. On the Page Header Details form, select these options to automatically populate the page header section:

- Automatically add the default informational fields shown below to my page header section.

Select this option to automatically populate the page header section.

- Automatically add the default informational field "Page n of Total" shown below to my page header section.
4. Click Next.

Selecting Business Views

Access the Business View Selection Option form.

1. Select one of these business view options and click Next:
 - I'd like help finding an appropriate business view.
 - I'll find a business view myself.
2. Select the required business view and click Next.

Selecting Business View Columns

Access the Section Layout form.

1. From the Available Business View Columns list, select the columns to include in the columnar section, and click the right arrow to move them to the Selected Columns list.

You can select multiple columns using the CTRL or SHIFT keys. You can also drag each column individually into the Selected Columns list, or you can click the right double arrow to move all of the columns from the Available Business View Columns list to the Selected Columns list.

Columns appear in the columnar section from left to right in the order that they are listed in the Selected Columns list.

2. To remove columns from the section layout, select a column in the Selected Columns list, and click the left arrow to move it to the Available Business View Columns list.

You can also click the left double arrow to remove all of the columns from the Selected Columns list.

3. To change the display order of the columns in the columnar section, select a column in the Selected Columns list, and click the up or down arrows to move the selected column up or down one line in the list.

You can also drag a column to a new location in the list, or you can click the up or down double arrows to move the selected column to the top or bottom of the list.

4. When you complete the section layout, click Next.

Defining Section Data Sequencing

Access the Data Sequencing form.

1. Select columns for sequencing from the Available Columns list, and click the right arrow to move them to the Selected Columns list.

You can select multiple columns, remove columns and change the order of columns in the same manner as on the Section Layout form.

Note. To define sort properties in the next task, you must select columns in this task.

2. When you complete the data sequencing for the section, click Next.

Defining Sort Properties

Access the Define Sort Properties form.

1. Click the arrow in the Sort Order field until it reflect your preference of ascending or descending order.
2. To specify level and page breaks, click these fields:
 - Level Break
 - Page Break
3. When you are finished, click Next.

Selecting Records to Include

Access the Data Selection form.

1. Click the Operator field and select *Where* as the operator.
2. In the Left Operand field, select from the list of available business view columns.
3. In the Comparison field, select from the list of available options.
4. In the Right Operand field, select from the list of available objects.
5. To delete a line of criteria on the Data Selection form, click the row header to highlight the row, and then click the Delete button at the top of the form.
6. To change the order of the criteria, click the row header to highlight the row, and then click the up or down button.
7. When you have completed the selection criteria, click Next.

Creating Batch Versions of Reports From the Director

Access the Finish form of the Report Director.

1. Select Yes, create a version of this report to automatically generate a batch version of the report template.
2. Enter the version name in the field beneath Yes, create a version of this report.
3. To review the selections, click Back to move backwards through the Director forms.
On the Navigation Assistant, you can click the name of the form that you want to review.
4. When you are satisfied, click Finish.

Important! When you click Finish, you can no longer access the Director for this report. Before you click Finish, you have an opportunity to review the selections on all forms of the Report Director.

Creating an Example Tabular Section Report

This sample tabular section report, which is used to review outstanding purchase orders by business unit, was created using the Report Director. The V4311A - Purchase Order Detail Browse business view is attached to the tabular section, and these columns were selected for the section layout:

- Description
- Business Unit
- Order Type

- Amount Open

The report is organized by company and displays item descriptions. The data is filtered to display only purchase orders (as opposed to items that were ordered by other methods, such as purchase requisitions) for stocked parts. These parts carry a balance and are not yet closed

A tabular section format was selected for this report for the automatic totaling and Row Description column features that are available in tabular sections.

Access Report Design Aid.

1. From the File menu, select New.
2. On the Create New Report form, in the Report Name field, enter *R554311*.
3. In the Description field, enter *Outstanding Purchase Orders*.
4. In the Product Code field, enter *55*.
5. Select the No Update Report option and click OK.
6. On the Welcome to the Report Design Director form, select Page Header and Tabular, and click Next.
7. On the Page Header Details form, click Next to accept the default.
8. On the Business View Selection Option form, select the option I'll find a business view myself, and click Next.
9. On the Select Business View form, locate and select the *V4311A - Purchase Order Detail Browse* business view, and click Next.
10. On the Section Layout form, use the horizontal arrow buttons to select these columns, in the order listed, and move them to the Select Columns list:
The system has already added a Description column for you in the Selected Columns list.
 - Business Unit
 - Order Type
 - Amount - Open
11. When the selected columns are arranged as indicated, click Next.
12. On the Data Sequencing form, move the Order Company column (from table F4311) and the 2nd Item Number column to the Selected Columns list, and click Next.

Note. The data in this tabular section is sorted on business view columns that are not included in the section layout.

13. On the Define Sort Properties form, sort the data for both fields in ascending order.
14. Select the Level Break option for both fields, and click Next.

The Row Description Column will include both of these columns, and the system will calculate totals for open orders each time the system displays a new record.

15. To filter data to include only open purchase orders that have a balance and include only stock items, on the Data Selection form, complete these fields:

Note. Each succeeding line of the filter is connected with an *And* operator. You must use *And* because every data item must meet *all* of the criteria to be displayed in the section.

- Operator - *Where*
- Left Operand - *Amount - Open (F4311) (AOPN) (BC)*
- Comparison - *is greater than*
- Right Operand - *<Zero>*

Do not enter a value of zero as a literal value.

This definition meets the balance criteria.

- Operator - *And*
- Left Operand - *Order Type (F4311) (DCTO) (BC)*
- Comparison - *is equal to*
- Right Operand - *OP*

OP is a literal value for Purchase Order and is entered by selecting *<Literal>*.

This definition meets the purchase order criteria.

- Operator - *And*
- Left Operand - *Status Code - Next (F4311) (NXTR) (BC)*
- Comparison - *is not equal to*
- Right Operand - *999*

999 is a literal value for Complete.

This definition meets the open, or not complete, criteria.

- Operator - *And*
- Left Operand - *Line Type (F4311) (LNTY) (BC)*
- Comparison - *is equal to*
- Right Operand - *S*

S is a literal value for Stock Item.

This definition meets the stock items criteria.

16. On the Data Selection form, click Next.
17. On the Finish form, select No, I will create a version of this report later, and click Finish.
18. On the PeopleSoft Report Design Aid form, click Save to save the report.
19. Select the Preview tab to view the report.
20. On Preview, select Yes.
21. From the File menu, select Exit to exit Report Design Aid.

Creating Application Reports

This section provides overviews of application reports, smart fields, and calculation columns, lists the prerequisite, and discusses how to:

- Select application report templates.

- Select business views.
- Select smart fields.
- Create calculation columns.
- Define section data sequencing.
- Define section data sequencing using the Advanced option.
- Select records to include.
- Define additional properties.
- Create batch versions of reports from the Director.

Understanding Application Reports

You must create application reports using the Report Director. The Report Director uses Director templates that define default criteria for creating report templates over specific PeopleSoft EnterpriseOne systems. When you select one of the templates from the Report Director, the system reads the template specifications and presents the default criteria through the Director forms. You can modify these templates or create custom templates.

Director templates enable you to use smart fields, which are data dictionary items (glossary group K) with attached business functions. They are designed to retrieve and manipulate specific PeopleSoft EnterpriseOne table data. For example, by adding the smart field FINRPTAB - Account Balance to a report, you create a column that calculates the account balance as of a specified financial period and fiscal year.

Since the Report Director only recognizes the smart fields that are attached to the Director template, you must add business view columns to the detail section after the Report Director process is complete. Business view fields are not available for application reports from the Report Director. However, the system automatically includes the Description column in the Columns in Report Section list. When you are finished with the initial design of the application report using the Director, you can use Report Design Aid to change the Description column size, column heading name, and position on the report.

The data sequencing fields for application reports are defined in the Director template. The first two fields defined in the Director template become the level break fields. These fields are presented on the Data Sequencing Help form of the Director. You can modify the predefined data sequencing or override it completely. If you select to override the data sequencing, the Director presents you with a Section Data Sequencing form. On this form you can select from fields included in the attached business view.

Application reports enable you to define additional properties. Additional properties control how the report processes information and displays that information. The additional properties are defined in the Report Director Templates program. If the Display Financial Criteria option is not selected in the Director template, the Additional Properties form is not presented in Report Design Aid.

Additional properties available for selection in the Director template:

- AAI Subtotaling
Generates interim subtotals in the report based on the Automatic Accounting Instructions.
- Reverse Sign For.
Reverses the signs for dollar values from how they are displayed in the database. For example, if you do not want to display revenues as a negative value (–) and expenses as a positive value (+), as they appear in the database tables, you can select to display them both as positive values in the report section.
- Account Level of Detail Rollup
Indicates the level of account detail to display in the report.

- **Drill Down**
Creates a link between the data in the report and the detail in the associated application.
See [Chapter 20, “Working with the Drill Down Feature,” page 163](#).
- **Zero Row Suppression**
Displays header accounts even if the detail accounts have a zero balance.

Because each application report template is unique, you will not necessarily see all forms described in the tasks below. Some forms might not be relevant for the Director template that you select.

See Also

[Part 2, “Basic Report Enhancements,” page 51](#)

[Part 3, “Advanced Report Enhancements,” page 131](#)

Understanding Smart Fields

Smart fields use business functions and named event rules to provide the required logic. Business functions are programs that use data structures to:

- Request specific data from PeopleSoft EnterpriseOne tables.
- Return the data to the established parameters in the data structure.
- Perform calculations or other manipulation on the data.
- Send the desired information, such as column headings and complex calculations, to the report section.

There are two types of business functions in PeopleSoft EnterpriseOne:

- **C business functions**

You create C business functions in the C programming language. These business functions include a .c, source file, and a .h, header file.

- **Business function event rules**

Business function event rules are also known as named event rules (NER). You create named event rules using the event-rules scripting language. This scripting language is platform-independent and stored in a database as a PeopleSoft EnterpriseOne object. When you build business function event rules, the system generates C code and creates corresponding .c and .h files.

Several smart fields are shipped with PeopleSoft EnterpriseOne. You can create custom smart fields to meet specific business needs. Once smart fields are created, you can use them to include complex logic in report sections without having to do any programming.

For each smart field that you include in a section, you are prompted to define parameters that are specific to that smart field using a series of forms. Although the number and content of the forms vary based on the smart field, the process occurs in three phases:

- First, you are prompted to define how you want the column to appear in the section.
- Second, you are prompted to define parameters, such as period number offset, journal entry amount, fiscal year offset, and so on.

Some smart fields have only one parameter and, therefore, only one form in this phase. Others have multiple parameters that you specify using a series of forms.

- Third, you are prompted to filter the data that is displayed in the section using data selection.

See Also

[Chapter 13, “Working with Smart Fields,” page 119](#)

[Chapter 32, “Creating Smart Fields,” page 247](#)

Understanding Calculation Columns

Application reports enable you to define calculation columns. Calculation columns display the results of a calculation involving two or more smart field columns or other calculation columns. In a report created using a Director template, the Director only recognizes the smart fields that are attached to the template; therefore, business view fields included in the section layout cannot be used in calculations. After you complete the design process using the Report Director, you can use Report Design Aid to add calculation columns based on other columns in the report.

Note. Values in calculation columns are based on the amounts that are displayed in the report, not on the values stored in the database.

These calculation types are available when creating calculation columns:

- **Difference between.**
Presents you with two operands fields. Use the field drop-downs to select the columns to use for calculating the difference between.
- **Percent variance between.**
Presents you with two operands fields. Use the field drop-downs to select the columns to use for calculating the percent variance between.
- **Undefined.**
Creates a numeric variable column in the report section for which you can manually define a calculation. Select the column variable in Report Design Aid and from the Column menu, select Define Calculation.
- **Total of.**
Presents you with columns from the report layout. Click each field to be included in the total.
- **Product of.**
Presents you with two operands fields. Use the field drop-downs to select the columns to use for calculating the product of.

See Also

[Chapter 8, “Working with Objects Unique to Tabular Sections,” Creating Calculation Columns, page 73](#)

Prerequisite

Create a batch application object. The system automatically opens the Welcome form of the Report Director as the last step in creating a batch application object.

Selecting Application Report Templates

Access the Welcome to the Report Design Director form.

1. Select from the header and footer options available.

2. Under the Application Reports heading, select the Director template that is most appropriate for the type of report that you are creating and click Next.

If you selected to include a page header in the report, the Page Header Details form appears.

If you do not select to include a page header, Business View Selection Option appears. You may skip the rest on the steps in this task.

3. On the Page Header Details form, select these options to automatically populate the page header section:
 - Automatically add the default informational fields shown below to my page header section.
Select this option to automatically populate the page header section.
 - Automatically add the default informational field "Page n of Total" shown below to my page header section.
4. Click Next.

Selecting Business Views

Access the Business View Selection Option form.

1. Select the option I'll use the pre-defined business view.

The predefined business view is defined in Report Director Templates for the specific Director template selected.

You can select one of the other options on the Business View Selection Options form to select a business view.

Note. The business functions that are attached to smart fields require specific fields to process the logic. If the business view you select does not include these fields required by the smart fields that are attached to the Director template you selected, the smart fields will not function.

2. Click Next.

Selecting Smart Fields

Access the Select Columns form.

1. Drag the appropriate smart field from the Available Smart Fields list to the Columns in Report Section list.
The Smart Field Name form appears and marks the first phase of defining data for the smart field.
2. On the Smart Field Name form, enter a unique but descriptive name in the Variable Name field.
You can easily identify the field when creating event rules or calculations by using the variable name.
3. Enter a descriptive name in the Report Column Headings fields.
These fields appear on the report as the column heading unless the Smart Column Heading option is selected.
4. Select from these options and click Next.:
 - Smart Column Heading
Select this option if you want the system to populate the column heading using a smart field. This feature enables you to create a report with column headings that change based on a rolling time period.

- Show Multiples Parameters per Page

Select this option if you want the Director to combine multiple smart field parameters on a page. The system then displays five smart field parameters on each page of the Director for easier viewing.

Note. The Smart Field Parameters form varies, depending on which smart field you select. For example, if you select the FINRPTAB smart field, the appropriate Smart Field Parameter forms appear.

5. On the Smart Field Parameters (Period Number Offset) form, complete the Enter the Literal field, and click Next.
 Leave this field blank to use current values, such as current period. You can enter a specific period number in this field, or enter a number that is an offset to the current period number. For example, entering 6 in this field displays data for period six. Entering an offset of -1 displays data for the month before the current month.
6. On the Smart Field Parameters (Fiscal Year Offset) form, complete the Enter the Literal field, and click Next.
 Leave this field blank to use current values, such as current year; enter the last two digits of a specific fiscal year, such as 05; or enter a number that is an offset to the current fiscal year, such as +1 or -1.
7. On the Smart Field Parameters (Column Heading Offset) form, complete the Enter the Literal field, and click Next.
 This form appears only if you selected the Smart Column Heading option on the Smart Field Name form. The value you enter on this form should match the value entered on the Smart Field Parameters (Period Number Offset) form. The column heading should reflect the data included in the column.
8. On the Smart Field Data Selection form, complete the fields to define the data that you want to appear in the smart field column and click Next.
 The fields on this form vary depending on the Director template selected.
9. If the fields that appear on the Smart Field Data Selection form do not reflect the data selection criteria required for the smart field column, select the Advanced option, define data selection manually, and click Finish.
 You can click a selected smart field on the Select Columns form, click the Define Smartfield button, and review or revise the associated smart field parameters.

Creating Calculation Columns

Access the Select Columns form.

1. Click the Define Calculation button.
2. On the Define Calculation form, complete the Calculation Name field.
 This name appears on the report as the column heading.
3. Select a calculation type.
4. Define the Operands for the calculation type you selected and click Finish.

Defining Section Data Sequencing

Access the Data Sequencing Help form.

1. Select to sequence the section data using the predefined fields in the Report Grouping list.

2. Select to further sequence the data using predefined field in the Report Detail list, and click Next.

Defining Section Data Sequencing Using the Advanced Option

Access the Data Sequencing Help form.

1. Select the Advanced option to *append* additional data sequencing.
2. Clear the predefined fields and select the Advanced option to *override* the predefined data sequencing.
3. Click Next.
4. On the Section Data Sequencing form, select business view columns from the Available Columns list, and move them to the Selected Columns list.
5. When you complete the section data sequencing for the section, click Next.
6. On the Define Sort Properties form, define sort order, level breaks and page breaks, and click Next.

Selecting Records to Include

Access the Help with Section Data Selection form.

Define data selection using one of these options:

1. Click Select only BALANCE SHEET accounts from the automatic accounting instructions to display data from the balance sheet accounts only.

This selection includes data fields established in the General Purpose (*GLGxx*) automatic accounting instructions as balance sheet accounts.
2. Click Select only INCOME STATEMENT accounts from the automatic accounting instructions to display data from the income statement accounts only.

This selection includes data fields established in the General Purpose (*GLGxx*) automatic accounting instructions as income statement accounts.
3. Select I'll add my own data selection to the above balance sheet or income statement criteria. to append data selection to the default income statement or balance-sheet data selection.

The system provides the criteria for including the balance sheet accounts and enables you to define additional criteria.
4. Select Set up data selection manually to define data selection manually.
5. On the Data Selection form, define data selection and click Next.

Defining Additional Properties

Access the Additional Properties form.

1. Select from the properties options presented, as applicable.
2. Click Next.

Creating Batch Versions of Reports From the Director

Access the Finish form of the Report Director.

1. Select Yes, create a version of this report to automatically generate a batch version of the report template.

2. Enter the version name in the field below Yes, create a version of this report.
3. Click Back to move backwards through the Director forms to review the selections.
You can also click the name of the form that you want to review on the Navigation Assistant.
4. When you are satisfied, click Finish.

Important! When you click Finish, you can no longer access the Director for this report. Before you click Finish, you have the opportunity to review the selections on all forms of the Director, as described in step 3.

PeopleSoft Report Design Aid appears.

Saving and Reviewing Reports

This section provides overviews of saving reports and reviewing reports, lists the prerequisites, and discusses how to:

- Save reports.
- Review results of the Director.
- Preview reports.

Understanding Saving Reports

When you click Finish on the Report Director, the initial design process is complete. Based on the selections that you made during the design process, Report Design displays the sections of the report and the fields that you selected for the layout. You cannot return to the Report Director once you have clicked Finish.

You cannot save the report template while using the Report Director. Save the report template from the PeopleSoft Report Design Aid form after completing the initial design.

Understanding Reviewing Reports

Use the Preview tab to view how the report will appear when you process it. Use the preview feature to review the report for content and format as you make design changes. The system will prompt you to save the report before previewing.

Note. Once you have previewed the report, you must refresh the Preview tab each time you return to preview the report after making modifications.

Report Design Aid uses the Adobe Acrobat Reader to present the report preview. You can use all of the available functions to view the report.

Prerequisites

Before you begin saving reports, ensure that you:

- Create a batch application object.
- Complete the design of the report template.

Saving Reports

Open a report in Report Design Aid.

Perform one of these actions to save the report template:

- From the File menu, click Save.
- Click the Save button on the toolbar.

Reviewing Results of the Director

Open a report in Report Design Aid.

Each report section includes:

- An icon on the section tile that indicates the section type.
- An optional funnel-shaped icon on the section tile that indicates that data selection is defined for the section.
- A title description on the section tile.

The title reflects the name of the business view attached to the report section. The title of the main detail section of the report is in a bold font to distinguish it from the other report sections.

- Corner brackets enclosing each field within the section

Previewing Reports

Open a report in Report Design Aid.

1. Select the Preview tab.

The Report Preview form appears and prompts you to run the preview.

2. Click Yes on Report Preview.
3. Click Yes to save the changes.
4. Perform one of these actions to refresh the preview:
 - From the View menu, select Refresh Preview Window.
 - If the system displays the View toolbar, click the Refresh Preview Window button.
 - Press F5 on the keyboard.
5. Select User Options from the View menu to modify the number of records that are processed and displayed in Preview mode.
6. On the User Options form, complete the Rows to Preview field to indicate how many table records to process in the preview.

PART 2

Basic Report Enhancements

Chapter 5
Configuring the Design Workspace

Chapter 6
Viewing Properties for Report Sections, Fields, Columns, and Rows

Chapter 7
Working with Objects in Report Sections

Chapter 8
Working with Objects Unique to Tabular Sections

Chapter 9
Modifying the Appearance of Report Objects

Chapter 10
Including Attachments and Comments in Reports

Chapter 11
Inserting Header and Footer Sections

Chapter 12
Working with Level Break Sections

Chapter 13

Working with Smart Fields

Chapter 14

Setting Up Business Views as Favorites

CHAPTER 5

Configuring the Design Workspace

This chapter provides an overview of the design workspace and discusses how to customize the design workspace.

Understanding the Design Workspace

You can modify the design workspace in Report Design Aid to accommodate your work style. Report Design Aid offers a variety of ways to configure the design workspace:

- Set user options.
- Set grid alignment.
- Show and hide the display tree.

The display tree is a dockable window that displays the sections and fields of the report in a hierarchical tree structure. You can select to show the display tree, and you can dock it or float it over the Report Design area. The display tree displays the sections that are included in the report, as well as the objects that are associated with each section. Invisible fields appear in the tree structure. The highest component of the tree displays the name of the report. Under the report name, the system displays the first created section. Next to each component is a + or – sign.

Expand a section to display a Fields folder. Expand this folder to display a list of objects that are included in the section (rows and cells do not appear in the display tree). If you expand the Fields folder of a detail section, two entries display for each field. One entry represents the constant (header portion of the field), and the other represents the variable (data portion of the field).

- Show and hide the Business View Column browser.

The business view column browser is a dockable window that displays the columns from the business view attached to the selected detail section. You can select to show the browser, and you can dock it or float it over the Report Design area.

- Show and hide the data dictionary browser.

The data dictionary browser is a dockable window that enables you to search the data dictionary for fields to include in the section layout. You can select to show the browser, and you can dock it or float it over the Report Design area.

Customizing the Design Workspace

This section provides overviews of user options and grid alignment, lists the prerequisites, and discusses how to:

- Set user options.
- Set the grid alignment.
- Show and hide the display tree.
- Show and hide the business view column browser.
- Show and hide the data dictionary browser.

Understanding User Options

You can set user options to show or hide the elements of the user interface, such as rulers and tabs. You can also control the number of rows to process for preview. All of the user options affect the design workspace.

User options are also referred to as report view options. There are three categories of user options:

- General.
- Rulers.
- Preview.

General user options affect the hiding and showing of elements of the design workspace. General user options include:

- Show Invisible Sections at Startup.

Shows sections that are defined as invisible when you open the report. You must have sections of the report defined as invisible for this option to affect the Report Design view.

- Show Section Titles.

Displays the section title and icon in the tile to the left of each section.

- Show Right Margin.

Shows the right margin to indicate when fields of a section are outside the page margins. This is helpful when you change the orientation of the report to view fields that fall outside the page margins.

- Show Tabs.

Displays the Report, Preview, Attachments, and other section-specific tabs at the top of the design workspace.

- Show Navigational Assistant.

Displays the navigation assistant with the Report Director. Hiding the navigation assistant from User Options hides the navigation assistant for all future design sessions.

- Show Data Dictionary Text Overrides.

Displays a small green triangle in the bottom right corner of column headings when the display name is different from the data dictionary name. The indicator appears in Report Design Aid only; it does not print on the report.

- Allow Smart Field Template Selection.

Enables you to select smart field templates from the General tab of the section properties form.

- Enable System Language Font Override and Reposition.

Dynamically repositions fields based on font changes that affect field size. This option is beneficial for global reporting when you must display data in different languages with fonts of different widths and heights. This option is disabled by default.

- Show CSV Tip Dialog.

Displays the CSV Tip dialog box, which indicates the spacing recommendation for exporting reports to CSV.

- Show Object Count Warning after Row Generation.

Displays a warning message that indicates when the report has exceeded the recommended size. This is typically an issue with reports that use the automatic row generation feature.

Understanding Grid Alignment

The grid alignment feature enables you to tighten or loosen the dots of the grid for flexibility in positioning fields in a group section layout. Set the horizontal spacing to 52 if you are exporting the report to a CSV (Comma Separated Values) file. This number corresponds to the default width of a column in Microsoft Excel. Also select the Snap to Grid option.

The vertical spacing value represents pixels on the workstation that are used for designing the report. The value is converted to a workstation-independent measurement when it is saved. Set this option to ensure that the report maintains the same proportions when it is displayed on a different workstation.

Options available for grid alignment:

- Horizontal spacing.

Adjusts the horizontal grid spacing for the entire report template. If you designed the report to be exported to a CSV file, the horizontal spacing should be set to 52.

- Vertical spacing.

Adjusts the vertical grid spacing for the entire report template.

- Display the grid.

Displays a grid of dots to assist in positioning fields. When deselected, no grid appears in the Report Design workspace.

- Snap to grid.

Aligns fields with the nearest grid line intersection even if the grid is not displayed. When deselected, you can position fields that do not line up with the grid. If you designed the report to be exported to a CSV file, the snap to grid option should be selected.

Prerequisites

Before you begin customizing the design workspace, ensure that you:

- Create a batch application object.
- Complete the design of the report template.

Setting User Options

Access Report Design Aid.

1. From the View menu, select User Options.
2. On the User Options form, select from the available options under the General heading, and click Apply to view the changes without leaving the form.
3. Select the Show Rulers option under the Rulers heading, and then select from these options in the Ruler Units field:
 - Inches

- Centimeters
 - Points
4. Select the Prompt Before Running Preview option under the Preview heading to display a prompt before running the preview.
 5. Enter the number of rows to process in the Rows to Preview field and click OK.
Select a number to provide enough records to verify the format of the report and review any totaling or other logic that is included, while keeping the number of rows processed to a minimum.

Setting the Grid Alignment

Access Report Design Aid.

1. From the Layout menu, select Grid Alignment.
2. On the Alignment Grid form, modify these spacing options as required:
 - Horizontal
 - Vertical
3. Select from these options and click OK.
 - Display Grid
 - Snap to Grid

Showing and Hiding the Display Tree

Open a report in Report Design Aid.

1. From the View menu, select Report Tree View.
2. Click the + or – sign to expand (+) and collapse (–) the display tree.
3. Double-click the object in the tree structure to view or change object properties.

Note. The display tree displays only the structure of the report; it does not represent the processing flow of the report. Use the Preview tab to view the format of the report.

Showing and Hiding the Business View Column Browser

Access Report Design Aid.

1. Click a detail section in the report.
2. From the View menu, select Business View Column Browser.

Note. Because only the detail sections of a report have business views attached, the business view column browser is only populated when you select a detail section with an attached business view. Selecting other sections results in an empty business view column browser window.

3. Drag fields from the business view column browser and drop them in the detail section.

Showing and Hiding the Data Dictionary Browser

Access Report Design Aid.

1. Click a detail section in the report.
2. From the View menu, select Data Dictionary Browser.
3. Use the QBE line to search for a data item.
4. Drag the data item from the data dictionary browser and drop it in the section.

CHAPTER 6

Viewing Properties for Report Sections, Fields, Columns, and Rows

This chapter provides an overview of properties and discusses how to view properties.

Understanding Properties

Properties are available in Report Design Aid at the report, section and object levels. Properties enable you to change fonts, change field justifications, change decimals, and select additional advanced settings.

Some properties are available at all levels, while other properties are specific to the level. Properties that are available at all levels are processed using a hierarchy. Properties defined at the lowest level are the properties that are processed by the system. For example, if you define a font size of 8 in the report properties, then define a font size of 10 in field properties, the individual field appears in a font size of 10 while the rest of the report appears in a font size of 8.

- Report properties affect the entire report.
- Section properties affect the current section only
Section properties include general properties, font, color, fields, and advanced properties.
You can view section properties using either the menu method or the double-click method.
- Field properties affect only the field you have selected.
Field properties include general properties, font, color, style, display, options, and advance properties.
You can view data field properties using either the report section method or the double-click method.
- Columns (both the headings and the variables) are treated by Report Design Aid as fields, so you can use the same methods of viewing column properties as you can for viewing field properties.
In addition, Report Design Aid offers a third way to view column properties: the column tab method.
- Rows exist in tabular sections only.
You can view row properties by using either the report section method or row tab method.

Viewing Properties

This section provides overviews of report properties and section properties, lists the prerequisites, and discusses how to:

- View report properties.

- View section properties.
- View field properties.
- View column properties.
- View row properties .

Understanding Report Properties

Report properties affect the entire report and include these tabs:

- Report Properties.
Use this tab to select totalling, output, and performance options.
- Font/Color.
Use this tab to modify fonts, font styles, font size, and font colors.
- Cover Page Options.
Use this tab to select the cover page option. Select from general and section options to include on the cover page
- Decimal Scaling.
Use this tab to select options to apply decimal scaling to numeric fields. This option affects only tabular section reports.
- Advanced.
Use this tab to select options for subsystem jobs, paper size, dynamic positioning, transaction processing and overriding environments.

Understanding Section Properties

Section properties for group and columnar section are the same. There are several more section properties available for tabular sections.

Group and columnar section properties affect the current section only and include these tabs:

- General.
Use this tab to modify the section description.
- Font/Color.
Use this tab to modify fonts, font styles, font size, and font colors.
- Fields.
Use this tab to access properties for the fields in the section layout and make fields invisible. When fields are invisible, a circle with a line through it displays next to the icon. When column headers are invisible, their associated column variable is also invisible. Double-click the icon to toggle the visible or invisible property. The various field types are represented by different icons in the Visible column:
 - *XXX*.
This icon represents constant fields.
 - Dual-shaded box.
This icon represents columns. If the arrow points to the top section, the icon refers to the column heading. If the arrow points to the bottom section, the icon refers to the column variable.

- Gray, black, and white diamond.

This icon represents runtime fields, such as report date, report time, page number, company title, or report title.

- Multicolored diamond.

This icon represents variables located in group sections.

- Advanced.

Use this tab to select Visible, Absolute Position (text wrapping), Page Break After, Conditional, Reprint At Page Break.

Tabular section properties affect the current section only and include these tabs:

- General.

Use this tab to modify the section description.

- Font/Color.

Use this tab to modify fonts, font styles, font size, and font colors.

- Financial Reports.

Use this tab to select Drill Down, Perform AAI Subtotaling, Reverse Sign for:, Zero Row Suppression:, Level of Detail Rollup, Financial Descriptions.

- Fields.

Use this tab to access properties for the fields in the section layout and make fields invisible.

- Row List.

Use this tab to access row properties and make rows invisible.

- Cell Overrides.

Use this tab to access cell override properties and make cells invisible.

- Column Override.

Use this tab to select a section from another report from which to import columns.

- Row Override.

Use this tab to select a section from another report from which to import rows.

- Decimal Scaling.

Use this tab to select options to apply decimal scaling to numeric fields.

- Advanced.

Use this tab to select Visible, Absolute Position (text wrapping), Page Break After.

Prerequisites

Before you begin viewing properties, ensure that you:

- Create two batch application objects.
- Complete the design of one report template using a columnar or tabular section.
- Complete the design on the second report template using a tabular section with rows.

Viewing Report Properties

Open a report in Report Design Aid.

1. From the File menu, select Report Properties.
2. On the Report Properties tab, review totalling, output and performance options.
3. Select the appropriate tab to review additional report properties.

Viewing Section Properties

Open a report in Report Design Aid.

1. Click the section for which you want to view properties.
2. From the Section menu, select Section Properties.
You can also double-click the section to access the Section Properties form.
The appropriate Section form appears.
3. On the General tab, review the business view attached to the section.
4. Select the appropriate tab to review section properties.

Viewing Field Properties

Open a report in Report Design Aid.

1. Double-click the section containing the field for which you want to view properties.
You can also double-click the field to view its properties.
The appropriate Section form appears.
2. Select the Fields tab.
3. Select the field for which you want to view properties and click Field Properties.

Viewing Column Properties

Open a tabular or columnar section report in Report Design Aid.

1. Click the detail section for which you want to view column properties.
2. Select the Column tab at the top of the Report Design workspace.
You can also double-click the column heading for which you want to view properties.
3. Right-click anywhere on the row or column headers of the grid.
4. Click Field Selection.
5. On the Object Design Properties form, select or clear any of the available field options on the Basic or Advanced tabs to show or hide field options, and click OK.
This action enables you determine which fields appear on the Column tab.
6. To modify a property, double-click the property for a column to access an appropriate control.

Viewing Row Properties

Open a tabular row report in Report Design Aid.

1. Double-click the tabular section that contains the row for which you want to view properties.

You can also select the Row tab at the top of the Report Design workspace. The Row tab is used in the same manner as the Column tab.

2. On the Tabular Section form, select the Row List tab.

The Row List tab lists all of the rows in the tabular section. The various row types are represented by different icons in the Visible column.

3. Select the row for which you want to view properties and click Row Properties.

CHAPTER 7

Working with Objects in Report Sections

This chapter provides an overview of report objects and discusses how to work with report objects.

Understanding Report Objects

You can include multiple sections in a report template, even multiple detail sections. In each of these sections, you can include multiple report objects. These objects are either business view fields or other data fields. Some report objects are only available in specific section types. For example, runtime fields are typically used in page headers, and are not available in columnar and tabular sections.

Working With Report Objects

This section provides overviews of business view columns and data fields, lists the prerequisites, and discusses how to:

- Add and remove business view columns.
- Add and remove data fields.
- Add and remove data dictionary items.
- Change column heading names.
- Change data field names.
- Disconnect constants from variables in group sections.
- Perform in-section totaling.

Understanding Business View Columns

You can add or remove business view columns from any detail section that has a business view attached. Business views are subsets of columns that reside in one or more tables. The columns included in a business view have been selected to meet specific business needs.

When adding business view columns, or other data fields, to *columnar* and *tabular* sections, the new column is inserted to the *right* of any column on which you place the cursor. When you do not place the cursor on a column, the inserted column is inserted to the *left* of the first column, becoming the first column in the section. You can then drag the new column to another location in the same section.

When adding business view columns, or other data fields, to *group* sections, you must click in the group section to position the data field after selecting it from the Insert menu. You can position the new field anywhere in the group section because of the free-form layout.

Understanding Data Fields

Data fields are individual data containers that reside in report sections. Page numbers, dates, and report names are all examples of data fields. You can add data fields to any type of report section, although you cannot add every data field type to every report section type. For example, you typically add data fields (such as report name, date, and so forth) to the page header of a report.

Business view columns fetch associated data from the database. Data dictionary fields, on the other hand, are fields with specifications attached but do not have data associated with them. These fields are defined in the data dictionary and can have edit codes and special triggers attached. You populate data dictionary fields using event rules. Typically, you want to select a data dictionary field that includes the specifications required by the report section. For example, you are adding a field to the salary report to calculate raises. Use the Data Dictionary Browser to select the Rate-Salary, Annual (SAL) data dictionary field so that the raise amount is formatted the same as the salary amount.

After creating the report, you can:

- Insert data fields.
- Delete data fields.
- Change data field names.
- Change column heading text.
- Disconnect a constant's text from its variable in a group section.

In a group section, you can separate the text from the variable that it describes. For example, you can modify a report that contains the Business Unit field and the Description field by changing the Business Unit constant to read Business Unit Number and Name. By disconnecting the Description text from the variable, you can delete the text and still retrieve the value for Description from the PeopleSoft EnterpriseOne table.

- Perform in-section totaling.

When you want to format and display totals in a columnar or group section report, perform the calculations in a level break footer. You can provide descriptive labels for the aggregates in level break footers.

Occasionally, when you are not concerned with how the calculations are displayed, you can include calculations within a columnar or group section. For example, you can perform calculations in one hidden section for use in another. You can calculate a total, a grand total, or both.

This table describes the data fields available in Report Design Aid:

Field	Description
Constants	Static fields that display a string of text, such as a company name inserted in the page header. You can insert constant fields into any report section.
Alpha Variables	Fields that contain alphanumeric data that are populated using an event rule. You can insert alpha variables into any report section.
Numeric Variable	Fields that contain numbers and are typically used for calculations. You can insert numeric variables into any report section.
Date Variables	Fields that contain dates. You can insert date variables into any report section.

Field	Description
Report Date	Runtime fields that contain the date when the report is run. Report dates are typically used in page headers, but you can insert them into any report section except columnar and tabular.
Report Time	Runtime fields that contain the time at which the report is run. Report times are typically used in page headers but you can insert them into any report section except columnar and tabular.
Page Number	Runtime fields that display the current page number. Page numbers are typically used in page headers but you can insert them into any report section except columnar and tabular.
Page n of Total	Runtime fields that display both the current page number and the total number of pages in the report (such as Page 4 of 10). Page n of Total fields are typically used in page headers but you can also insert them into page footers.
Company Title	Runtime fields that contains the name of the default company (company 00000). Company titles are typically used in page headers but you can insert them into any report section except columnar and tabular.
Report Title	Runtime fields that contain the report title. Report titles are typically used in page headers but you can insert them into any report section except columnar and tabular.
Data Dictionary Field	Fields from the data dictionary that require event rules. You can insert data dictionary fields into any report section.
Text Variables	Text fields are user create fields that are used in event rules. You can create text variables in any report section.

Data fields that you insert into columnar and tabular sections appear in columnar format. Column headings are constants with associated variables. The constant and variable are attached so that if you move or delete one, Report Design Aid moves or deletes the other.

In group sections, data fields also comprise constants and variables but they appear side-by-side instead of in a columnar format. Unlike columnar and tabular sections, you can move constant and variable independently of each other. Furthermore, by disconnecting the two, you can separate the constant from the variable and delete one without deleting the other. When you delete the constant, you retain the variable and the associated data will appear in the report.

You can modify the appearance of data fields by changing the headings, moving them, changing the size, font, or color, or by associating them with lines or boxes. You can modify the behavior of data fields by attaching event rules.

Prerequisites

Before you begin working with report objects, ensure that you:

- Create two batch application objects.

- Complete the design of one report template using a group section.
- Complete the design on the second report template using a columnar or tabular section.

Adding and Removing Business View Columns

Open a report in Report Design Aid.

1. Click a detail section with an attached business view.
2. From the View menu, select Business View Columns Browser.
This form displays columns from the business view that is attached to the detail section.
3. Drag one or more columns into the detail section.
4. From the View menu, select Business View Columns Browser to close the browser.
5. Drag the inserted column to the appropriate location.
6. To remove business view columns, select the column (either the header or the variable), and select Delete from the Edit menu.

Adding and Removing Data Fields

Open a report in Report Design Aid.

1. Click the report section that you want to modify.
2. From the Insert menu, select the data field that you want to add.
The data field selection varies, based on the report section that you selected.
3. Drag the inserted data field to the appropriate location.
4. To remove data fields, select the field (either the header or the variable), and select Delete from the Edit menu.

Adding and Removing Data Dictionary Items

Open a report in Report Design Aid.

1. Click the report section that you want to modify.
2. From the View menu, select Data Dictionary Browser.
3. Use the QBE line to search for and select an appropriate data dictionary field.
4. Drag one or more data dictionary fields into the report section.
5. From the View menu, select Data Dictionary Browser to close the browser.
6. Drag the inserted data dictionary field to the appropriate location.
7. To remove data dictionary fields, select the field (either the header or the variable), and select Delete from the Edit menu.

Changing Column Heading Names

Open a columnar or tabular section report in Report Design Aid.

1. Double-click the column heading that you want to change.

2. On the Column Heading Properties form, if the column is from the business view, you must override the business view column name by selecting one of these options:
 - Change Name

Selecting this option enables you to enter a new name for the column heading in the Variable Name field. The variable name of a column heading appears in event rules with the prefix of RC (Report Constant).
 - Override Col Headings

Selecting this option enables you to enter a new name in the Col Heading 1 and Col Heading 2 fields. The column heading fields appear as the column heading on the report.
3. Change the text in the Col Heading 1 and Col Heading 2 fields and click OK.

Note. You should always change the variable name of a data field to match its column name. This action makes managing the data field easier (especially if you plan to attach event rules to the data field).

4. Clear the Change Name and Override Col Headings options to return the column heading names back to the default.

Changing Data Field Names

Open a report in Report Design Aid.

1. Double-click the data field that you want to change.
2. Change the text in the Variable Name field.

Note. A change in the variable name of a constant field in any section, except for columnar and tabular sections, is reflected on the report. All other variable name changes do not affect the appearance of the data field directly. If you change the variable name of a constant field, you should change the name of the associated variable to make managing the data field easier (especially if you plan to attach event rules to the data field).

3. Change the text in the Col Heading 1 and Col Heading 2 fields and click OK.

Disconnecting Constants From Variables in Group Sections

Open a group section report in Report Design Aid.

1. In the group section, click *either* the constant or the variable of the field that you want to modify.
2. From the Edit menu, select Disconnect.

Important! After you disconnect the constant from its variable, there is no option for you to reconnect them on the report. From the Edit menu, you can select Undo to undo one action only. If necessary, you can delete the disconnected text and variable and then reinsert the business view column. The new data field appears as it did originally with a constant field that is linked to its variable.

Performing In-Section Totaling

Open a columnar or group section report in Report Design Aid.

1. Click the variable of a numeric field.
2. From the Edit menu, select Item Properties.

3. On the properties form, select the Totaling tab.
4. Select one or both of these options:
 - Total.
 - Grand Total.
5. Select from these aggregate functions available and click OK:
 - Sum.
 - Average.
 - Minimum.
 - Maximum.
 - Count.
6. From the File menu, select Report Properties.
7. On the Report Properties tab, select one or both of these options:
 - Print Totals Only.
 - Print Grand Totals.

These two options correspond to the options that you selected in step two. You must select Print Totals Only for the total function to work correctly. Likewise, you must select Print Grand Totals for the grand total function to work correctly.

Note. Depending on the options that you selected, the system adds one or two lines to the bottom of each column before each section break. If you selected both the total and grand total options, the total line appears before the grand total line. The totals are not labeled; in fact, except for the column that displays the total, information from the last record is repeated in the total line. You can suppress totals for fields that you do not want to display on this line.

CHAPTER 8

Working with Objects Unique to Tabular Sections

This chapter provides an overview of tabular sections and discusses how to:

- Define decimal scaling.
- Create calculation columns.
- Work with Row Description columns.
- Create percent calculations.
- Work with rows.
- Override the properties of individual cells.

Understanding Tabular Sections

Tabular sections are specialized types of columnar sections. Tabular sections present report data in columns, rows, and cells. When you include fields that display numeric values, tabular sections automatically total the values. For example, if you include an object that displays open amounts, tabular sections calculate a grand total of all the open amounts in the section.

When you create a tabular section, observe these guidelines for columns, rows, and cells:

Condition	Guideline
Define columns only.	Define columns when the information in the report is based solely on the data that is contained in tables. When you define the columns, rows are generated at runtime based on the selection, sequence, and level break criteria that you defined.
Define columns and rows.	Define rows in addition to columns when you include details in the report (such as underlines, spaces, and blank lines) as well as special calculations, such as interim totals. Row information is set up horizontally on the report.
Define columns, rows, and cells.	Define cells to override information that is defined by columns and rows. A cell is the intersection of a column and row.

Defining Decimal Scaling

This section provides an overview of decimal scaling, lists the prerequisites, and discusses how to:

- Change decimal scaling for individual fields.
- Change decimal scaling for all fields in a tabular section.
- Change decimal scaling for all fields in all tabular sections of a report.

Understanding Decimal Scaling

Decimal scaling enables you to simplify the way large numbers appear in tabular sections. You can change decimal scaling for a single field in a tabular section, for all fields in a tabular section, or for all fields in all tabular sections of a report. For example, this table illustrates how the amounts in a report display if the numerical data is scaled to 1000:

Original Value	Displayed Value
100,000.42	100
10,041.62	10
1,021.75	1
1,512.69	1.5

Prerequisites

Before you begin working with objects unique to tabular sections, ensure that you:

- Create a batch application object.
- Complete the design of the report template using a tabular section.

Changing Decimal Scaling for Individual Fields

Open a tabular section report in Report Design Aid.

1. In the tabular section, double-click the variable of the numeric column that you want to change.
2. On the Column Variable Properties form, select the Decimal Scaling tab, select the appropriate level of decimal scaling and then click OK.

To return all of the fields to their default decimal scaling settings, click Defaults.

Changing Decimal Scaling for All Fields in a Tabular Section

Open a tabular section report in Report Design Aid.

1. Double-click the tabular section that you want to change.
2. On the Section form, select the Decimal Scaling tab, select the appropriate level of decimal scaling and then click OK.

To return all of the fields to their default decimal scaling settings, click Defaults.

The changes that you make on this form affect all of the numbers in the section, except for those fields that have been modified individually. To override individual settings and apply the changes to all fields in the section without exception, select Apply settings to all Objects.

Changing Decimal Scaling for All Fields in All Tabular Sections of a Report

Open a tabular section report in Report Design Aid.

1. From the File menu, select Report Properties.
2. On the Properties form, select the Decimal Scaling tab, select the appropriate level of decimal scaling and then click OK.

To return all of the fields to their default decimal scaling settings, click Defaults.

The changes that you make on this form affect all numbers in the report except for those fields that have been modified individually. To override individual settings and apply the changes to all of the fields in the report without exception, select Apply settings to all Objects.

Note. Changes to properties at the report level are not reflected in existing versions of the report if the report template has already been saved and you have exited Report Design Aid prior to making the change.

Creating Calculation Columns

This section provides an overview of calculation columns, lists the prerequisites, and discusses how to:

- Define calculation columns.
- Remove column calculations.

Understanding Calculation Columns

Calculation columns contain the result of a mathematical calculation. You can perform a calculation involving any number of columns. When creating a calculation column, you can include any column from the section, including columns that contain smart fields or other calculations.

When you create an application report using the Report Director, you have the option to create calculation columns on the Select Columns form. You can also insert calculation columns after the design of the report template is complete.

Important! Calculation columns are based on the amount signs (debit or credit) as they appear in the report, not the actual value stored in the database.

Prerequisites

Before you begin working with calculation columns, ensure that you:

- Create a batch application object.
- Complete the design of the report template using a tabular section.

Defining Calculation Columns

Open a tabular section report in Report Design Aid.

1. Select the tabular section in which you need to add a calculation column.
2. Insert a data dictionary field or numeric variable to hold the calculated value.
3. Drag the field to the appropriate location.
4. Click the newly created column.
5. From the Column menu, select Define Calculation.
6. On the Expression Manager form, define the calculation by performing these actions and click OK:
 - a. Double-click fields from the Available Information list.
 - b. Click the calculator functions to build the expression.

Removing Column Calculations

Open a tabular section report that contains calculation columns in Report Design Aid.

1. Click the column variable for which you want to remove the calculation.
2. From the Column menu, select Remove Calculation.

You can create a new calculation on the column or delete the column.

Working with Row Description Columns

This section provides an overview of Row Description columns, lists the prerequisites, and discusses how to:

- Create Row Description columns manually.
- Delete Row Description columns.

Understanding Row Description Columns

When you create a tabular section, the Description column is automatically included in the section layout. The data in this column is based on data sequencing fields that are defined as level break fields. If the system cannot retrieve a description for the field, the system prints the key for the field. The field must include a data dictionary trigger in order for the system to retrieve a description. For example, if you define company as a level break field and are retrieving records for Company 00001, the description of Financial Reporting Company displays in the Row Description column if the company field includes a trigger. If no trigger is attached to the company data dictionary field, the system displays the field key of 00001.

The Row Description column has a special capability for level breaks that are associated with the Subledger, Cost Object, and Object Subsidiary fields. When a row of a tabular section prints due to a level break that is caused by a change in one of these fields, the Description row automatically displays:

- Subledger and Subledger Type.
- Cost Object and Cost Object Type.
- Object Subsidiary and Object Subsidiary Type.

Prerequisites

Before you begin working with row description columns, ensure that you:

- Create a batch application object.
- Complete the design of the report template using a tabular section.

Creating Row Description Columns Manually

Open a tabular section report in Report Design Aid.

1. Click the tabular section in which you want to insert a Row Description column.
2. From the Column menu, select Create, and then select Row Description Column.
The Description column appears.
3. Drag the column to the appropriate location.

Deleting Row Description Columns

Open a tabular section report that contains Row Description columns in Report Design Aid.

1. Select the Description column.
2. From the Edit menu, select Delete.

Creating Percent Calculations

This section provides an overview of percent calculations, lists the prerequisites, and discusses how to define percent calculations.

Understanding Percent Calculations

You can display numbers in a column as a percent of the total in another column. This type of calculation is used in all reporting types but most often in financial reports such as standard income statements. When used in income statements, the percent calculation is referred to as the percent of revenue.

Prerequisites

Before you begin working with percent calculations, ensure that you:

- Create a batch application object.
- Complete the design of the report template using a tabular section or application report.
- Perform one of these actions:
 - Create a percent calculation column from the Report Director. For example, if you are creating a financial report that is based on account balances, create a column called Percent of Revenue.
 - Insert a numeric variable column from Report Design Aid.

- Add rows to the tabular section.

This step is necessary to create the 100 percent cell to use in the denominator. For example, add data rows to hold the revenue sales and a calculation row to hold the total revenue.

Defining Percent Calculations

Open a tabular section report in Report Design Aid.

1. After adding the appropriate rows to the tabular section, click the column that you inserted for the percent calculation.
2. From the Column menu, select Define Calculation.
3. On the Expression Manager form, define the percent calculation and click OK.

Working with Rows

This section provides an overview of tabular rows, lists the prerequisites, and discusses how to:

- Add data rows.
- Add calculation rows.
- Add sum rows.
- Add underline rows.
- Add constant rows.
- Generate rows automatically.

Understanding Tabular Rows

In tabular sections, rows consist of information that is set up horizontally. Typically, rows contain data that is read from individual database records; however, you can add rows to include details in the report section such as underlines, blank lines, and special calculations. Tabular sections are the only detail sections for which you can define rows. In all cases, after you create a row, you can drag it to a new location or delete it by selecting Delete from the Edit menu.

Rows can be defined manually or through automatic row generation. Automatic row generation is used primarily in financial reports. A report that displays a chart of accounts is an example of data that can be generated using the automatic row generation feature.

Rows that are defined manually are defined individually and each data row includes its own data selection.

By using Report Design Aid, you can manually add these types of rows:

- Data rows

Data rows fetch data from PeopleSoft EnterpriseOne tables. They represent groups of data fields that are associated with the columnar amounts. For example, you can have a data row that displays revenue (column) for a range of items. In addition, you can add a row that displays the direct costs for another range of fields. You must define the rows and identify the data using the business view attached to the tabular section.

- Calculation rows

Calculation rows display amounts that are calculated from other rows. For example, you can calculate the gross margin of the revenue and direct costs rows.

- Sum rows

Sum rows define a special type of calculation. The calculation performs totaling for all numeric columns in a range of rows. The total can include or exclude rows within the sum range that are themselves row calculations.

- Underline rows

Underline rows enable you to create underlines to separate various rows in the report.

- Constant rows

Constant rows contain only text. They describe or label information in the tabular section, such as identification information for a group of rows.

- Automatically generated rows

In tabular sections, the system can automatically generate rows that define a chart of accounts for a business unit or represent the merging of accounts from several business units. Additionally, you can create rows that calculate account roll-up totals at various levels of detail. For example, you might want the system to automatically generate rows to create a balance sheet report that is based on the current month and the prior year's account balance.

The system optimizes rows with two or fewer logical expressions (nodes) that are joined by an AND operator. The optimization accelerates report processing speed. If you include a cover page with the report, you can review which rows the system is optimizing. In the Optimized Row column of the cover page, the system prints a Y next to the rows that are optimized and an N next to the rows that are not. The cover page also includes the total number of rows that are optimized (Number of Optimized Inclusion Rows) and the total number that are not (Number of Non Optimized Inclusion Rows). You can also find the total number of optimized rows in the UBE log file (Tabular Optimization).

Row optimization is enabled by default. As a troubleshooting measure, you can disable row optimization. To do so, add this line to the UBE section of the jde.ini:

```
UBETabOpt=0
```

To enable row optimization, set the variable to 1 or delete the row from the jde.ini file.

Prerequisites

Before you begin working with tabular rows, ensure that you:

- Create a batch application object.
- Complete the design of the report template using a tabular section.

Adding Data Rows

Open a tabular row section report in Report Design Aid.

1. Click the tabular section.
2. From the Row menu, select Create, Data.
3. On the Data Row Properties form, on the General tab, enter the name of the data row in the Name field.

The name appears in the Name field on the Row List tab of Tabular Section properties and on the Data Row Properties form.

4. In the Description field enter a meaningful description of the data.

The description appears on the report in the description column of the Tabular section, on the Row List tab of the Tabular Section properties, and in the Description field of the Data Row Properties form. This description can consist of multiple lines to accommodate as much text as required. Enter spaces in front of the text where appropriate to indent the text on the report.

5. Set other properties as desired on other tabs and click OK.
6. On the Data Selection form, define the criteria that you want to apply to the data row, and click OK.

At any time in the future, you can modify the data selection by selecting Define Data Selection from the Row menu.

To add rows directly beneath the last row, click the last row (indicated by a black box around the row) and add another row.

Adding Calculation Rows

Open a tabular row section report in Report Design Aid.

1. Click the tabular section.
2. From the Row menu, select Create, Calculation.
3. On the Calculation Row Properties form, on the General tab, enter the name of the calculation row in the Name field.

The name appears in the Name field on the Row List tab of Tabular Section properties and on the Calculation Row Properties form.

4. In the Description field enter a meaningful description of the data.
5. Set other properties as desired on other tabs and click OK.
6. On the Expression Manager form, define the calculation, and click OK.

To add rows directly beneath the last row, click the last row (indicated by a black box around the row) and add another row.

Adding Sum Rows

Open a tabular row section report in Report Design Aid.

1. Click the tabular section.
2. From the Row menu, select Create, Sum Row.
3. On the Sum Row Properties form, on the General tab, enter the name of the calculation row in the Name field.

The name appears in the Name field on the Row List tab of Tabular Section properties and on the Sum Row Properties form.

4. In the Description field enter a meaningful description of the data.
5. In the From Row list, select a row to use as the beginning in a range of rows to be included in the sum.

The description appears on the report in the description column of the Tabular section, on the Row List tab of the Tabular Section properties, and in the Description field of the Sum Row Properties form.

6. In the To Row list, select a row to use as the ending in a range of rows to be included in the sum.
7. Select the option Include Intermediate Calculation if you want the sum to include calculation rows that reside between the From and To rows.
8. Set other properties as desired on other tabs and click OK.
To add rows directly beneath the last row, click the last row (indicated by a black box around the row) and add another row.

Adding Underline Rows

Open a tabular row section report in Report Design Aid.

1. Click the tabular section.
2. From the Row menu, select Create, Underline.
3. On the Underline Row Properties form, on the General tab, complete the Name field.
4. Set other properties as desired on other tabs and click OK.

For example, select the Font/Color tab to modify the color of the line or the Options tab to modify the thickness and spacing of the line.

To add rows directly beneath the last row, click the last row (indicated by a black box around the row) and add another row.

Adding Constant Rows

Open a tabular row section report in Report Design Aid.

1. Click the tabular section.
2. From the Row menu, select Create, Constant.
3. On the Constant Row Properties form, on the General tab, enter the name of the constant row in the Name field.

The name appears in the Name field on the Row List tab of Tabular Section properties and on the Constant Row Properties form.

4. In the Description field enter a meaningful description of the data.

The description appears on the report in the description column of the Tabular section, on the Row List tab of the Tabular Section properties, and in the Description field of the Constant Row Properties form.

5. Set other properties as desired on other tabs and click OK.

To add rows directly beneath the last row, click the last row (indicated by a black box around the row) and add another row.

Generating Rows Automatically

Open a tabular row section report in Report Design Aid.

1. Click the tabular section.
2. From the Row menu, select Automatic Row Generation.

Note. Depending on how the section is designed, some fields might not appear on the form.

3. On the Financial Account Level of Detail Row Generation form, in the Business Unit field, enter the business unit for which you want to generate account information.
4. In the From Account field, enter the beginning account number to display on the report.
If you leave the From Account field blank, no accounts are generated.
5. In the Thru Account field, enter the ending account number to display on the report.
If you leave the Thru Account field blank, no accounts are generated.
6. In the Ledger Type (Optional) field, enter the ledger type to display on the report.
If specified, the ledger type is included in the data selection for that row.
7. In the Level of Detail field, enter the level of detail to display on the report.
Optional account level of detail rows can be generated at level of detail breaks. The default is to generate total rows. The row amounts are based on account ranges that are specified through selection criteria.
8. Select the Totals option to generated totals for each level of detail.
9. Select one of these options under the Add Row Options heading:
 - Replace
Replaces all previously defined rows with the automatically generated rows. This is the default option.
 - Insert
Inserts automatically generated rows after the row you clicked before selecting the automatic row generation option.
 - Append
Appends automatically generated rows to the bottom of previously defined rows. Use the Append and Insert options to build hybrid account structures from several different business units.

Overriding the Properties of Individual Cells

This section provides an overview of cell properties and overrides, lists the prerequisites, and discusses how to:

- Override data row variables.
- Override data row variable properties.
- Override calculation row variables properties.
- Override underline row variables properties.
- Override constant row variables properties.

Understanding Cell Properties and Overrides

Cells contain information that is located at the intersection of a column and a row of a tabular section. Cells are populated based on how you defined the row. You can define cell overrides to override the properties of a cell. For example, to emphasize the data in a specific cell, you can override its properties, increase the size of the font, and make the font bold.

You can define cell overrides to override the data that is displayed in the cell. For example, to review the results of possible salary increases for a group of employees, you can override the monthly salary cell for an employee to change the annual income calculation.

To override a cell, you must first enter cell mode. In Report Design Aid, you can toggle cell mode from the Cell menu. When you are in cell mode, you can click an individual cell and the cell is outlined by a solid-line rectangle. When you are not in cell mode and you click an individual cell, the entire row is outlined by a solid-line rectangle.

Cells that include cell overrides are outlined by a dashed-line rectangle. You can override variable cells in these types of rows:

- Data rows.
- Calculation rows.
- Underline rows.
- Constant rows.

Prerequisites

Before you begin overriding individual cells, ensure that you:

- Create a batch application object.
- Complete the design of the report template using a tabular section.

Overriding Data Row Variables

Open a tabular row section report in Report Design Aid.

1. Click the tabular section.
2. From the Cell menu, select Cell Mode.
3. Click the cell that you want to override.
4. From the Cell menu, select Create Override, Data.
5. On the Cell Properties form, on the General tab, modify the name and description as required.
6. On the Expression Manager form, define the expression to populate the cell with a new value and click OK.

Overriding Data Row Variable Properties

Open a tabular row section report in Report Design Aid.

1. Click the tabular section.
2. From the Cell menu, select Cell Mode.
3. Click the cell that you want to override.
4. From the Cell menu, select Create Override, Calculation.
5. On the Cell Properties form, on the General tab, modify the name and description as required and click OK.
6. Set properties as desired on available tabs, and click OK.

Overriding Calculation Row Variable Properties

Open a tabular section report in Report Design Aid.

1. Click the tabular section.
2. From the Cell menu, select Cell Mode.
3. Click the cell that you want to override.
4. From the Cell menu, select Create Override, Calculation.
5. On the Cell Properties form, on the General tab, modify the name and description as required.
6. Set properties as desired on available tabs, and click OK.
7. On the Expression Manager form, define the calculation by performing these actions, and click OK:
 - Double-click fields from the Available Information list.
 - Click the calculator functions to build the expression.

Overriding Underline Row Variable Properties

Open a tabular section report in Report Design Aid.

1. Click the tabular section.
2. From the Cell menu, select Cell Mode.
3. Click the cell that you want to override.
4. From the Cell menu, select Create Override, Underline.
5. On the Cell Properties form, on the General tab, modify the name and description as required.
6. Set properties as desired on available tabs, and click OK.

Overriding Constant Row Variable Properties

Open a tabular section report in Report Design Aid.

1. Click the tabular section.
2. From the Cell menu, select Cell Mode.
3. Click the cell that you want to override.
4. From the Cell menu, select Create Override, Constant.
5. On the Cell Properties form, on the General tab, modify the name and description as required.
6. Set properties as desired on available tabs, and click OK.

CHAPTER 9

Modifying the Appearance of Report Objects

This chapter provides an overview of the appearance of report objects and discusses how to:

- Work with section descriptions.
- Hide report sections.
- Align fields and columns.
- Modify field lengths and column widths.
- Use absolute position for text wrapping.
- Change column spacing.
- Change font properties.
- Activate dynamic positioning.
- Define font substitutions.
- Use True Type fonts.
- Justify text.
- Change numerical formatting.
- Associate lines and boxes.
- Reprint the last line of a page on the succeeding page.
- Insert page breaks.

Understanding the Appearance of Report Objects

Every object in a report, such as a section, column heading, column variable, runtime field, or constant, has its own set of properties. Modify the properties of an object to change how it looks or behaves. For example, you can change the font size of a column heading or change the text to reflect company jargon. You can also modify the format of the report by changing column and row spacing and object alignment.

Working with Section Descriptions

This section provides an overview of section descriptions, lists the prerequisites, and discusses how to change section descriptions.

Understanding Section Descriptions

Section descriptions appear on the tile on the left-hand side of the report section in the Report Design Aid form. If you do not want to view these tiles, you can hide them in User Options.

Typically, detail section descriptions are the same as the description of the attached business view. Level break sections are typically named after the level break field on which it is based. For example, the description for a level break header including the search type field is On Search Type.

When you create a custom section and attach the same business view as the level one section, both sections have the same description. When you create a group section to hold grand totals, the section is untitled. You can change the section description from the section properties form. For the grand total section, you can modify the description to read Grand Totals.

Prerequisites

Before you begin changing section descriptions, ensure that you:

- Create a batch application object.
- Complete the design of the report template.

Changing Section Descriptions

Open a report template in Report Design Aid.

1. Double-click the section that you want to change.
2. On the appropriate section properties form, on the General tab, enter a new name in the Description field and click OK.

Hiding Report Sections

This section provides an overview of hiding report sections, lists the prerequisites, and discusses how to:

- Hide and display report sections unconditionally.
- Display detail sections conditionally.

Understanding Hiding Report Sections

You can hide a report section if the sole purpose of the section is to provide logic to be used by another section. You can select the Show Invisible Sections At Startup option in User Options to view hidden sections of a report in Report Design Aid. Hiding this type of section is referred to as unconditional. The section is never meant to display in the report.

You can also hide a report section based on certain criteria. Hiding this type of section is referred to as conditional, the section displays only when the condition is met. The condition can be logic designed to show the section only when a field value reaches a certain amount. Another condition might be when the user indicates that the section is required in the report.

Prerequisites

Before you begin hiding report sections, ensure that you:

- Create a batch application object.
- Complete the design of the report template.

Hiding and Displaying Report Sections Unconditionally

Open a report template in Report Design Aid.

1. Double-click the report section you want to affect.
2. On the appropriate section properties form, select the Advanced tab.
3. Select the Visible option to display the report section or clear the Visible option to hide the report section and then click OK.

Displaying Detail Sections Conditionally

Open a report template in Report Design Aid.

1. Click the section from which you want to call the conditional section and select Event Rules from the Edit menu.
2. Click the down arrow in the toolbar and select the Do Section event.
3. From the Insert menu, select If/While and define the criteria for displaying the conditional section.
4. Click the If/While statement and select System Function from the Insert menu.
5. On the Function Selection tab, expand the Section folder and double-click Do Custom Section.
6. On the Parameter Mapping tab, double-click the report section that you want to display only when the defined criteria is met.

The section appears in the Values column of the Parameters table.

7. Click OK and save the event rules.
8. On the PeopleSoft Report Design Aid form, double-click the report section that you want to be the conditional section.
9. On the appropriate section properties form, select the Advanced tab.
10. Select the Conditional option and click OK.

Aligning Fields and Columns

This section provides an overview of aligning fields and columns, lists the prerequisites, and discusses how to:

- Align fields within sections.
- Align fields and columns across sections.

Understanding Aligning Fields and Columns

When you create report sections, fields and columns might not line up properly. Report Design Aid provides alignment options to enable you to precisely adjust the appearance of the report output. For example, you create a columnar report with a level break footer that calculates a total. You change the size of the columns in the columnar section and the total in the level break footer no longer aligns with the column it is totalling.

When you select to align fields you are presented with options based on whether you are aligning objects within a section or across sections. On the Align Objects form, options are listed under two headings:

- Left to Right.

These options are available for aligning within sections and across sections.

- Top to Bottom.

These options are available for aligning across sections only.

When you align data fields, use these guidelines:

- Clear the focus of the cursor in all report sections before you select the objects for alignment.

Click an empty portion of each report section to clear the focus of the cursor. You could have the cursor focused on a field in the a section, such as the page header, and not realize it. When you select to align the field, the field from the other section, such as the page header, will be aligned with the selected fields.

- Designate one object as an anchor to which other objects are aligned.

The anchor is indicated by a black border; the objects to be aligned with it are indicated by a gray border. The anchor field is the *last* field that you select during the alignment process.

- The black border indicates the currently selected field.
- The entire object must be selected for alignment, not just the constant text or variable.
- The anchor can be a disconnected constant or variable object.
- The objects selected can be within the same section or across sections.
- The fields are aligned rather than the text within the fields.

This is especially noteworthy when you center-align fields. Objects are centered based on field length and not on the length of the text within the fields.

- The alignment process cannot be used on tabular rows.

When you align columns with other columns or fields, use these guidelines:

- To align columns from tabular and columnar sections with group section objects, the column in the tabular or columnar section must be the anchor for the alignment.
- To align columns from tabular and columnar sections with columns in other columnar or tabular sections, you can select only one column in each tabular or columnar section to align.

Prerequisites

Before you begin aligning fields and columns, ensure that you:

- Create a batch application object.
- Complete the design of the report template using a columnar section.
- Include a level break footer with a label.

Aligning Fields Within Sections

In Report Design Aid, open a columnar report template that includes a level break footer.

1. Select the aggregate label in the level break footer.
2. Hold down the CTRL key and click the total field.
3. From the Layout menu, select Align.
4. Select the Current Section option under the Apply to heading.
5. Select one of these options under the Top to Bottom heading:
 - Top Edges
 - Middle
 - Bottom Edges
 - No Changes
6. Click Apply to view the changes without leaving the form.

Aligning Fields and Columns Across Sections

In Report Design Aid, open a columnar report template that includes a level break footer.

1. Select the total in the level break footer.
2. Hold down the CTRL key and in the columnar section, click the column variable associated with the total.
3. From the Layout menu, select Align.
4. Select the All Sections option under the Apply to heading.
5. On the Align Objects form, select one of these options under the Left to Right heading:
 - Left Edges.
 - Center.
 - Right Edges.

Typically, when aligning numeric values, you want to align by the right edges so that the decimal places lines up properly.

 - No Changes.
6. Click Apply. to view the changes without leaving the form.

Modifying Field Lengths and Column Widths

This section provides an overview of field lengths and column widths, lists the prerequisites, and discusses how to:

- Modify the length of fields.
- Modify the width of columns.

Understanding Field Lengths and Column Widths

Changing the length of a field and changing the width of a column do not yield the same results. You can modify the display length of most fields from the item properties form. Changing the length of a field changes the number of characters that the batch engine places in the field. For example, in a report, you include an address number field that is defined in data dictionary to accommodate 20 characters. None of the records in the report include an address number longer than five characters. In the item properties form, you can modify the display length of the address number field to five. The address number field displays five characters on the report. Since the column width is large enough to accommodate 20 characters, you see the five characters followed by a large amount of white space. To eliminate the white space, you can size the address number column so that it is only as wide as the five character display length.

Changing the width of a column changes the amount of space that is allotted for display. You can change the size of columns in the Report Design workspace. This method of changing the column size does not affect the field length. If you size the column to be smaller than its associated data, the data is truncated. If it is a numeric field the column contains asterisks.

When you enter a column heading that is too long for the column heading length, the entire column heading displays on the report, often times overlapping other columns. Report Design Aid provides you with two column heading fields for each column so that you can split longer column headings into two lines.

When a string data type, such as media objects, is fetched from the database, the data text wraps within the column. When a field is populated with data that is longer than the field length, and that does not reside in the database, the data is truncated.

Prerequisites

Before you begin modifying field lengths and column widths, ensure that you:

- Create a batch application object.
- Complete the design of the report template using a columnar section.

Modify the Length of Fields

Open a columnar section report template in Report Design Aid.

1. Double-click the field you want to size.
2. On the applicable Properties form, select the Display tab.
If the Properties form does not include a Display tab, you cannot change the length of the field.
3. Enter a new length in the Display Length field, or click the arrow buttons to increase or decrease the length, and click OK.

Modify the Width of Columns

Open a columnar section report template in Report Design Aid.

1. Click the column heading.

Note. The column heading is outlined and includes a small solid black box on the right edge. This box indicates that you can manually size the object. Otherwise, the column width can not be changed manually.

2. Place the cursor over the small black box until the cursor changes to a horizontal line with an arrow on both ends.

- Ensure that the cursor is not a plus sign with arrows on each end.
3. Click and drag the black box until the column is the size you require.

Using Absolute Position for Text Wrapping

This section provides an overview of absolute position, lists the prerequisites, and discusses how to activate absolute position.

Understanding Absolute Position

The absolute position option enables you to wrap text that is fetched from the database. This option does not affect text populated through event rules or entered into constant fields.

When you select the absolute position option, text is truncated in fields where the display length is too short. The system leaves the text in its absolute position. When you clear the absolute position option, this text is wrapped to the next line of the field.

Note. You cannot define text wrapping for individual fields; you must apply text wrapping to an entire report section.

Prerequisites

Before you begin activating absolute position, ensure that you:

- Create a batch application object.
- Complete the design of the report template.

Activating Absolute Position

Open a report template in Report Design Aid.

1. Double-click the section in which you want to wrap text.
2. On the section properties form, select the Advanced tab.
3. Select the Absolute Position option to inactivate text wrapping or clear the option to activate text wrapping and then click OK.

If the Advanced tab does not have an Absolute Position option, you cannot inactivate text wrapping for the section.

Note. The absolute position option is cleared by default.

Changing Column Spacing

This section provides an overview of column and row spacing, lists the prerequisites, and discusses how to:

- Modify column spacing.
- Modify row spacing in columnar sections.

- Modify row spacing in tabular row sections.

Understanding Column and Row Spacing

You can modify the space between columns and the space between rows of columnar and tabular report sections.

In the spacing option, which is only available for columnar and tabular sections, there are two tabs:

- Column Spacing
- Row Spacing

The column spacing option enables you to center columns under the page header information. You can modify the spacing between all columns of the section or between individual columns. You can also highlight information in a specific column by adding spaces to set the column apart from the other columns.

On the Column Spacing tab, you can select all columns or indicate specific columns to affect. You enter a value in the Space before selected columns field to indicate the amount of space you want between the columns. You can click Apply to view the new spacing before leaving the form to ensure that the selection meets your needs.

You can also change the spacing of rows to improve the appearance of a report. From the Row Spacing tab, you can modify the spacing between:

- The page header and the detail section.
- The rows in the detail section.

Prerequisites

Before you begin changing column spacing, ensure that you:

- Create two batch application objects.
- Complete the design of the first report template using a columnar section.
- Complete the design of the second report template using tabular rows.

Modifying Column Spacing

Open a columnar section report in Report Design Aid.

1. Click the columnar or tabular section in which you want to modify column spacing.
2. From the Layout menu, select Spacing.
3. On the Column Spacing tab, perform one of these actions to apply the spacing to columns:
 - Click the Select All Columns button to apply the spacing to all columns in the section
 - Select specific columns from the list to which you want to apply the spacing
4. In the Space before selected columns field, enter the number of spaces you want to appear before the selected columns and click OK.

The default value is set at five spaces.

Modifying Row Spacing in Columnar Sections

Open a columnar section report in Report Design Aid.

1. Select the columnar section you want to change.
2. From the Layout menu, select Spacing.
3. On the Columnar Section Spacing form, select the Row Spacing tab.
4. Select a Header to Detail option and a Detail to Detail option:
 - Single
 - Single + Half
 - Double

Note. Only single spacing is supported for CSV files. Only single and double spacing is supported for line printers.

5. Click Apply, and click OK.

Modifying Row Spacing in Tabular Row Sections

Open a tabular row section report in Report Design Aid.

1. In the tabular section, double-click a row to create a space above it.
2. On the appropriate row properties form, select the Options tab.
3. Enter a value in the Space Before field and click OK.

Changing Font Properties

This section provides an overview of font properties, lists the prerequisites, and discusses how to:

- Change font properties of individual fields.
- Change font properties of all fields in a section.
- Change font properties of all fields in a report.
- Create objects with bar code fonts.

Understanding Font Properties

A font is a set of print characters. Examples of fonts include Courier New and Arial. Typically, fonts include variations such as bold and italic. Properties such as alignment and spacing are not considered font variations and may be applied separately to text in the report. You can use multiple fonts in a single report. Some fonts may be converted to PDF, PostScript, or Printer Control Language (PCL) files; line printers are fairly limited in the types of fonts they can print.

Fonts are classified as either proportional or nonproportional. Proportional fonts include different *pitches* (widths) for different characters. In a proportionally spaced font, the letter *I* is narrower than the letter *q*. Examples of fonts with proportional spacing are Arial and Times New Roman. While proportionally spaced fonts generally create a more visually pleasing document, they can be difficult to align because of the varying widths of characters.

Nonproportional fonts refer to fonts in which every character has the same width. Most typewriters and line printers use these fonts. Examples of nonproportional fonts are Courier New and MS Gothic.

The PDF generation, PostScript and PCL conversion can support any font size. For line printers, it is recommended that you generate the PDF file with nonproportional fonts and a font size of 10.

The 14 base fonts that Report Design Aid supports, along with their valid printer types, are illustrated in this table:

Font Faces	Postscript	PCL	Line	PDF
Courier New	X	N/A	X	X
Courier New - Bold	X	N/A	N/A	X
Courier New - Italic	N/A	N/A	N/A	N/A
Courier New - Bold Italic	N/A	N/A	N/A	N/A
Arial	X	X	N/A	X
Arial - Bold	X	N/A	N/A	X
Arial - Italic	N/A	N/A	N/A	N/A
Arial - Bold Italic	N/A	N/A	N/A	N/A
Symbol	N/A	N/A	N/A	X
Times New Roman	X	X	N/A	X
Times New Roman - Bold	X	N/A	N/A	X
Times New Roman - Italic	N/A	N/A	N/A	N/A
Times New Roman - Bold Italic	N/A	N/A	N/A	N/A
ZapfDingbats	N/A	N/A	N/A	X

You can change font properties at three levels in the report template:

- Field

When you change the font properties for a field, the change affects only that field.

- Section

When you change the font properties for a section, the change affects all fields in the section, except for those fields that have been changed individually. To apply the changes to all fields in the section without exception, select the Apply settings to all Objects option.

- Report

When you change the font properties for the report, the change affects all fields in all sections of the report, except for fields in sections that have been changed at the section level and those fields that have been changed individually. To apply the changes to all fields in the report without exception, select the Apply settings to all Objects option.

Font Colors

Although you can select any color from the Font dialog to view reports online, the system supports only eight colors for PCL and 16 colors for PostScript and black for line printers. Both PostScript and PDF generation use the *RGB model* for color. PCL uses the *Simple Color RGB model* that provides only eight colors.

Refer to the color support table, where X is supported and blank is not supported:

Font Colors	PostScript	PCL	Line	PDF
Black	X	X	X	X
Blue	X	X	N/A	X
Cyan	X	X	N/A	X
Dark Blue	X	N/A	N/A	X
Dark Cyan	X	N/A	N/A	X
Dark Green	X	N/A	N/A	X
Dark Gray	X	N/A	N/A	X
Dark Magenta	X	N/A	N/A	X
Dark Red	X	N/A	N/A	X
Green	X	X	N/A	X
Light Gray	X	N/A	N/A	X
Magenta	X	X	N/A	X
Olive Green	X	N/A	N/A	X
Red	X	X	N/A	X
Yellow	X	X	N/A	X
White	X	X	N/A	X

Double-Byte Fonts

In a double-byte environment, fonts receive special treatment within the universal batch engine and Output Management. In Report Design Aid, you can select any font that is available in the system and assign it to the report, section, or object. However, in a double-byte environment, only the fonts included in this table are supported when the PDF file is generated:

Language	Font Name
Simplified Chinese	STSong-Light-Acro
Traditional Chinese	Mhei-Medium-Acro
Korean	HYGothic-Medium-Acro
Japanese	HeiseiMin-W3-Acro, MS Gothic (true type font)

Japanese, Simplified Chinese, Traditional Chinese, and Korean languages do not support PCL.

Bar Code Fonts

You can use bar code fonts to create bar codes in reports. Report Design Aid provides base bar code functionality for reports and batch job output and supports Code 39 fonts for both PCL and PostScript conversion. The True Type font name is *BC C39 3 to 1 Medium*. The bar code fonts can be seen in Report Design Aid, previewed, and then printed. Bar codes print on both PCL and PostScript printers. Since font vendors do not sell scalable PCL fonts, only fixed-point sizes are supported for PCL. The recommended point size range for PostScript is 8 to 24 points.

To specify a particular bar code, you must enter the encoding for that bar code in the constant properties. The encoding is a series of characters and numbers that are preceded and followed by asterisks (*) to identify the text as a bar code.

Prerequisites

Before you begin changing font properties, ensure that you:

- Create a batch application object.
- Complete the design of the report template.

Changing Font Properties of Individual Fields

Open a report template in Report Design Aid.

1. Right-click the field in the report that you want to change.
2. Select Properties from the menu.

Depending on the field type, an appropriate properties form appears.

3. On the properties form, select the Font/Color tab, change the font properties and click OK.

Changing Font Properties for All Fields in a Section

Open a report template in Report Design Aid.

1. Double-click the report section that you want to change.
2. On the section properties form, select the Font/Color tab, change the font properties and click OK.

Changing Font Properties for All Fields in a Report

Open a report template in Report Design Aid.

1. From the File menu, select Report Properties.
2. On the report properties form, select the Font/Color tab, change the font properties and click OK.

Creating Objects with Bar Code Fonts

Open a report template in Report Design Aid.

1. Double-click a constant.
2. On the Constant Properties form, select the Font/Color tab.
3. Complete these fields:
 - Font
The font is the bar code font name (for example, font “3 to 9 bar code”).
 - Font Style
 - Size
You can view a sample of how the font appears in case you need to make changes.
4. Select the General tab.
5. Enter the correct encoding sequence for the bar code in the Name field and click OK.

You can see the bar codes in Report Design Aid.

6. View the report in Preview mode to display the bar codes.
When you submit the batch job, the Job Submission form also displays the bar codes properly.
After you set up the bar code in the report, you must link the printer font name and the True Type font name to a physical printer in the Bar Code Support application before you print to either a PostScript or PCL printer.
7. From the Batch Processing Setup menu (GH9013), select Bar Code Support, and complete these fields:

- Printer Name
- True Type Font Name
- Printer Font Name

The printer font name comes from the font vendor (for example, Code39Three).

- Printer Definition Language

If you are printing to a PCL printer, you must also complete the Symbol Set ID field.

After you set up the bar code, you can use a scanner to test the bar code output.

Activating Dynamic Positioning

This section provides an overview of dynamic positioning and discusses how to activate dynamic positioning for a server or client.

Understanding Dynamic Positioning

Dynamic positioning is most useful when you print reports in multiple languages. For example, you print a report in English, Greek, and Chinese. You can print the English reports in Arial, the Greek report in Haettenschweiler, and the Chinese report in SimSun. Since the Haettenschweiler and SimSun fonts are wider than the Arial font, the objects on the report need to be repositioned to prevent overlap.

The dynamic positioning feature:

- Enables you to designate a new font when the report is printed on a line printer or in a foreign language.
- Automatically adjusts the width of objects on a report so that they do not overlap when a font substitution occurs.

Dynamic positioning is also useful when you send many reports to a line printer and want them in different fonts so they are easier to read. When sending reports to a line printer, you must use nonproportional fonts.

Dynamic positioning does not adjust for the *height* of report objects when you substitute fonts. If you use font substitution for a report, space the report objects on different lines that are farther apart.

To use dynamic positioning:

- Activate dynamic positioning on the machine where the reports are processed.

Enable dynamic positioning by inserting this line in the UBE section of the jde.ini file:

```
[UBE]
UBEDynamicPositioning=1
```

If you run reports that require dynamic positioning on multiple machines, you must enable dynamic positioning on each machine. After you activate dynamic positioning on a machine, you should not deactivate it. You can, however, override dynamic positioning for an individual report.

- Define font substitutions for languages and line printers.

If the report is already formatted in the font that you want, you can disable font substitution for the report. Once you disable the font substitution feature and save the report, font substitution remains disabled for the report. You must reestablish font substitution by clearing the override if you want to font substitution in the future. You can view a report with font substitutions applied.

Activating Dynamic Positioning for a Server or Client

Using an editor program, access the appropriate jde.ini file, either server or client.

1. In the [UBE] section, enter:

```
UBEDynamicPositioning=1
```

2. Save and close the jde.ini file.

Defining Font Substitutions

This section provides an overview of font substitutions, lists the prerequisite, and discusses how to:

- View font substitutions by language type.

- Define font substitutions for language and line printers.
- Change font substitutions by language type.
- Override font substitutions for reports.
- Apply font substitutions to report templates.

Understanding Font Substitutions

Font substitution enables you to indicate a different font, not a font size. When the font substitution is made, dynamic positioning automatically adjusts the position of items on the report to accommodate the width of the new font. It does not adjust the height of items on the report.

Font substitution is most useful for defining fonts in reports that are intended to be:

- Sent to a line printer
- Printed in a foreign language

Prerequisite

Activate dynamic positioning in the appropriate `jde.ini` file.

Viewing Font Substitutions by Language Type

Access the Batch Processing Setup menu (GH9013).

1. Select Font Substitution by Language Type.
2. On the Work with Font Substitution by Language Type form, enter the language type in the QBE line and click Find.

The form displays all defined font substitutions for the language type that you entered.

Defining Font Substitutions for Language and Line Printers

Access the Work with Font Substitution by Language Type form.

1. Click Add.
2. On the Font Substitution by Language Revisions form, enter a language in the Language Type field using the appropriate user defined code.

If you are defining a font substitution for a line printer, leave this field blank to select Domestic Language.

3. In the Original Font Name field, select the font that you are replacing.

For a line printer, enter **JDE LINE*.

4. In the New Font Name field, select the new font that you want to use on the report and click OK.

For a line printer, you must use a nonproportional font such as Courier New.

Changing Font Substitutions by Language Type

Access the Work with Font Substitution by Language Type form.

1. Double-click the font substitution that you want to change.

2. On the Font Substitution by Language Type Revisions form, modify the New Font Name field and click OK.

Overriding Font Substitutions for Reports

Open a report template in Report Design Aid.

1. From the File menu, select Report Properties.
2. On the properties form, select the Advanced tab.
3. In the Dynamic Positioning section, click Apply System Language Font.

If the Apply System Language Font option is disabled, and the Don't Dynamically Position option is deselected, review the dynamic positioning setting in the jde.ini file.

4. On the Would you like to reposition the report objects based on the System Language Font? message box, click *No* to ignore the system language font and click OK.

Once you have saved the report with the override defined, the system does not apply font substitutions to the report.

Applying Font Substitutions to Report Templates

Open a report template in Report Design Aid.

1. From the File menu, select Report Properties.
2. On the properties form, select the Advanced tab.
3. In the Dynamic Positioning section, click Apply System Language Font.
4. On the Would you like to reposition the report objects based on the System Language Font? message box, click *Yes* to apply the System Language Font to the report.

If a font substitution has been defined for the font that is currently used on the report, the system replaces the current font and dynamically repositions objects on the report to accommodate the new font.

Using True Type Fonts

This section provides an overview of True Type fonts and discusses how to assign fonts by report language.

Understanding True Type Fonts

When you submit batch versions, PDF files are generated on the server using True Type fonts. PeopleSoft software provides several True Type fonts, such as Arial, Courier, and Times New Roman. In addition to these fonts, you can purchase or download additional True Type fonts.

To download Arial, Courier, and Times New Roman fonts, go to sourceforge.net. If you want a PDF to contain Asian and European Long (WGL4) characters, you should purchase or download a font that is similar to Arial Unicode MS.

By default, all PDFs are generated using the Arial font. To override the Arial font, use the Work with Fonts form to assign fonts by report language.

Assigning Fonts by Report Language

In the Fast Path field, enter P98980.

1. On the Work With Fonts form, complete the Language field and click Find.
The fonts assigned to the selected language appear in the grid.
2. If you want to add a new assignment for the language that you selected, click Add.
3. If you want to change an assignment for the language that you selected, highlight the appropriate line in the grid and click Select.
4. On the Language Font Revisions form, in the Language field, enter the language for which you are adding an assignment.
If you are modifying an assignment, this field is unavailable.
5. Click the Font button next to the Font ID - Report field.
6. On the Font form, select from these font properties and click OK:
 - Font
 - Font style
 - Size
 - Script
 The selected font displays on the Language Font Revisions form.
7. Click the Font button next to these fields to make the same change for fonts that appear on forms and grids and then click OK:
To keep the fonts on forms and grids as they are, without the change, select System under Font.
 - Font ID - Form.
 - Font ID - Grid.

Justifying Text

This section provides an overview of text justification, lists the prerequisites, and discusses how to change text justification for variables.

Understanding Text Justification

Justification refers to how text lines up horizontally within the space allotted for the text. You can affect the alignment of text in columns and in most variables. You cannot set text justification for constants, however. In Report Design Aid, you can right align, center, or left align text.

Justification is relative to the frame of the object. For example, if you center text, the text is centered within the frame of the object, not centered on the page. The Batch Engine supports left and center alignment for all fonts and languages.

For Japanese languages, right alignment is fully supported for Japanese 7-, 8- and 9-point size MS Gothic fonts only. For Chinese and Korean fonts, right alignment is not supported.

Bar codes must be left-aligned in Report Design Aid.

Prerequisites

Before you begin justifying text, ensure that you:

- Create a batch application object.
- Complete the design of the report template.

Changing Text Justification for Variables

Open a report template in Report Design Aid.

1. Double-click the field for which you want to define justification.
2. On the applicable properties form, select the Display tab.
3. Select the appropriate justification, or click Defaults to return the object to the default justification style, and then click OK.

Changing Numerical Formatting

This section provides an overview of numerical formatting, lists the prerequisites, and discusses how to change the appearance of numeric fields.

Understanding Numerical Formatting

In Report Design Aid, you can control the number of digits to display after a decimal for a numeric field. Through edit codes, you can control whether to use commas, how to display positive and negative values, and how to display monetary values.

Note. You can also control the display of positive and negative numbers using processing options. Processing options override the settings entered in Report Design Aid.

Prerequisites

Before you begin changing numerical formatting, ensure that you:

- Create a batch application object.
- Complete the design of the report template.
- Include a numeric field.

Changing the Appearance of Numeric Fields

Open a report template that contains numeric fields in Report Design Aid.

1. Double-click the numeric field for which you want to change the formatting.
2. On the applicable properties form, select the Display tab.
3. Enter the number of decimal places to display in the Display Decimals field or click the arrow buttons to increase or decrease the number of decimal places.

Note. Setting display decimals is ineffective if currency has been enabled for the system.

4. If available, select the Edit Code field and use the visual assist to select a formatting style.
5. Click Defaults to return the object to its default style and then click OK.

Associating Lines and Boxes

This section provides an overview of lines and boxes, lists the prerequisites, and discusses how to add lines and boxes to fields.

Understanding Lines and Boxes

You can apply a rectangle or other line styles to most fields in a report section. Single and double lines are available to position either above or below the fields. You cannot enclose columns or entire report sections in boxes.

These available line options are the same for both column headings and variables:

- No Lines

This option is selected by default for variable fields. You must clear this option to activate the remaining options.

- Single Rectangle
- Single Line Over
- Double Line Over
- Single Line Under

This option is selected by default for column headings.

Prerequisites

Before you begin associating lines and boxes, ensure that you:

- Create a batch application object.
- Complete the design of the report template.

Adding Lines and Boxes to Fields

Open a report template in Report Design Aid.

1. Double-click the field you for which you want to add lines or boxes.
2. On the applicable Properties form, select the Style tab.
3. Clear the No Lines option to activate the other options on the form.
4. To enclose the field in a box, select Single Rectangle and then click OK.

Otherwise, select the line style you desire. The sample box on the form illustrates the selection.

Reprinting the Last Line of a Page on the Succeeding Page

This section lists the prerequisites and discusses how to print the last line of a page as the first line on the succeeding page.

Prerequisites

Before you begin printing the last line of a page as the first line of the succeeding page, ensure that you:

- Create a batch application object.
- Complete the design of the report template using a group or columnar section.

Printing the Last Line of a Page as the First Line on the Succeeding Page

Open a columnar or group section report template in Report Design Aid.

1. Double-click the group or columnar section that you want to affect.
2. On the applicable Section form, select the Advanced tab.
3. Select Reprint At Page Break and click OK.

Inserting Page Breaks

This section provides an overview of manual page breaks, lists the prerequisites, and discusses how to insert manual page breaks.

Understanding Manual Page Breaks

You can insert manual page breaks (that is, cause the report to stop printing on the current page and start printing on the next page) after report headers, detail sections and level break footers. You cannot use the page break feature for all three section types in the same report. You can use the page breaks feature in the report header and level break footer simultaneously.

Prerequisites

Before you begin inserting manual page breaks, ensure that you:

- Create a batch application object.
- Complete the design of the report template.

Inserting Manual Page Breaks

Open a report template in Report Design Aid.

1. Double-click the report header, detail section or level break footer section that you want to affect.
2. On the appropriate Properties form, select the Advanced tab.

3. Select Page Break After and click OK.

CHAPTER 10

Including Attachments and Comments in Reports

This chapter provides an overview of attachments and comments and discusses how to add attachments and comments.

Understanding Attachments and Comments

You can include attachments and comments in reports and batch versions. Attachments are added to the report template or version. Comments are added to individual fields of the report or batch version. Both can be used to include detail that is important to you or another report designer.

Adding Attachments and Comments

This section provides overviews of attachments and comments, lists the prerequisites, and discusses how to:

- Add and delete attachments.
- Add, modify, and delete comments.

Understanding Attachments

Attachments are added to reports and batch versions using the Attachment tab in the Design workspace.

The Attachments workspace is split into two panes. The left pane is the icon pane, and the right pane is the viewer pane. These attachment types are available in the icon pane:

- Text
- Image
- OLE

These files conform to the object linking and embedding (OLE) standard.

- Shortcut
- URL/File

You can use attachments to provide generic help text for reports that need to be company-specific or to document changes that you made to a report. You cannot print attachments with a report; you can only view the attachments in Report Design. Attachments are saved as media objects. For example, attachments are beneficial in explaining that the format of a report uses a subsection join to present all of the required information.

Understanding Comments

Comments are text only and are added to an individual report object. Comments can be attached to any field type. In group sections, you can attach comments to the constant or the variable portion of a field; you must select one or the other, not the constant and variable together. For example, comments are beneficial in explaining the logic used to populate fields that are not fetched the database.

A field that has a comment attached displays a visual cue. This field presents options to:

- Show Comment

If the comment is visible, this option will display *Hide Comment*.

- Edit Comment
- Delete Comment

Prerequisites

Before you begin adding attachments and comments, ensure that you:

- Create a batch application object.
- Complete the design of the report template.

Adding and Deleting Attachments

Open a report template in Report Design Aid.

1. Select the Attachments tab.
2. To add text, type the desired text in the viewer pane.
You can use the formatting tools at the top of the viewer pane to format the text of the attachment.
3. To add an object that is not text, right-click in the icon pane.
4. From the pop-up menu, select New, and then select an appropriate option.
5. To remove an object, right-click the object's icon in the icon pane and select Delete from the pop-up menu.

Adding, Modifying, and Deleting Comments

Open a report template in Report Design Aid.

1. Right-click the object to which you want to attach the comment, and select Insert Comment.
2. Enter the text, and then click anywhere in the design workspace to close the text window.

A red triangle appears in the upper-right corner of the object to indicate that a comment is attached to this object.

3. To modify, delete, show, or hide the comment, right-click the object and select the appropriate option from the pop-up menu.

CHAPTER 11

Inserting Header and Footer Sections

This chapter provides an overview of headers and footers and discusses how to create headers and footers.

Understanding Headers and Footers

Report header and footer sections and page header and footer sections are special-purpose sections that contain constant, variable, and runtime fields. Typical information in these headers and footers is the company name, the name of the report, the date on which the report is printed, and page numbers. Because header and footer sections typically provide commentary or system-related information rather than data from tables, they are not associated with business views.

When you create a new report template, you are presented with header and footer section options on the Welcome form of the Report Director. You can also add these sections to report templates from the Report Design Aid menu.

When you add header and footer sections to a report template, they are added to the bottom of the report view in Report Design Aid. However, when you print the report, the sections print in the appropriate order. The properties and format of report headers and footers, and page headers and footers are similar to group sections.

Creating Headers and Footers

This section provides overviews of header and footers, lists the prerequisites, and discusses how to:

- Create report headers.
- Create page headers.
- Create page footers.
- Create report footers.

Understanding Headers

Report Design Aid presents you with two options for including headers in reports:

- Report headers

A report header appears once at the beginning of the report, before the page header. You can only create one report header in a report template. Use the report header to include information regarding the entire report.

- Page headers.

A page header appears on every page of the report. The page header is typically populated automatically by the system. The page header is populated using runtime fields that capture the company name, report name and description, date, time, and page number. You can only create one page header in a report template.

When you add a page header to an existing report template, you can select to either create an empty page header section or to allow the system to populate the section automatically.

Understanding Footers

Report Design Aid presents you with two options for including footers in reports:

- Page Footers.

A page footer appears on every page of the report. You typically populate the page footer using constants. You can only create one page footer in a report template. A page footer might include a description of what is included in the report.

- Report Footers.

A report footer appears once at the end of the report, on its own page, after the last record is printed. You can only create one report footer in a report template. A report footer might include a legal disclaimer or some other text to conclude the report.

Prerequisites

Before you begin creating headers and footers, ensure that you:

- Create a batch application object.
- Complete the design of the report template without including header and footer sections.

Creating Report Headers

Open a report template in Report Design Aid.

1. From the Section menu, select Create, Headers and Footers, Report Header.

An icon is added to the Report Tree window and an empty section is added to the Report View.

2. Click the report header.
3. Select fields from the Insert menu and drag them to the report header section where you want them to appear.

You can add any type of data field except business view columns.

4. From the Section menu, select Section Properties or double-click the Report Header section to open the Report Header form.
5. Define section properties as appropriate and click OK.

Creating Page Headers

Open a report template in Report Design Aid.

1. From the Section menu, select Create, Headers and Footers, Page Header.
2. Select Section Only to create an empty page header that you can populate manually.

You can also select Auto Create to allow the system to automatically populate the page header section.

3. Click the page header.
4. Select fields from the Insert menu and drag them to the page header section where you want them to appear.
You can add any type of data field except business view columns.
5. From the Section menu, select Section Properties or double-click the Page Header section to open the Page Header form.

Note. You can add extra white space between the page header and the subsequent report section by placing a blank constant field below the header text.

6. Define section properties as appropriate and click OK.

Creating Page Footers

Open a report template in Report Design Aid.

1. From the Section menu, select Create, Headers and Footers, Page Footer.
An icon is added to the Report Tree window and an empty section is added to the Report View.
2. Click the page footer.
3. Select fields from the Insert menu and drag them to the page footer section where you want them to appear.
You can add any type of data field except business view columns.
4. From the Section menu, select Section Properties or double-click the Page Footer section to open the Page Footer form.
5. Define section properties as appropriate and click OK.

Note. You can add extra white space between the previous report section and the page footer by placing a blank constant field above the footer text.

Creating Report Footers

Open a report template in Report Design Aid.

1. From the Section menu, select Create, Headers and Footers, Report Footer.
An icon is added to the Report Tree window and an empty section is added to the Report View.
2. Click the report footer.
3. Select fields from the Insert menu and drag them to the report footer section where you want them to appear.
You can add any type of data field except business view columns.
4. From the Section menu, select Section Properties or double-click the Report Footer section to open the Report Footer form.
5. Define section properties as appropriate and click OK.

CHAPTER 12

Working with Level Break Sections

This chapter provides an overview of level break header and footer sections and discusses how to create level break sections.

Understanding Level Break Header and Footer Sections

In a report, a set of records that shares the same value for a specific field is said to be in the same *level*. For example, in a report that is sorted by search type, all of the records with the same search type are in the same level. When the value in the search type field changes, it is referred to in Report Design Aid as a *level break*.

Level breaks are useful for adding special processing. Two section types make adding processing to level breaks easy: *level break header* and *level break footer* sections.

Level break headers and footers are always associated with a detail section. They do not have business views attached but rather share a business view with the detail section with which it is associated. Therefore, all fields from the business view attached to the detail section are available in the level break sections.

Level break sections organize records into smaller, more manageable units. You can define any data field as a level break field. When the system processes the report, the level break triggers an event, such as the printing of a heading or the calculation of totals. You can also define the level break to perform a page break. For example, you can define Company as a level break field and a new page begins each time the value in the Company field changes.

When you create a level break section you are presented with these options for selecting the level break field:

- All columns
Displays a list of all available fields in the business view attached to the detail section you selected.
- Only existing sort columns
Displays the fields that you selected as data sequencing fields when you created the detail section.

After you create a level break section, you can modify its properties.

You can define level break header and level break footer sections as conditional. Through the use of processing options you can prompt the user to indicate whether they want to print the level break section in the report. For example, from Event Rules on the level break section, you call the Hide Section system function to hide the level break section unless selected by the user. Then, in the Initialize Section event, add event rules for a processing option that shows or hides the section, depending on your preference.

In Report Design, you can:

- Add level break headers.
- Associate descriptions.

- Add level break footers.
- Insert descriptions for aggregates.

See Also

[Chapter 28, “Understanding Report Processing,” Level Break Processing, page 211](#)

Creating Level Break Sections

This section provides overviews of level break headers and level break footers, lists the prerequisites, and discusses how to:

- Create level break headers.
- Hide the level break field in the detail section.
- Associate descriptions.
- Create level break footers.
- Insert descriptions into level break footers.
- Add level breaks to detail sections.

Understanding Level Break Headers

Level break header sections present descriptive headings that appear at the beginning of each level of records. For example, if you define search type as a level break field, a level break header introduces each group of search types. The first level break header instance might indicate that the subsequent records are related to search type C, or Customers. When the value of the search type field changes, the next level break header instance might indicate that the subsequent records are related to search type E, or Employees.

Because of their free-form layout, group sections are used for level break headers. You can define more than one level break header in a report template. For example, you can level break on search type and on business unit to further organize the data.

When you create a new report template, you probably already know if you want to include a level break header to organize the data. In this case, you typically do not include the level break field in the detail section. You define the level break field to display in the level break header section.

If you are inserting a level break header into an existing report, you might have the same data field in both the level break header section and the detail section. To avoid having the level break field print in both sections, you can:

- Remove the level break field from the section layout *prior* to creating the level break header.
- Hide the level break field in the detail section.

In the report view, the level break header appears within the detail section. The name of the level break header usually begins with *On* and indicates the level break field on which it was created. In the report tree, the level break header appears one branch below the section to which it is attached.

Associated Descriptions

You might want to add a description to the level break header to make it more meaningful to the report reader. When you associate a description with the level break field, the system displays the description that relates to the current level break header record being read. For example, Search Type E has a description of Employees associated with it. When the level break header is processed, this description prints along with the search type value in the level break header.

You can also associate descriptions within detail sections. If a detail section includes the Search Type field, you can associate a description with this field to include the description of the value in the detail section.

Not every data field has a description associated with it. The data item must have a business function trigger attached to it. In data dictionary, you can review the Edit Rule tab of a data item to determine if it includes a business function trigger. Some examples of data items with business function triggers are:

- Address Number
- Business Unit
- Company
- Search Type

Understanding Level Break Footers

Level break footer sections present information that appears after the level break. Fields within the level break footer are used for displaying aggregates. If you are using the level break footer to accumulate totals, then the values in those fields are calculated dynamically at runtime.

Due to their free-form layout, group sections are typically used for level break footers. You can define more than one level break footer in a report template. For example, you can level break on search type and on business unit to provide more detailed aggregates.

An *aggregate* is an object that holds the results of a calculation using the values in other fields. For example, the calculation could be a sum of values, an average of values, or a count of how many records exist. After adding a level break footer and assigning the totaling conditions to the aggregate object within the level break footer, you might need to change the totaling conditions to meet other reporting requirements.

When defining aggregates, you first determine the appropriate available operator:

Operator	Description
Average of	Reports the average of all the amounts in the column.
Count of	Reports how many entries or records are in the column.
Maximum of	Report the maximum amount for a record in the column.
Minimum of	Reports the minimum amount for a record in the column.
Total of	Reports the sum of the values in this column.

The operator that you select determines the available selection of operands. Operands are columns included in the report layout.

In the report view, the level break footer appears within the detail section. The name of the level break footer usually begins with *On* and indicates the level break field on which it was created. In the report tree, the level break footer appears one branch below the section to which it is attached.

Aggregate Descriptions

You can use a level break footer in an employee listing report section to produce salary totals by department. You can add a description in the level break footer to make the aggregates more meaningful to the report readers. You can use a constant field as a generic label, such as Totals by Business Unit. You can also use a data item to label the aggregate to include more detail, such as Totals for Business Unit 10. The data item requires an assignment added to event rules to populate the data item variable.

See [Chapter 17, “Working with Event Rules,” page 139](#).

Level break footers are presented after a level break has occurred in the preceding level. When the system encounters a different value in the level break field, the system calculates and presents the information in the level break footer section. Therefore, you must consider this timing when defining assignments in the event rules of level break footers. The subsequent level break value is already in memory when the level break footer is printed for the current level break value. If you use business view columns in the assignment, the system fetches the subsequent value. Therefore, you want to use previous business view columns in assignments on the level break footer. For example, you use the search type data item in the level break footer of a report to label the aggregates. The first group of records in the report is for search type E and the second group of records is for search type C. You create an assignment to assign a value to the search type data item. If you use the business view column for search type in the assignment, the search type of C appears in the level break footer for the first group of records because the C search type is currently in memory. If you use the previous business view column in the assignment, the search type of E appears in the level break footer for the first group of records.

See Also

[Chapter 28, “Understanding Report Processing,” Level Break Processing, page 211](#)

Prerequisites

Before you begin creating level break sections, ensure that you:

- Create a batch application object.
- Complete the design of the report template.

Creating Level Break Headers

Open a report template in Report Design Aid.

1. Click the detail section to which you want to attach a level break header.
2. From the Section menu, select Create, Level Break Header.
3. On the Level Break form, under the Show heading, select one of these options:
 - All columns
 - Only existing sort columns
4. Select a business view field to designate it as a level break field.
5. Select the Display selected column as part of this section option.
6. Click Finish.

You can modify the level break header, and even select a different field as the level break field, from the Level Break tab on the section properties of the level break header.

Hiding the Level Break Field in the Detail Section

Open a report template in Report Design Aid.

1. Select the detail section containing the level break field that you want to hide.
2. Double-click the variable or column variable portion of the level break field.
3. On the appropriate properties form, select the Advanced tab.
4. Clear the Visible option.

If you need to make this field visible again, access the Section Properties form, select the Fields tab and, in the Visible column, double-click the icon with the *No* sign. Also, in the report tree, you can double-click the object and select the Visible option.

Associating Descriptions

Open a report template with a level break header in Report Design Aid.

1. In the level break header, click the variable portion of the level break header field.
2. From the Edit menu, select Associate, Description.

The cursor changes, enabling you to add the description to the level break header.

3. Position the Description field to the right of the level break header field.
4. To change the properties of this field, double-click the field.
5. On the Associated Description Properties form, change options as required.

Creating Level Break Footers

Open a report template in Report Design Aid.

1. Click the detail section to which you want to attach a level break footer.
2. From the Section menu, select Create, Level Break Footer.
3. On the Level Break Footer form, select the Group Section option, and click OK.

The Columnar Section option is used when you do not want the detail section to print. The aggregate fields appear in a row beneath the column headings.

4. On the Level Break form, under the Show heading, select one of these options:
 - All columns
 - Only existing sort columns
5. Select a business view field to designate it as a level break field and click Next.
6. On the Aggregations form, select an appropriate Operator and Operand.
7. Click one of these options under the Item display style heading:
 - Single overline
 - Double underline

8. Click the Reprint section at page break option, if necessary, and click Finish.
This option reprints the last line from the previous page as the first line of the next page.
9. Click the level break footer and select Add Aggregates from the Section menu to define additional aggregates.

Note. In Report Design, move the cursor over the aggregate object; the field in the detail section upon which the aggregate's calculations are based changes color.

Inserting Descriptions into Level Break Footers

Open a report template with a level break footer in Report Design Aid.

1. Click the level break footer section.
2. From the Insert menu, select Constant Field.
3. Position the constant field in the level break footer where you want the description to appear.
4. Double-click the constant field.
5. On the Constant Properties form, change the Variable Name field to a meaningful description.

Adding Level Breaks to Detail Sections

This example illustrates adding a level break header and footer to an existing report.

Note. For this example, modify the example report described in Creating a Columnar Report. See that task for information about creating the base report. The report below uses the business unit field to create a level break header and a level break footer.

Even though an aggregate function is performed on one column (totaling the salaries), that field is not designated as a level break. Business unit is the level break for the footer because the report totals all of the salaries for each business unit.

Open the Creating a Columnar Report example in Report Design Aid.

1. From the Section menu, select Create, Level Break Header.
2. On the Level Break form, select *Business Unit - Home* as the level break field.
3. Select Display selected column as part of this section to display the data field in the level break header section, and click Finish.

Report Design displays the header section within the columnar section.

4. To include the business unit description, click the variable of the Business Unit - Home field and select Associate Description from the Edit menu.
5. Position the description field to the right of the Business Unit - Home field.
6. Double-click the Home Business Unit variable in the columnar section and on the Advanced tab, clear the Visible option and then click OK.

This hides the business unit field in the columnar section.

7. Click the columnar section and select Create Level Break Footer from the Section menu.
8. On the Level Break Footer form, select Group Section and click OK.
9. On the Level Break form, select *Business Unit - Home* and click Next.

10. To total the annual salaries for each business unit, set the Operator to *Total of* and set the Operand to Rate - Salary, Annual.
11. Select a single overline and click Finish.

Report Design Aid displays the footer section within the columnar section.

Note. The order of the header and footer sections within the columnar section have no bearing on how they appear in the printed report.

12. Click the Preview tab to view the report.

CHAPTER 13

Working with Smart Fields

This chapter provides an overview of smart fields and discusses how to use smart fields in reports.

Understanding Smart Fields

Smart fields are data dictionary items with one or more business functions attached. Smart fields enable you to include complex, reusable calculations in detail sections of a report. From Event Rules Design, you can edit the event rules that are generated by smart fields. Smart fields are used in Report Design Aid and are not currently available for use in any other PeopleSoft EnterpriseOne tool.

Smart fields are organized in smart field templates. Each smart field template is associated with a particular business view. All smart fields in a template use the same business view columns for data selection. Because smart fields are grouped in smart field templates, you must attach a smart field template to a detail section before smart fields are available for the section layout.

If you attach a smart field template to a section and the section uses a different business view from the one required by the smart field template, the system provides you with the opportunity to change the business view.

Important! If the business view that is attached to the section is not the same as the business view that is required by the smart field template, then the smart fields that you add to the section might not function correctly.

Using Smart Fields in Reports

This section provides an overview of smart field columns, lists the prerequisites, and discusses how to:

- Select smart field templates in existing reports.
- Insert smart fields.
- Select and delete smart fields.

Understanding Smart Field Columns

Smart fields are data dictionary items defined as glossary group K and are designed to retrieve and manipulate specific PeopleSoft EnterpriseOne table data. For example, you can add the FINRPTAB - Account Balance smart field, which is located in the S09001 - Financial Reporting smart field template, to a report. This smart field creates a column that calculates the account balance as of the specified financial period and fiscal year.

Smart fields mask the creation of event rules that call business functions or named event rules. Business functions are programs that use data structures to perform functions including, but not limited to:

- Requesting specific data from PeopleSoft EnterpriseOne tables.
- Returning data to the established parameters in the data structure.
- Performing some type of calculation or other manipulation on the data.
- Returning the desired information, such as column headings and complex calculations, to the report.

A named event rule is a business function that is created by using the event rules scripting language. This scripting language is platform independent and stored in a database as a PeopleSoft EnterpriseOne object. When you build the named event rule business function, the system generates C code and creates a .c and .h file.

Because the smart field templates have already been created for you, you can include complex logic in the report without having to do any programming.

Smart field templates are attached to Director templates. When you create a new report template, the Director templates are available in the Application Reports drop-down list on the Welcome form of the Report Director.

When you insert a smart field into an existing report, the smart field director guides you through a series of forms to set up the smart field parameters and values. The option to insert smart field columns is unavailable for input if no smart field template is associated with the report section.

When you select a smart field, the event to which the associated logic is written is predefined. The section type in which the smart field can be used is also predefined. If a Director Template does not exist for the section type in which you are working, the smart field option is not available from the Create menu.

See Also

[Chapter 32, “Creating Smart Fields,” page 247](#)

Prerequisites

Before you begin using smart fields in reports, ensure that you:

- Create a batch application object.
- Complete the design of the report template.

Selecting Smart Field Templates in Existing Reports

Open a report template in Report Design Aid.

1. From the View menu, select User Options.
2. On the User Options form, select the Allow Smart Field Template Selection option and click OK.
3. On the PeopleSoft Report Design Aid form, click the detail section to which you want to add smart fields.
4. From the Section menu, select Section Properties.
5. On the section properties form, select the General tab.
6. Select a smart field template from the Smart Field Template field and click OK.

Only smart fields that are defined for the section type you selected appear.

Note. If the business view that is attached to the section you selected is *not* the same as the business view that is required by the smart field template, then the smart fields that you add to the section will not function correctly.

Inserting Smart Fields

Open a report template with a smart field template attached in Report Design Aid.

1. Select Smart Field from the Insert menu.
2. On the Create New Smart Field form, select a smart field.
The smart field director prompts you to set up the smart field.

Selecting and Deleting Smart Fields

Open a report template that includes a smart field in Report Design Aid.

1. Click the section that includes the smart field that you want to change.
2. From the Column menu, select Create and then select Smart Field.
The Create New Smart Field form appears with a list of smart fields that are included in the template that is associated with the section.
3. Select the smart field that you want to create, and click Next.
4. To move the column, drag it to the new location.
5. To delete the column, click it and select Delete from the Edit menu.

CHAPTER 14

Setting Up Business Views as Favorites

This chapter provides an overview of Business View Favorites and discusses how to set up Business View Favorites.

Understanding Business View Favorites

Business View Favorites organize your most frequently used business views. During the report creation process, the Report Director enables you to quickly access a favorite business view to attach to the report section.

Create Business View Favorites using the Favorites program, which you can access from the Advanced Report Setup menu (GH9141)

Business View Favorites enable you to logically organize the business views that you designate as favorites. You can attach notes to Business View Favorites to include information about the business view. For example, you might include text that describes when to use a particular business view and the name of the business view.

Business View Favorites can be set up for individual users. You can translate the notes, as well as the Business View Favorites descriptions, to different languages.

Setting Up Business View Favorites

This section provides an overview of favorites folders and subfolders and discusses how to:

- Add favorites folders.
- Add favorites subfolders.
- Add business views to favorites folders and subfolders.
- Add notes for favorites, folders, and subfolders.
- Modify and delete notes.
- Set up favorites description translations.
- View favorites with alternative descriptions.

Understanding Favorites Folders and Subfolders

Business View Favorites are organized in a tree structure using folders and subfolders. You can use these folders in any way that enables you to easily locate frequently used business views. For example, you can name the business view folder using your name. Then you can create subfolders under the folder for each category of business view that you use often.

You can add notes for folders and subfolders if you need to provide information about the business views contained within. You can also use category codes to further organize your Business View Favorites.

Forms Used to Create Business View Favorites

Form Name	FormID	Navigation	Usage
Work With Favorites	W91100A	EnterpriseOne Life Cycle Tools, Report Management (GH9111), Advanced Report Setup, Favorites	Add, modify, and delete Business View Favorites folders and subfolders.
Object Folder Revisions	W91100B	Click Add on the Work With Favorites form.	Enter the folder name, parent folder name (if appropriate), description, owner, and descriptive category codes.
Favorites Revisions	W91100C	Select a Business View Favorites folder or subfolder on the Work With Favorites form and select Revise Favorites from the Row menu.	Add business views to the Business View Favorites folders and subfolders.
Notes Revisions	W91100E	Select a Business View Favorites folder, subfolder, or business view on the Work With Favorites form and Select Note Revisions from the Row menu.	Add, modify, and delete information regarding the Business View Favorites folders, subfolders, and business views in the workspace.
Work With Favorites Description Translation	W91100F	EnterpriseOne Life Cycle Tools, Report Management (GH9111), Advanced Report Setup, Favorites Description Translation	Locate an alternate language to display Business View Favorites.
Revise Favorites Description Translation	W91100G	Select a language from the Work With Favorites Description Translation form.	Locate Business View Favorites and enter an alternative description in the selected language.

Adding Favorites Folders

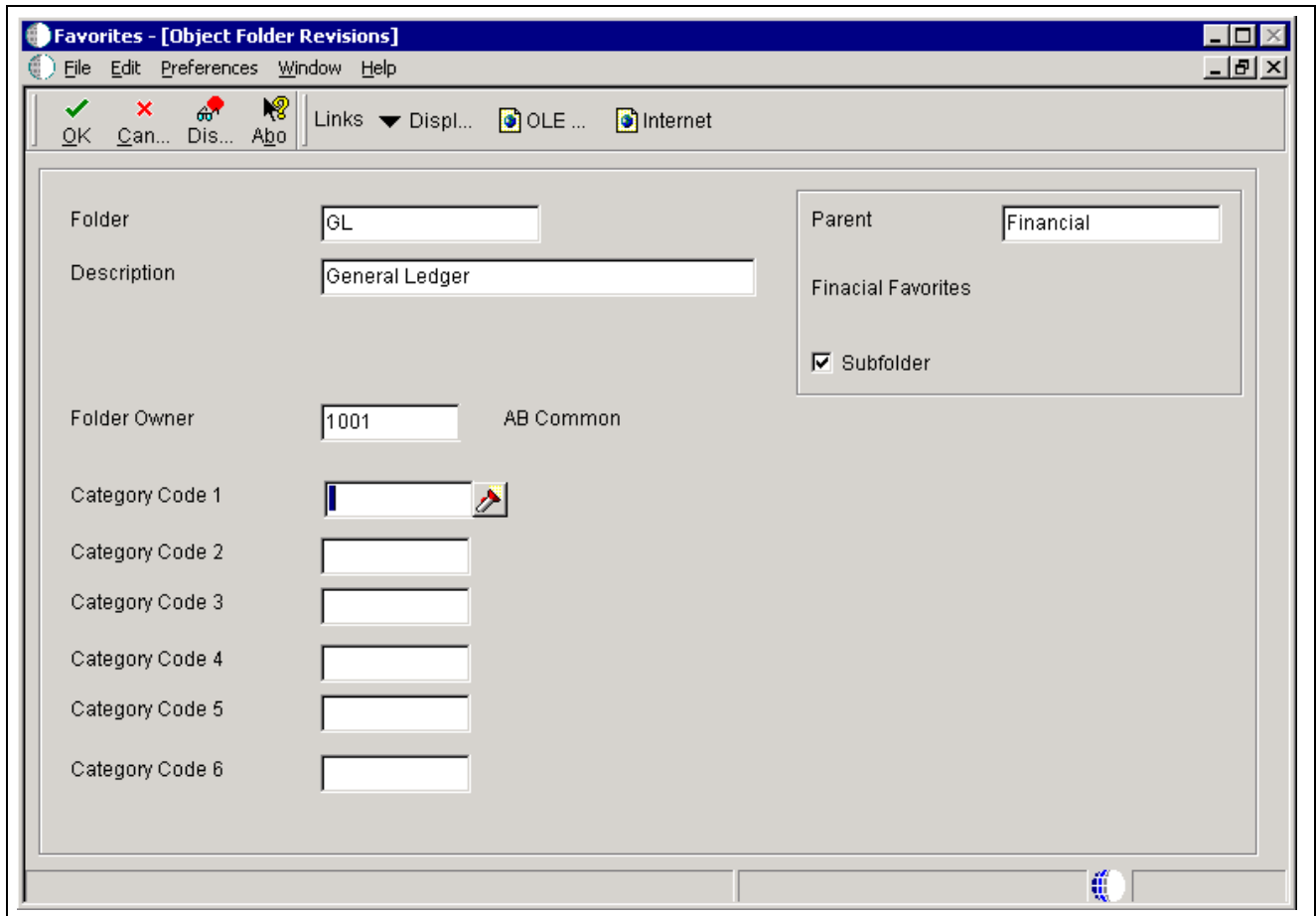
Access the Object Folder Revisions form.

Object Folder Revisions form

- Folder** The name of the folder.
- Description** A meaningful description of the folder. The description appears on the Work With Favorites form and in Report Design Aid.
- Folder Owner** The address number of the person for whom the Business View Favorites are defined.
- Category Codes 1–6** User defined values that are used to further categorize the folder.

Adding Favorites Subfolders

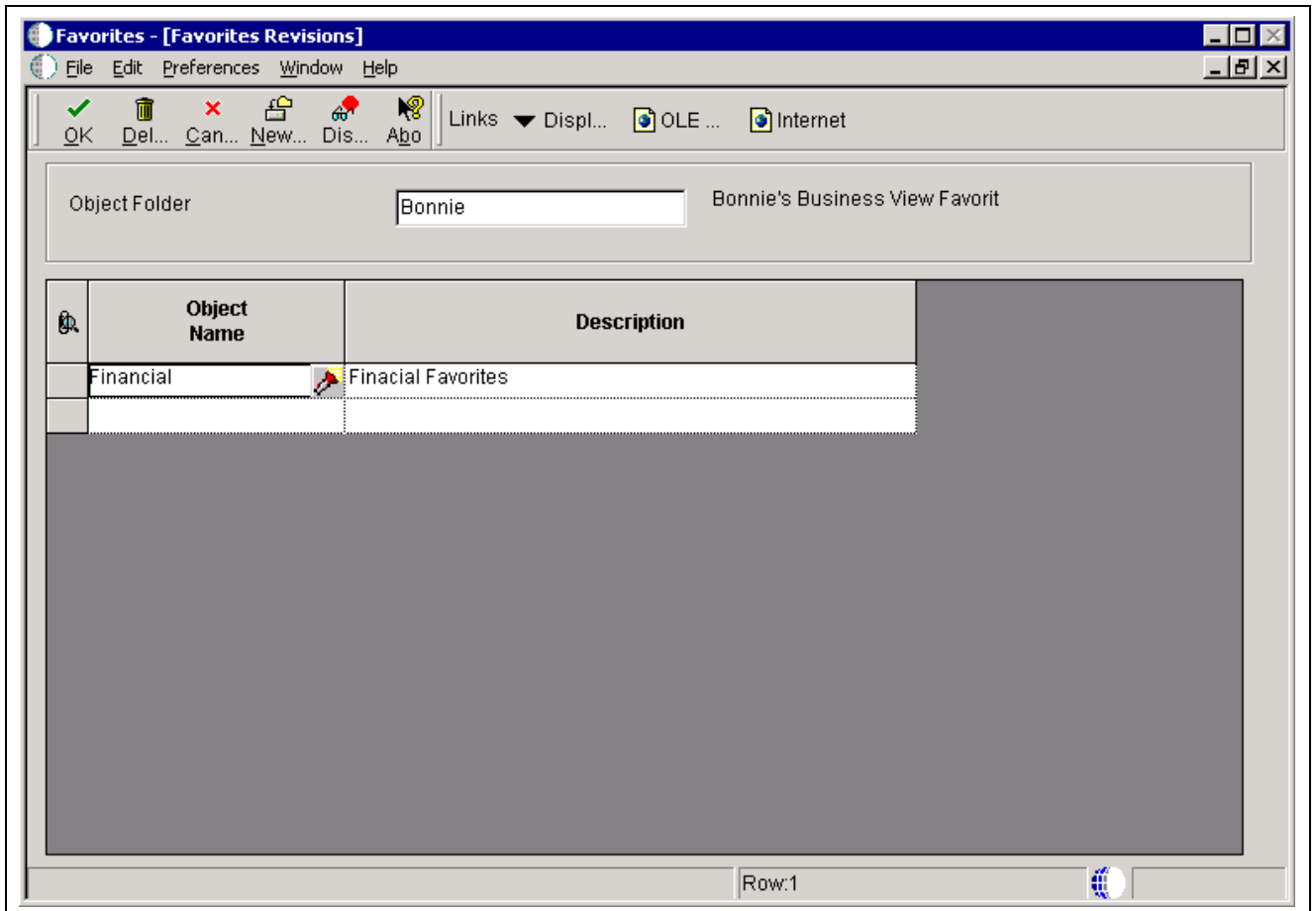
Click a Business View Favorites folder and select Add Subfolders from the Row menu.



Object Folder Revisions form

Adding Business Views to Favorites Folders and Subfolders

Access the Favorites Revision form.



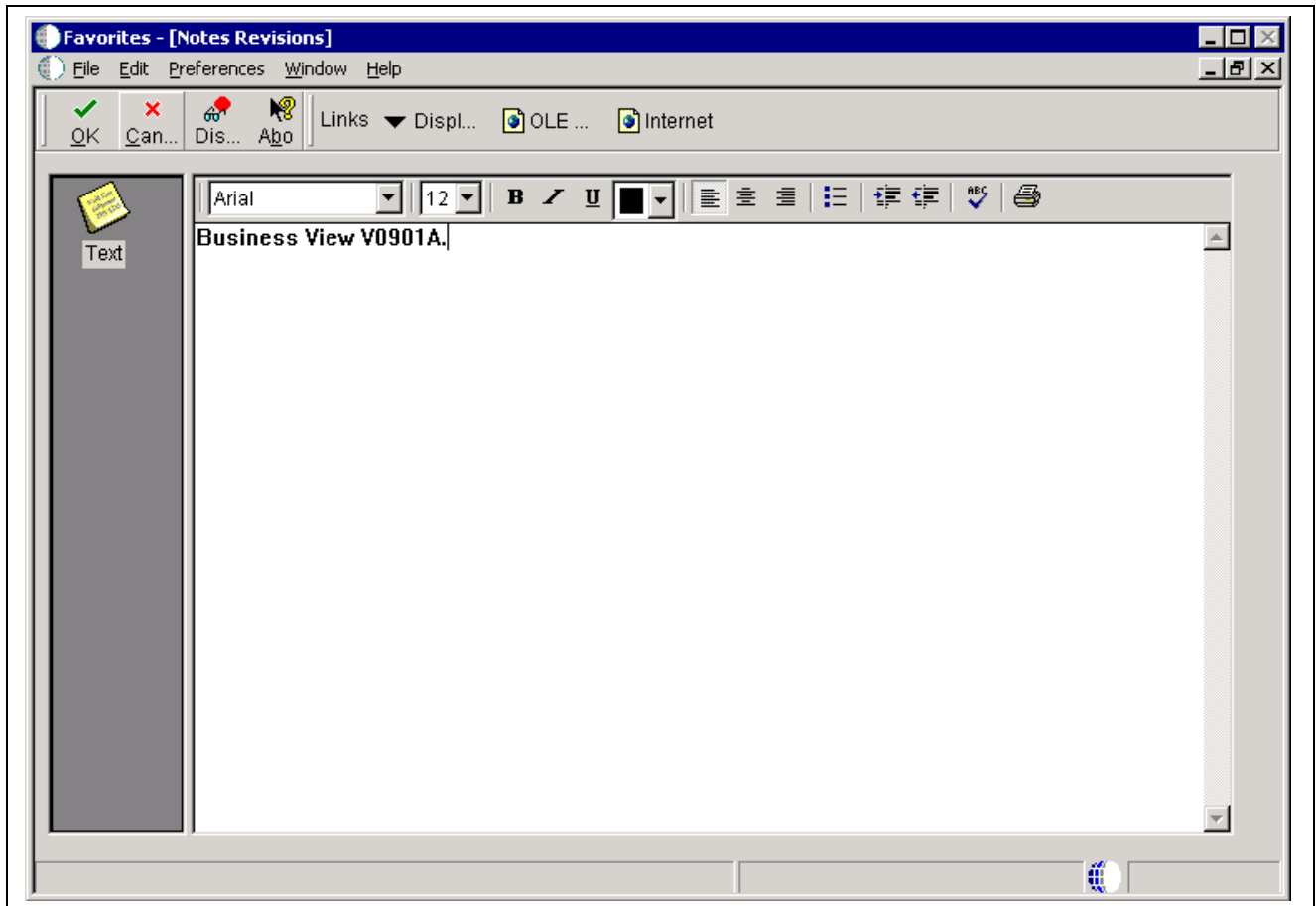
Favorites Revisions form

Object Name The name of the business view object.

Description The description of the business view. The description appears on the Work With Favorites form and in Report Design Aid. The system populates this field when you tab out of the Object Name field.

Adding Notes for Favorites, Folders, and Subfolders

Access the Notes Revision form



Notes Revisions form

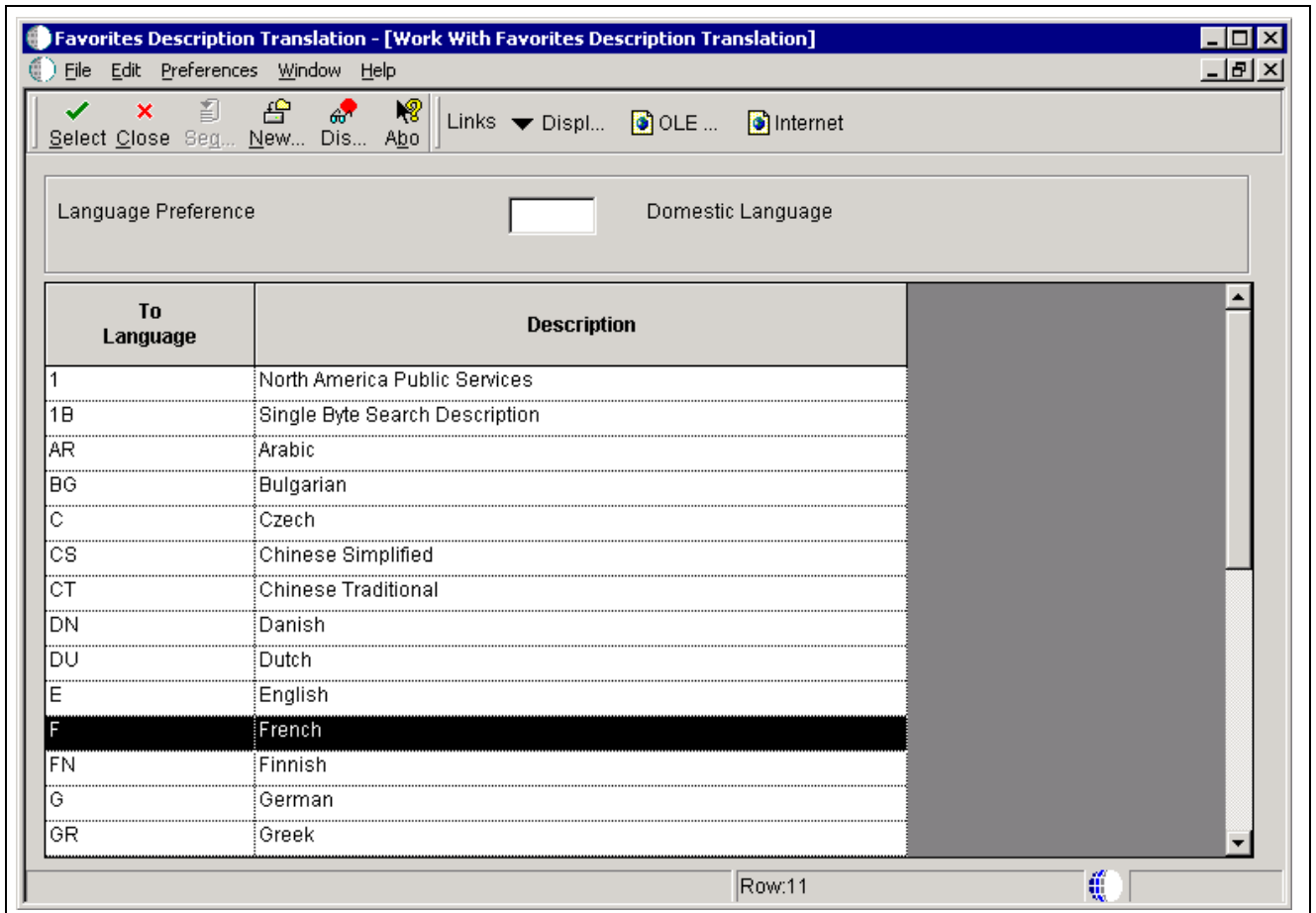
Modifying and Deleting Notes

Access the Notes Revision form.

1. Modify text in the workspace, and click OK.
2. Delete text in the workspace, and click OK.

Setting Up Favorites Description Translations

Access the Work With Favorites Description Translation form.



Work With Favorites Description Translation form

Language Preference

The language in which the Business View Favorites are written. This is typically the domestic language defined for the system.

To Language

The alternate language in which you want the business favorite to be written.

Favorite	Description	Alternative Description
V0901A	Account Master Browse	
V0901E	Trial Balance	

Revise Favorites Description Translation form

Skip To Favorite The name of the Business View Favorites folder, subfolder, or business view for which you want to create an alternate description.

Alternate Description The description of the Business View Favorites folder, subfolder, or business view as it should appear in the selected language.

Viewing Favorites with Alternative Descriptions

Access the Work With Favorites form.

1. Enter the selected language in the Language field in the upper right-hand side of the form.
You can also use the visual assist to search and select a language.
2. Click Find.

If an alternative description exists for Business View Favorites folders, subfolders, and business views in the specified language, they appear in that language. All other Business View Favorites folders, subfolders, and business views display in the domestic language. The notes are blank to enable you to add notes in the alternate language.

PART 3

Advanced Report Enhancements

Chapter 15
Understanding Advanced Report Enhancements

Chapter 16
Joining Detail Sections

Chapter 17
Working with Event Rules

Chapter 18
Including Text Attachments in Reports

Chapter 19
Using Date Titles in Financial Reports

Chapter 20
Working with the Drill Down Feature

Chapter 21
Setting Up Processing Option Templates

Chapter 22
Working with Database Output

Chapter 23

Working with Subsystem Jobs

Chapter 24

Creating Report Director Templates

CHAPTER 15

Understanding Advanced Report Enhancements

This chapter discusses advanced report enhancements.

Advanced Report Enhancements

In addition to the basic functionality of Report Design Aid, you can also use advanced features to create reports with greater depth of information and functions. This table lists the available advanced features:

Feature	Description
Subsection Joins	A method of joining two detail sections of a report, each with a different business view attached.
Event Rules	Logic that enables you to perform operations such as: Processing conditional logic. Populating fields using assignments. Performing calculations and complex expressions. Calling existing business functions or system functions. Fetching and updating data in the database.
Date Titles	Used most often in financial reports. A date title added to the page header makes the report more meaningful. PeopleSoft EnterpriseOne includes commonly used date titles. The date title business function enables you to select the type of date title you want to display on the report.
Drill Down	Creates a link to an interactive application. When you view a report using Adobe Acrobat Reader, you can click a value in the report viewer that is fetched from the database to directly access the detail in the associated application.
Processing Option Templates	Controls how the system processes the data for a report or other batch application. The processing option template is attached to the report template; however, different processing option values can be specified for different versions of the report.

Feature	Description
Director Templates	Used by the Report Director to guide you through the creation of report templates. These templates, which are included with PeopleSoft EnterpriseOne, contain default criteria. You can modify existing Director templates and create custom templates.
Text Attachments	Added to records in PeopleSoft EnterpriseOne interactive applications by end users. You can design a report to include text attachments that exist for a record.

CHAPTER 16

Joining Detail Sections

This chapter provides an overview of subsection joins and discusses how to create subsection joins.

Understanding Subsection Joins

Subsection joins provide you with an alternative to creating a new business view when existing business views do not meet your business requirement. You can use subsection joins to join two detail sections that have different business views attached. This enables you to present additional data in the report using fields that are not included in a single business view.

The two sections are referred to as the *parent* section (generally accessing a master table) and the *child* section (generally accessing a secondary table). The parent section regulates the processing of the report. After each field in the parent section is processed, all of the corresponding records in the child section are processed.

Using Report Design Aid, you can:

- Create subsection joins.

There are two methods for creating subsection joins.

- Create the second detail section as a subsection join section.
- Join two existing detail sections that share common business view fields.

- Modify and sever subsection joins.

After creating a subsection join, some modification might be required. For example, you might need to change the fields on which the sections are joined. You can also sever the join between the two sections.

You can create a subsection join between two columnar sections, two group sections, or a columnar and a group section. The subsection join option is not available for tabular sections.

Subsection join reports take longer to process than a report using a joined table business view. For this reason, subsection joins are a great alternative to creating a custom business view when the report is not a frequently processed report or a report that processes a large amount of data.

Creating Subsection Joins

This section provides an overview of joins, lists the prerequisites, and discusses how to:

- Create subsection join sections.
- Modify and sever subsection joins.

- Join two existing detail sections.

Understanding the Join

The two business views used in a subsection join report must share common fields. You must join the two detail sections on at least one common field to establish a link between the two sections.

When selecting business view columns to use in the subsection join, consider which fields are required to ensure that the correct child records are associated with the correct parent records. This could require one field or multiple fields to be selected for the join.

If the records in the detail sections involved in the subsection join have a many-to-many relationship, you need to select the Join only on level breaks defined in the parent section option. This option processes the associated child records only after all of the records for the defined level breaks in the parent section have been processed. This action is critical when joining tables that have a many-to-many relationship such as a detail file that is joined to a transaction file.

For example, you can create a report to review accounts payable and general ledger detail. There is no business view that includes both accounts payable and general ledger information. In a report template, you can create one detail section using the A/P Detail Reports (V0411G) business view and another detail section using the G/L Transaction Detail Report (V0911G) business view. Because both of these business views include the Document Type and Document Number fields, you can establish the subsection join using these fields.

Prerequisites

Before you begin joining detail sections, ensure that you:

- Create a batch application object.
- Complete the design of the report template.

Creating Subsection Join Sections

Open a report template in Report Design Aid.

1. Click the columnar or group section to use as the parent section.
2. From the Section menu, select Create, Sub-Section Join, and select one of these options:
 - Group
 - Columnar
3. On the Business View Selection Option form, select one of these business view options and click Next:
 - I'd like help finding an appropriate business view.
 - I'll find a business view myself.
4. Select the required business view and click Next.
5. On the Section Layout form, select the business view columns to include in the child section, and click Next.
6. On the Sub Section Join form, verify that the Join to option under the Parent heading is selected and that the parent section name appears in the field.

These options are typically already defined by the system.

7. Select business view columns from the Child columns list that are common with the business view columns in the Parent columns and variables list.

8. Select the Join only at level breaks defined in the parent section option as necessary.
9. After you have completed entering columns in the child section to join with the parent section, click Finish..
The child section resides within the parent section and includes a chain-link icon, indicating that it is joined to the parent section.
10. If necessary, define data sequencing for the child section.
11. Modify the fields in the child section as necessary to enhance the appearance of the report.

Modifying and Severing Subsection Joins

Open a report template that includes a subsection join in Report Design Aid.

1. Double-click the child section, or from the Section menu, select Section Properties.
2. Select the Sub Section Join tab and modify options as necessary.
3. To sever the join, click the No Join option and click OK.
Both detail sections are now independent sections.

Joining Two Existing Detail Sections

Open a report template that includes a subsection join in Report Design Aid.

1. Click the detail section that you want to perform as the child section.
2. From the Section menu, select Sub-Section Join.
3. On the Define Sub-Section Join form, under the Parent heading, select the Join To option.
4. In the Join To field, select the parent section to which you want to join the child.
5. Select business view columns from the Child columns list that are common with the business view columns in the Parent columns and variables list.
6. Select the Join only at level breaks defined in the parent section option as necessary.
7. After you have completed entering columns in the child section to join with the parent section, click Finish.
The child section resides within the parent section and includes a chain-link icon, indicating that it is joined to the parent section.

CHAPTER 17

Working with Event Rules

This chapter provides an overview of events and discusses how to:

- Create event rules.
- Create and use text variables.
- Call system functions in event rules.
- Create event rule variables.
- Use the Column Inclusion versus the Do Section event.
- Create custom sections.
- Access BrowsER for report templates.

Understanding Events

As a report is processed, the system pauses at specific points to process attached logic. These points are called *events*. You can use these events to attach event rules. Event rules are logic statements that you create and attach to an event. Event rules process when an event, such as a page break, is encountered. Events are attached to report components, such as variables, constants, sections, and the report.

The event to which you attach event rules varies depending on the purpose of the event rule and the type of section in which the event occurs. For example, if you are adding event rules to columnar or group sections, you typically use the Do Section event. In tabular sections, you typically attach event rules to the Do Tabular Break, Do Balance Auditor, or Column Inclusion events. The smart fields that are included in a tabular section are automatically attached to the Column Inclusion event. If you are attaching event rules to a variable, you might use the Do Variable event.

Each event is triggered at different times during the processing of the report. You should become familiar with the process flow of events so you can determine on which event to attach event rules. If you attach event rules to the wrong event, the appropriate data might not be available to successfully process the event rule logic.

See Also

[Chapter 27, “Understanding Events,” page 195](#)

[Chapter 28, “Understanding Report Processing,” page 201](#)

Creating Event Rules

This section provides an overview of event rules, lists the prerequisites, and discusses how to:

- Create If/While statements.
- Create simple event rule assignments.
- Create assignments using the Expression Manager.

Understanding Event Rules

Event rules are created in the Event Rule Design form. You create event rules by selecting from available components.

Event rules can be written on any event. You must understand the order in which the events are processed to determine the correct event on which to place event rules.

If the event rules affect an individual field, you can place the event rules on one of that field's events or on one of the section events. Typically, events rules are placed on section events for more efficient performance.

You can create these types of event rule statements:

- If/Else/While Statements.

Enables you to define the criteria for which the logic should process. The first line of an If/While statement typically begins with the If operator. Subsequent lines begin with either an *And* or an *Or* operator. An else is used to link two options. For example, If Search Type is equal to E or Search Type is equal to C <do this> Else <do that>. You can embed multiple If statements in event rules and other statements inside of the if statement.

- Assignments and Expressions.

Enables you to assign a value to a field. For example, RV Business Unit = PC Business Unit. Also enables you to create expressions to populate fields.

- System Function Calls.

Enables you to use special functions provided by the system. Only system functions that are relevant to the report component and event selected are presented for your use.

- Business Function Calls.

Enables you to use logic provided by the system. Business functions are C functions that can be called from an event.

- Event Rules Variables.

Enables you to create variables that can be used inside event rules. These variables are typically used to store values to be used in event rule logic.

- Table I/O Calls.

Enables you to use special table input and output functions provided by the system to fetch and update data.

- Report Interconnects.

Enables you to call another report from event rules.

Fields available for use in event rules are represented by a two-character, alphabetical code. This code indicates the source of the field and determines how the field data is used at runtime. Depending on what fields you have included in the report section, these field types could be available:

Prefix Code	Description
BC	Columns included in the attached business view. These columns are populated with values from the database when a fetch is performed and are the values that are saved when you add or update.
PC	Previous business view column values. These columns are populated with the previous value for the selected business view field.
PO	Values that are passed from processing options.
PV	Previous report variables.
RC	Report constants. Includes column headings in columnar sections and the constant portion of fields in group sections.
RS	Report sections. These values might not be used when creating event rule assignments.
RV	Report variables. Includes column variables in columnar sections and the variable portion of fields in group sections.
SL	System values. These values are fetched by the system and include information such as user IDs, environment names, version names, and report names.
TV	Text variables that you create these values from the Section menu prior to creating the event rules.
VA	Event rule variables represent any variables that you define in event rules using data items. You assign values to these variables in event rules.

Expression Manager

The Expression Manager enables you to create expressions for use in event rules assignments. The Expression Manager provides a calculator for use in creating calculations as well as these functions:

- **Date Functions**
Enables you to easily calculate data such as, `days_between`, `months_between`, and `date_today`.
- **Time Zone Functions**
Enables you to easily calculate data such as, `utc_get_day`, `utc_get_hour`, and `utc_add_years`.
- **General Functions**
Enables you to easily calculate data such as, `abs()`, `exp()`, and `round()`.
- **Trig Functions**
Enables you to easily calculate data such as, `cos()`, `log()`, and `sin()`.
- **Text Functions**
Enables you to easily calculate data such as, `concat()`, `ltrim()`, and `substr()`.

Prerequisites

Before you begin creating event rules, ensure that you:

- Create a batch application object.
- Complete the design of the report template.

Creating If/While Statements

Open a report template in Report Design Aid.

1. Click an object (section, heading, variable, data item) for which you want to place the event rules.
2. From the Edit menu, select Event Rules.

You can also right-click the object, and select Event Rules.

3. On the Event Rules Design form, select an event from the pull-down menu of the events list.

For example, select the Do Section event. This event is the most commonly used event in columnar and group sections.

4. From the Insert menu, select If/While.

You can also click the If/While button on the toolbar.

5. On the Criteria Design form, define the specific criteria for the event rules.
6. Click OK to save the If statement and return to the Event Rules Design form.

The if statement displays on the Event Rules Design form.

You can move a line of the event rules to a new location by selecting it and dragging it to the desired position.

Note. Changing the sequence of statements in event rules can result in improper syntax. If you detect syntax errors, you can either disable the event rule and continue; or edit the event rule to eliminate the errors.

Creating Simple Event Rule Assignments

Open a report template in Report Design Aid.

1. Click the object (section, variable, data item, and so forth) to which you want to attach the event rule.
2. From the Edit menu, select Event Rules.
3. On the Event Rules Design form, select an event from the pull-down events list.
4. If needed, click an existing statement to have the assignment follow that statement.

5. Select Assignment/Expression from the Insert menu.

6. On the Assignment form, in the To Object list, select the field to which you want to assign a value.

For example, the To Object might be the report variable (RV) of a column that you inserted into the report.

When an object is selected, the selected field displays under the To Object heading. This field is the recipient of the assigned value.

7. Select an object from the From Object/Literal list and click OK.

The options listed in the From Object/Literal are dependent on the field selected as the To Object.

8. On the Event Rules Design form, select Save from the File menu.

You can also click the check mark on the toolbar.

Creating Assignments Using the Expression Manager

Open a report template in Report Design Aid.

1. Click the object (section, variable, data item, and so forth) to which you want to attach the event rule.
2. From the Edit menu, select Event Rules.
3. On the Event Rules Design form, select an event from the pull-down events list.
4. If needed, click an existing statement to have the assignment follow that statement.
5. Select Assignment/Expression from the Insert menu.
6. On the Assignment form, in the To Object list, select the field to which you want to assign a value.
7. Click the $f(x)$ button at the end of the From Object/Literal field.
8. On the Expression Manager form, enter an expression using the fields in the Available Information list, the calculator, and the Advanced Functions.

Expression

9. When the expression is complete, click OK.
10. On the Event Rules Design form, select Save from the File menu.

Creating and Using Text Variables

This section provides an overview of text variables, lists the prerequisites, and discusses how to:

- Create text variables.
- Use text variables in assignments.

Understanding Text Variables

Use text variables to hold a literal string for use in event rules. Text variables are easier to translate into multiple languages and easier to maintain than hard-coded literal strings.

You create text variables in Report Design Aid. The text variables are then available in the Event Rules Design form for use in If statements and assignments.

Prerequisites

Before you begin creating and using text variables, ensure that you:

- Create a batch application object.
- Complete the design of the report template.

Creating Text Variables

Open a report template in Report Design Aid.

1. Click the section to which you want to add text variables and select Text Variables from the Section menu.
2. On the Text Variables form, enter the text that you want to appear on the report under the Text String heading.
3. Press ENTER or click Add then click OK.

You must press ENTER after each entry for Report Design Aid to recognize the entry. When you press ENTER or click Add, another blank line appears.

Using Text Variables in Assignments

Open a report template that includes text variables in Report Design Aid.

1. Click the section to which you added the text variables, and select Event Rules from the Edit menu.
2. On the Event Rules Design form, select an event from the pull-down events list.
The system displays a green plus sign (+) next to events with attached event rules.
3. If needed, click an existing statement to have the assignment follow that statement.
4. Create an assignment by selecting Assignment/Expression from the Insert menu.

You can also click the $x=$ button on the toolbar.

5. On the Assignment form, in the To Object list, select the field to which you want to assign a value.
6. Select the text variable in the From Object/Literal field and click OK.

Refer to the prefix code table in the Understanding Event Rules section.

The Event Rules Design form displays the assignment using the text variable in addition to any existing event rules.

7. Click the check mark on the toolbar to save and exit Event Rules Design.

Calling System Functions in Event Rules

This section provides an overview of system functions, lists the prerequisites, and discusses how to use system functions in event rules.

Understanding System Functions

System functions are predefined sets of logic shipped with the PeopleSoft EnterpriseOne product. These functions enable you to perform specialized processing without adding custom code. Some examples of frequently used system functions are:

- Hide Object and Show Object.

Use these system functions to hide and show objects within a section.

- Hide Section and Show Section.

Use these system functions to hide and show sections within a report.

- Do Custom Section.

Use this system function to call a custom section.

- **Set Selection Append Flag and Set Sequence Append Flag.**
Use these system functions to set append flags for defining data selection and data sequencing entered into processing option templates.
- **Set User Selection and Set User Sequence.**
Use these system functions to define data selection and data sequencing entered into processing option templates.
- **Stop Batch Processing and Stop Event Processing.**
- **Use Data Sel/Seq From a Section.**
Use this system function to adopt the data selection and data sequencing from another report section.

Prerequisites

Before you begin calling system functions in event rules, ensure that you:

- Create a batch application object.
- Complete the design of the report template.

Using System Functions in Event Rules

Open a report template in Report Design Aid.

1. Click the object (section, variable, data item, and so forth) you want to attach the event rule.
2. From the Edit menu, select Event Rules.
3. On the Event Rules Design form, select an event from the pull-down events list.
4. If needed, click an existing statement to have the assignment follow that statement.
5. From the Insert menu, select System Function.
You can also click the System Function button on the toolbar.
6. On the Function Selection tab of the System Functions form, expand each folder to view all available functions.
7. Select an appropriate system function.
For example, to hide an object, expand the Object folder and select the Hide Object system function.
8. Select the Parameter Mapping tab to define the parameters.
If you double-click the system function, the Parameter Mapping tab is accessed automatically.
9. On the Parameter Mapping tab, select an appropriate field from the Available Objects list.
For example, to hide an object, select the object from the Available Objects list.
10. Click the right arrow to move the object to the Value column under Parameters.
Not all system functions require parameter mappings. Some system functions do not have any parameters.
11. Click OK to return to Event Rules Design.
12. On the Event Rules Design form, click the check mark to save and return to Report Design Aid.

Creating Event Rule Variables

This section provides an overview of event rule variables, lists the prerequisites, and discusses how to create event rule variables in event rules.

Understanding Event Rule Variables

Event rule variables are objects that you create based on the characteristics of a selected data dictionary field. However, the variables are not stored in the data dictionary. Rather, each variable exists only within the report where it was created. After you create the variable, it is available for use in event rules.

When you create an event rule variable, you indicate the scope:

- Report
 - Enables you to use the event rule variable in any event in any section of the report. Upon completion of the variable, the system adds a prefix of *rpt* to the variable name.
- Section
 - Enables you to use the event rule variable in multiple events of the selected section. Upon completion of the variable, the system adds a prefix of *sec* to the variable name.
- Event
 - Enables you to use the event rule variable in the event where it was created. Upon completion of the variable, the system adds a prefix of *evt* to the variable name.

The recommended naming convention for event rule variables is to include the Hungarian Notation at the beginning of the name and the data item alias at the end, preceded by an underline. Do not include spaces in the name. For example, an event rule variable that is created using the Address Number data item might be named *mnEmployeeNumber_AN8*. The *mn* indicates that the field is a math numeric field type. *Employee Number* is the name that the creator gave the variable. The *AN8* indicates that the variable shares the same characteristics as the Address Number data item.

Prerequisites

Before you begin creating event rules variables, ensure that you:

- Create a batch application object.
- Complete the design of the report template.

Creating Event Rule Variables in Event Rules

Open a report template in Report Design Aid.

1. Click the section to which you want to attach event rule variables and select Event Rules from the Edit menu.
2. On the Event Rules Design form, select an event from the pull-down events list.
 - This step is required *only* if the event rule variable is used for a specific event. If the variable is required for the entire section or report, you do not need to select an event prior to creating the variable.
3. From the Insert menu, select Variables.
 - You can also click the Variables button on the toolbar.

4. On the Event Rules Variables form, enter the alias of the appropriate data item in the DD Item field and click Add.
Select a data item that possesses the characteristics that are required by the variable.
If you do not know which data item you need, you can leave the DD Item field empty and click Add. You can then use the Variable Options Selection form to search for an appropriate data item.
5. On the Variable Options Selection form, an appropriate Scope option.
6. In the Name field, enter a meaningful name using the recommended naming conventions, and click Finish.
The Event Rules Variables form displays the event rule variable that you just created.
7. To modify the scope of the event rule variable, click the variable that you want to edit and then click the Edit button.
8. On the Variable Options Selection form, make any modifications that are required and click Finish.
9. Click OK to return to Event Rules Design.
10. On the Event Rules Design form, click the check mark to save and return to Report Design Aid.

Using the Column Inclusion Versus the Do Section Event

This section provides an overview of the Do Section and Column Inclusion events, lists the prerequisites, and discusses how to use the Column Inclusion event.

Understanding the Do Section and Column Inclusion Events

The most common event for a group or columnar section is the Do Section event. For group or columnar sections, this event occurs after each record is fetched.

The most common event for a tabular section is the Column Inclusion event. For a tabular section, the Do Section event processes only at each level break; while the Column Inclusion event processes after each record is fetched.

Regardless of the section type, do not use the Column Inclusion event when you are performing a calculation between columns (such as when calculating variances) or between variables within a column. For these situations, use the Do Section event.

When using the Column Inclusion event, you attach event rules to individual columns in the section.

Prerequisites

Before you begin using the Column Inclusion event, ensure that you:

- Create a batch application object.
- Complete the design of the report template using a tabular section.

Using the Column Inclusion Event

Open a tabular section report template in Report Design Aid.

1. In the tabular section, click the column variable to which you want to attach event rules.

2. From the Edit menu, select Event Rules.
3. On the Event Rules Design form, select Column Inclusion from the pull-down events list.
4. Create event rules using the appropriate event rule components.
For example, to create an if/while statement, select If/While from the Insert menu.
5. Click the check mark to save and return to Report Design Aid.

Creating Custom Sections

This section provides an overview of custom sections, lists the prerequisites, and discusses how to set up custom sections.

Understanding Custom Sections

Custom sections enable you to control, through event rules, the information that prints on a report. You can include business view fields, variables, and data dictionary fields in custom sections. The number of custom sections that you can add to a report is only limited by your system's performance. Custom sections are allocated and processed like any other section. You can use custom sections to:

- Force page breaks.

Create a custom section with no objects and then activate the Page Break After Print option in that section.

- Perform logic.

Create a custom section and add event rules to perform percent of total calculations to be used by the level-one section.

- Present additional information when stated criteria is met.

Create an accounts receivable report that displays the payment history of customers. Add a custom section that presents account receivables by aging categories. Call the custom section *only* if a customer is delinquent. When the batch engine encounters a record that meets the past due criteria, the custom section prints. The custom section does not print for any records that do not have a past due amount.

Logic for Custom Sections

When you use a custom section, you must specify the section as conditional in the section properties. You then use the Do Custom Section system function to call the custom section. You can use the Do Custom Section system function in columnar, group, or tabular sections. You attach the system function to the section that precedes the custom section. For example, to process a custom section after a columnar section, call the custom section from the Do Section event of the columnar section. Likewise, to process a custom section after a level break footer, call the custom section from the Init Lvl Brk Footer event.

You can call a custom section from any report section. Furthermore, you can use any event rule logic along with a custom section, such as If/While statements, business functions, and table I/O.

You can call a custom section from any event except the Initialize Section event. If you try to call a custom section from the Initialize Section event, the report will not process.

Prerequisites

Before you begin creating custom sections, ensure that you:

- Create a batch application object.
- Complete the design of the report template.

Setting Up Custom Sections

Open a report template in Report Design Aid.

1. Click the section from which you want to call the custom section and select Event Rules from the Edit menu.
2. Select the event from which you want to process the custom section.
3. Click the System Function button.
4. On the System Functions form, select the Do Custom Section system function from the Section folder.
5. Select the Parameter Mapping tab.

The system populates the Available Objects list with all of the sections that are included in the report, not just the sections that are defined as conditional.

6. From the Available Objects list, select the conditional section that you want to process as a custom section, click the right-arrow to move it to the Parameters grid and then click OK.

Accessing BrowsER for Report Templates

This section provides an overview of BrowsER, lists the prerequisites, and discusses how to access BrowsER.

Understanding BrowsER

You can use BrowsER to view event rules for an entire report or batch version. BrowsER displays the report sections in a hierarchical structure. When you expand a section, you see a section node and nodes for each object within the section. Event rules attached to the section will display under the section node. All event rules that are attached to an object display under the appropriate object node.

A plus sign next to a node indicates that event rules are attached. When you expand a node with a plus sign, an event node on which the event rules are attached appears with a plus sign. When you expand the event node, you can review the event rules that are attached to the event. You can disable and then enable, one or more event rules from BrowsER. This is useful for troubleshooting event rules for an entire report or batch version.

You can access BrowsER from multiple locations in PeopleSoft EnterpriseOne:

- Report Design Aid.

Open a report template in Report Design Aid and access BrowsER from the View menu.

- Object Management Workbench

Select a report template and access the Design Tools tab.

- Batch Versions

Select a batch version and from the Advanced Operations form select Report BrowsER from the Form menu.

See Also

PeopleSoft EnterpriseOne Tools 8.95 PeopleBook: Development Tools: Batch Versions, “Reviewing Batch Version Processing,” Accessing BrowsER for Batch Versions

PeopleSoft EnterpriseOne Tools 8.95 PeopleBook: Development Tools: Event Rules and System Functions, “Using BrowsER”

Prerequisites

Before you access BrowsER for report templates, ensure that you:

- Create a batch application object.
- Complete the design of the report template.
- Include event rules.

Accessing BrowsER

Access Object Management Workbench.

1. From a project, select the report template that you want to review.
For example, select the R014021 One Line Per Address report template.
2. Click Design.
3. Select the Design Tools tab.
4. Click Browse Event Rules.
5. On the Browsing form, expand the nodes for each report section.
If no other nodes under the report section can be expanded, no event rules exist for that report section.
6. Expand additional nodes until you locate event rules.
You can disable, and enable, event rules for the entire report template from this form.

CHAPTER 18

Including Text Attachments in Reports

This chapter provides an overview of text attachments and discusses how to add text attachments to reports.

Understanding Text Attachments

PeopleSoft EnterpriseOne enables you to attach informational text to records in the database. Users can add text attachments to records from PeopleSoft EnterpriseOne interactive applications. An example of a text attachment is a resume that is attached to the address book record of an employee. A popular use of text attachments is a brief description of items that are purchased in the PeopleSoft EnterpriseOne Accounts Payable application.

Adding Text Attachments to Reports

This section provides an overview of text attachments in reports, lists the prerequisites, and discusses how to include text attachments in reports.

Understanding Text Attachments in Reports

You can design reports to display text attachments that exist for a record. In this way, anyone who reads the report can view the same text attachments that are available in the interactive applications.

PeopleSoft EnterpriseOne uses media object data structures to associate records with their text attachments. You can use Object Management Workbench to view a list of all media object data structures (object type GT). The media object data structure is called in event rules using a system function. After you select a media object system function, you must define these parameters:

- Action

<Get Text> is the appropriate action for a media object text attachment.

- Text

The name of the field that is inserted into the report section to display the text attachment is mapped to the Text parameter.

- Associated fields

Business view columns that are associated with the fields that are displayed in the data structure. These fields are required to ensure that the correct text attachment appears with the correct record in the report section.

Prerequisites

Before you add text attachments to reports, ensure that:

- Text attachments exist for the records that you want to include in the report.
- An existing report includes the records to which you have attached the text or create a new report that includes the records to which you have attached the text.
- You can identify the name of the media object data structure that the interactive application uses to associate records with text attachments.

Including Text Attachments in Reports

Open a report template that fetches the appropriate records in Report Design Aid.

1. Select the detail section to which you want to add the text attachment.
2. From the Insert menu, select Alpha Variable.
3. Position the variable in the detail section.
4. If the section is columnar, double-click the alpha variable column heading and on the General tab of the properties form, enter a descriptive column name.
5. If the section is columnar, double-click the column variable; if the section is group, double-click the alpha variable field.
6. On the Description tab of the properties form, change the Variable Name field.
Change the name to something meaningful that is easy to recognize in Event Rules Design (for example, Attachments). This field should relate to the column heading name if the section is columnar.
7. Select the Display tab, modify the Display Length field to a length that accommodates the text attachment and click OK.
If the text is longer than the display length, the text will wrap.
8. Click in the detail section of the report, and select Event Rules from the Edit menu.
9. On the Event Rules Design form, select the Do Section event from the pull-down events list.
10. From the Insert menu, select System Function.
To include text attachments for specific records, establish If/While criteria. If no text attachment for the record exists or if the record is excluded by the If/While logic, no text prints in the report section.
11. On the System Functions form, on the Function Selection tab, expand the Media Objects folder.
12. Select the media object data structure that is attached to the associated interactive application.
13. Select the Parameter Mapping tab.
The Action and Text parameters typically display on this screen, the remaining parameters vary depending on the data structure that you select.
14. Define the data structure parameters and click OK.
The system displays a media object call on the Event Rules Design form. This call varies, depending on the parameters that you mapped.
15. On the Event Rules Design form, click the check mark to save and return to Report Design Aid.
16. Preview or run the report.

For any record that has generic text attached, the text prints where you placed the alpha variable on the report.

CHAPTER 19

Using Date Titles in Financial Reports

This chapter provides an overview of date titles and discusses how to:

- Use date titles in financial reports.
- Assign accounting periods to column headings.

Understanding Date Titles

Date titles are used to indicate the time period covered by the data in the report. Several date titles are included in PeopleSoft EnterpriseOne:

Date Title	Example
A (As of)	As of 03/31/07
B (Balance sheet)	As of March 31, 2007
P (Profit and Loss)	For the Three Months Ending March 31, 2007
S (Single period)	For the Month Ending March 31, 2007

The User Defined Date Title business function (B8300007) uses the company number to determine the fiscal year. The system also uses the company number to determine the default reporting period if the user leaves the processing option values for the reporting month and year blank.

Using Date Titles in Financial Reports

This section provides an overview of customizing date titles, lists the prerequisites, and discusses how to:

- Define custom date titles.
- Preview date titles.
- Add date titles to financial reports.

Understanding Customizing Date Titles

For reports that include financial data, a date title in the page header makes the report more meaningful. PeopleSoft EnterpriseOne includes commonly used date titles. While a predefined date title enables you add a date title quickly, it might not be specific to your reporting needs. Therefore, you can add a company-specific date title. You can call the User Defined Date Title business function (B8300007) to add an existing date title to a report or create a date title specific to your reporting needs. In addition, you can create the same date title in multiple languages. The date title parameters are stored in the F83100 table.

When creating a custom date title you must complete these fields:

- **Date Title Type**
A single unique identifier. For a profit and loss date title use the letter *P* as the title type.
- **Description**
A description of the date title. For a profit and loss date title enter *Profit and Loss* as the description.
- **Language**
Identifies the language. Leaving this field blank selects the domestic language.

As part of the date title creation, the system presents you with 14 fields for defining the elements of the title. Use these element fields to indicate how the date title should appear in reports. If you want a comma to appear in the date title, enter a comma in the appropriate element field.

The maximum length of a date title is 100 characters. The maximum number of elements is 14. Each element can be a literal text string or a text substitution parameter. This list describes the text substitution parameters that are available. The system stores these parameters in user defined code 83/TS. These parameters are populated at runtime, typically through a processing option.

The predefined elements from which you can select are:

- **@1: Period Name**
The system fetches this value from the F83110 table. This name is generally the name of the month that is associated with the period. The values in the table are populated when you define the name of the period for a fiscal date pattern.
- **@2: Day Period Ends**
The system fetches this value from the F0008 table. For example, this parameter would return 31 for a period that ends on the 31st day of the month.
- **@3: Century and Year**
The system typically fetches this value from a processing option, but the value might be determined by the company that is selected for the report.
- **@4: Year**
The system typically fetches this value from a processing option, but the value might be determined by the company that is selected for the report.
- **@5: Text for Period Number**
The system fetches these values from the user defined code (UDC) 83/PT. This UDC stores text for the number of periods through the current period. For example, Period 2 retrieves two periods.
- **@6: Date (12/31/05)**
The system fetches this value from a processing option, but the value might be determined by the company that is selected for the report.

You can use as little as two of these element fields. For example, the elements of the *As Of Date* date title is defined as Element 1 - *As of* and Element 2 - *@6*. The *As of* is the text that appears on the report. The *@6* fetches the date. An example of this date title, as it appears in the page header of a financial report, might be *As of 12/31/05*.

Select Period Text from the Form menu on the Date Title Revisions form to revise the User Defined Code values for the Text for Period Number (*@5*) element.

To use date titles in reports, you call a date title business function in event rules. In the business function data structure, you map the appropriate date title type, the processing option fields, and other relevant fields, such as Company. You must assign values to each data item that is included in the data structure. All directional arrows are defined in the data structure.

Prerequisites

Before you use date titles in financial reports, ensure that you:

- Create a batch application object.
- Complete the design of a financial report template to which you can add a date title.

Forms Used to Define Custom Date Titles

Form Name	FormID	Navigation	Usage
Work With Date Titles	W83100A	EnterpriseOne Life Cycle Tools, Report Management (GH9111), Advanced Report Setup, Date Titles	Add, modify, and delete date titles.
Date Title Revisions	W83100B	Click Add on the Work With Date Titles form.	Enter the date title type, description, language, and elements.
Date Title Preview	W83100D	Select a date title on the Work With Date Titles and select Preview from the Row menu.	Review and modify date title information. Select Run Preview from the Form menu to preview the date title in the same format as it displays in the report.

Defining Custom Date Titles

Access the Date Title Revisions form.

Date Title Revisions form

- Date Title Type** A unique single character used to identify the date title.
- Description** Text that describes the date title using 30 characters or less.
- Language** A user defined code that indicates the language in which the date title should be displayed.
- Elements** Components of the date title. For example, For the six months ending June 2005. Use User Defined Codes for text substituted values such as the *six*, the *June* and the *2005* in the example.

Previewing Date Titles

Access the Date Title Preview form.

Date Title Preview form

Date Title Type

This field is populated by the system based on the information on the Work With Date Titles form. You can edit this field.

Language

This field is populated by the system based on the information on the Work With Date Titles form. You can edit this field.

Company

Enter a company address book number in this field.

Period Number

Enter a number to indicate the current accounting period. If you leave this field blank, the system retrieves the value from the Financial Reporting Date in the company's application.

Fiscal Year

Enter a two-digit number to indicate the current fiscal year. If you leave this field blank, the system retrieves the value from the Financial Reporting Date in the company's application.

Preview Date Title

On the Date Title Preview form, select Run Preview from the Form menu to preview the date title in the same format as it displays in the report. If the system does not find language-specific versions of the date title, the date title displays in the default language.

Note. If the date title is over 100 characters, you will receive an error message and the date title will be truncated to fit the available space.

Adding Date Titles to Financial Reports

Open a financial report template in Report Design Aid.

1. Click the page header section, and select Alpha Variable from the Insert menu.
2. Position the field in the page header.
3. Double-click the alpha variable field that you just inserted.
4. On the Variable Properties form, on the Description tab, enter a name in the Variable Name field.
Use a name that you can easily identify in Event Rules Design, such as Date Title.
5. Select the Display tab and set the Justification to Center.
6. Set the Display Length to *100*.
If the date title is over 100 characters, the system truncates the date title to fit the available space.
7. Select the Advanced tab, select the Global Variable option and click OK.
Selecting this option makes the variable available in event rules for all sections of the report.
8. Align the object with the other objects in the section and save the report template.
9. Click the tabular section of the report, and select Event Rules from the Edit menu.
10. Select the Before Level Break event from the pull-down events list.
11. From the Insert menu, select Business Function.
12. On the Business Function Search form, enter *B8300007* in the Source Module field of the QBE line, press ENTER or click Find.
13. Click Select.
14. On the Business Functions form, click in the Value field next to the data item *cDateTitleType* to map the data structure parameters.
15. Double-click Literal in the Available Objects list.
16. On the Single value form, click the visual assist in the Date Title Type field.
17. On the Date Title Search form, select a value, and click Select.
18. On the Single value form, click OK.
19. Click in the Value field next to the data item *szLanguagePreference*.
20. To print the date title in the user's language, double-click SL LanguagePreference in the Available Objects list.
SL LanguagePreference is the system value for language preference in the user profile.
21. To print the date title in a specific language, regardless of the preference of the user running the report, double-click Literal in the Available Objects list.
22. On the Single value form, click the visual assist in the Language field.
23. Select a value and click Select.
24. On the Single value form, click OK.
25. Click in the Value field next to the data item *szCompany*.
26. Double-click Literal in the Available Objects list.
27. On the Single value form, enter the company number in the Company field.

28. On the Single value form, click OK.

The company that you select determines the fiscal date pattern.

29. Click in the Value field next to the data item mnPOPeriodNumber, and then double-click PO PeriodNoGeneralLedger in the Available Objects list.

This is the period number that is defined in the Financial Reports processing options (T83PO). The processing option appears automatically at runtime to prompt the user for a value.

30. Click in the Value field next to the data item szPOFiscalYear, and then double-click PO szFiscalYear in the Available Objects list.

This is the fiscal year that is defined in the Financial Reports processing options (T83PO).

31. Click in the Value field next to the data item szDateTitle, and then double-click the report variable name beginning with RV in the Available Objects list.

This is the name that you assigned to the alpha variable that you inserted into the Page Header.

32. On the Business Functions form, click OK.

33. On the Event Rules Design form, click the check mark to save and return to Report Design Aid.

Assigning Accounting Periods to Column Headings

This section provides an overview of accounting periods and discusses how to define column headings for accounting periods.

Understanding Accounting Periods

Each fiscal date pattern type is assigned a name for each period. For example, period six is equal to June. The system uses the name that is assigned to a period in the Date Title and in Smart Field column headings. Each fiscal date pattern type can have period names to accommodate company-specific fiscal date patterns. For example, a fiscal date pattern for a fiscal year that begins in October has a column heading of October for period 1. A fiscal year that begins in January has a column heading of January for period 1.

Forms Used to Assign Accounting Periods to Column Headings

Form Name	FormID	Navigation	Usage
Work With Column Headings	W83110A	EnterpriseOne Life Cycle Tools, Report Management (GH9111), Advanced Report Setup, Column Headings	Add, modify, and delete accounting period column headings.
Column Heading Revisions	W83110B	Click Add on the Work With Column Headings form.	Enter fiscal date pattern, language, and period names.

Defining Column Headings for Accounting Periods

Access the Column Heading Revisions form.

Column Heading Revisions form

Fiscal Date Pattern

A user defined code used to identify date patterns. Codes must be defined for this use.

Language

A user defined code that indicates the language in which the column headings should display.

Period 1–7 and Period 8–14

Column heading names for each accounting period. For example, January, February, and so on.

CHAPTER 20

Working with the Drill Down Feature

This chapter provides an overview of the drill down feature and discusses how to define the drill down feature.

Understanding the Drill Down Feature

The drill down feature enables you to research beyond the summary information in a tabular report section and into the detail from which the information was derived. The drill down feature is available in tabular sections only. For example, in a tabular report that displays unpaid balances for customers, you can review each unpaid invoice that contributes to the total unpaid balance. You can use the drill down feature to associate the data in the report with the related PeopleSoft EnterpriseOne interactive application.

When the PeopleSoft EnterpriseOne application opens, an audit trail is created for financial reports, that includes detail regarding the data on the report. The audit trail records are static. Therefore, the information in the audit trail might differ from the information in the records you are auditing. For example, if someone posts a transaction after you run the report, the change is immediately reflected in the table, but it is not reflected in the audit trail. You cannot create an audit trail for tabular reports containing row or cell specifications or calculation fields.

Important! Because the drill down feature requires significant system resources, you should activate it only when required.

Defining the Drill Down Feature

This section provides an overview of activating the drill down feature, lists the prerequisites, and discusses how to:

- Activate and define the drill down feature.
- Review audit trails.
- Purge drill down work files.

Understanding Activating the Drill Down Feature

You must activate the drill down feature before you can define it. You can activate and define the drill down feature in a report template that contains a tabular section; this includes financial reports because they use the tabular section type.

You can also activate and define the drill down feature in a batch version. When defining the drill down feature in a batch version, you must first override the specifications for the section layout and the event rules.

Activate the Drill Down Feature

You can activate the drill down feature during these activities:

- Editing or revising the tabular section report in Report Design Aid.

The drill down feature is accessed on the Tabular Section properties form. The name of the tab where the drill down feature resides is dependent on the type of section that you create. For a tabular section, the name of the tab is Financial. For a financial report, the name of the tab is Financial Report.

- Creating a financial report using the Report Design Director.
- Modifying or creating a Report Director Template.

Define the Drill Down Feature

You define the drill down feature by indicating the PeopleSoft EnterpriseOne application where the detail resides for the data that is presented in the tabular section. As part of the drill down feature, you define the:

- Interactive application

The name of the application that is associated with the data presented in the tabular report section.

- Form

PeopleSoft EnterpriseOne interactive applications can include multiple forms. Select the form to appear when the application is launched.

- Version

Some PeopleSoft EnterpriseOne interactive applications have more than one version. Select the appropriate version to launch. When there is only one version of the application, the system does not present this form.

Note. If the report template has processing options attached, you are prompted to provide the parameters after defining the interactive application.

The last step in defining the drill down feature is to map the form interconnect fields in the data structure. Map fields from the business view that is attached to the tabular section to the fields that reside on the selected interactive application form. The fields that you map from the tabular section must be the fields that are required to access the detail in the application. You do not typically need to map all fields that are included in the data structure. You must modify the directional arrows to ensure that the data flows from the tabular section to the associated application.

Review Audit Trails

When reviewing an online report from the web client, a user can click specific data in the report that the system fetches from the database, and the system automatically launches the associated PeopleSoft EnterpriseOne application.

Using the drill down feature establishes an audit trail for financial reports, whereby you can see detail about the data in the report. Tabular reports that use the drill down feature and are not financial in nature do not create an audit trail.

Purge the Drill Down Work Files

Each time that you activate the drill down feature in a financial report, the system creates a work file that remains in the system until purged.

The information from the audit trail resides in the F83UI001 table. This work file must be purged periodically using the Drill Down Table Purge, which is located on the Advanced Report Setup menu (GH9141), to improve processing time. Typically, a system administrator is responsible for purging drill down work files.

Prerequisites

Before you define the drill down feature, ensure that you:

- Create a batch application object.
- Complete the design of a financial report template in which you can define the drill down feature.

Activating and Defining the Drill Down Feature

Open a financial report template in Report Design Aid.

1. Click the tabular report section for which you want to activate the drill down feature.
2. From the Section menu, select Section Properties.
3. On the Tabular Section form, select the Financial tab.

If you are creating an application report, the system names the tab the same names as the Director template. For example, if you select the Financial Reports template in the Report Director, the tab is named Financial Reports.

4. Select the Drill Down option, and click Define.
5. On the Work With Applications form, click Find.

You can filter the search by entering search criteria in the QBE line.

6. Click an application, and click Select.
7. On the Work With Forms form, select a form, and click Select.
8. On the Work With Versions form, perform one of these actions:
 - Click a version, and then click Select.
 - Click Close to avoid selecting a specific version.

If the report has processing options, the system prompts you to provide the parameters.

9. On the Form Interconnections form, click the first <NOT Assigned> field in the data structure.
10. Double-click the object in the Available Objects list that is associated with the first field from the application form.

Fields in the Data Item column of the data structure come from the application that you defined. Mapping the associated field from the report ensures that the value is passed into that field of the application form.

11. Click the directional arrow in the Dir column for each parameter until it becomes a right arrow and then click OK.

The arrow indicates that the data flows from the source (the report section) to the target (the interactive application).

Ensure that you move the cursor down to the next field in the data structure before you select the next available object.

Note. Available objects vary for each <NOT Assigned> field, depending on the field type of the data item.

12. On the Tabular Section form, click OK to return to the Report Design form.

Reviewing Audit Trails

From the Submit Job-Work With Batch Versions-Available Versions form on the web client, process a batch version for a financial report template.

1. Select Submitted Jobs from the Form menu.
2. On the Submit Job-Submitted Job Search form, select the batch version that you processed and then select View PDF from the Row menu.
3. Within the online report, position the cursor over the record that you want to research.
If the selected data is associated with the PeopleSoft EnterpriseOne application, the cursor becomes a pointing index finger.
4. Click the value.
The Acrobat Reader displays a message asking if you want to launch the application.
5. On the Acrobat Reader form, click Yes to open the application form.
The form that is associated with this report section displays the record that you selected from the report.
6. Select the record for which you want to display details, and click Select.
The form that is associated with this report displays the details of the record that you are investigating.
7. When you are finished with the evaluation of the form, click Close.
8. When you are completely finished with the evaluation of the records, open the report template in Report Design Aid, go to the tabular section properties, select the Financial tab, and clear the Drill Down option.

Purging Drill Down Work Files

Select Drill Down Table Purge from the Advanced Report Setup menu (GH9141) to access the Purge Financial Reporting Drill Down Work File form.

1. Click Find.
A list of all existing drill down work files appear in the grid.
2. Select a file, and click Delete.

CHAPTER 21

Setting Up Processing Option Templates

This chapter provides an overview of processing option templates and discusses how to design and use processing option templates in reports.

Understanding Processing Option Templates

Processing options designate parameters that are used by reports. When reports are processed, the processing option template passes values that are entered by the user. These values are passed to event rules that are attached to the report to perform customized processing.

Processing option templates are included in PeopleSoft EnterpriseOne. You can also create custom processing option templates to meet your business needs.

You can use processing options to:

- Control how reports process data.
- Set up default values.
- Customize batch versions for different companies or even different users.
- Control the format of reports.
- Control page breaks for reports.
- Control totaling for reports.

Processing option templates contain one or more parameters. You can add tabs, with descriptive names, to the processing option template to categorize the parameters. For example, you can name a tab *Print* to describe parameters that affect how a report prints or which printer is used.

At runtime, processing option templates display the set of tabs which are referred to as *pages*. When you select a tab, the page changes to display the set of processing options for that category.

You can add comments to processing options. The comment should describe the purpose of the available parameters and any information that is required by the user. Use this processing option to indicate the preferred format of labels for printing.

Each processing option tab displays parameters in a row within the template and is defined by a title, which often includes valid values when appropriate. You add data items to the processing option tab to define the parameters. You can change the description of the data item to better describe the purpose of the parameter. Enter *1* to print single column labels and *2* to print two-column labels.

Each data item that you include on the processing option template includes a member name. This name is located on the properties form and can be modified. You want to modify the member name of fields that provide a generic use. Modify the member name to be a descriptive name that you will recognize in Event Rules Design. The recommended naming convention is to include the Hungarian Notation at the beginning of the name and the data item alias at the end, preceded by an underline. Do not include spaces in the name. For example, the Add [Y/N] data item is often used in processing options for entering a *yes* or *no* value. You might modify the member name to read *cDisplayCommentsColumn_A*.

See Also

PeopleSoft EnterpriseOne Tools 8.95 PeopleBook: Development Tools: Data Structure Design, “Using Processing Options”

Designing and Using Processing Option Templates in Reports

This section provides an overview of processing option templates in reports, lists the prerequisites, and discusses how to:

- Create data structure objects.
- Create processing option templates.
- Add tabs to processing option templates.
- Attach processing option templates to reports.

Understanding Processing Option Templates in Reports

To use a processing option with a report, you must attach the processing option template to the report template. When the report is launched, the system prompts the user to enter processing option values. However, even if a report template has a processing option template attached, the system might launch the report with no prompting. This is called a *blind execution*. The processing option values for a blind execution are predefined and cannot be modified by the user.

Processing option templates are a report feature so they are always attached to the report template. Processing option templates are reusable objects so you can attach the same processing option template to multiple reports. Processing option values, however, are stored with the batch version. This enables you to assign a set of processing option values to a particular batch version. For example, you can have two versions of a report that prints labels; one version with the processing option values set to print one-column labels, and one version set to print two-column labels.

This overview outlines the process for creating and using processing option templates in a report:

1. Create processing options by building a list of parameters called a *template*.
2. Attach the processing option template to a report template and create event rules in the appropriate report section to process the processing option values.
3. Create versions of the report template that indicate how the system will handle processing options at runtime.
 - Prompt for Values

The processing options appear, enabling the user to enter values.

- Blind Execution

The report runs using a set of predefined processing option values.

You must attach processing option templates to report templates to use the functionality at runtime. Processing option templates are reusable objects, so you can attach the same processing option template to multiple reports.

Prerequisites

Before you design and use processing option templates in reports, ensure that you:

- Create a batch application object.
- Complete the design of a financial report template to which you can attach a processing option template.

Creating Data Structure Objects

Access Object Management Workbench.

1. Click Add.
2. On the Add EnterpriseOne Object to the Project form, select the Data Structure option and click OK.
3. On the Add Object form, enter the name of the processing option template in the Object Name field using the recommended naming conventions.
4. Enter a brief description of the processing option template in the Description field
5. Enter a client reserved product code (55–59) in the Product Code field.
6. Enter the system code that relates to the report data that this processing option will affect in the Product System Code field.
7. Enter 360 in the Object Use field to indicate that the object is a data structure.

The object use value should reflect the object that you are creating. You can create categories of data structures to select from the Object Use list. Click the visual assist in the Object Use field. On the Select User Defined Code form, select Revisions from the Form menu. On the Work With User Defined Codes form, click Add. On the User Defined Codes form, scroll to the bottom of the list and enter a new code and description in the blank row of the grid.

8. Under Type, select Processing Option Template and click OK.

The tool that the system presents for developing the data structure object is dependent on the type that you select. If you select Regular Data Structure, the system presents a much different form than if you select Processing Option Template.

9. On the Processing Option Design form, select the Design Tools tab, and click Start the Processing Option Design Aid.

Creating Processing Option Templates

Access Processing Option Design Aid

1. On the Processing Options Design form, right-click <New Tab> and select Current Tab Properties from the pop-up menu.
2. On the Tab Properties form, complete these fields, and click OK:
 - Short Name
 - Long Name

3. Click **A** on the toolbar and then click the processing option template to add a comment box.
4. Double-click the comment box, highlight Comment Text, and enter a brief description of the processing option tab.

Note. You can highlight the comment text and type over it or you can backspace to remove the text, but you cannot use **DELETE** to delete the text.

5. On the Data Dictionary Browser form, enter a value on the QBE line to locate a required data item, and then press **ENTER**.

You can also click the Search button that is located directly beneath the Data Dictionary Browser heading to search through all data items.

6. Drag the required data items to the processing option template.
You can also double-click the data item and it appears on the processing option tab.
7. To reposition a data item on the processing option tab, click the data item and drag it to another location.
The Processing Options tool automatically adjusts the size and position of data items to fit the width of the tab.
8. Double-click the text portion of the item to modify the description.

Note. You can highlight the text and type over it or, you can backspace to remove the text, but you cannot use **DELETE** to delete the text.

9. Right-click the data item field and select Properties from the pop-up menu.
10. On the General tab of the JDE.DataItem Properties form, change the Member Name field, if necessary.
11. Select the Help Override Data Item tab, modify the Data Item Help Override Name field, if necessary and click **OK**.
12. Save the processing option and exit Processing Option Design Aid.

Adding Tabs to Processing Option Templates

Open a processing option template in Processing Option Design Aid.

1. Right-click the current tab and select New Tab from the pop-up menu.
2. On the Tab Properties form, complete these fields, and click **OK**:

- Short Name
- Long Name

3. Add comments and data fields as appropriate.
4. From the Edit menu, select Test to test the processing option when it is complete.

In test mode, you can click the visual assist for a data item to verify that you have selected the correct data item.

5. Save the processing option and exit Processing Option Design Aid.

Attaching Processing Option Templates to Reports

Open a report template in Report Design Aid.

1. From the File menu, click Select Processing Options.
2. On the Select Processing Option Template form, use the QBE line to search and select the template you want to use, and click OK.

A check mark appears next to Select Processing Options on the File menu, indicating that a processing option template is attached to this report.
3. Verify that the processing option template is attached to the report by selecting Report Properties from the File menu.

The Processing Options field on the Report Properties tab indicates the processing option template that is attached to the report.
4. Add logic in Event Rules Design to indicate to the system how each valid value entered into the processing option template should be processed.
5. To remove an existing processing option template, from the File menu, click Select Processing Options.
6. On the Select Processing Option Template form, select the template and click Remove.

CHAPTER 22

Working with Database Output

This chapter provides an overview of database output and discusses how to use database output to update data.

Understanding Database Output

You can use database output to update the database using a batch application. You can attach a database output specification to any report section with an attached business view. The report template must be defined as an Update report for the Database Output option to be available.

You can use database output in Report Design Aid to update, insert, or delete records in PeopleSoft EnterpriseOne tables. You can also insert records in text files. You can also use a special operation called *Insert or Update*. This operation attempts to insert a record into a table. If a record with the same primary key exists, the insert fails and the system updates the existing record instead.

You can use database output to load data into PeopleSoft EnterpriseOne tables or into text files. Text files can be specified as either comma delimited or fixed-length text records. The comma-delimited format is useful for transferring data to spreadsheets.

Using Database Output to Update Data

This section provides an overview of database output in PeopleSoft EnterpriseOne, lists the prerequisites, and discusses how to:

- Define database output.
- Override environments for database output.

Understanding Database Output in PeopleSoft EnterpriseOne

This table describes the tools that you can use to perform database maintenance in PeopleSoft EnterpriseOne:

Tool	Description
Table Conversion	Use for high-performance SQL table-to-table processing. Enables access to non-PeopleSoft EnterpriseOne tables. No reporting.

Tool	Description
Database Output	Use to affect tables in different environments that are defined on the Advanced tab of the Report Properties form. Enables you to output to text files. Reporting and output occurs simultaneously.
Table I/O (in Event Rules)	Use for transforming input data using event rules before outputting to the database. Reporting and output occurs simultaneously.

Database Output

Database output is performed for every row of data that is processed in the section. All database operations occur on a record-by-record basis using the standard JDE Base middleware Application Programming Interfaces (APIs).

Defining database output involves defining the output and then overriding the environment, if appropriate. If no override is defined, the database output runs against the default data source.

When you design database mappings in a batch application, Report Design Aid determines where the system stores the flat files that are produced by the mapping. You can also define a default destination using the "UBEDBOutputLocation" in the "[UBE]" section of the jde.ini file. If no location is defined in Report Design Aid or in the jde.ini file, or if the location is invalid, the files are stored in the current working directory.

The first step in defining database output is to select an operation for mapping the targets:

- Insert only
Can be used for tables but is the only appropriate option for text files.
- Update
- Insert or update
- Delete

Next, you need to select the type of target that you are using:

- OneWorld table.
- Comma-delimited text file.
- Fixed-record length text file.

After you have defined the database output, you can suppress it by:

- Overriding the database output in the version and deleting the mapping record to process the database output for a specific version of the report.
- Defining the criteria using If statements and then using the Suppress Section Write system function to process the database output for specific rows of data.

The Suppress Section Write system function suppresses not only printed output but also database mappings.

You can also use table I/O in event rules to perform database maintenance.

See *PeopleSoft EnterpriseOne Tools 8.95 PeopleBook: Development Tools: Tables and Business Views*, "Working with Table I/O".

Prerequisites

Before you begin working with database output, ensure that you:

- Create a batch application object.
- Defined the report template as an *Update* report.
- Complete the design of the report template.

Defining Database Output

Open a report template in Report Design Aid.

1. Click a detail report section and from the Section menu, select Database Output.
2. On the Mapping Targets form, in the Operation field of the grid, select an operation.
You can double-click the Operation(s) and Type fields to view a list of available options. Double-click the option to select it.
3. In the Type field, select the type of file you are using as a target.
You can use the same source type several times using different operations.
4. In the Name field, enter the name of the file you are using as a target.
5. Click Next.
6. On the Mappings form, for each target column, specify which of the available objects from the report section should be assigned (mapped).
Double-click a Source Section or a Source Object field to display a list of options.
You can also enable data dictionary overrides from this form.
7. On the Mappings form, click the Map Same option if you need to map all columns.
8. When you have completed the mapping, click Finish.

Overriding Environments for Database Output

Open a report template in Report Design Aid.

1. From the File menu, select Report Properties.
2. On the Properties form, select the Advanced tab.
3. Complete the Target field or click the Browse button to select the target environment.
4. Complete the Source field or click the Browse button to select the source environment.
5. Select the Prompt for overrides at runtime option, if desired, and click OK.

CHAPTER 23

Working with Subsystem Jobs

This chapter provides an overview of subsystem jobs and discusses how to define subsystem jobs.

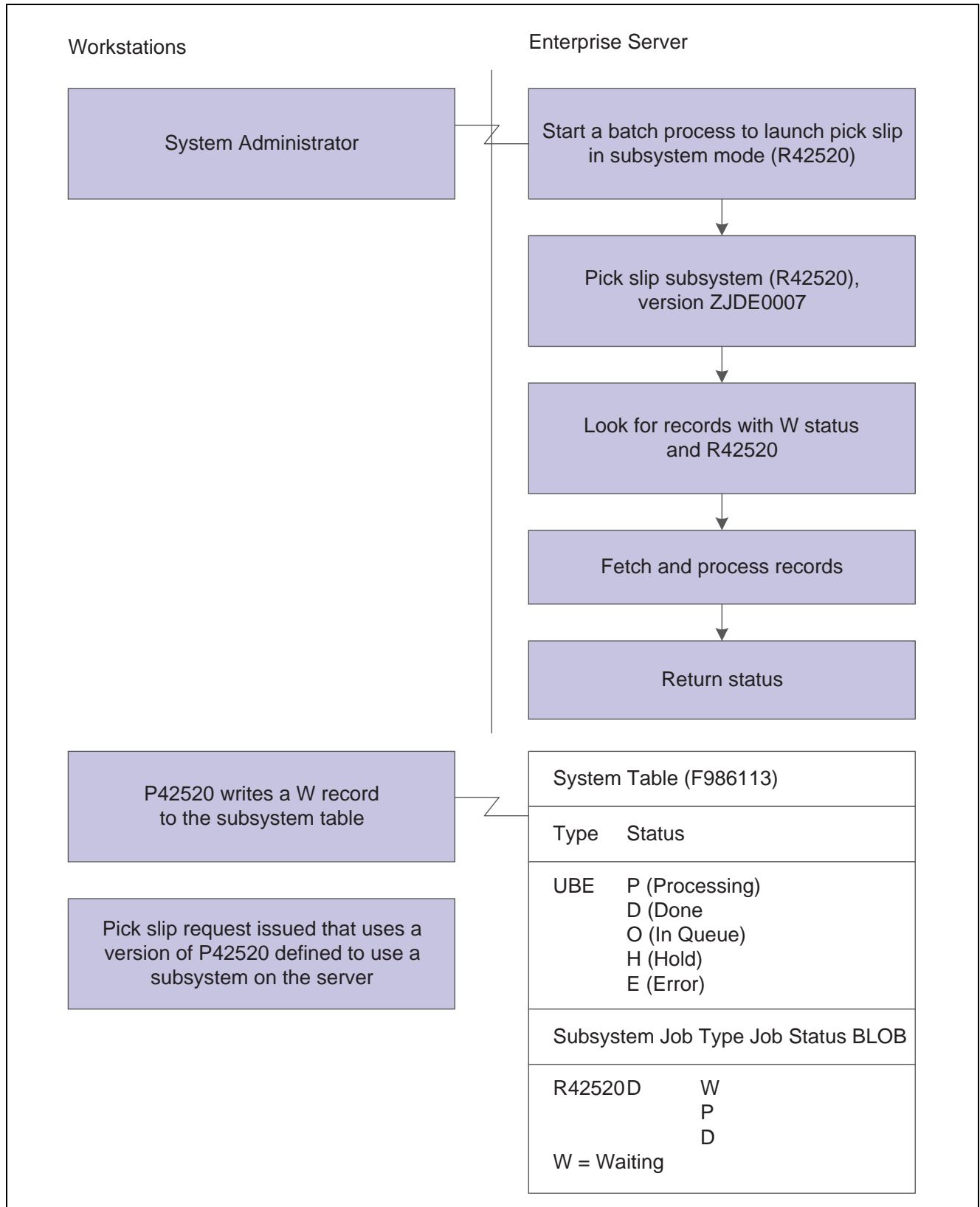
Understanding Subsystem Jobs

Within PeopleSoft EnterpriseOne, subsystem jobs are batch processes that continually run independent of, but asynchronously with, PeopleSoft EnterpriseOne applications. These subsystem jobs function with the system's logical process or queue defined for the server platform. You can configure PeopleSoft EnterpriseOne to use one or more subsystems.

Use subsystem jobs to off-load processor resources, to protect server processes, or to do repetitive and frequent processes to maximize output throughput. Examples of applications that are suited for subsystem processing include Logistics Warehousing, Inventory, and Sales Order Processing. For example, you can execute the Sales Order Entry application on a workstation and automatically print pick slips when all orders are entered. If you are using a version of pick slips that has the subsystem job function enabled in the report properties in Report Design Aid, the request is executed by a subsystem job. The pick slip request is routed to and processed by the subsystem job on the defined enterprise server. As a result, no additional processing resources are required of the workstation.

When a PeopleSoft EnterpriseOne application issues a request for a job to run as a subsystem job, it places a record in the F986113 table. This record is identified by a subsystem job name and version, and contains status and operational indicators. Embedded in the record is key information, such as the values for the processing options and the values for the report interconnect data structure, that enables the subsystem to process the record without additional interaction with the requesting application. The continuously running subsystem monitors this table for records. If the subsystem finds a record with the appropriate status indicators for the specific report and version being run, it processes the record and updates the status accordingly.

This diagram illustrates how the system processes a subsystem job:



Subsystem processing

Defining Subsystem Jobs

This section provides overviews of subsystem job definitions and adding records to the subsystem table using an API, lists the prerequisites, and discusses how to:

- Define reports as subsystem jobs.
- Add records to the subsystem table.

Understanding Subsystem Job Definitions

Subsystem jobs are continuous jobs, processing records from a data queue. This type of job runs until you request termination. Subsystem jobs read records one at a time for a subsystem table, retrieve information from the specific record, and run the batch engine for each record. At the end of the records, instead of ending the job, subsystem jobs sleep for a defined period and then retrieve the information for the next record. For each subsystem job, multiple records can exist in the subsystem table.

You run a subsystem job the same way as you would run a regular batch job. No difference exists between running a subsystem job and running a batch job.

Before processing, PeopleSoft EnterpriseOne ensures that limits for the subsystem job on the defined server have not been exceeded. If exceeded, the batch engine does not process the subsystem job.

Understanding Adding Records to the Subsystem Table Using an API

Use an API to add records to the subsystem table to enable the subsystem job to perform the batch process. To add records to the subsystem table, you must create a business function. You then generate a header file in Report Design Aid. The header file takes the form of `Report_Name.h` under the E811 folder `$envirom\include` subdirectory. In an interactive application, from which the system fetches a record to process in the subsystem report, you can add this header file to the business function using Microsoft Visual C++ to create a subsystem record. When the business function is complete, attach the business function to the appropriate event rules of the program to be called.

For example, you can specify to call a business function when the user clicks OK on Sales Order Entry (P4210). The business function uses the report's data structure and the subsystem's APIs to trigger the subsystem report.

This API record retrieves data structure and user information from the cache. If the server name is not passed, the API finds Object Map Record from the F98611 table. If the record exists, it uses the record to send a JDENet Message to the server's Subsystem Kernel to add the record to the subsystem table on the server. However, if the user provides an Override Server name, the JDENet message is sent to that server's Subsystem Kernel instead. Each server is only allowed to have one subsystem kernel running.

Prerequisites

Before you begin defining subsystem jobs, ensure that you:

- Create a batch application object.
- Complete the design of the report template.
- Generate the header file in Report Design Aid using the Report Data Structure to ensure that the API is called from the business function.

Defining Reports as Subsystem Jobs

Open the report template in Report Design Aid.

1. From the File menu, select Report Properties.
2. On the Properties form, select the Subsystem option on the Advanced tab .
3. Enter an appropriate value in the Wait Time (ms) field, and click OK.

The value in the Wait Time field is entered in milliseconds (1000 milliseconds equals one second). This represents the time that the subsystem job sleeps until checking the subsystem file for new records to process.

4. From the File menu, select Report Data Structure.
5. On the Report Data Structure form, enter a data item alias on the QBE line to display the required data item.
You can also click Find to display a list of data items from which to select.
6. From Dictionary Items, drag the required data items over to Structure Members, and click OK.
7. From the File menu, select Report Properties.
8. On the Properties form, click Generate on the Advanced tab to create a header file.

Adding Records to the Subsystem Table

This example illustrates the subsystem job header file:

```
#include <jde.h>
/*****
 * Report : R98SSUBE * ReportId : 8123244 * DSTRId : 380813 *
 * Note: * Do not edit the following typedef
 * To make modifications, use the Report Design Aid Tool to
 * Generate a revised version.
 *****/
#ifndef REPORT_DS_380813 #define REPORT_DS_380813
typedef struct tagDS_RI_380813 { char
ProgramId[11]; } DSRI380813, *LPDSRI380813;
#define IDERRProgramId_1 1L
#endif /* #define REPORT_DS_380813*/
#endif /* #define __R98SSUBE_H */
```

Add a business function object in Object Management Workbench.

1. On the Business Function Design form, select the Design Tools tab and click Start Business Function Design Aid.
2. Complete the function name and description, and then attach the appropriate data structure.
3. In Microsoft Visual C++, open the business function include file and add the name of the header file that you generated.

In this example, the include statement is emphasized:

```
/*****
/* Table Header Inclusions
 *****/
```

```

/*****
External Business Function Header Inclusions
*****/
#include <R98SSUBE.h>

/*****
* Global Definitions
*****/

/*****
* Structure Definitions
*****/
* TYPEDEF for Data Structure
* Template Name: Report Interconnect Data Structure
* Template ID: D983059
* Generated: Wed Oct 18 14:01:22 1995

```

4. In Microsoft Visual C++, open the business function source file and add lines to declare the variable of this data structure type and populate the members of the data structure.

In this example, the new line is emphasized:

```

#include <jde.h>
/*****
* Variable declarations
*****/
HUSER hUser=NULL;
LPSTR szServer=NULL;
DSRI380813 dsRI; /* Declare the variable of type REPORT
INTERCONNECT DATA STRUCTURE */
BOOL bRet=FALSE;
JDEDB_RESULT rcode;
/*****
Declare structures
*****/

/*****
Declare pointers
*****/

/*****
Check for NULL pointers
*****/
if ((lpBhvrCom == NULL) ||
    (lpVoid == NULL) ||
    (lpDS == NULL))

```

5. In the source file, call the API to add the record.

In this example, the new lines are emphasized:

```

*****/
Main Processing

```

```

*****/
memset(&dsRI, 0, sizeof(DSRI380813));

/* Populate the members of the Report Interconnect Data Structure */
strcpy(dsRI.ProgramId,lpDS->szString01);

/* Call Subsystem API to add the record to the Subsystem Table */
/* Note : As Environment Name is set to NULL, this API will use OCMto
find the default Environment of this UBE */
    bRet=jdeAddSubsystemRecord( hUser,/* User Handle */
    "R98SSUBE", /* Name of the subsystem */
    "XJDE0001", /* Name of the Subsystem Version*/
    NULL, /* Name of the override env - not used */
    szServer, /* Name of the server */
    &dsRI); /* Subsystem Connect DS */
*****/

```

6. After you call the `jdeAddSubSystemRecord` API to attach the record, build the business function.
7. Call the business function from the event rules process of the program to be called. This program can be either an interactive or batch application.

See Also

PeopleSoft EnterpriseOne Tools 8.95 PeopleBook: Development Tools: APIs and Business Functions

PeopleSoft EnterpriseOne Tools 8.95 PeopleBook: Development Tools: Event Rules and System Functions

CHAPTER 24

Creating Report Director Templates

This chapter provides an overview of Report Director templates and discusses how to add and modify Report Director templates.

Understanding Report Director Templates

The Report Director aids you in designing reports by guiding you through the design process. In addition to creating a group, columnar, or tabular section, the Report Director uses templates to help you create application reports, such as financial reporting, fixed assets, or job cost. These templates, included with PeopleSoft EnterpriseOne, contain default criteria. When you select one of the templates in the Report Director, the system reads the template specifications (stored in PeopleSoft EnterpriseOne tables) and presents the default criteria through the Report Director forms.

The template specifications are stored in these PeopleSoft EnterpriseOne tables:

Table	Description
Report Director Templates (F91400)	Contains the default business view and processing option information.
Report Director Templates Sequence Items (F91410)	Contains information about the preferred data sequencing.
Report Director Templates Smart Field Activation (F91420)	Contains information about which smart fields to display.

Adding and Modifying Report Director Templates

This section provides an overview of Report Director template definitions, lists the prerequisite, and discusses how to create custom Report Director templates.

Understanding Report Director Template Definitions

You can modify the PeopleSoft EnterpriseOne Report Director templates and create custom templates through the Report Director Templates (P91400) program. When complete, the templates are available on the Welcome form of the Report Director.

The Report Director template description displays in the Application Report drop-down field on the Welcome form of the Report Director. Custom Report Director Template names should begin with *DT* and follow the recommended naming convention for PeopleSoft EnterpriseOne objects.

The Report Director Templates application includes three tabs:

- **Building Blocks**
Available for all Report Director templates.
- **Properties**
Available only if the tabular detail section is selected for the report.
- **Drill Down**
Available only if the tabular detail section is selected for the report.

For each Report Director template that you create, you can define these specifications:

- Which detail section type to use in the report.
- Which business view to use as the default.
- Which processing options to use with the report.
- Which smart field template to make available for the selection layout.

Important! Smart fields associated with a Report Director template rely on the business view attached to the report template. If you select a different business view when designing the report, the associated smart fields might not function correctly. Before making any such changes, ensure that you know which business view columns the smart fields require. This critical association is justification for defining the default business view in the Report Director Template.

- The preferred section data sequencing and level breaks.
Under the Default Sequence and Level Breaks heading, you can define the data sequencing to be used in the report. The first two data items you select are defined as level break fields. These can be modified when you design the report.
- Which additional properties to include.
Display financial or generic criteria. Available only if the tabular detail section is selected for the report.
- Define the appropriate drill down feature.
Activate and define the drill down feature. Available only if the tabular detail section is selected for the report.

See Also

[Chapter 32, “Creating Smart Fields,” Creating Custom Smart Fields, page 248](#)

Prerequisite

Locate the name of a smart field template to be used or, if a suitable one does not exist, create a smart field template.

Forms Used to Add Report Director Templates

Form Name	FormID	Navigation	Usage
Work With Report Director Templates	W91400A	EnterpriseOne Life Cycle Tools, Report Management (GH9111), Advanced Report Setup, Report Director Templates	Add, modify, and delete Report Director templates.
Report Director Templates Revisions	W91400B	Click Add on the Work With Report Director Templates form.	Enter the Report Director template name, description, section type, default business view, processing options, smart field template name (if appropriate), default data sequencing and level breaks, properties, and drill down.

Creating Custom Report Director Templates

Access the Report Director Templates Revisions form.

Report Director Templates - [Report Director Templates Revisions]

File Edit Preferences Form Window Help

OK Del... Can... New... Dis... Abo Links Smart... OLE ... Internet

Report Template/Description: DT554311 Inventory Director Template

Building Blocks Properties Drill Down

Section Type: 46 Tabular Section

Business View: V4311C Purchase Order Detail - Receipt

Processing Options: []

Smart Field Template: []

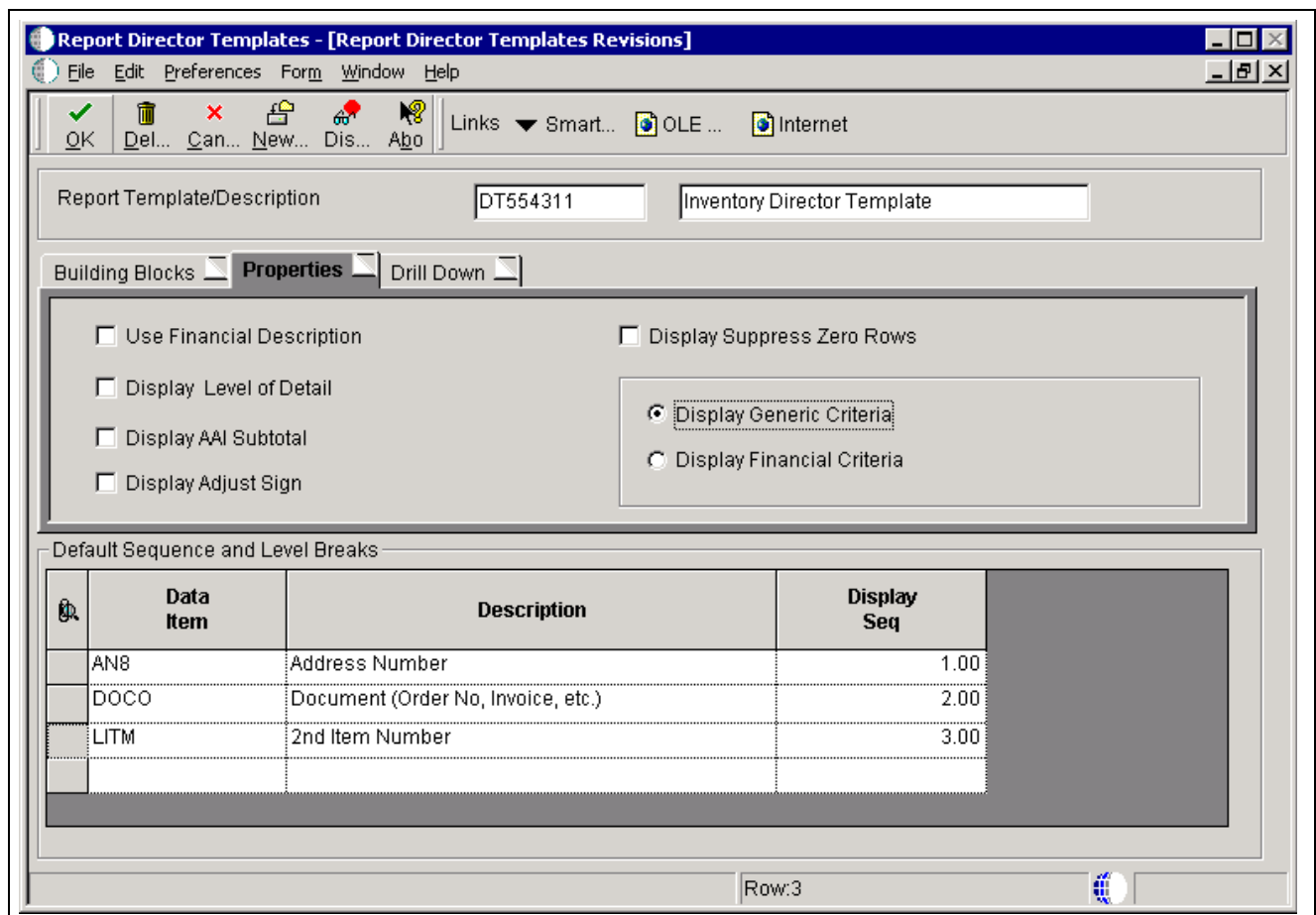
Default Sequence and Level Breaks

Data Item	Description	Display Seq
AN8	Address Number	1.00
DOCO	Document (Order No, Invoice, etc.)	2.00
LITM	2nd Item Number	3.00

Row:3

Report Director Templates Revisions form - Building Blocks tab

- Report Template/Description** The name of the Report Director template and a meaningful description.
The Report Template/Description information displays from all three tabs.
- Section Type** The type of report section the system creates when this Report Director template is selected.
- Business View** The business view to be used by the report. You can override this business view in the Report Director.
- Processing Options** This field is optional. The processing options to be used by the report. You can override this business view in the Report Director.
- Smart Field Template** This field is optional. The smart field template to be used by the report. The smart field template is dependent on the business view defined.
- Default Sequence and Level Breaks** The data sequence and level breaks to be used by the report. These fields appear on the Data Sequencing Help form of the Report Director. The first two data items appear in Report Grouping, and the subsequent data items appear in Report Detail. You can override these fields in the Report Director.
The Default Sequence and Level Breaks information displays from all three tabs.



Report Director Templates Revisions form - Properties tab

Use Financial Description Used to provide the correct description of the object account. The system sets this option on the Additional Properties form of the Report Director.

- Display Level of Detail** Determines the level of detail for summarizing the object account information based on the levels defined in the chart of accounts. The system sets this option on the Additional Properties form of the Report Director.

- Display AAI Subtotal** Inserts subtotals based on the Financial Statements series of AAIs. The system sets this option on the Additional Properties form of the Report Director.

- Display Adjust Sign** Reverses the sign of amounts (debits and credits) in accounts for balance sheet or income statement reports. The system sets this option on the Additional Properties form of the Report Director.

- Display Suppress Zero Rows** Suppresses the printing of a row in a tabular section using one of these options:
 - No Zero Row Suppression.
 - Suppress Zero Detail Rows Only.
 - Suppress All Zero Rows.

- Display Generic Criteria** The Report Director displays the Section Data Selection form.

- Display Financial Criteria** The Report Director displays the Help with Section Data Selection form. This form enables you to select records based on balance sheet or income statement accounts.

Note. The Display Generic Criteria and the Display Financial Criteria options are mutually exclusive.

Data Item	Description	Display Seq
AN8	Address Number	1.00
DOCO	Document (Order No, Invoice, etc.)	2.00
LITM	2nd Item Number	3.00

Report Director Templates Revisions form - Drill Down tab

Drill Down	Activates the drill feature. The application, form, and version must be defined to ensure that the drill down feature functions.
Drill Down App/Form/Vers	The name of the PeopleSoft EnterpriseOne application, form, and version that will launch to display the detail of the record selected in the report.

PART 4

Additional Information

Chapter 25

Understanding Additional Information for Designing Reports in PeopleSoft EnterpriseOne

Chapter 26

Understanding Edit Codes

Chapter 27

Understanding Events

Chapter 28

Understanding Report Processing

Chapter 29

Understanding Runtime Processing

Chapter 30

Defining Batch Error Messages

Chapter 31

Working with Report Interconnects

Chapter 32

Creating Smart Fields

CHAPTER 25

Understanding Additional Information for Designing Reports in PeopleSoft EnterpriseOne

This chapter discusses additional information for designing reports in PeopleSoft EnterpriseOne.

Additional Information for Designing Reports

When adding logic to reports, it is critical that you understand the events available to you. Events are available at the report level, section level, and object level. When you understand how each of these events are processed by the system, you can maximize performance by using the best event choice for the job.

Knowledge of the process flow of reports also aids you in designing efficient reports.

This section provides additional information about using Report Design Aid to create complex reports, and includes these topics:

- **Edit Code Table**
Describes the edit codes that are available. Edit codes determine how numerical data is displayed in a report.
- **Events**
Describes the different events available for reporting.
- **Report Processing**
Describes the flow of processing for reports, sections, level breaks, batch events, and batch runtime.
- **Batch Error Messages**
Describes the purpose of batch error messages and how to create messages.
- **Smart Fields**
Describes how to create smart fields, define the data structure and named mapping, define required logic, create data dictionary smart field items, create smart field templates, create Report Director templates, and create reports using smart fields.

CHAPTER 26

Understanding Edit Codes

This chapter discusses edit codes.

Edit Codes

PeopleSoft EnterpriseOne uses edit codes to determine how to display or format numeric values for a report. The default edit code for a numeric value is derived from the associated data dictionary item. However, you can override the edit code in the Object Properties in Report Design Aid. The Edit Code Table can help you select the edit code that best meets your business needs.

To select the appropriate edit code for the report, review the Negative Amount Notation column in the Edit Code table and select the appropriate option. This narrows the search to four codes. For example, if you select a trailing minus sign as your negative amount notation, your search is narrowed to the selection of J, K, L, or M.

Next, review the Zero Balance column in the Edit Code table and determine whether you want to print zero balances in the report. This narrows the search to two codes. For example, if you print zero balances, your search is narrowed to the selection of J or L.

Next, review the Commas column in the Edit Code table and determine whether you want to include commas in the numeric values on the report. For example, if you want commas in the report figures, select J. If not, select L.

This Edit Code table lists the available edit codes and their characteristics:

Edit Code	Commas Y/N	Zero Balance Y/N	Negative Amount Notation
A	Y	Y	Cr
B	Y	N	Cr
C	N	Y	Cr
D	N	N	Cr
J	Y	Y	- Trailing
K	Y	N	- Trailing
L	N	Y	- Trailing
M	N	N	- Trailing

Edit Code	Commas Y/N	Zero Balance Y/N	Negative Amount Notation
N	Y	Y	- Preceding
O	Y	N	- Preceding
P	N	Y	- Preceding
Q	N	N	- Preceding
R	Y	Y	<>
S	Y	N	<>
T	N	Y	<>
U	N	N	<>
1	Y	Y	No sign
2	Y	N	No sign
3	N	Y	No sign
4	N	N	No sign

CHAPTER 27

Understanding Events

This chapter discusses:

- Events.
- Processing option logic.
- Event levels.

Events

As a report is processed, the system pauses at specific points to process attached logic. These points are called *events*. You can use events to attach custom logic for processing. You use event rules in PeopleSoft EnterpriseOne to create logic statements without the difficult syntax required by most programming languages. Event rules process when an event, such as a page break, is encountered.

Events execute in a specific order during the processing of the report. Events are attached to controls, such as objects, sections, and reports. When you access Event Rules Design, the set of events you are presented with varies depending on where the cursor is positioned in the report.

Processing Option Logic

The section and event used to attach event rules affecting processing option values depends on the purpose of the processing options attached to the report. Some processing options must be read before fetching data from the database because they affect which records are fetched. Other processing options might determine whether a level break section is displayed in the report.

If the processing option template determines the data to be fetched from the database, you typically place the associated event rules in the Initialize Section event of the affected detail section. For example, if the processing option is prompting for which fiscal year to present, this value must be read before the system fetches any values for that section.

If the processing option determines whether to display a level break section in the report, the processing option needs to be processed before the level break section is processed. The event rules for this processing option are typically placed on the Initialize Section event of the level break section affected.

Event Levels

The events available to you are determined by the section type and where the cursor is positioned in the report template when entering Event Rules Design. The tables in this section list events that are available for these levels:

- Reports
- Sections
- Objects

Report Level Events

This table describes the events that are available for the report level; *XO* indicates that an event is supported:

Event	Description
Do Initialize Printer	XO
Initialize Report	future functionality
End Report	future functionality

Section Level Events

This table lists the events that are available for sections; *XO* indicates that an event is supported:

Event	Report Header	Page Header	Columnar	Group	Tabular	Child/Custom (CG)	Level Break Header	Level Break Footer	Page Footer	Report Footer
Advance Section	N/A	N/A	XO	XO	XO	XO	XO	N/A	N/A	N/A
After Last Object Printed	XO	XO	XO	XO	XO	XO	XO	XO	XO	XO
Before Level Break	N/A	N/A	XO	XO	XO	XO	N/A	N/A	N/A	N/A
Do Balance Auditor	N/A	N/A	N/A	N/A	XO	N/A	N/A	N/A	N/A	N/A
Do Section	XO	XO	XO	XO	XO	XO	XO	XO	XO	XO
Do Tabular Break	N/A	N/A	N/A	N/A	XO	N/A	N/A	N/A	N/A	N/A

Event	Report Header	Page Header	Columnar	Group	Tabular	Child/Custom (CG)	Level Break Header	Level Break Footer	Page Footer	Report Footer
End Break Section	N/A	N/A	XO	XO	XO	XO	N/A	N/A	N/A	N/A
End Lvl Brk Footer Section	N/A	N/A	N/A	N/A	N/A	N/A	N/A	XO	N/A	N/A
End Lvl Brk Header Section	N/A	N/A	N/A	N/A	N/A	N/A	XO	N/A	N/A	N/A
End Page Header	N/A	XO	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
End Report Header	XO	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
End Report Footer	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	XO
End Section	N/A	N/A	XO	XO	XO	XO	N/A	N/A	N/A	N/A
Init Break Section	N/A	N/A	XO	XO	XO	XO	N/A	N/A	N/A	N/A
Init Lvl Brk Footer Section	N/A	N/A	N/A	N/A	N/A	N/A	N/A	XO	N/A	N/A
Init Lvl Brk Header Section	N/A	N/A	XO	XO	N/A	XO	Even though event rules can be edited in RDA, this event is not processed by the system.	N/A	N/A	N/A
Initialize Page Header	N/A	XO	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Event	Report Header	Page Header	Columnar	Group	Tabular	Child/Custom (CG)	Level Break Header	Level Break Footer	Page Footer	Report Footer
Initialize Page Footer	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	XO	N/A
Initialize Report Header	XO	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Initialize Report Footer	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	XO
Initialize Section	N/A	N/A	XO	XO	XO	XO	XO	XO	N/A	N/A
Refresh Section	N/A	N/A	N/A	N/A	N/A	XO	N/A	N/A	N/A	N/A
Suspend Section	N/A	N/A	XO	XO	XO	XO	XO	XO	N/A	N/A

Object Level Events for Variables

This table lists the events that are available for variables; *XO* indicates that an event is supported:

Event	Report Header	Page Header	Columnar	Group	Tabular	Level Break Header	Level Break Footer	Page Footer	Report Footer
Cell Inclusion	N/A	N/A	N/A	N/A	XO	N/A	N/A	N/A	N/A
Column Inclusion	N/A	N/A	N/A	N/A	XO	N/A	N/A	N/A	N/A
Do Variable	XO	XO	XO	XO	XO	XO	XO	XO	XO
End Column	N/A	N/A	XO	XO	XO	N/A	N/A	N/A	N/A
End Variable	XO	XO	XO	XO	XO	XO	XO	XO	XO
Initialize Column	N/A	N/A	XO	XO	XO	N/A	N/A	N/A	N/A
Initialize Variable	XO	XO	XO	XO	XO	XO	XO	XO	XO

Object Level Events for Constants

This table lists the events that are available for constants; *XO* indicates that an event is supported:

Event	Report Header	Page Header	Columnar	Group	Tabular	Level Break Header	Level Break Footer	Page Footer	Report Footer
Do Column Heading	N/A	N/A	XO	N/A	XO	N/A	XO	N/A	N/A
Do Constant	XO	XO	XO	XO	XO	XO	XO	XO	XO
End Constant	XO	XO	XO	XO	XO	XO	XO	XO	XO
Initialize Const	XO	XO	XO	XO	XO	XO	XO	XO	XO

See Also

PeopleSoft EnterpriseOne Tools 8.95 PeopleBook: Development Tools: Event Rules and System Functions, “Using Event Rules Design”

CHAPTER 28

Understanding Report Processing

This chapter discusses:

- The batch process.
- Batch processing.
- Section processing.
- Level break processing.
- Batch events.
- System functions within batch events.

The Batch Process

Reports run using a batch process; they process automatically without user interaction. The engine executes the logic attached to the events within the batch process. After a batch process is launched, the flow of the attached logic proceeds on a fixed path based on the data being processed. If you need to change the flow of the logic, you must make modifications in the batch process using Report Design Aid. Examples of batch processes include reports, subsystem jobs, database output, and table conversions.

Subsystem jobs are batch processes that constantly run in the background and off-load processor resources. Subsystem jobs can also be used to move activities through a process, such as an escalation process in Workflow, which moves unanswered messages from one user to another after a defined period of time.

The database output function within Report Design Aid enables you to update or insert records within tables. Table conversions transfer data from one table to one or more tables, changes the data or schema of a PeopleSoft EnterpriseOne table, and transfers data from a single business view to one or more tables.

This section describes some of the advanced features of batch and report processing and how those features work.

Batch Processing

You create reports and batch processes using Report Design Aid, and you access the reports using PeopleSoft EnterpriseOne Solution Explorer. Individual reports and batch processes can be associated with applicable menus. You use batch processes to update tables or to print reports indicating the results of the batch process. Reports are just one kind of batch process that generates output. Many batch processes do not generate output.

PeopleSoft EnterpriseOne reports contain all of the specifications for the report, including section layout, business views, event rules, data selection, data sequencing, and database output.

Each report includes one or more *sections*, which you create in Report Design Aid. Sections are self-contained elements that are the building blocks of developing reports. You can join sections to one another or use them as standalone groups of information. You can also use sections for special purposes, such as headers and footers.

Report Sections

PeopleSoft EnterpriseOne report sections include headers, footers, and detail sections (columnar, group, and tabular). Some sections are dependent on other sections of the report. Dependent sections provide supporting information and do not necessarily make sense on their own. Other report sections are independent and address the business purpose of the report.

Independent sections are also referred to as level-one sections and include:

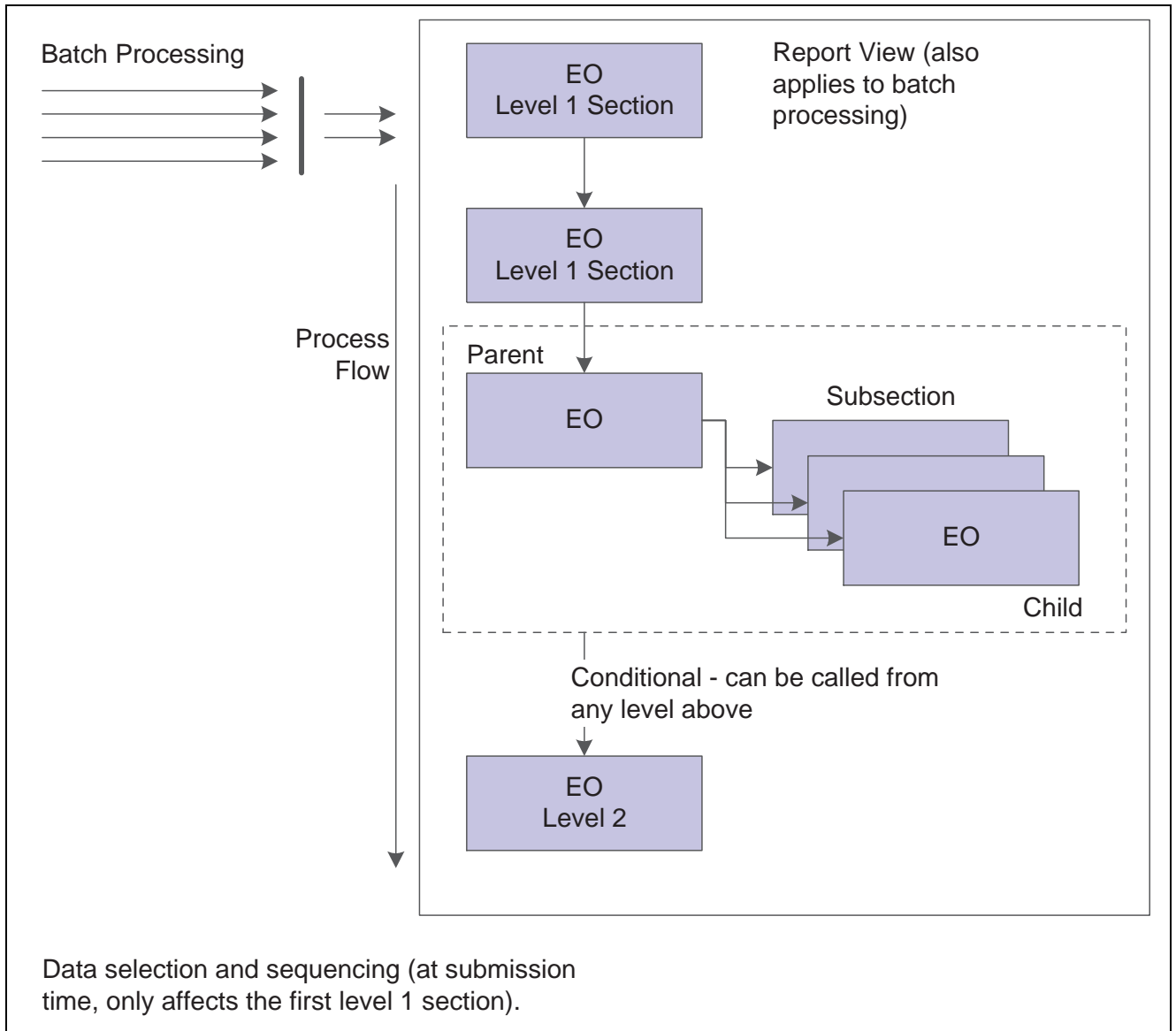
- Group
- Columnar
- Tabular

Level-one sections can also be parent sections.

Dependent sections are called from a level-one section. Dependent sections are also referred to as level-two sections and include:

- Level break headers.
- Level break footers.
- Total sections (used in non-tabular reports).
- Subsections.
- Custom.

This graphic illustrates how the batch engine processes sections within a report:



Batch engine processing

The sequence in which the level-one sections of the report appear in the report view of Report Design Aid determines the process flow of the level-one sections. For example, if a report has multiple level-one sections and each has its own business view, then the first level-one section executes before the next level-one section executes. Any level-two sections that exist between the level-one sections are processed when and if they are called from a level-one section. If the report includes a subsection join following the level-one sections, creating a parent/child relationship, then the parent/child sections are processed independently of the first level-two section.

The system reads and processes all records in a section from beginning to end based on the defined data selection. If you do not specify data selection, then all the records in the table are read until the end of file (EOF) is reached.

If the report contains a subsection join following a level-one section, then the parent/child section is processed independently of the first section.

The parent/child relationship positioned in the middle of the previous graphic illustrates the flow of joined sections. Parent/child sections can be called at any point within the process flow. Depending on how the sections are joined (one-to-one, one-to-many, or many-to-many), records are fetched first from the parent business view and then from the child business view for each corresponding parent record. When all parent records have processed, the system continues to the next section. If any database updates are performed in one of the first level-one sections, that change is reflected in the records fetched for the parent/child sections.

The last section in the previous graphic, the conditional section, can be called from any of the previous level-one sections using the Do Custom Section system function. Conditional sections are called from a level-one section dependent on the criteria you defined. For this reason, conditional sections are considered level-two sections. Memory allocation for conditional sections occurs at the beginning of the section. Therefore, you need to place conditional logic in the Initialize Section or End Section event to hide and show objects because memory is allocated and freed only once, instead of each time a section is called.

PeopleSoft EnterpriseOne processes all section types, except for tabular sections, the same way. Tabular sections output to the report only when the system encounters a level break. The system does not initialize the Do Section for each record; instead, it summarizes the records to the lowest level break level. The output to tabular sections is similar to level break header sections.

The process flow of level-one sections depends on the sequence in which the sections appear on the Report tab in Report Design Aid. If level-one sections are moved, the execution sequence is affected. In report processing, the system processes all level-one sections in the order in which they appear. This is not true of level-two sections: all level-two sections are processed as dependents of level-one sections. Moving conditional sections, subsections, level break sections, page headers, page footers, and report headers does not affect the sequence of execution. Report execution takes place from top-to-bottom for sections; and top-to-bottom, left-to-right for objects within a section.

Custom sections appear as level-one sections in the report view, but they are not processed unless explicitly called by the Do Custom Section system function.

Detail report sections can be considered mini reports, or batch processes, with each section using its own business view. Because other sections in the report can contain different business views, you must add data sequencing and data selection to each section using Report Design Aid.

Note. Data sequencing and data selection defined at runtime affects only the first level-one section of the report or batch process. Therefore, when you design a report or batch process, consider how this effects users: they cannot change data selection and sequencing easily for additional level-one sections.

Whether or not a level-one section has a business view attached to it, it is executed at least once. Consider this in your decision to execute special event rule logic using the Do Section event of that section.

Section Processing

When a report is processed, several events occur. The processing of the attached logic might be dependent on processes that occur before and after a particular event.

The report header is processed before the level-one section, and the level-one section is initialized by the Initialize Section event. After Initialize Section, the system processes the Advance Section, Page Footer, Page Header, and so on. When the system finishes processing the first level-one section and all dependent sections associated with it, it repeats the process for the next level-one section.

This section discusses:

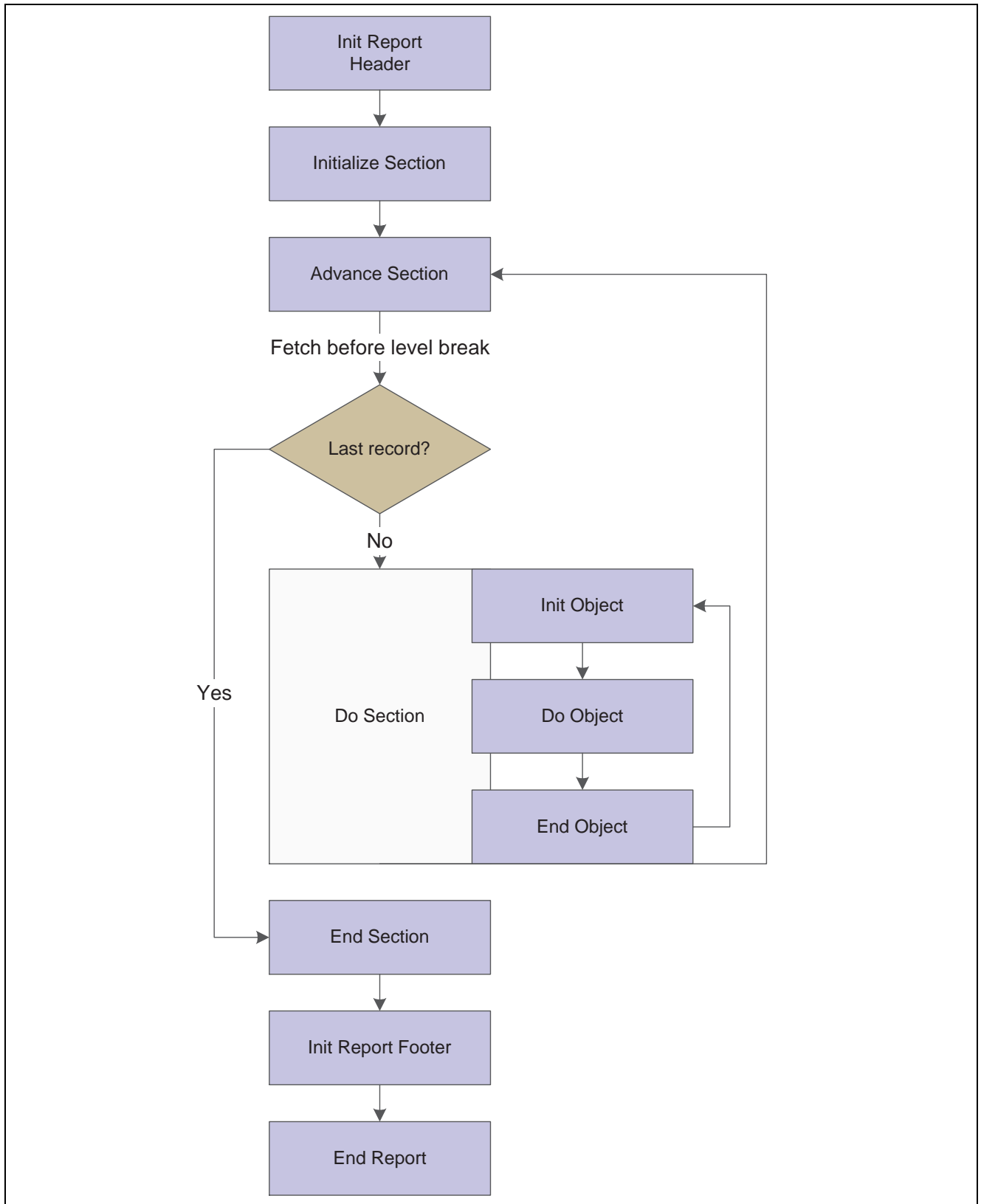
- Group and columnar section event flow.
- Tabular section event flow.

- Logic attached to joined sections.
- Data selection and sequencing.

Group and Columnar Section Event Flow

Group and columnar sections are alike in their processing because they both write to the output after each record is read, unlike tabular sections, which write to the output only when a level break is encountered. The output is determined by the data sequencing defined in the section.

This diagram illustrates the typical event flow for group and columnar sections:

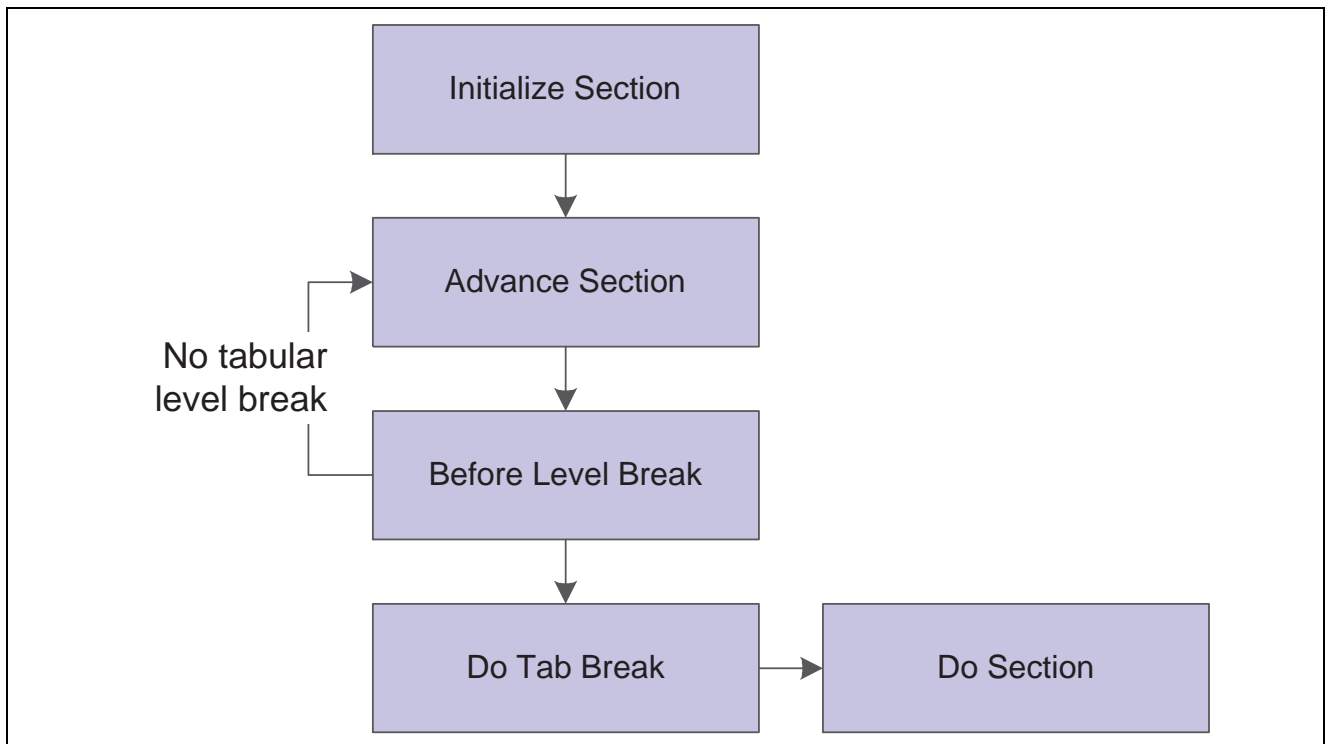


Event flow for group section

Tabular Section Event Flow

Tabular sections are comprised of columns, rows, and cells. To define what information is contained in each column, row, or cell, you define inclusion event rules or calculations. Inclusion event rules can include a set of criteria, a business function, or a named event rule for a row or column. One advantage of tabular sections is that you do not have to define additional sections for level break logic or processing, as you do with group and columnar sections. However, level breaks are dependent on the data sequencing, so you must define data sequencing correctly.

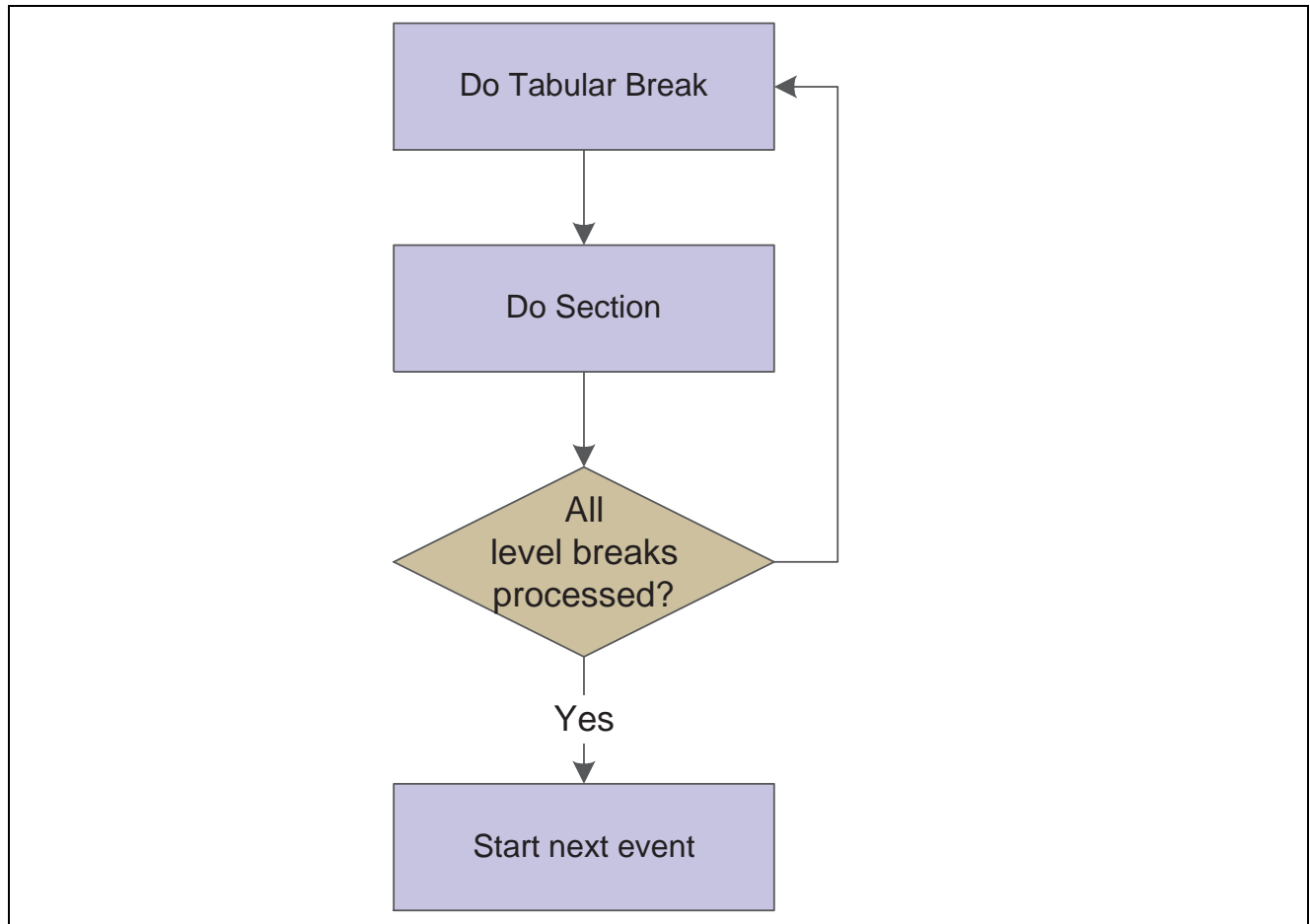
This diagram illustrates the typical event flow for tabular sections:



Event flow for tabular section

Tabular sections summarize information and write to the output only when a level break is encountered. Level breaks are dependent on data sequencing and can be modified to make records as detailed or as general as the business need requires. The more fields that you include in the section data sequencing and define as level breaks, the more detailed the report is. For example, you create a tabular section report to display open purchase orders. You sequence the data on Address Number, Document Number, and 2nd Item Number. You define all three fields as level break fields. The report displays the amount open for each 2nd Item Number for each document for each supplier. If you modify the data sequencing to include only Address Number and Document Number, and define only Document Number as a level break field, the report rolls up all the information and displays the total amount open for each document number. The result is a summary of the data included in the first report.

This diagram illustrates a tabular section level:



Tabular section level

Additional features in tabular sections include Drill Down, Account Level of Detail, and Automatic Totaling. Drill Down provides a view to the associated interactive application from the viewable output of a report. The interactive application displays the detail for the balances on the viewable output of the report.

The Automatic Totaling feature totals numeric values, regardless of the type, unless otherwise defined in data dictionary. An example of a data item that does not total is Address Number. However, the system displays the description of some numeric values in the Row Description column, and may try to total these fields. To suppress the total for a column, access the properties for the column and select the Suppress at Totals option.

If you have a report that uses multiple sections or a combination of group and columnar sections, consider using a tabular section instead. This improves system performance because instead of calling multiple sections, the system calls only one section.

Attaching Logic to Joined Sections

If you need to include logic on joined sections, attach the logic to the Refresh Section event if the logic should be processed every time the section is processed. When joined sections are processed, the system initializes the Initialize Section event the first time the parent/child section is processed. The system then initializes the Refresh Section event for all subsequent times the parent/child section is processed. Therefore, if you attach logic to the Initialize Section event, the logic is processed only once. If you attach it to the Refresh Section event, it is processed each time the section is processed.

Data Selection and Sequencing

If the report or batch process contains multiple sections and takes a long time to process, check the data selection for each section. The system processes all the records in a table unless you specify otherwise. If you want a level-one section to adopt the data selection and sequencing from another section, you can use the Use Data Sel/SeqFromASection system function. This system function uses the data selection and data sequencing as defined in another section.

For example, in the Print Pick Slips program (R42520), you can select from hundreds of available columns in the F4211 table to use in the data selection. In the first section, which is hidden and sends data to the F4211 table, the report processes commitments first, which could add rows to the F4211 table. The next section in the report displays the modified and updated F4211 table showing the committed records. Possible solutions are to use a temporary file or to change the data selection on multiple sections. In this case, use the Use Data Sel/SeqFromASection system function to adopt the data selection and sequencing from the previous level-one section.

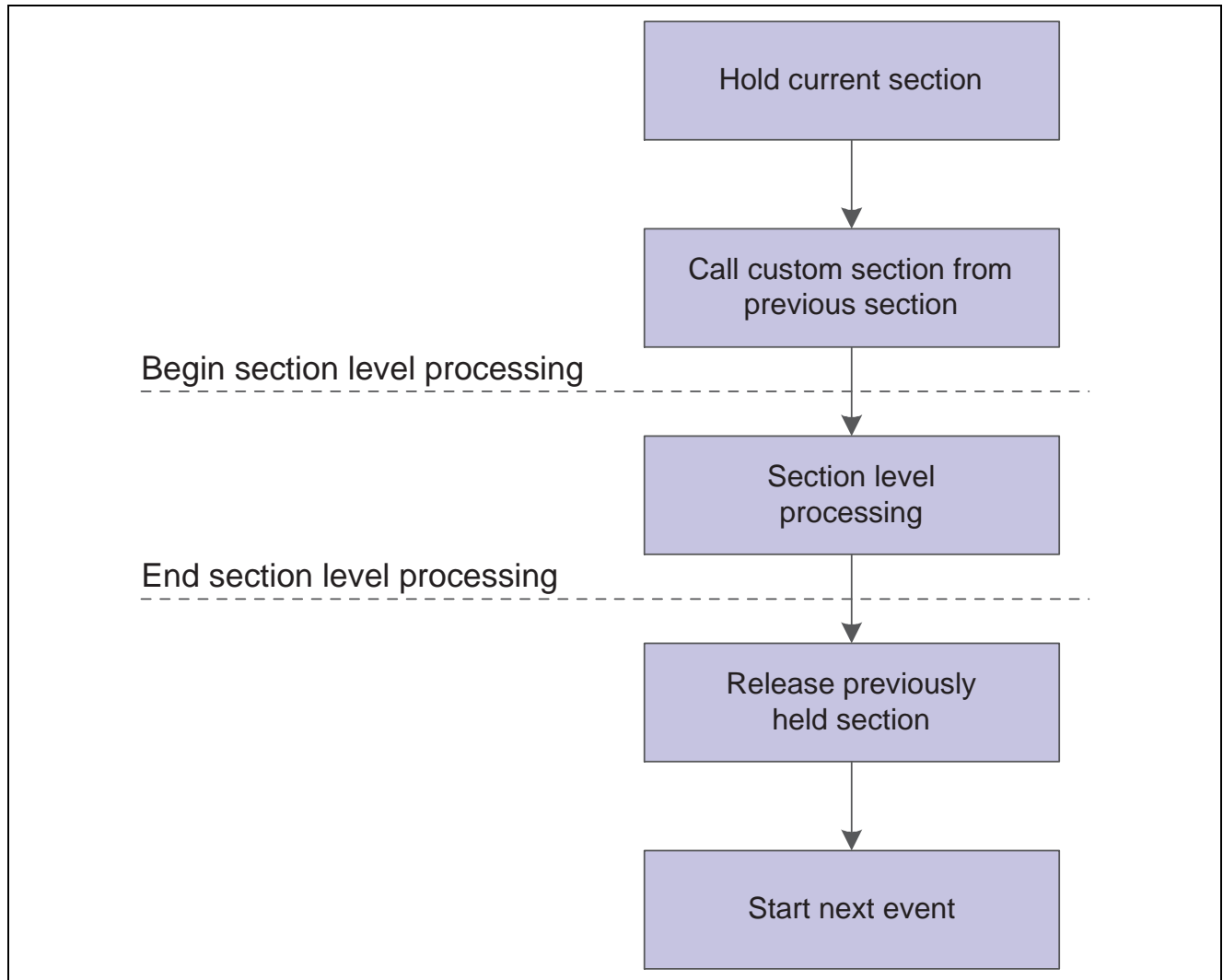
The Use Data Sel/SeqFromASection system function enables a detail section to adopt the data sequencing or data selection specifications from another section in the report or from an entirely different report. The target section can adopt the data selection criteria, the data sequencing information, or both from the source section. The selection or sequencing information from the source section replaces the information contained in the specifications of the target section.

To use the Use Data Sel/SeqFromASection system function, access the event rules for the Initialize Section event of the target section. The Initialize Section event is the only event that should invoke this system function. Expand the General folder to locate and select the Use Data Sel/SeqFromASection system function. Define the parameters to indicate the report, version, and section of the source data selection and data sequencing.

Custom Sections

Custom sections enable you to control, through event rules, the information that prints on a report. You can use custom sections to force a page break by creating a section with no objects and then activating Page Break After Print in the Section Properties. You can use custom sections to print variable text. Custom sections can also be used for sections that present the same information but are formatted differently. For example, a report that exists in two different modules but, depending on the user, calls a different section that displays information specific to that particular module.

This diagram illustrates the process flow for custom sections called from event rules:



Processing flow of a custom section called from event rules

When you run the report, the batch engine calls and processes each section until it encounters the system function call to the custom section. The batch engine then processes the custom section. When the batch engine finishes processing the custom section, it continues processing the previous section.

You can call custom sections from any event except Initialize Section, Initialize Column, and Report Level Events (Do Initialize Printer, Initialize Report, and End Report). If you try to call a custom section from one of these events, the report writes a warning to the log and ignores the call to the custom section, continuing with the main section.

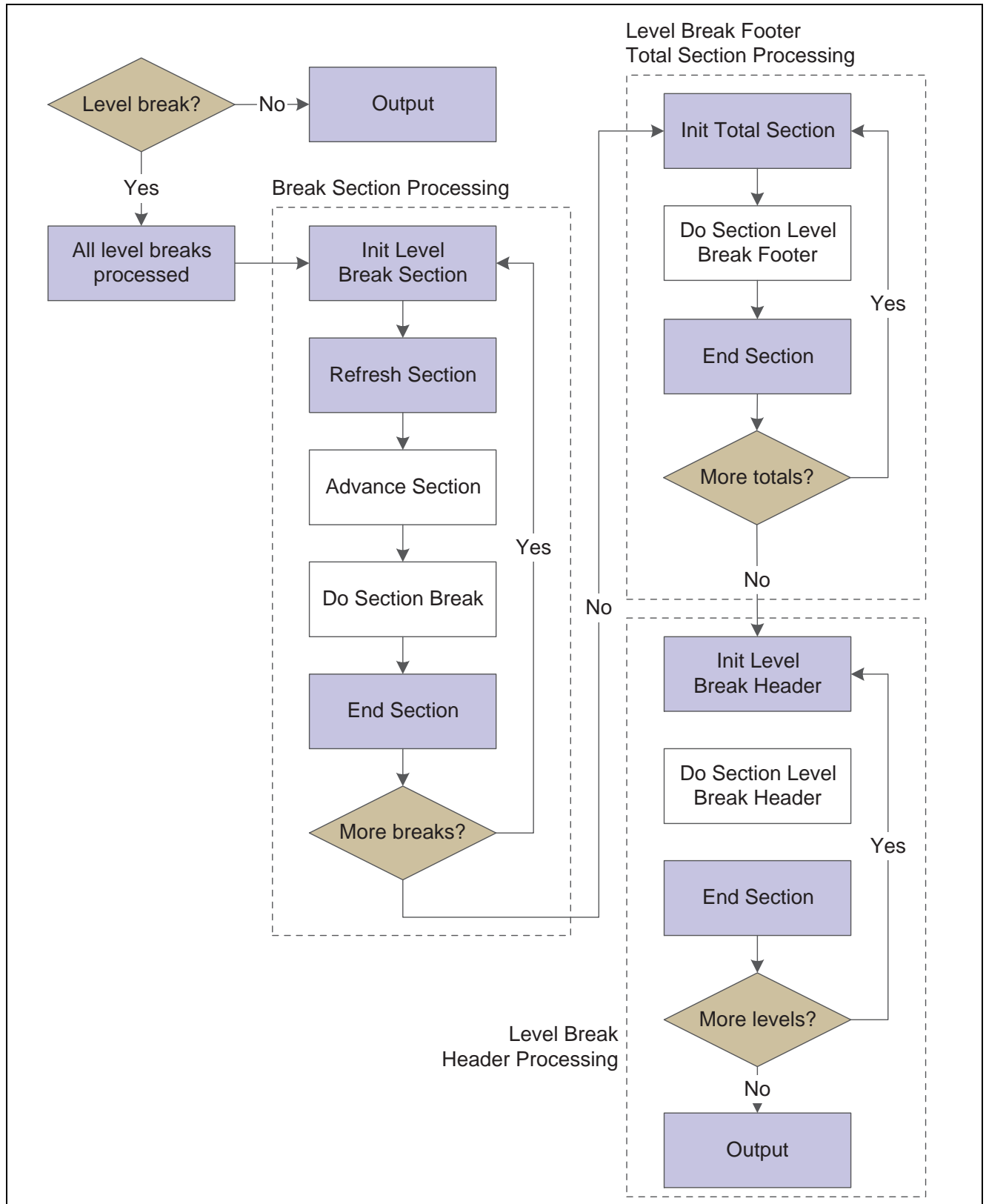
The custom section processes in the same manner as the type of section it is (columnar, group, or tabular).

Level Break Processing

Use level breaks to identify a change in a field's data by comparing the current record to the previous record. A level break occurs when there is a change between the records for the field defined as a level break. You can use level breaks to organize the data of a large report into smaller, logical groups of data that are easier to review. Typically, a descriptive header is displayed prior to the associated data. For example, you can group address book records by search type. All records with the search type of *E*, for employees, are displayed together with an appropriate heading. When the value in the search type field changes, a level break occurs and a new grouping begins. Level breaks can be set up to initiate page breaks, totals, headers, and footers. Only business view fields can be defined to be level break fields.

A single business view field can be attached to one level break header and one level break footer. If more than one level break header or level break footer is attached to a business view field, the batch engine processes only the first level break header or level break footer section and ignores the others.

This graphic illustrates level break logic processing:



Level break logic processing

Before a level break section is processed, the batch engine issues the Init Break Section event. This event stops processing for the current section and begins processing the level break footer section. After the level break footer section has been processed, the batch engine processes the level break header, if defined in the report.

Level Break Section Events

When a report containing level break sections is processed, PeopleSoft EnterpriseOne automatically calls the Init Lvl Brk Footer Section event or Init Lvl Brk Header Section event. You can attach event rules to these events to control the flow of logic processed by the batch engine.

For example, if you want to create a report that summarizes information by company, you can design the report to organize the data by company using a level break footer. You can define *Company* as a level break field and, when the company changes, the batch engine calls the level break footer for the detail section.

Business function calls, table I/Os, or other logic can be attached to level break section events.

Init Lvl Brk Footer Section Event

A level break occurs when a new value for the level break field is encountered. Therefore, the new level break value is in memory when the level break occurs. When the batch system calls the Init Lvl Brk Footer Section event, the values for the previous level are accessed and are either summarized or totaled. For example, if you have a level break footer defined to total revenue by company, the level break footer inserts the total below all the associated records that have been processed for a specific company. The Init Lvl Brk Footer Section event is attached to the level break footer section.

If you set up multiple level break footers within a report, the batch system processes the footers starting from the lowest level up to the highest level in the report, as seen in the data sequencing dialog for the section in Report Design Aid. For example, if you define two level break footers, one on business unit and one on company, the aggregates for business unit process first and then the aggregates for the associated company.

When attaching logic to a level break footer, attach it to the End Lvl Brk Footer Section event rather than on the End Section event.

Init Lvl Brk Header Section Event

The Init Lvl Brk Header Section event is called after a level finishes processing and the system has encountered a new value for the level break field. It is also called after the Init Lvl Brk Footer Section event, if you have one defined. The Init Lvl Brk Header Section event locates the header section associated with the previous level and processes the information in the level break header.

For example, if you define a level break header and a level break footer in a report, the level break footer processes before the level break header for the next level, which might contain records for another company. The header section processes new records, or different data, from the previous section.

If multiple level break headers exist within a report section, the batch system processes the headers starting from the highest level down to the lowest level in the report, as seen in the data sequencing dialog for the section in Report Design Aid. For example, if you define two level break headers, one on business unit and one on company, the company level break header processes first and then the business unit level break header.

End Lvl Brk Header and Footer Section Events

After the initialize level break events are processed, PeopleSoft EnterpriseOne processes the End Lvl Brk Header Section and End Lvl Brk Footer Section events. These events end the level break process and return to the detail section. You can attach logic to the End Lvl Brk Section event to call a custom section. For example, you might want to print text, such as a disclaimer, after a level break footer. In this case, you can create a custom section that contains the information you want to print and attach the custom section logic to the End Lvl Brk Section event. When you process the report, the disclaimer displays below the level break footer section.

Batch Events

As a batch application is processed, the runtime engine pauses at certain points to process logic. These points are called *events*. You can use events to insert custom logic for processing. The basic flow of these events within a section is Initialize Section, Do Section, and then End Section.

Some events are processed by the batch engine only if the appropriate section type exists. For example, Init Report Header and End Report Header are initialized only if the report includes a report header section. Likewise, Init Lvl Brk Footer and End Lvl Bk Footer are processed only if a level break footer exists.

This section discusses:

- Do Section event.
- Additional batch events.
- System functions within batch events.

Do Section Event

The Do Section event is invoked after the batch system has assigned new values to objects in the report and immediately before processing objects within a section. In columnar and group sections, you most commonly attach logic to the Do Section event. This is because the Do Section event occurs before any objects are processed, and typically the logic you attach affects the objects in some way.

When the system processes the Do Section event in columnar sections, it processes the column headings first, and then fetches the first record. For each object or column in the record, it processes the Init Object, Do Object, and End Object events. After processing the last object, the system calls the After Last Object Printed event and then fetches the next record and repeats the process. When all lines have been fetched from the database, the system processes the End Section event. This basic process is the same for group sections.

If an object does not fit on the page, the engine invokes the Suspend Object event, which moves the object to the next page.

If an object is a child section, such as in a subsection join, the system invokes the Initialize Section event the first time the child section is processed. For any subsequent times that the child section is processed, the engine invokes the Refresh Section event.

Additional Batch Events

In addition to the basic batch events, other events provide you with flexibility in the batch process. Other levels of events include:

- Report Level.
- Section Level.
- Page Header Section Level.
- Page Footer Section Level.
- Report Header Section Level.
- Report Footer Section Level.
- Constant and Variable.

Report Level Events

This table describes the events that are available at the report level:

Event	Description
Do Initialize Printer	Resolves and validates the printer name. This event is called once per subsystem trigger. The printer can be set using the Initialize Printer system function, which is only valid on this event.
Initialize Report	Resets global report variable and global event rule variable values if the event contains no event rules in a subsystem; preserves global variable values otherwise. The Initialize Report event is executed only once per report and is always the first event to be processed. If the report is a subsystem report, the event rules on this event is executed once as the subsystem begins and before any subsystem triggers are processed.
End Report	Executes once at the end of the report processing and is always the last event to be processed. If the report is a subsystem, the event rules on this event are executed only after the system processes an End Subsystem trigger and the subsystem is in the process of terminating.

Section Level Events

This table describes the events that are available at the section level:

Event	Description
Advance Section	Occurs each time you perform a fetch from the database. Use this event if you need to perform processing on objects before the fetch. If the section does not have a business view attached, then this event is processed only once.
After Last Object Printed	Occurs after a record is printed to an output file. Use this event to process information after a record has been output.
Before Level Break	Occurs before a level break is processed. Use this event to perform processing after a fetch but before any level breaks are checked.
Do Balance Auditor	Valid only for tabular sections. Use this event for the drill down feature.
Do Section	Occurs after Advance Section, after values have been assigned to print out to a printer or an output file. Occurs before any information for the current record is written to the PDF file and before Do Cell (if tabular cells exist), Do Variable or Do Constant. In a tabular section, this event processes after the level break.
Do Tabular Break	Valid only for tabular sections. Occurs when the value changes for a business view field defined as a level break. Use this event to perform processing that requires a change of values in any of the level break fields.

Event	Description
End Break Section	Occurs after a level break finishes processing. Use this event to perform processing immediately after a level break.
End Lvl Brk Footer Section	Occurs after a level break footer. Use this event to do processing immediately after a level break footer.
End Lvl Brk Header Section	Occurs after a level break header. Use this event to do processing immediately after a level break header.
End Section	Occurs after a batch process has completed processing the last set of section values. Use this event to do processing immediately after a section ends. This event is useful for last record and end-of-file procedures.
Init Break Section	Occurs after a level break begins processing. This event initializes a child section that is joined to the parent section on a level break.
Init Lvl Brk Footer Section	Occurs before a level break footer. Use this event to do processing immediately before a level break footer.
Init Lvl Brk Header Section	Occurs before a level break header. Use this event to do processing immediately before a level break header.
Initialize Section	Occurs when a batch process encounters a section for the first time. Use this event to do processing immediately before a section begins. This event is useful for working with global variables or performing other preparatory procedures. For conditional sections, this event is processed each time the section is called.
Refresh Section	Occurs subsequent times a child section is processed. The first time the batch engine encounters a child section, it issues an initialize section event. Each subsequent time the child section is processed, the batch process uses Refresh Section. At this point, the internal structures and pointers for the child section have been established and the batch engine prepares to select a new group of records for the child section. This logic also works for the level break sections. Use this event to set the object values of level two sections based on the parent section. You can also use this event to reset or modify data selection and data sequencing for the child section.
Suspend Section	Occurs when an overflow page break (that is, information exceeds the space available on the page). This event temporarily stops the section processing. Use this event to do processing when a page break occurs.

Page Header Section Level Events

This table describes the events that are available at the page header section level:

Event	Description
Initialize Page Header	Occurs at the beginning of a report, after the report header section and before the page header section processes for the first time. It also processes every time a page break occurs. Use this event to initialize values that cannot be set until after the report header logic executes. This event is similar to Init Section for a normal group, columnar, or tabular section, except that it is processed only for a page header section.
End Page Header	Occurs after the page header finishes processing. Use this event to do processing immediately after a page header.

Page Footer Section Level Events

This table describes the events that are available at the page footer section level:

Event	Description
Initialize Page Footer	Occurs at the beginning of the report, after the report header and before the page footer section processes for the first time. Use this event to initialize values to be printed in the current page footer section. These assignments typically depend on information already processed on that page.
End Page Footer	Occurs after the page footer finishes processing. Use this event to do processing immediately after a page footer.

Report Header Section Level Events

This table describes the events that are available at the report header section level:

Event	Description
Initialize Report Header	Processes once at the very beginning of the report. Use this event to initialize values at the beginning of a report. This event is similar to Init Section for a normal group, columnar, or tabular section, except that it processes only for a report header section.
End Report Header	Occurs after the report header processes. The report processes the page header for a report next. Use this event to do processing immediately after a report header.

Report Footer Section Level Events

This table describes the events that are available at the report footer section level:

Event	Description
Initialize Report Footer	Occurs once at the end of a report, after everything else processes and before the report footer prints. Use this event to initialize values to print in the report footer.
End Report Footer	Occurs after the report footer processes. After processing completes, the report terminates. Use this event to do processing immediately after a report footer.

Constant and Variable Events

This table describes the events that are available at constant and variable events:

Event	Description
Do Column Heading	Occurs when the column is initialized. Use this event to populate the column heading based on event rules associated with a business function.
Do Variable and Do Constant	Occurs just before the font and color are selected and before the value of the object is translated into a printable string of characters and is output to the page. Use this event to do processing after an object has been processed. This is your last opportunity to manipulate the values or display attributes of objects before output.
End Variable and End Constant	Occurs immediately after an object is processed even if the object is invisible or suppressed. Use this event to do processing after an object is processed.
Initialize Variable and Initialize Constant	Occurs before each report object or variable is processed. Use this event to do processing before an object is processed. This event is useful to do processing that affects the position of an object because the object's position on the page has not yet been determined.
Suspend Object (constant)	If an object requires multiple text strings or column headings and if only part of the object fits on a page, then the batch process issues a suspend object to halt processing of the object until the next page has been started. Use this event to modify the value at the page break. Because the value of the object is already partially processed, this is not a good time to manipulate that value.

Event	Description
Column Inclusion	Valid only for tabular sections. Occurs after each record is fetched from the database. Use this event to perform calculations. Do not use the Column Inclusion event when you are performing calculations between columns (such as when calculating variance) or between variables within a column.
Cell Inclusion	Valid only for tabular sections. Occurs during Do Object after processing calculations for a cell. Use this event to manipulate cell data before displaying it. This event occurs before Do Variable and Do Constant. This event occurs during calculations. Additionally, you can attach criteria to determine whether the currently fetched data should be included in the cell calculation.

System Functions within Batch Events

System functions provide you with flexibility and control over how reports are processed. For example, you can use system functions to hide and show objects, hide and show sections, and to generate messages.

This table describes the main categories of system functions available in batch applications:

Category	Description
Object	Use to perform actions such as hide and show objects.
Section	Use to perform actions such as hide and show sections or work with totals.
General	Use to perform actions such as work with data selection and data sequencing.
Messaging	Use to perform actions such as send, update, or delete messages.
Workflow	Use to perform actions such as work with processes.
Transaction Processing	Use to begin, commit, or roll back transactions.
Media Objects	Use to work with media objects.

There are many system functions that are shipped with PeopleSoft EnterpriseOne. This table describes some of the commonly used system functions located in the general folder:

System Function	Description
Set Selection Append Flag and Set Sequence Append Flag	Enables you to add, append, or overwrite data selection and data sequencing for a section.

System Function	Description
Set User Selection and Set User Sequence	Enables you to define data selection and data sequencing for a section.
Stop Section Processing	<p>Stops processing for the current section and moves to the next section. This system function is helpful for performance, especially when there is a large amount of event rule logic that remains to be performed. For example, if no more customers exist with a credit limit over a certain amount, the system stops processing that section and moves to the next section.</p> <p>Stop Section Processing differs from Suppress Section Write. Suppress Section Write suppresses only the current record, which causes the engine to process the next record for the current section.</p>
Hide Object	For group and columnar sections, when you hide objects using the Hide Object system function, the system still prints a blank line even if the hidden object is the only object on that line. The system has no way of knowing whether there are any other objects on that line that need to be printed. To keep the system from printing a blank line, place the object in its own conditional section and suppress the printing of the conditional section using the Hide Object system function.

CHAPTER 29

Understanding Runtime Processing

This chapter discusses batch runtime processing.

Batch Runtime Processing

The term *batch runtime processing* refers to how events and their attached event rules are evaluated at runtime.

Runtime structures are blocks of memory that hold data as it is read, processed, and written to the database, when required.

Report Design Aid provides several different field types and event rules that are associated with runtime structures.

This section discusses:

- Available objects.
- Typical event flow for group sections.

Available Objects

Available objects are represented by a two-character, alphabetical code that characterizes the source of the data and determines how the data is used in reports and batch processes at runtime.

During runtime processing, data is stored in memory in an internal data structure. Certain fields of the data structure temporarily store data during runtime until it is no longer needed. Then data can be cleared to process another record.

This table describes the available objects that are defined for batch processing:

Object	Description
BC	Columns included in the attached business view. These columns are populated with values from the database when a fetch is performed and are the values saved to the database during an add or update.
PO	Values passed from processing options. These values are passed into the application when the batch version is submitted. These processing option values are entered by the user or defined in a particular version of an application.
VA	Event rules variables that you create in event rules using data items. They are not manipulated by the system.

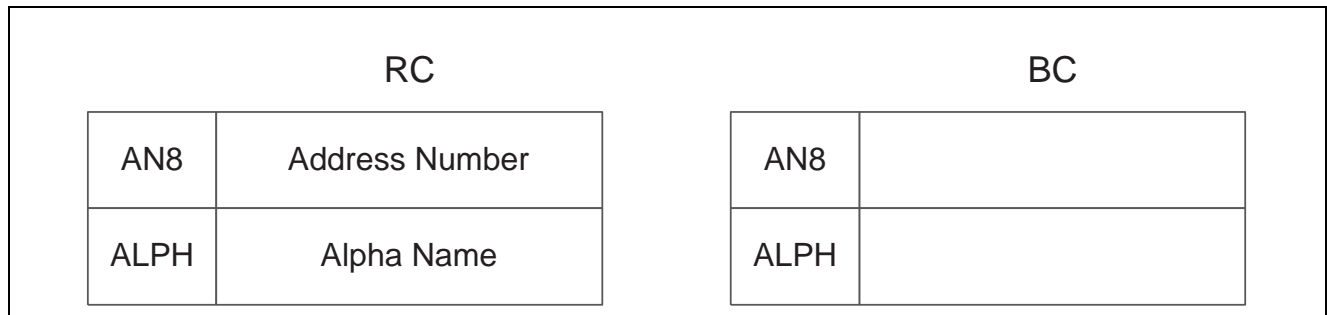
Object	Description
SV	System variables that represent environment variables that are made accessible to event rules.
SL	System values that represent constant system values that have been made accessible to event rules.
TV	Text variables that you create in Report Design Aid for use in event rules.
RC	Report constants. Includes column headings in columnar sections and the constant portion of fields in group sections.
RV	Report variables.
PC	Previous business view columns.
PV	Previous report variables.

Typical Event Flow for Group Sections

The runtime engine processes events in a specific order.

Initialize Section

This diagram illustrates the values that are held in the runtime structures after the Initialize Section event processes for the group section of an Address Book report:



Runtime structure values after Initialize Section event

Advance Section

This diagram illustrates the values that are held in the runtime structures after these events process:

- Initialize Section
- Advance Section

RC		BC	
AN8	Address Number	AN8	
ALPH	Alpha Name	ALPH	

Runtime structure values after Advance Section event

Before Level Break

This graphic illustrates the values that are held in the runtime structures after these events process:

- Initialize Section
- Advance Section
- Before Level Break

RC		BC	
AN8	Address Number	AN8	1
ALPH	Alpha Name	ALPH	Financial/Distribution Company

Runtime structure values after Before Level Break event

Do Section

This diagram illustrates the values that are held in the runtime structures after these events process:

- Initialize Section
- Advance Section
- Before Level Break
- Do Section

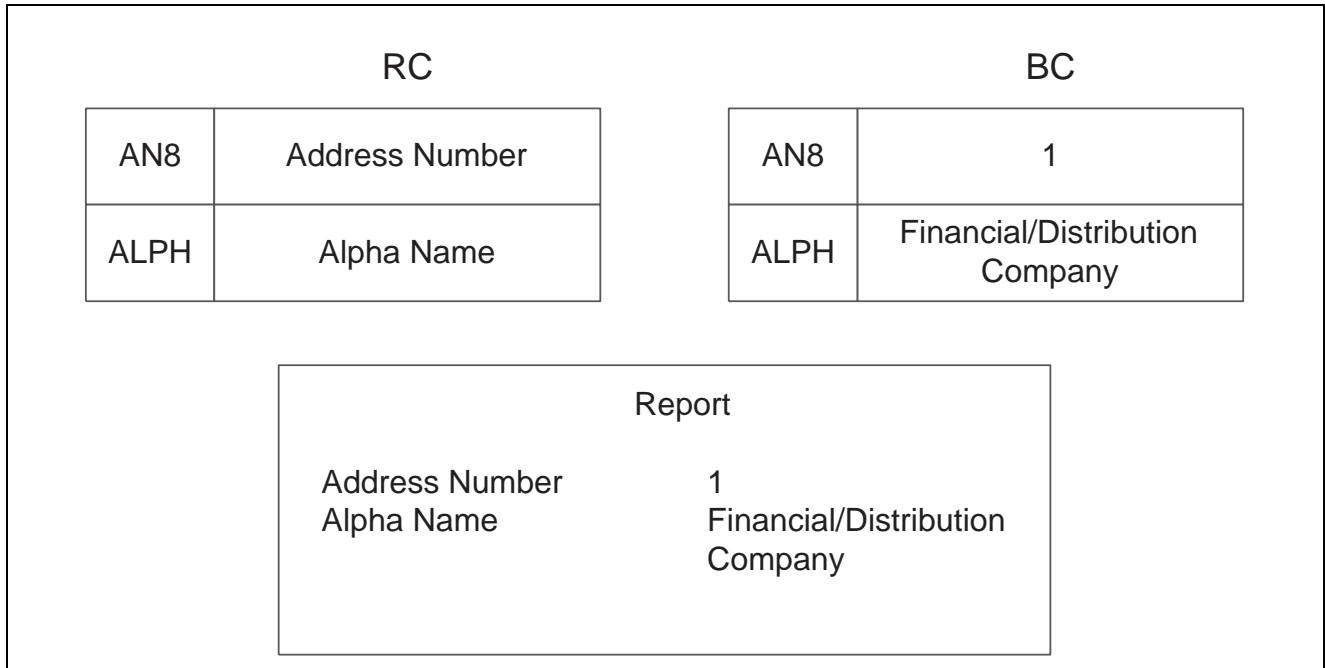
RC		BC	
AN8	Address Number	AN8	1
ALPH	Alpha Name	ALPH	Financial/Distribution Company

Runtime structure values after Do Section event

After Last Object Printed

These diagrams illustrates the values that are held in the runtime structures after these events process and shows how the report appears:

- Initialize Section
- Advance Section
- Before Level Break
- Do Section
- After Last Object Printed

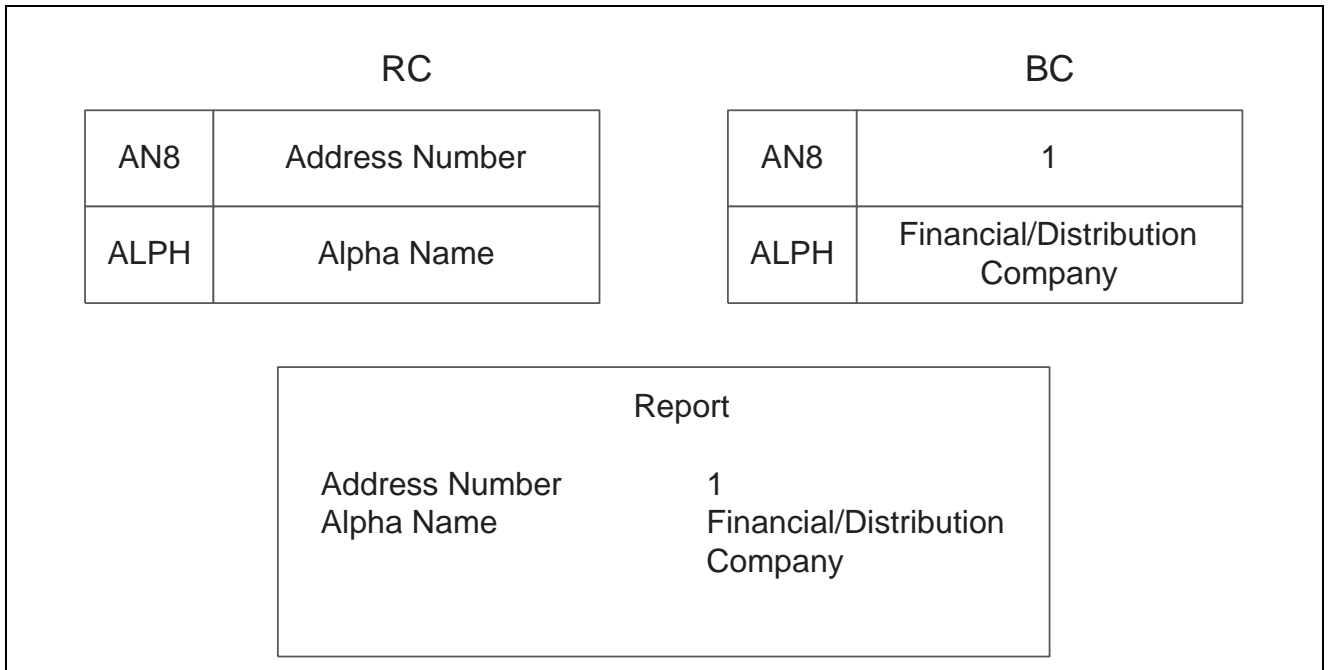


Runtime structure values after the After Last Object Printed event

Advance Section

These diagrams illustrate the values that are held in the runtime structures after these events process and show how the report appears:

- Initialize Section
- Advance Section
- Before Level Break
- Do Section
- After Last Object Printed
- Advance Section

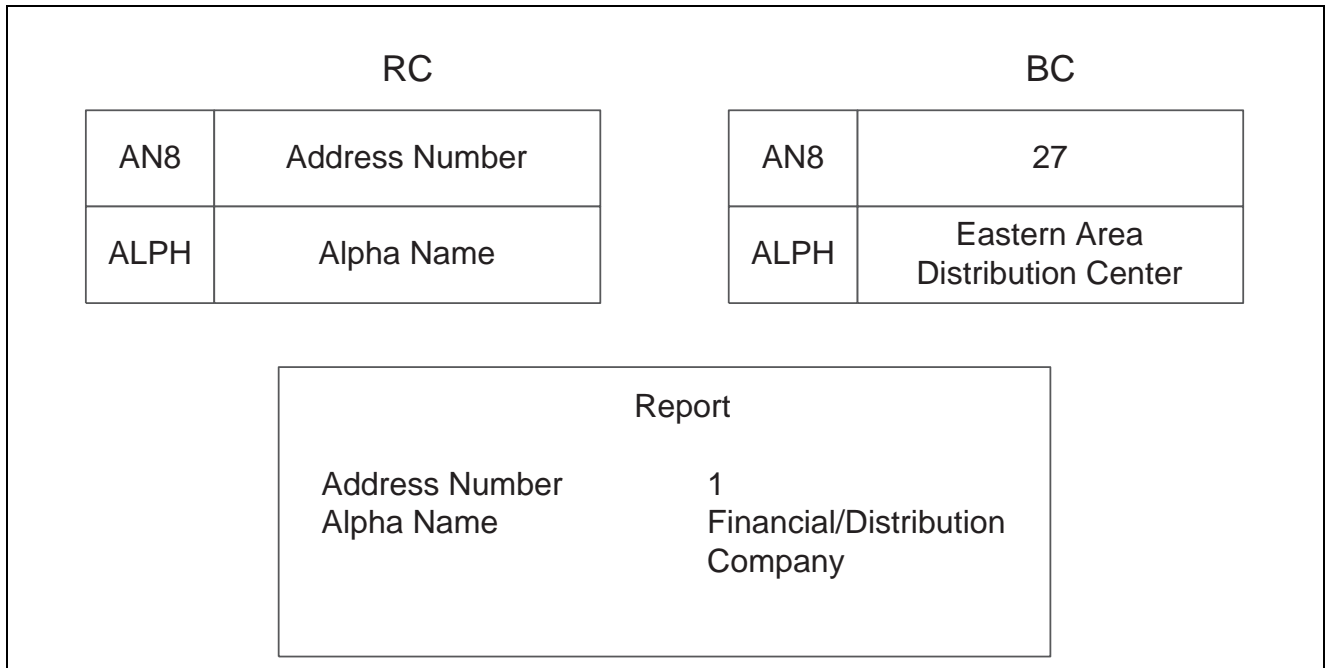


Runtime structure values after Advance Section event

Before Level Break

These diagrams illustrate the values that are held in the runtime structures after these events process and show how the report appears:

- Initialize Section
- Advance Section
- Before Level Break
- Do Section
- After Last Object Printed
- Advance Section
- Before Level Break

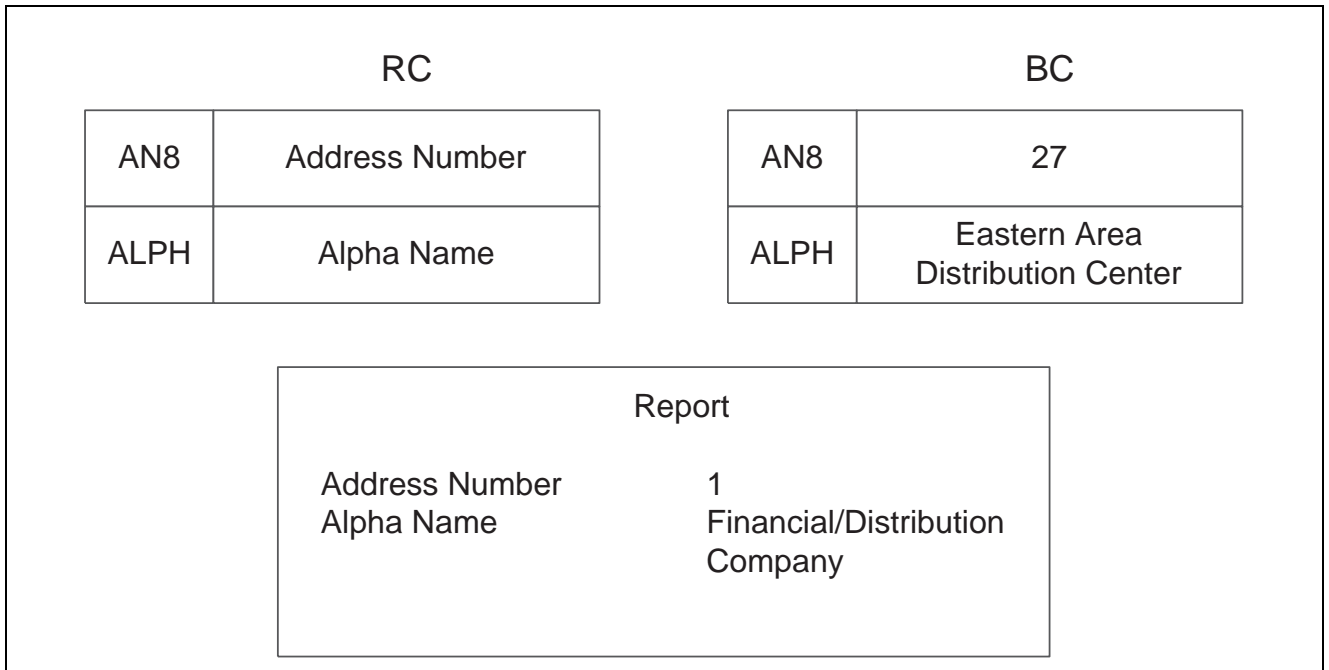


Runtime structure values after Before Level Break event

Do Section

These diagrams illustrate the values that are held in the runtime structures after these events process and show how the report appears:

- Initialize Section
- Advance Section
- Before Level Break
- Do Section
- After Last Object Printed
- Advance Section
- Before Level Break
- Do Section

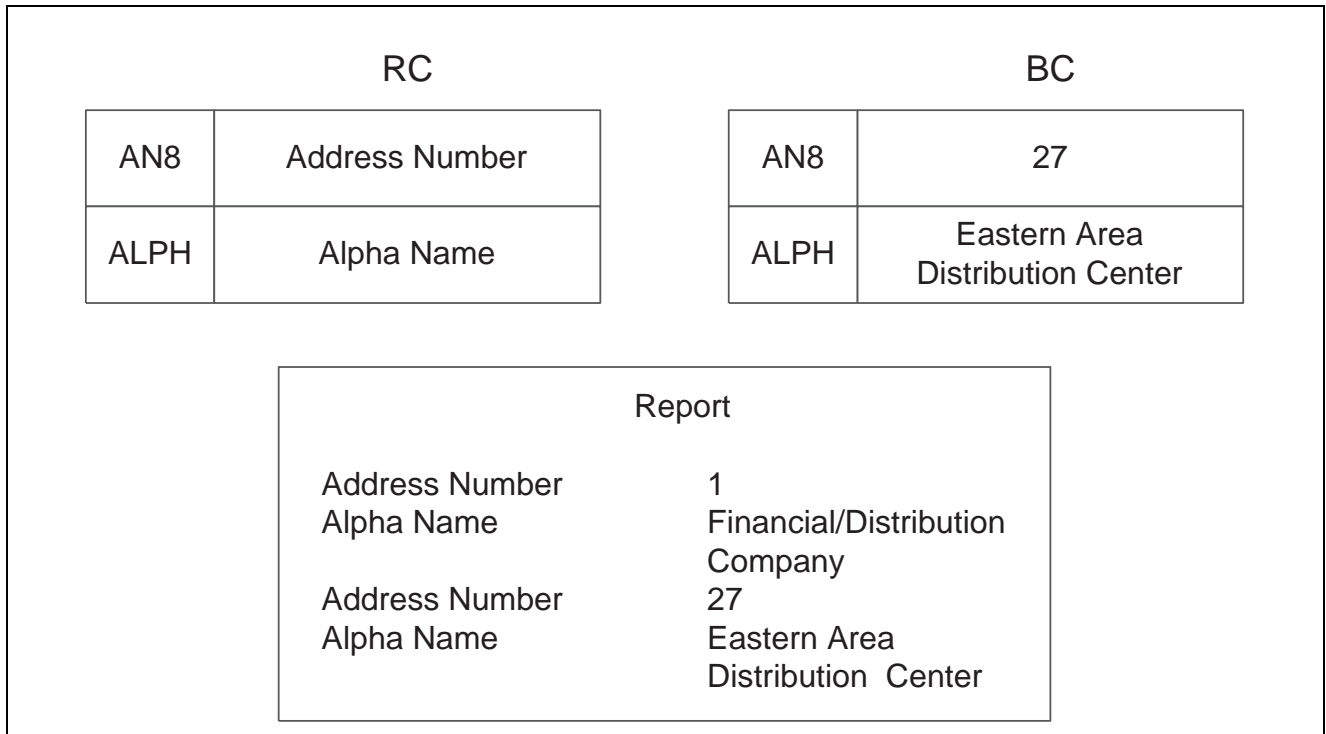


Runtime structure values after Do Section event

After Last Object Printed

These diagrams illustrate the values that are held in the runtime structures after these events process and show how the report appears:

- Initialize Section
- Advance Section
- Before Level Break
- Do Section
- After Last Object Printed
- Advance Section
- Before Level Break
- Do Section
- After Last Object Printed

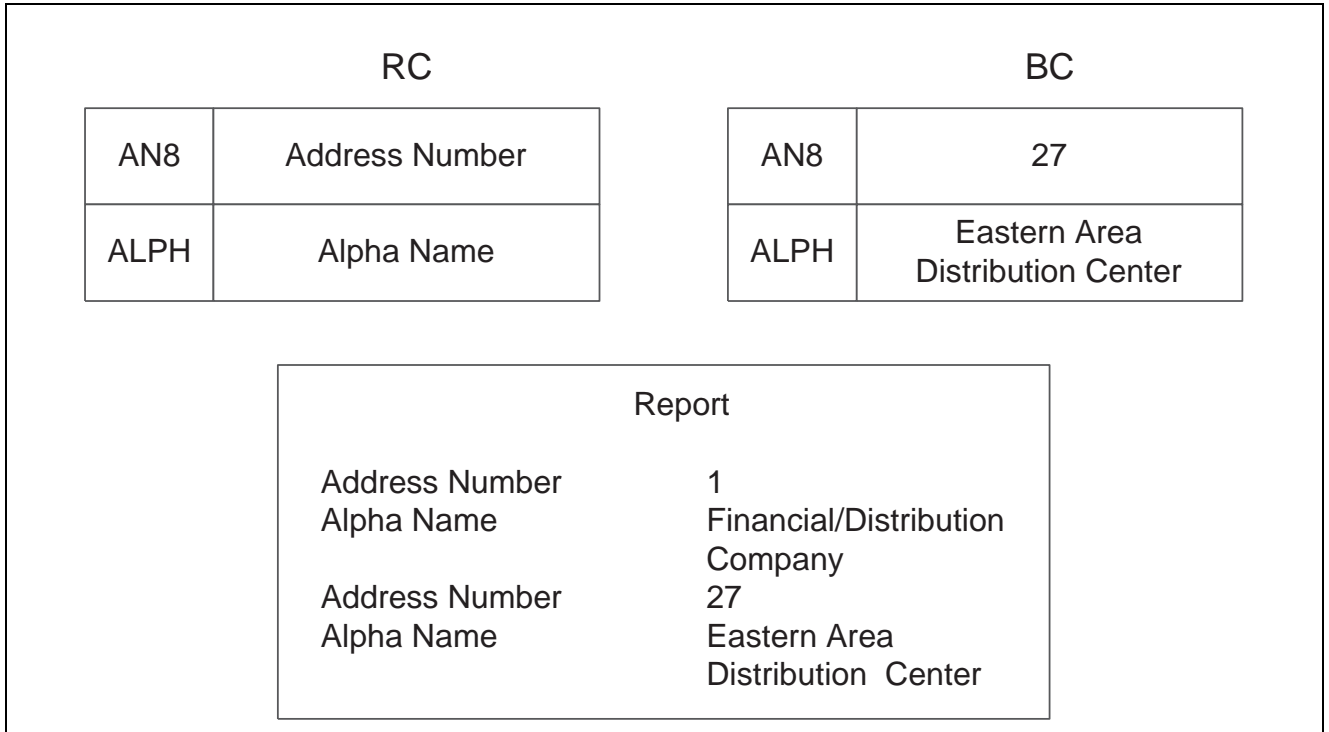


Runtime structure values after the After Last Object Printed event

Advance Section

These diagrams illustrate the values that are held in the runtime structures after these events process and show how the report appears:

- Initialize Section
- Advance Section
- Before Level Break
- Do Section
- After Last Object Printed
- Advance Section
- Before Level Break
- Do Section
- After Last Object Printed
- Advance Section



Runtime structure values after Advance Section event

CHAPTER 30

Defining Batch Error Messages

This chapter provides an overview of batch error messaging and discusses how to set up batch error messages.

Understanding Batch Error Messaging

The PeopleSoft EnterpriseOne error message system provides a consistent interface to review batch application errors. You can set up batch applications to send messages to users when processing is complete. These messages include the success or failure of the batch job and the notification that information that was incorrectly entered into the system. To enhance the usability of the messages, the system uses a tree structure (or parent/child structure) to group related messages.

You can create two types of error messages for batch applications: non-text substituted and text substituted. A non-text substituted error message provides a high-level indication that an error exists in the batch application (for example *Document number is invalid*).

You can use text substitution messages to provide additional information regarding errors. For example, rather than the *Document number is invalid* error message, the message can instead state *Document number 55.5555 is invalid*.

You can also include a link to the associated interactive application in the message. This type of message is referred to as an active error message. The user can open the associated interactive application from the link that is attached to the message.

Error messages appear in the Work Center after the batch job has completed. When you create custom batch error messages, you need to determine the information that PeopleSoft EnterpriseOne users require. For example, you might create a number of different messages that are generated when you run a journal entry report. You can create a message stating that the report completed successfully when the report data is in balance. Additionally, you can create multiple levels of messages that describe various errors if the report is out of balance. The first level might state that the report completed with errors while additional levels would explain the specific details regarding the errors.

Setting Up Batch Error Messages

This section provides overviews of level break messages, level break message components, and work center APIs, provides sample source code, lists the prerequisites, and discusses how to:

- Create data items for level break messages.
- Create business function data structures.
- Create level break message business functions.

- Call the work center initialization API.
- Call the processing work center APIs.

Understanding Level Break Messages

Level break messages act as containers to present error messages for each level break field that is defined in the batch application. Level break messages are informational, they are not error messages. They can be action messages that contain a shortcut to an application and require action on the part of the user. They can also be messages that require no action, but might include instructions for the user to review information.

Level break messages are text-substituted messages. You can define them at many different levels such as level one, level two, level three, and so on.

The level one level break message appears when you first launch work center. Additional levels appear beneath this level. This level of message provides high-level information (for example, *Job completed with errors*).

The level two level break message appears when you expand the level one message. Additional levels can appear beneath this level. This level of message provides more detail (for example, *Batch 3230 has errors*).

The level three level break message appears when you expand the level two message. Additional levels can appear beneath this level. This level of message provides additional detail (for example, *Voucher 14787 contains errors*).

How Level Break Messages Work

Level break and action messages group errors. Level break messages include two distinct components. The first component is the actual text of the message. The second component indicates whether the message is an action message. All level break messages include the text component, but not all messages are defined as action messages.

The Work Center API creates and manages the Job Completed level break message. You must create all other messages. Level break messages organize messages that you set up to communicate information about the batch, document, and line in which the error occurred. You set these messages using the `jdeSetGBRError` or the `jdeSetGBRErrorSubText` functions.

Level break message *Job R89004 ZJDE0001.c* is a level-one message that the system generates automatically. Level break message *Batch 3230 is in Error* is a level-two message. *AA 20050606 3031* and *Intercompany Out of Balance* are actual error messages.

The Work Center API must be called for every level break message.

These topics illustrate how messages might appear when an out-of-balance journal entry upload has completed.

First-Level Messages

First-level messages appear when users open their personal in-basket. A plus symbol next to the message indicates that additional levels of messages exist. First-level messages might show the name of the batch job, explain that it completed with errors, and instruct the user to review the details about the errors.

Second-Level Messages

Users can view second-level messages when they expand the first-level message. For example, the second-level message might inform users that they need to review a specific batch number.

Third-Level Messages

Third-level messages display when the user expands the second-level message. For example, the third-level message might inform the user that the batch job completed with errors because it was out of balance, and then provides solutions to resolve the issue.

Text Substituted Messages

Error messages must be informative to be beneficial. You can increase their effectiveness through text substitution. Text substitution enables you to define variable text (such as dates, amounts, and so on) for the system to embed into the message at runtime. You set up text substitution messages in the data dictionary, which helps to ensure consistency of jargon and terminology. For example, in the message *Voucher Batch &1 Contains Errors*, the system uses *&1* as a parameter to the message. The system substitutes *&1* at runtime and stores the rest of the information from the message in the data dictionary glossary. The glossary describes the error message as it is defined in the data dictionary. When you open the message in data dictionary, you can review the item glossary.

Action Messages

After users review a an error message and determine the resolution, they typically need to access an application to resolve the error. You can set up specific level break messages, which are known as action messages, to provide direct access to the associated application directly from Work Center. Action messages call a PeopleSoft EnterpriseOne application and pass required variables to that application. For example, users can click the shortcut to automatically access the Voucher Revision form from within the error message. The application presents the appropriate form and displays the record in error. You determine the appropriate application and the correct values that need to pass to that application when you create the message. The system highlights action messages in the grid to differentiate them from non-action messages.

Work Center APIs

When you call a work center API, the system assumes a child/parent order. In other words, when the API is called, it assumes that any error that is in the runtime error message stack belongs to the level that is associated with that instance of the API call. This means that all of the errors in the error space at that time, whether they are set using business functions or event rules, are packaged or grouped together as children of the level that was passed to the work center API. These error messages are then cleared from the error space so that the system can create the next group of messages based on a new set of records.

The timing of the calls to the work center API is critical. The reporting program typically starts by editing the header-level record, which leads to a set of detail records. The detail records are the first to be read and processed. Thus, the calls to the work center API typically sends level break numbers in descending level break order.

For example, the actual series of level break calls to the API might appear as 4,4,4,3,4,4,3,2,4,4,3,2,1. This series indicates that the call structure started four levels down. The first call at level 4 allows the work center API to find any messages that occurred at that time and creates child messages using the level 4 message as the parent. If no errors occurred, then no messages are created. This call sequence example illustrates that the API was called at level 3 after three calls to level 4. When the call to level 3 is made, the work center API remembers if any level 4 messages were written. In other words, if no errors occurred when any of the level 4 calls were made, then the work center API does not create the level 3 messages. If even one error existed at any of the level 4 calls, the level 3 and the level 2 messages are created.

You must call the work center API at every level. Because the work center error messages are created based on a parent/child structure, if a level call is skipped, then the API has no way to group the child messages and child levels that are already created.

For example, this level call structure is valid: 6, 6, 5, 4, 3, 4, 4, 3, 2, 1. Conversely, the call sequence 6, 6, 4, 3, 4, 4, 3, 2, 1 is invalid because after level 6 is called, there is no corresponding call to level 5.

The work center API must be called using level 1 when the reporting job is about to complete. Hence, level 1 is the parent to all errors and level break messages. It issues the job completed message. The level 1 call to the work center API is essential because it ensures that no orphan work center records are created and it also cleans up all allocated storage used by the work center system. The level 1 call to the API should occur only once in the report, typically in the End Section event of the primary section of the report.

Understanding Level Break Message Components

Error messages and level break messages are considered glossary data items. Level break messages act as a container for error messages. You can create level break messages that are action messages or non-action messages.

You create level break messages in a project in Object Management Workbench by creating:

- Data dictionary items.
- Text substituted data structures.
- Business function data structures
- Business functions.

Data Dictionary Items

The data dictionary item defines the text portion of the level break message as it appears in the work center. Before you create a data dictionary item, you should review the level break messages to determine if an existing level break message meets your business needs.

Define a level break message data item as a glossary data item. The alias that you enter for the data dictionary item is a unique identifier and cannot be changed once the data item is saved. It is recommended that the alias begins with LM. Level break messages are not error messages; they are defined as glossary group Y, PPAT Level Messages.

This description of the level break message data item displays in the work center. If this is a text-substituted message, enter the description using ampersands and sequential numbers to hold positions for substituted variables. For example, Batch &1 is out of balance by &2. The system replaces &1 with the actual batch number while the system replaces &2 with the amount that the batch is out of balance.

All message data items must include a cause and resolution. Begin by entering the text *Cause:* and then enter the cause of the message. Then, under the cause, enter the text *Resolution:* and then enter how the user should resolve the issue. For text-substituted messages, enter the description in the text area just above the cause.

Text Substituted Data Structures

The data structure for a text substituted error message must include the data items that are required for the text substitution. For example, a level break message describing a batch number that is out of balance by a specific amount uses a data structure that includes data items ICU (Batch Number) and AA (Amount).

The name of the data structure should include the same unique number that was used for the associated data dictionary glossary item. This number is to be appended to the prefix *DELM*. For example, a data structure created for level break message LM5509 is named DLM5509.

You must create a type definition (typedef) to include the data structure in the associated business function. The typedef adds code to the C business function so that the business function can use the data structure.

Business Function Data Structures

Level break message business functions require several standard parameters in addition to the variables that are used for the text substitution. You must include in this data structure all of the required data items to ensure that the system generates the error message successfully. For the system to return the correct batch number and the amount that it is out of balance, the data structure in the business function must include the document number, document type, document company, batch number, batch type, and document pay item. Two additional data items are required in this data structure:

- J.D. EnterpriseOne Event Point.
Required to determine if the message is an action message.
- Generic Long.
Required to control work center messaging.

The name of this data structure should include the same unique number that was used for the associated data dictionary glossary item. This number is to be appended to the prefix *DLM*. For example, you should name a business function data structure that was created for level break message LM5509 as DLM5509.

You must have a business function for each level break message. Do not confuse this data structure with the text substituted data structure the system created for the data dictionary item. The difference between the two is that the data structure for the business function moves data variables to the level break function. The data structure for the data dictionary items stores data that is mapped to the text substituted variables.

Include these items in the business function data structure:

- All data items that are required for the level break text substitution message.
- All data items that are required for the message to be active (that is, any variables that are required to load the form for the appropriate application).
- Data item EV01.
Change the variable name from *cEverestEventPoint01* to *cIncludeInterconnect*. This parameter is a flag that determines if the message is active. This parameter should be included as a parameter in all level break messages, even if the original intent is not to call an application. You must enter a 1 in the data structure value to launch an application.
- Data item GENLNG. Change the variable name from *idGenericLong* to *idGenlong*. Use this parameter to control all work center messaging. This data item is intended for use as a work field for the system.

Business Functions

After you have created the business function data structure, you can create the business function. The business function processes the level break errors and performs all of the mappings for the active message.

The name of the business function should include the same unique number that was used for the associated data dictionary glossary item and the data structures. This number is to be appended to the prefix *BLM*. For example, you should name a business function that you create for level break message LM5509 as BLM5509.

You must attach the business function data structure to the business function prior to entering code. Then, when you create the business function, you can select to have the system create a skeleton for you. The last message that you receive reminds you to create a *typedef* of the business function data structure and paste it into the header file of the business function.

After you create the business function, you must build it and check it in to central objects.

Sample Source Code

This sample of the shell source code illustrates the information required in a level break message business function and its location in the .c file.

You need to manually map fields from the business functions data structure to the dsTextData data structure; this is the data structure that is used for the text substitution in the level break message. You also need to manually map fields from the business function data structure to the dsFormData data structure; this is the data structure that is used for the active message.

Variable Declarations

These lines declare the level break message variables:

```

/*****
* Variable declarations
*****/
JCHAR szForm[11]; /* Name of form in application */
JCAHR szDDitem[11]; /* Data dictionary name of the level message */
JCHAR szDLLName[11]; /* Name of the application DLL */
JCHAR szDsTmp[11]; /* Name of the text substitution data structure */

```

Declare Structures

Enter your own code for the appropriate text substitution data structure and application form. These examples are from an existing business function:

```

/*****
* Declare structures
*****/
DSDELM0002 dsTextData; /* Instance of text substitution structure */
FORMDSW0411Z1D dsFormData; /* Instance of form interconnect structure */

```

Set Pointers

These lines ensure that the level break message functions:

```

/*****
* Set pointers
*****/
if (lpDS->idGenLong == (ID) 0)
{
    jdeSetGBRError (lpBhvrCom,lpVoid,(ID)0,_J("4363"));
    if(hUser)
    {
        JDB_FreeBhvr(hUser);
    }
    return ER_ERROR;
}
else
lpDSwork = (LPDS_B0100011A) jdeRetrieveDataPtr(hUser,lpDS->idGenLong);

```

Main Processing

Enter your own code for the appropriate text substitution data structure and glossary data item. These examples are from an existing business function:

```
jdeStrncpy((JCHAR*)szDsTpl, const JCHAR*)(_J("DELM0002"), DIM(szDsTpl) - 1);
jdeStrncpy(szDDitem, (const JCHAR *) (_J("LM0002")), DIM(szDDitem));
memset((void *)(&dsTextData), (int) (_J('\0')), sizeof(dsTextData));
```

Assign Values from lpDS Data Structure to dsTextData Here

Enter your own code for the data items that are included in the business function data structure. When you assign values, you map the business function data structure items to the text substitution data structure items. These examples are from an existing business function:

```
jdeStrncpy(dsTextData.szEdiuserid, (const JCHAR *) (lpDS->szEdiuserid),
  DIM(dsTextData.szEdiuserid));
jdeStrncpy(dsTextData.szEdibatchnumber, (const JCHAR *)
  (lpDS->szEdibatchnumber),
  DIM(dsTextData.szEdibatchnumber));
jdeStrncpy(dsTextData.szEditransactnumber, (const JCHAR *)
  (lpDS->szEditransactnumber),
  DIM(dsTextData.szEditransactnumber));
```

The first parameter is the location to where the value is being copied. The second value is the location from where the value is copied. In this example, `dsTextData.szEditransactnumber` is located in the text substitution data structure and `lpDS->szEditransactnumber` is located in the business function data structure.

Note. Be conscientious of the APIs that you use for these statements. The APIs are based on the data type of the associated data items. `MathCopy` is used for math numeric fields, `assignments` are used for character fields, `Strncpy` is used for strings, and `Memcpy` is used for dates. If you use `Memcpy` for dates, the system assigns the characters directly.

The remaining lines in this section ensure that the level break message is functional:

```
if (lpDSwork->lpBlob->lpTSDSMPL != (LPDSTMPL) NULL)
{
  lpDSwork->
    lpBlob->lpTSTEXT= (PJSTR) AllocBuildStrFromDstmplName((LPDSTMPL)
      lpDSwork->lpBlob->lpTSDSMPL, (JCHAR*) szDsTpl,
      (LPVOID) &dsTextData);
  jdeStrncpy (lpDSwork->lpBlob->szDDitem, (const JCHAR *) (szDDitem),
    DIM(lpDSwork->lpBlob->szDDitem));
}
if (lpDS->cIncludeInterconnect == _J('1'))
```

Form Interconnect Processing

Enter your own code for the appropriate application and form to be linked to the message. This example is from an existing business function:

```
jdeStrncpy(szDLLName, (const JCHAR *) (_J("P0411Z1")), DIM(szDLLName));
memset((void *)(&dsFormData), (int) (_J('\0')), sizeof(dsFormData));
memset((void *) (szForm), (int) (_J('\0')), sizeof(szForm));
```

```
jdeStrncpy((JCHAR *)szForm, (const JCHAR *)(_J("W0411Z1D")), DIM(szForm) - 1);
```

Assign Values from LpDS Data Structure to dsFormData

Enter your own code for the appropriate application form. This example is from an existing business function and illustrates how to pass information from the business function data structure to the form data structure:

```
jdeStrncpy(dsFormData.EDUS, (const JCHAR *) (lpDS->szEdiuserid),
  DIM(dsFormData.EDUS));
jdeStrncpy(dsFormData.EDBT, (const JCHAR *) (lpDS->szEdibatchnumber),
  DIM(dsFormData.EDBT));
jdeStrncpy(dsFormData.EDTN, (const JCHAR *) (lpDS->szEditransactnumber),
  DIM(dsFormData.EDTN));
ParseNumericString(&dsFormData.EDLN, _J("1.0"));
dsFormData.EV01=_J('1');
```

Note. Be conscientious of the APIs you use for these statements. The APIs are based on the data type of the associated data items. MathCopy is used for math numeric fields, assignments are used for character fields, Strncpy is used for strings, and Memcpy is used for dates. If you use Memcpy for dates, the system assigns the characters directly.

Get the Form Data Structure ID from the SVRDTL Table

These lines ensure that the level break message is functional:

```
If (JDESPECRESULT_PASSED==jdeSpecOpenLocalIndexed(&hTam, hUser,
  JDESPECTYPE_SVRDTL, SPECKEY2_SVRDTL))
{
  jdeStrncpy((JCHAR *)lpDSwork->lpBlob->szForm, (const JCHAR *) (szForm),
    DIM (lpDSwork->lpBlob->szForm) - 1);
  JdeStrncpy(Key.szForm, szForm, DIM(Key.szForm));
  ASVRDtlData.DataType=JDESPECDATA_RAWBLOB;
  JdeSpecFetchSingle(hTam, &ASVRDtlData, &Key, 1);
  If (ASVRDtlData.pSpecData !=(void *)NULL)
  {
    lpASVRdtl=ASVRDtlData.pSpecData;
    JDBRS_GetSTMPLSpecs(hUser, (JCHAR*) lpASVRdtl->szFITemplateName,
      &lpDSwork->lpBlob->lpFIDSMPL);
    if (lpDSwork->lpBlob->lpFIDSMPL !=(LPDSTMPL) NULL)
    {
      lpDSwork->lpBlob->lpFITEXT=(PJSTR) AllocBuildStrFromDstmplName
        (LPDSTMPL)
      lpDSwork->lpBlob->lpFIDSMPL, (JCHAR*) lpASVRdtl->szFITemplateName,
        (LPVOID) &dsFormData);
      jdeStrncpy(lpDSwork->lpBlob->szDLLName, (const JCHAR *) (szDLLName),
        DIM(lpDSwork->lpBlob->szDLLName));
    }
    jdeSpecFreeData (&ASVRDtlData);
  }
  jdeSpecClose (hTam);
}
```

Function Clean Up

These lines ensure that the level break message is functional:

```
if (hUser)
{
  JDB_FreeBhvr (hUser);
}
return (ER_SUCCESS); }
```

Understanding Work Center APIs

In the batch application, you must use APIs in event rules to initialize the work center, identify the level break points, and terminate the batch message process.

Calling the Work Center Initialization APIs

In the batch application, you initialize the work center API in event rules, typically using the initialize section event of the primary section.

Calling the Processing Work Center API

After the work center system has been initialized, you must determine the various level break points within the report and call the work center system at each of these points to group the errors.

cAllowUserIdToChange Parameter

The cAllowUserIdToChange parameter on the initialize API works in combination with the szUserid parameter on the ProcessErrorsToPPAT API. The cAllowUserIdToChange parameter enables you to set up the batch application to send errors to the user who created the original records and not to the person who submitted the job (such as the night operator). For example, if a single batch job contains 1,000 transactions that were created by 50 users, then only those users who created transactions with errors receive error messages. The night operator still receives a message, but it is a message such as *Job completed normally* or *Job completed normally with errors*. Other users whose transactions contained no errors do not receive error messages.

To set up this functionality, you need to enter a 1 in the cAllowUserIDToChange parameter when you initialize the batch error processing system. When you process the level 2 level break message and then call the ProcessErrorstoPPAT API, you can still specify who receives the messages by using the szUserid parameter. You can determine who should receive the message by reviewing the transaction record.

Terminating the Work Center Process

You must terminate the work center process before the batch job is finished and after all messages have been sent to Work Center. When the batch program is about to terminate, call the work center error message business function, ProcessErrorsToPPAT one last time, which will send it to level 1. (Level 1 indicates the level of totaling is equal to 1 and that it is completed.) The system creates the job-completed message and frees any workspace that the work center API created. This API is typically called on the End Section event of the primary section.

Every report design that uses the work center API to process errors must call the API at the end of processing using a 1 in the level of totaling field. This call should also be done by jobs that are monitoring for critical errors and that need to terminate early.

When the system has finished processing the report, it creates work center messages, which can then be reviewed in the Work Center. Batch errors are processed to the JDEM system. The system sends messages to the user who runs the report unless you specify that the messages be sent to other users.

If the system encounters no errors, the API sends a message to Work Center indicating that the job completed successfully.

Prerequisites

Before you begin setting up batch error messages, ensure that you:

- Create a batch application object.
- Complete the design of the report template so that you can define batch error messages.

Creating Data Items for Level Break Messages

Access Object Management Workbench.

1. Add a data item to the project in which you want to include the level break message.
2. On the Data Dictionary Item Type form, select Yes to create a glossary data item.
3. On the Glossary Items form, enter the alias of the level break message in the Alias field.
4. Click the visual assist in the Glossary Group field and select glossary group Y.
5. In the Product Code field, enter a product code in the 55–59 range, which is reserved for clients.
6. In the Product Code Reporting field, enter a product code that represents the product in which the level break message will be used.
7. In the Description field, enter a meaningful description.

If this is a text-substituted message, enter the description using ampersands and sequential numbers to hold positions for substituted variables.

8. Click the visual assist in the Error Level field and select 2.
9. Select the Item Glossary tab and enter a cause and resolution in the text area.
10. Save the glossary data item.

Creating Business Function Data Structures

Access the appropriate project in Object Management Workbench.

1. Add a data structure to the same project in which you added the other level break message components.
2. Select the Design Tools tab and click Data Structure Design.
3. On the Data Structure:Level break message form, enter the alias of the required data item on the Dictionary Items Alias field.
4. Double-click the data item to include it in the data structure.
You can also drag the data item to the Structure Members list.
5. Enter *EVOI* in the Alias field and include it in the data structure.
6. Change the structure member name of the *cEverestEventPoint01* data item to *cIncludeInterconnect*.
7. Enter *GENLNG* in the Alias field and include it in the data structure.
8. Change the structure member name of the *idGenericLong* data item to *idGenlong*.

Creating Level Break Message Business Functions

Access the appropriate project in Object Management Workbench.

1. Add a business function to the same project in which you added the other level break message components.
2. Select the Design Tools tab and click Start Business Function Design Aid.
3. On the Business Function Design form, click the visual assist in the Parent DLL field and select the DLL that your company uses for creating custom business functions.

The system uses this DLL for building the business function.

4. In the grid, enter a unique name in the Function Name field.
This name cannot include any spaces and should be descriptive of the business function purpose.
5. Enter a description in the Description field.
This description can be the same as the name, however, you can use spaces in the description.
6. Tab through the remaining fields.
The system populates the F3 Code field with a 3 (Minor Business Rule).
7. Modify the F3 Code if appropriate.
8. Click the row header to highlight the row of data that you just entered, and select Parameters from the Row menu.
9. Use the QBE line to locate the associated data structure, click the data structure, and then click Select.
This process attaches the business function data structure that was created for the level break message to the business function.
10. On the Business Function Design form, verify that the name of the appropriate data structure appears in the Template Name field in the grid.
11. From the Form menu, select Create to begin the creation of the business function.
12. Click Yes to answer the question Functions Not Found: Would you like skeletons created?
13. Click Yes to answer the question Function Prototypes Not Found: Would you like them to be created? and click OK.

The last message that appears reminds you to create a TYPEDEF for the data structure.

14. On the Business Function Design form, click the row header to highlight the row and select Typedef from the Row menu.
On the status bar, the message Your typedef is in the clipboard appears. This process creates the TYPEDEF for the data structure attached to the business function.
15. From the Form menu, select Edit.
The system launches Microsoft Visual C ++.
16. From the Window menu, select to work with the .h file.
You can also select the .h file using the tabs.
17. Locate the DS Template Type Definitions section of the .h file and just below the heading, paste the TYPEDEF using CTRL V.
This process copies the TYPEDEF for the data structure that is attached to the business function.
18. Save the business function and minimize Microsoft Visual C ++.

19. On the Business Function Design form, save the business function.

If you are not using a test substituted error message, skip to step 23.

20. Return to Object Management Workbench and locate the level break message data structure for the text substitution, enter design, select the Design Tools tab, and click Create a type definition.

On the status bar, the message Your typedef is in the clipboard appears.

21. Return to Microsoft Visual C ++, locate the Structure Definitions section of the .h file and just below the heading, paste the TYPEDEF using CTRL V, and return to Object Management Workbench.

This process copies the TYPEDEF for the text substitution data structure into the business function.

22. Return to Object Management Workbench and add the associated application to the project, enter design, select the Design Tools tab, click Start Form Design Aid, select the form to be launched, and select Application Properties from the File menu.

If a link to an associated application is not required in the message, skip to step 26.

23. On the Application Properties form, select the Operations tab, click Generate Form Data Structures, and in Notepad, highlight the entire form data structure for the appropriate form and copy the section using CTRL C.

24. Return to Microsoft Visual C ++, locate the Structure Definitions section of the .h file and just below the heading, paste the TYPEDEF using CTRL V.

This TYPEDEF resides above the TYPEDEF that was pasted from the level break message data structure for the text substitution.

25. Locate the External Business Function Header Inclusions section of the .h file and enter a call to the business function to process the message to work center.

Begin the call with #include (for example #include<B0100011.h >).

26. From the Window menu, select the .c file.

You can also select the .c file using the tabs.

27. Enter the appropriate code in the .c file as described in the Sample Source Code Highlights section below.

28. When the business function is complete, save the business function, and click Build Business Function from the Design Tools tab.

Calling the Work Center Initialization API

Open a report in which you want to add batch error messaging in Report Design Aid.

1. Create a report scope event rule variable in Event Rules Design using data dictionary item *GENLNG*.
2. Call a Business Function and use the QBE line to select the work center initialization business function *B0100025* with a description of F01131 Edit JDEM Error Message.

Generally, this business function is called in the primary section of the report using the Initialize Section event.

3. Refer to the Windows Help file of APIs to identify the appropriate parameters to pass.

Calling the Processing Work Center APIs

Access Report Design Aid for a report in which you want to add batch error messaging.

1. Define all appropriate level breaks for the report.

You need to analyze the events that logically group all errors. This typically happens at events in which all editing has been completed for a group of records or immediately after all editing for an individual record has occurred.

2. For each level break established, call the business function for the level break message at the appropriate level break.

The business function for the level break message should relate to the type of error grouping that you want to capture at the particular level break. For example, `SetLevel_SFVoucher` groups errors that are related at the voucher level break. For reports, this business function is typically called in the Do Section event. If the interconnect is blank, then it is not calling an action message.

3. Call the Work Center error message business function immediately after the call to the level break message.

This name of this business function is `B0100011` and the description is Process batch errors to JDEM system.

4. Refer to the Windows Help file of APIs to identify the appropriate parameters to pass.

CHAPTER 31

Working with Report Interconnects

This chapter provides an overview of report interconnects and discusses how to define report interconnects.

Understanding Report Interconnects

You can use report interconnects to launch a batch application or report from another batch application or interactive application. How the batch application processes information is dependent upon whether asynchronous processing is enabled. Synchronous is the default processing method. If you select synchronous processing of the report interconnect, the initiating process waits until the batch application has completed before it continues running the original application. If you select asynchronous processing, the initiating process starts another process and continues to run the original application. The two processes run separately.

Defining Report Interconnects

This section provides an overview of report interconnects in batch applications, lists the prerequisites, and discusses how to create report interconnects.

Understanding Report Interconnects in Batch Applications

You can use report interconnects in a batch application to automatically run another batch application when certain criteria is met. You can use a report data structure along with the report interconnect to pass values between the batch applications.

The report interconnection is defined in the primary batch application, which is the batch application that calls the second batch application. Use the After Last Object Printed event if you want the secondary batch application to process after the primary batch application is complete.

As part of the report interconnection, you must map parameters. These parameters associate data from the primary batch application with data in the secondary batch application. As part of the parameter mapping, you must also indicate the direction that the data should flow.

The data structure is defined in the secondary batch application, which is the batch application that the primary batch application calls. This secondary batch application might not have a business view attached, but receives data from the primary batch application based on the criteria you define. You select data items to include in the data structure and then assign these fields to the data items included in the secondary batch application.

Report interconnects are beneficial when the secondary batch application provides further detail for the records included in the primary batch application or when different data in the primary batch application are required but different audiences.

When the user runs the primary batch application, when the stated criteria is met, the system processes the secondary batch application automatically.

Prerequisites

Before you begin creating report interconnects, ensure that you:

- Create two batch application objects.
- Complete the design of the first report template to serve as the primary batch application.
- Complete the design of the second report template to be called by the primary batch application and include a report data structure.

Creating Report Interconnects

Open the primary report template in Report Design Aid.

1. From the detail section of the report, access Event Rules Design and select an event.
2. Click the Report Interconnection option on the toolbar.
3. On the Work with Applications form, select the batch application to which you are connecting.
4. On the Work with Versions form, select the appropriate version of the batch application to which you want to connect.
5. In the Available Objects column, select the object that you want to pass and move it to the Data Structure-Value Column.
6. Indicate the direction of data flow between Value and Data Items.
7. To run the report as a separate process, click the Asynchronously option.
8. To include the report interconnect for transaction processing, click the Include in Transaction option.
9. Click one of these buttons to add notes and then click OK:
 - Structure Notes
 - Parameter NotesEvent Rules Design displays the Report Interconnection with the Call (UBE *<name>* Version *<name>*) statement.

CHAPTER 32

Creating Smart Fields

This chapter provides an overview of smart fields and discusses how to create custom smart fields.

Understanding Smart Fields

Smart fields are data dictionary items with attached business functions. Business functions require a data structure to pass values. Smart field data structures include a named mapping that maps the source for each parameter of the data structure. This simplifies the use of business functions because the parameters to pass are held by the system. Instead of needing to know which business function to use and what parameters to pass, the user selects a smart field that inherently includes this information. Smart fields can be used for deriving column headings or populating values in a report section using Report Design Aid.

Smart fields are reusable objects that simplify the use of business functions in event rules. They are created in data dictionary and are defined as glossary group K. The attached business function performs a specific task for the smart field, such as a calculation.

For example, you can create a smart field to calculate sales for period 1, period 2, and period 3 to populate sales for the first quarter in a report. This calculation is performed by the business function for each row of data that is fetched by the report. Every time you use this smart field, it performs this calculation.

Without the quarterly smart field, you need to write an event rule to accumulate the three periods to populate the quarterly sales column. To display a total for each quarter, you need to write four event rules. Additionally, to display quarterly sales totals in multiple reports, you need to duplicate these event rules in each report template.

Smart fields can be used in columnar, group, and tabular sections. You must define a column heading and data selection for each smart field column.

Before smart fields can be used in a report, you must add it to a smart field template and create a Report Director template. Smart field templates organize smart fields that use the same fields for data selection. For example, existing PeopleSoft EnterpriseOne smart field templates are organized by Financial Reports, Fixed Assets, and 52-Period Accounting.

You attach the smart field template to the Report Director template. In the Report Director template you define report processing options, business views, additional properties and the drill down feature. Information that is included in the Report Director template guides the report developer through the process of creating a report template using the associated smart fields. The smart field template and Report Director template enable you to organize and present the smart fields in Report Design Aid.

This topic demonstrates how to create:

- Smart fields.
- Smart field templates.
- Report Director templates.

- New reports using smart fields.

Creating Custom Smart Fields

This section provides an overview of smart field components and discusses how to:

- Create data dictionary items.
- Create data structures.
- Define named mappings.
- Perform calculations using named event rules.
- Create data dictionary smart field items.
- Create smart field templates.
- Create Report Director templates.
- Design reports using custom smart fields.

Understanding Smart Field Components

Smart fields are complex data items because they include business function logic. However, once the smart field is created, you do not have to recreate frequently used logic

The basic components of a smart field are:

- Data dictionary items.

This data dictionary item is a standard data item that is defined as glossary group D.

- Data structures.
- Named mappings.
- Business functions.

Can use a C business function or a named event rule business function.

- Smart field data items.
- Smart field template.
- Report Director template.

Data Dictionary Items

The first component of most smart fields is a data dictionary item that serves as a user prompt for the report developer. The prompt indicates how the logic should be processed if more than one option is possible. For example, a quarterly sales smart field requires input from the report developer to indicate which quarter to calculate. There are at least four options possible, one for each quarter, and each option results in a different outcome. However, not all smart fields require a user prompt. A smart field used to concatenate two fields does not require input as there are no decision points.

The Report Director displays a Smart Field Parameters form to prompt the report developer. The description of the prompt displays on this form (for example, Quarter to Display). The glossary that you enter when creating the data item also appears on this form. The glossary explains the purpose of the data item and assists the report developer in determining the appropriate value to enter in the prompt (for example, *Enter 1 to print first quarter sales, Enter 2 to print second quarter sales, Enter 3 to print third quarter sales, and Enter 4 to print fourth quarter sales*).

Data dictionary items include a name, an alias, and a description. The data item name can be a maximum of 40 characters and cannot include spaces. The alias is a unique alphanumeric identifier. The software allows the alias to be a maximum of 10 characters. However, not all databases support 10 characters so it is recommended to limit the alias to eight characters. The description can be a maximum of 40 characters, including spaces. The description is often the same as the name only with the spaces included.

See *PeopleSoft EnterpriseOne Tools 8.95 PeopleBook: Development Tools: Data Dictionary*.

Data Structures

The second component that is required for a smart field is a data structure. Data structures are a list of parameters that pass values between the report and the database tables. You must include all of the data items in the data structure that are required to complete the function of the smart field. For example, a quarterly amount smart field requires twelve periods for calculating each month. Another field is required for the return value, which is the result of the smart field calculation for each quarter.

All data items that are added to the data structure must reside in the same business view. If you find that you need to add data items that are not included in a single business view, you must create a custom business view that includes all of the required data items. Adding data items that reside in different business views results in a nonfunctional smart field.

You can also define the direction of the flow of data in a smart field data structure. This eliminates the need for the report developer to define the flow in Report Design Aid. This is another component that simplifies the use of business functions for the report developer.

See *PeopleSoft EnterpriseOne Tools 8.95 PeopleBook: Development Tools: Data Structure Design*, “Creating Data Structures,” Creating Business Function Data Structures.

Named Mappings

Named mappings are a component of the data structure and are used only for smart fields. Named mappings define each of the data items that are included in the data structure. They can also hold default values for the business function so that the values do not need to be manually defined in Report Design Aid.

Named mappings are also used to map the source for each parameter (or data item) of the data structure. For example, source values are determined for the prompts, tables, and return values. This table details the sources from which data structure data items originate:

Source	Description
Literal	Used to assign a specific value to the data item. If the calculation needs to use a tax rate for instance, enter the tax rate in the value field.
Prompt	Indicates that the data item is the user prompt. For example, the Quarter to Display data item is the prompt. In Report Design Aid, the report developer must enter the quarter to calculate and display in the report.

Source	Description
Table	Indicates the data items that originate from a table. Browse to locate the table name and associate the data item in the data structure with the corresponding data item in the table.
Data Dictionary Item	Used to pass values from a processing option into the data structure. Values in smart fields can be identified to a business function without requiring input. For example, the desired fiscal year or period might already be specified in a processing option that can be passed into the data structure. If this is the case, the data item must be defined as both a data dictionary item and a processing option in the named mapping.
System Value	Use to associate the system value as the origin of the data item and browse for the appropriate system value. These system values, such as system date, are used throughout the system. System values are fetched from the F98VAR table.

Named mappings begin with the letter M and use the same name as the data structure. If you are going to have several named mappings for a single data structure, append a sequential letter of the alphabet to the named mapping name. For example, the first named mapping for data structure D550101 would be named M550101A.

Business Functions

You use business functions to define the logic for the smart field. You can use either C business functions or named event rule business functions. C business functions are written in C language, while named event rule business functions are written in scripting language using the PeopleSoft EnterpriseOne toolset.

The advantage of using business functions is that they are reusable. The code is written once and can be used in multiple events and reports. For example, for Quarterly Amount, without the named event rule, you would write four event rules; one for each of the quarters adding together the appropriate periods. In contrast, using a named event rule, you can write the criteria once and reuse it for each of the four columns that display quarterly amounts. You can use this same named event rule in other reports that require quarter sale figures as well.

A named event rule is a business function object. When creating a business function, you have a choice of the source language, C and *NER*. Your selection determines the tool that you use to create the business function. For a named event rule, you select *NER*.

When a named event rule is created, as with any business function, you need to associate it with a data structure.

You create the logic for a named event rule using the Named Event Rules Design form. This form is similar to the Event Rules Design form used in Report Design Aid. In the Named Event Rules Design form, you can create event rule logic for each valid user prompt value. It is good practice to also include a default statement. For example, the logic for quarterly amount might state that if any value other than 1, 2, 3, or 4 is entered into the user prompt, the first quarter is calculated by default.

See *PeopleSoft EnterpriseOne Tools 8.95 PeopleBook: Development Tools: APIs and Business Functions*, "Using Business Functions".

Smart Field Data Items

The last component that is required for a smart field is a data dictionary item that is defined as a smart field. Smart field data dictionary items differ from regular data dictionary items in two ways:

- Glossary group.

Smart field data items are classified as glossary group K. The K classification enables the Smart Field Criteria form.

- Smart Field Criteria form.

The Smart Field Criteria form defines the business function and named mapping that are associated with the smart field and the event on which the logic is attached.

If you created the smart field for use in tabular sections, you might select the Column Inclusion event. If you created the smart field for use in columnar or group sections, you might select the Do Variable event.

Smart Field Templates

PeopleSoft EnterpriseOne includes predefined smart field templates. Smart field templates group smart fields that use the same data selection criteria so that you can include them collectively in a Report Director template. For example, the S09001 - Financial Reporting smart field template contains all the smart fields for financial reporting. Through the Smart Field Templates program (P91420), you can add new smart field templates or modify existing smart field templates to meet your reporting needs.

You must add smart fields to a smart field template before they can be used in a report. Then the smart field template must be attached to a Report Director template. When you use the Report Director template to create a report, the smart fields in the attached template display in Available Smart Fields of the Select Columns form of the Report Director. From this form, you can select any of the smart fields to include in the report.

When you select a smart field to include in the section layout, you are typically prompted for data selection values. Data selection fields are defined within the smart field template. These fields appear on the Smart Field Data Selection form of the Report Director.

Custom smart field template names should begin with SFT. The next two characters should be one of the product codes that is reserved for clients (55–59) and the next characters should reflect the system that uses the smart field template as recommend for PeopleSoft EnterpriseOne objects.

When you define a smart field template, you can select multiple smart fields to include in the template as long as they all use the same data selection. You select from data item fields to be included in the data selection. Select only data items that are included in the business view associated with the smart fields. Only five data items can be included in the smart field data selection criteria.

You can define a data selection field as requiring a range of values, but it must be counted as two items. A range of values takes up two lines on the Smart Field Data Selection form in Report Design Aid. For example, if you include business unit as a data selection item, you might want the report developer to be able to include a range of values. This option presents two fields on the Smart Field Data Selection form in the Report Director, one for the beginning business unit and one for the ending business unit.

Report Director Templates

Report Director templates define a set of parameters to guide the report developer through the creation of a batch application. Report Director templates are typically created to use smart fields. However, you can use Report Director templates to define parameters for the development of batch applications without the use of smart fields. These Directors are similar to the Report Director that you use when creating columnar or group section report templates.

When you create a Report Director template, you define the appropriate business view to attach to the report section. The business view that you select must include all of the data items included in the smart field data structure. It is this business view that is used when the report developer selects the option, I'll use the pre defined business view from the Report Director.

Custom Report Director templates should begin with DT. The next two characters should be one of the product codes that is reserved for clients (55–59) and the next characters should reflect the system that uses the Report Director template.

The Report Director template description displays in the Application Report drop-down list on the Report Director Welcome form and on the Business View Selection Options form when you create the report in Report Design Aid.

Report Templates

As the final step in the smart field creation process, you should test the smart field. It is helpful to review the Report Director and see how all the information you defined is presented to the report developer. This helps you to understand from where each of the options presented in the Report Director originate and how the selections you make in defining the objects affect what the report developer sees.

Smart Field Logic

You can review the event rules that are created by the smart fields to understand how the smart field components are implemented in the report. On the PeopleSoft Report Design Aid form, click the variable portion of a smart field column. From the Edit menu, select Event Rules. Select the event that you defined on the Smart Field Criteria form when you created the smart field data item.

The description of the business function that you created for the smart field appears on the event. Double-click the business function to review the data structure parameters. The business function information is displayed in the upper-left corner of the Business Functions form, and includes the: business function name, description, and the name of the attached data structure. The data structure displays the parameters as you defined them on the named mapping.

Notice that the data structure includes directional arrows as you defined them in the data structure. The directional arrows for all data items, except the return value data item, point to the right. This is because each of these fields are fetched from a source, such as the database or a user prompt. The system then processes the logic using these fields and returns the result to the return value field to display on the report. This is the field in which the directional arrow points to the left. Without the use of this smart field, the report developer would have to know which business function to use and how to pass each of these values.

For example, if you select the first quarter variable that was created using the quarterly sales smart field, you can see in the data structure the 1 that you entered on the Smart Field Parameters form when you created the report.

See Also

PeopleSoft EnterpriseOne Tools 8.95 PeopleBook: Development Tools: Tables and Business Views

PeopleSoft EnterpriseOne Tools 8.95 PeopleBook: Development Tools: Data Structure Design

Forms Used to Create Smart Fields

Form Name	FormID	Navigation	Usage
Work With Smart Field Templates,	W91420A	EnterpriseOne Life Cycle Tools, Report Management (GH9111), Advanced Report Setup, Smart Field Templates	Add, modify, and delete Smart Field templates.
Smart Field Template Revisions	W91420G	Click Add on the Work With Smart Field Templates form	Enter Smart Field template name, description, and smart field data item.
Smart Field Template Criteria Revisions	W91420B	Click OK on the Smart Field Template Revisions form.	Enter fields to be used for data selection.
Work With Report Director Templates	W91400A	EnterpriseOne Life Cycle Tools, Report Management (GH9111), Advanced Report Setup, Report Director Templates	Add, modify, and delete Report Director templates.
Report Director Templates Revisions	W91400B	Click Add on the Work With Report Director Templates form.	Enter the Report Director template name, description, section type, default business view, processing options, smart field template name (if appropriate), default data sequencing and level breaks, properties, and drill down.

Creating Data Dictionary Items

From the Tools menu in Solution Explorer, select Object Management Workbench.

1. Select the project in which you want to add a new data dictionary item and click Add.
2. On the Add EnterpriseOne Object to the Project form, select Data Item and click OK.
3. On the Data Dictionary Item Type form, click No.
This is a regular data dictionary item, not a glossary data item.
4. On the Data Item Specifications form, enter the name of the data item in the Data Item field.
5. In the Alias field, enter a unique alphanumeric identifier.
6. In the Glossary Group field, enter *D* to indicate a primary data element.
7. In the Description field, enter a brief description of the data item.
8. In the Product Code field, enter a product code in the 55–59 range, reserved for clients.
9. In the Product Code Reporting field, enter a product code that represents the system associated with this data item.
10. In the Data Type field, use the visual assist to select a value that indicates the type of data to be entered (for example, character, string, numeric).
11. In the Size field, enter the field size of the data item.

This field is enabled based on the data type you select.

12. In the File Decimals field, enter the number of stored positions to the right of the decimal place.
This field is enabled only if the data type is defined as numeric.
13. In the Class field, use the visual assist to select a class that defines the attributes and characteristics of the data item (for example, CURRENCY).
This is an informational field only and is not required.
14. In the Display Decimals field, enter the number of decimals to display.
This field is enabled only if the data type is defined as numeric.
15. In the Control Type field, enter the type of control that is associated with the data item (for example, check box, push button, generic edit, and so on).
The generic edit option is typically used when creating data items specifically for batch applications.
16. Leave the Item Occurrences field cleared.
Item Occurrences causes a number of identical data items to be created based off the template defined by the active data item properties. For example, if a data item RDATEST is added with Item Occurrences set to 2, the system creates two copies of the data item - RDATEST1 and RDATEST2.
17. In the Row Description field, enter the data item description as it should appear in group sections.
18. In the Column Title fields, enter the data item description as it should appear in columnar sections.
Split lengthy descriptions into two lines. Enter short descriptions in the top line.
19. Select the Item Glossary tab, enter a description of all the valid values for this prompt and click OK.
The item glossary displays on the Smart Field Parameters form in the Report Director. For example, for a quarterly data item prompt, you might enter:
Enter 1 to display totals for first quarter.
Enter 2 to display totals for second quarter.
Enter 3 to display totals for third quarter.
Enter 4 to display totals for fourth quarter.

Creating Data Structures

Access the appropriate project in Object Management Workbench.

1. Add a data structure to the same project in which you added the other smart field components.
2. On the Add Object form, create a new regular data structure, naming it according to the recommended naming conventions, and click OK.
3. On the Data Structure Design form, select the Design Tools tab and click Data Structure Design.
4. On the Data Structure form, under Dictionary Items, enter the alias of the data item prompt on the QBE line.
5. Double-click the data item prompt to include it in Structure Members.
6. Double-click in the Required field of the grid to define the data item prompt as Required.
This field displays a check mark for the prompt data item.
7. Under Dictionary Items, search for all required data items using the QBE line.
8. Double-click the required data items individually to include them in Structure Members.
9. Under Dictionary Items, search for a data item to serve as a return value using the QBE line.

Use a data item that is formatted the same as you want the smart field to be formatted.

10. Double-click the return value data item to include it in Structure Members.

You can rename the return value data item in the Structure Member Name field.

11. Set up the arrows in the Input/Output field for each data item to reflect the flow of the data and click OK.

All arrows for prompts and data items should point to the right because these fields fetch data from the database. The arrow for the return value should point to the left as the data is returned to this field in the report section.

Defining Named Mappings

Select the Design Tools tab for the smart field data structure.

1. Click Named Mapping.
2. On the Named Mapping form, click Add.
The grid includes all data items included in the data structure.
3. On the Add Argument List form, enter the name of the named mapping using the recommended naming conventions.
4. On the Named Mapping form, click the prompt data item and under Origin Types select the Prompt option.
The prompt is already set as a required data item from the data structure definition.
5. Click one of the data items to be fetched from a table and under Origin Types, select the Table option.
6. Click the Browse button to access the Select a Table form.
7. Use the QBE line to locate the table where the data item resides and click Next.
8. On the Select a Column form, select the field that matches the data item in the data structure and click Finish.
9. On the Named Mapping form, define each of the data items that are fetched from a table as required, using the Required option at the bottom of the form.
10. Define the return value data item using the Return Value option at the bottom of the form.

Note. When you select the Return Value option, the system automatically selects the Required option.

Performing Calculations Using Named Event Rules

Access the appropriate project in Object Management Workbench.

1. Add a business function to the same project in which you added the other smart field components.
2. On the Add Object form, create a new business function, naming it according to the recommended naming conventions.
3. Under Source Language, select NER and then click OK.
4. On the Design Tools tab of the Business Function Design form, click Start Business Function Design Aid.
5. On the Business Function Design form, click the visual assist in the Parent DLL field and select the DLL your company uses to create custom business functions.
6. In the grid, enter a unique name in the Function Name field.

This name cannot include any spaces and should be descriptive of the business function purpose.

7. Enter a description in the Description field.
This description can be the same as the name, however, you can use spaces in the description.
8. Tab through the remaining fields.
The system populates the F3 Code field with a 3 (Minor Business Rule).
9. Modify the F3 Code if appropriate.
10. Click the row header to highlight the row of data that you just entered, and select Parameters from the Row menu.
11. Use the QBE line to locate the associated data structure, click the data structure, and then click Select.
This process attaches the business function data structure that was created for the level break message to the business function.
12. On the Business Function Design form, verify that the name of the appropriate data structure appears in the Template Name field in the grid.
13. From the Form menu, select Edit.
14. On the Named Event Rules Design form, create the appropriate logic using If/While statements, assignments, business functions, and system functions.
For example, for the quarterly amount smart field that calculates sales for each quarter, this logic is appropriate:


```

      If <user prompt> is equal to 2
      <return value> = Sales for Period 4 + Sales for Period 5 + Sales for Period 6
      Else
      If <user prompt> is equal to 3
      <return value> = Sales for Period 7 + Sales for Period 8 + Sales for Period 9
      Else
      If <user prompt> is equal to 4
      <return value> = Sales for Period 10 + Sales for Period 11 + Sales for Period 12
      Else
      <return value> = Sales for Period 1 + Sales for Period 2 + Sales for Period 3
      End If
      End If
      End If
      
```
15. When the logic is complete, save the event rules and click OK.
16. On the Design Tools tab, click Build Business Function.

Creating Data Dictionary Smart Field Items

Access the appropriate project in Object Management Workbench.

1. Add a data item to the same project in which you added the other smart field components.
2. On the Data Dictionary Item Type form, click No.
3. On the Data Item Specifications form, enter the name of the data item in the Data Item field.
4. In the Alias field, enter a unique alphanumeric identifier.
5. In the Glossary Group field, enter *K* to indicate smart field.
6. In the Description field, enter a brief description of the data item.

7. In the Product Code field, enter a product code in the 55–59 range, reserved for clients.
8. In the Product Code Reporting field, enter a product code that represents the system associated with this data item.
9. In the Data Type field, use the visual assist to select a value that indicates the type of data to be entered (for example, character, string, numeric).
10. In the Size field, enter the field size of the data item.
11. In the File Decimals field, enter the number of stored positions to the right of the decimal place.
12. In the Class field, use the visual assist to select a class that defines the attributes and characteristics of the data item (for example, CURRENCY).
13. In the Display Decimals field, enter the number of decimals to display.
14. In the Control Type field, enter the type of control that is associated with the data item (for example, check box, push button, generic edit, and so on).

The generic edit option is typically used when creating data items specifically for batch applications.

15. Leave the Item Occurrences field cleared.
16. In the Row Description field, enter the data item description as it should appear in group sections.
17. In the Column Title fields, enter the data item description as it should appear in columnar sections.
18. Select the Item Glossary tab and enter information that describes all of the valid results.

For example, for a quarterly smart field, you might enter:

- *1 returns a total value for January, February, and March.*
- *2 returns a total value for April, May, and June.*
- *3 returns a total value for July, August, and September.*
- *4 returns a total value for October, November, and December.*

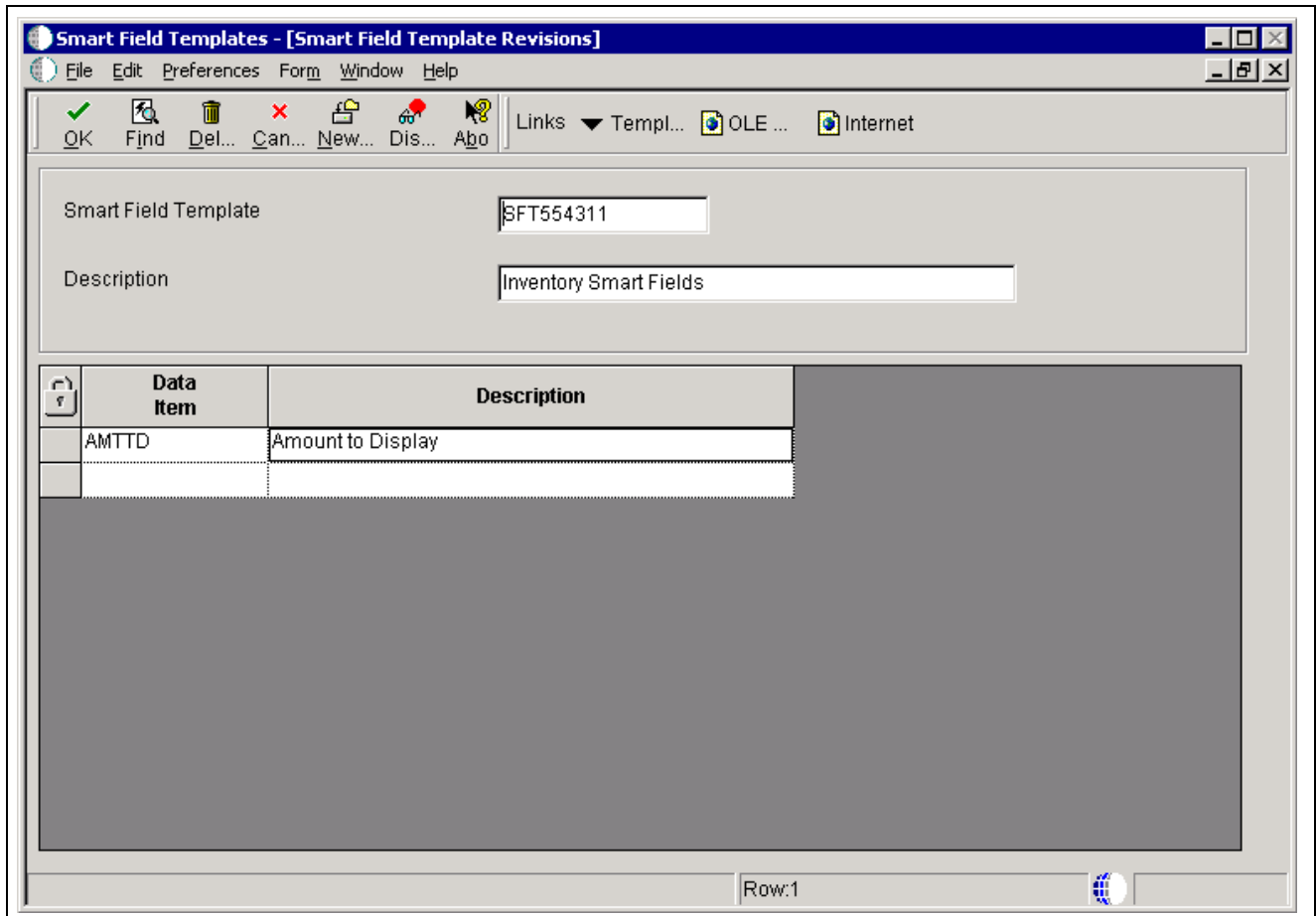
19. From the Form menu, select Smart Field to launch the Smart Field Criteria form.
20. In the Business Function field, click the visual assist and use the QBE line to locate the appropriate business function, click the business function, and then click Select.
21. In the Event Name field, click the visual assist and select the event from which the smart field business function will be called.
22. In the Named Mapping field, enter the name of the named mapping that you defined for the associated data structure and click OK.

See Also

PeopleSoft EnterpriseOne Tools 8.95 PeopleBook: Development Tools: Data Dictionary

Creating Smart Field Templates

Access the Smart Field Template Revisions form.



Smart Field Template Revisions form

Smart Field Template The name of the Smart Field template.

Description A meaningful description of the type of smart fields that are included in the Smart Field template.

Data Item and Description The data item alias and description of all smart fields to be included in the Smart Field template. The system populates the description based on the alias that you enter.

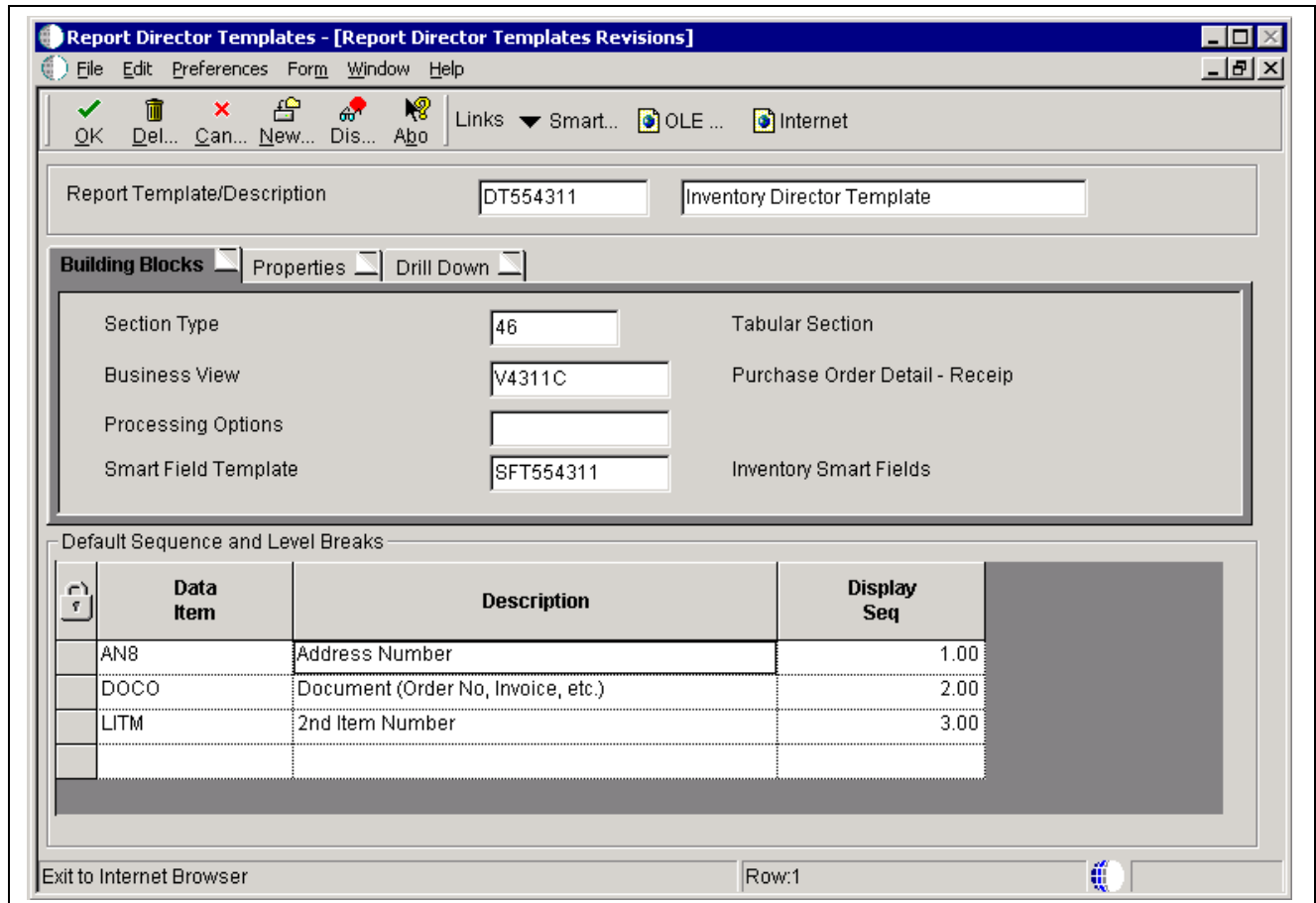
Data Item	Description	Display Seq	Range Values
UORG	Units - Order/Transaction Quantity	1.00	1

Smart Field Template Criteria Revisions form

- Data Item** The alias of the data items to be used as data selection in the report sections created using the Smart Field template.
- Description** The description of the data items to be used as data selection in report sections created using the Smart Field template. The system populates the description based on the alias that you enter.
- Display Seq** Indicates the sequence in which the data selection fields display on the Smart Field Data Selection form of the Report Director.
- Range Values** Indicates whether a field requires a range of values or a single value. For example, if Units-Order Transaction Quantity requires a range of values, enter a *1* in the field.

Creating Report Director Templates

Access the Report Director Templates Revisions form.



Report Director Templates Revisions form

Report Template/Description

The name of the Report Director template and a meaningful description.

The Report Template/Description information displays from all three tabs.

Section Type

The type of report section the system creates when this Report Director template is selected.

Business View

The business view to be used by the report. You can override this business view in the Report Director.

Processing Options

This field is optional. The processing options to be used by the report. You can override this business view in the Report Director.

Smart Field Template

This field is optional. The smart field template to be used by the report. The smart field template is dependent on the business view defined.

Default Sequence and Level Breaks

The data sequence and level breaks to be used by the report. These fields appear on the Data Sequencing Help form of the Report Director. The first two data items appear in Report Grouping, and the subsequent data items appear in Report Detail. You can override these fields in the Report Director.

The Default Sequence and Level Breaks information displays from all three tabs.

Designing Reports Using Custom Smart Fields

Create a new report in Report Design Aid.

1. On the Report Director, under Application Reports, select the appropriate Report Director template from the pull-down menu, and click Next.

This information is derived from the description you entered when you created the Report Director template.

2. On the Page Header Details form, accept the page header defaults and click Next.
3. On the Business View Selection Options form, select the option I'll use the pre-defined business view and click Next.

The predefined business view is the business view that you defined on the Building Blocks tab for the Report Director template. You can select one of the other two business view selection options to override this default.

4. On the Select Columns form, move the appropriate smart field from Available Smart Fields to Columns in Report Section.

The available smart fields is derived from the smart field template that you associated with the Report Director template. All smart fields in the attached smart field template are available to the report developer.

5. On the Smart Field Name form, change the Variable Name if appropriate.

Change the variable name to describe the smart field (for example, First Quarter).

- Change the Report Column Headings fields to describe the field on the report.

For example, to describe the first quarter data enter *First Quarter* on line 1 and *Sales* on line 2.

If you have selected a Report Director template that includes a smart field to display column headings, the Smart Column Heading option is displayed. Instead of changing the column heading names, select this option to allow the smart field to populate the column headings based on information that you enter in the subsequent forms.

Subsequent forms are dependent on the selected Report Director template. For example, using the quarterly sales scenario you might see these forms:

- Smart Field Parameters

This form displays the user prompt data item that you created. The information you entered in the item glossary is displayed in the center of the form. Enter an appropriate value in the Enter the Literal field based on the glossary information. If you created multiple user prompts, you are presented with additional forms for each prompt. For quarterly sales, enter the quarter you want calculated and displayed on the report. For first quarter sales, enter *1* in this field.

- Smart Field Data Selection

This form displays the data items you defined on the Template Criteria form when adding the smart field to the smart field template. If you defined any of the data items as requiring a range of values, the data item displays a From and a To field.

If you intend to define the same data selection for each smart field column, you can leave this form blank and just fill in the data selection for the report.

6. When you have completed all smart field parameters, click Finish.

You can add additional smart field columns to the report by repeating steps. For example, for quarterly sales, you can select the smart field again and enter *2* on the Smart Field Parameter form to calculate and display sales for the second quarter.

7. When you are finished adding smart field columns to the report, click Next.
8. On the Data Sequencing Help form, click Next.

The Data Sequencing Help form displays the data sequence and level break fields that you defined in the Report Director template. The fields that appear under Report Grouping are defined as level break fields and are the first two fields you entered into the grid in the Report Director template. You can remove these fields as level breaks by clearing the option.

The fields that appear under Report Detail are the additional fields that you included in the Report Director template and are also used for data sequencing. Click each field that you want to include as a level break field so that they appear in the empty field directly above them.

You can override the predefined data sequencing and level breaks by selecting the I'd like to setup the sequencing and level breaking myself option under Advanced. You can define data sequencing on the Section Data Sequencing form. The fields listed in the Available Columns section are fields from the attached business view. The subsequent Define Sort Properties form enables you to define level breaks.

9. On the Help with Section Data Selection form, select to create either a balance sheet or an income statement and indicate whether you want to add to the data selection, and click Next.

Note. This form only displays if you defined the associated Report Director template to display financial criteria.

10. On the Data Selection form, define the appropriate data selection.

This form displays if you defined the selected Report Director template to display generic criteria or if you selected the option Set up data selection manually on the Help with Section Data Selection form.

you should define data selection here to enhance system performance even if you defined data selection for each smart field.

11. On the Additional Properties form, select the appropriate options and click Next.

The options displayed on this form are defined on the Properties tab of the Report Director Template.

12. On the Finish form, click Finish and then save and preview the report.

Glossary of PeopleSoft Terms

activity	A scheduling entity in PeopleSoft EnterpriseOne Form Design Aid that represents a designated amount of time on a calendar.
activity rule	The criteria by which an object progresses from one given point to the next in a flow.
add mode	A condition of a form that enables users to input data.
Advanced Planning Agent (APAg)	A PeopleSoft EnterpriseOne tool that can be used to extract, transform, and load enterprise data. APAg supports access to data sources in the form of relational databases, flat file format, and other data or message encoding, such as XML.
application server	A server in a local area network that contains applications shared by network clients.
as if processing	A process that enables you to view currency amounts as if they were entered in a currency different from the domestic and foreign currency of the transaction.
alternate currency	<p>A currency that is different from the domestic currency (when dealing with a domestic-only transaction) or the domestic and foreign currency of a transaction.</p> <p>In PeopleSoft EnterpriseOne Financial Management, alternate currency processing enables you to enter receipts and payments in a currency other than the one in which they were issued.</p>
as of processing	A process that is run as of a specific point in time to summarize transactions up to that date. For example, you can run various PeopleSoft EnterpriseOne reports as of a specific date to determine balances and amounts of accounts, units, and so on as of that date.
back-to-back process	A process in PeopleSoft EnterpriseOne Workflow Management that contains the same keys that are used in another process.
batch processing	<p>A process of transferring records from a third-party system to PeopleSoft EnterpriseOne.</p> <p>In PeopleSoft EnterpriseOne Financial Management, batch processing enables you to transfer invoices and vouchers that are entered in a system other than EnterpriseOne to PeopleSoft EnterpriseOne Accounts Receivable and PeopleSoft EnterpriseOne Accounts Payable, respectively. In addition, you can transfer address book information, including customer and supplier records, to PeopleSoft EnterpriseOne.</p>
batch server	A server that is designated for running batch processing requests. A batch server typically does not contain a database nor does it run interactive applications.
batch-of-one immediate	<p>A transaction method that enables a client application to perform work on a client workstation, then submit the work all at once to a server application for further processing. As a batch process is running on the server, the client application can continue performing other tasks.</p> <p>See also direct connect and store-and-forward.</p>
business function	A named set of user-created, reusable business rules and logs that can be called through event rules. Business functions can run a transaction or a subset of a transaction (check inventory, issue work orders, and so on). Business functions also contain the application programming interfaces (APIs) that enable them to be called from a form, a database trigger, or a non-EnterpriseOne application. Business functions can be combined with other business functions, forms, event rules, and other components to make up an application. Business functions can be created through

	event rules or third-generation languages, such as C. Examples of business functions include Credit Check and Item Availability.
business function event rule	See named event rule (NER).
business view	A means for selecting specific columns from one or more PeopleSoft EnterpriseOne tables whose data is used in an application or report. A business view does not select specific rows, nor does it contain any actual data. It is strictly a view through which you can manipulate data.
central objects merge	A process that blends a customer's modifications to the objects in a current release with objects in a new release.
central server	A server that has been designated to contain the originally installed version of the software (central objects) for deployment to client computers. In a typical PeopleSoft EnterpriseOne installation, the software is loaded on to one machine—the central server. Then, copies of the software are pushed out or downloaded to various workstations attached to it. That way, if the software is altered or corrupted through its use on workstations, an original set of objects (central objects) is always available on the central server.
charts	Tables of information in PeopleSoft EnterpriseOne that appear on forms in the software.
connector	Component-based interoperability model that enables third-party applications and PeopleSoft EnterpriseOne to share logic and data. The PeopleSoft EnterpriseOne connector architecture includes Java and COM connectors.
contra/clearing account	A general ledger account in PeopleSoft EnterpriseOne Financial Management that is used by the system to offset (balance) journal entries. For example, you can use a contra/clearing account to balance the entries created by allocations in PeopleSoft EnterpriseOne General Accounting.
Control Table Workbench	An application that, during the installation Workbench processing, runs the batch applications for the planned merges that update the data dictionary, user-defined codes, menus, and user override tables.
control tables merge	A process that blends a customer's modifications to the control tables with the data that accompanies a new release.
cost assignment	The process in PeopleSoft EnterpriseOne Advanced Cost Accounting of tracing or allocating resources to activities or cost objects.
cost component	In PeopleSoft EnterpriseOne Manufacturing Management, an element of an item's cost (for example, material, labor, or overhead).
cross segment edit	A logic statement that establishes the relationship between configured item segments. Cross segment edits are used to prevent ordering of configurations that cannot be produced.
currency restatement	The process of converting amounts from one currency into another currency, generally for reporting purposes. You can use the currency restatement process, for example, when many currencies must be restated into a single currency for consolidated reporting.
database server	A server in a local area network that maintains a database and performs searches for client computers.
Data Source Workbench	An application that, during the Installation Workbench process, copies all data sources that are defined in the installation plan from the Data Source Master and Table and Data Source Sizing tables in the Planner data source to the System-release number data source. It also updates the Data Source Plan detail record to reflect completion.

date pattern	A calendar that represents the beginning date for the fiscal year and the ending date for each period in that year in standard and 52-period accounting.
denominated-in currency	The company currency in which financial reports are based.
deployment server	A server that is used to install, maintain, and distribute software to one or more enterprise servers and client workstations.
detail information	Information that relates to individual lines in PeopleSoft EnterpriseOne transactions (for example, voucher pay items and sales order detail lines).
direct connect	A transaction method in which a client application communicates interactively and directly with a server application. See also batch-of-one immediate and store-and-forward.
Do Not Translate (DNT)	A type of data source that must exist on the iSeries because of BLOB restrictions.
dual pricing	The process of providing prices for goods and services in two currencies.
edit code	A code that indicates how a specific value for a report or a form should appear or be formatted. The default edit codes that pertain to reporting require particular attention because they account for a substantial amount of information.
edit mode	A condition of a form that enables users to change data.
edit rule	A method used for formatting and validating user entries against a predefined rule or set of rules.
Electronic Data Interchange (EDI)	An interoperability model that enables paperless computer-to-computer exchange of business transactions between PeopleSoft EnterpriseOne and third-party systems. Companies that use EDI must have translator software to convert data from the EDI standard format to the formats of their computer systems.
embedded event rule	An event rule that is specific to a particular table or application. Examples include form-to-form calls, hiding a field based on a processing option value, and calling a business function. Contrast with the business function event rule.
Employee Work Center	A central location for sending and receiving all PeopleSoft EnterpriseOne messages (system and user generated), regardless of the originating application or user. Each user has a mailbox that contains workflow and other messages, including Active Messages.
enterprise server	A server that contains the database and the logic for PeopleSoft EnterpriseOne or PeopleSoft World.
EnterpriseOne object	A reusable piece of code that is used to build applications. Object types include tables, forms, business functions, data dictionary items, batch processes, business views, event rules, versions, data structures, and media objects.
EnterpriseOne process	A software process that enables PeopleSoft EnterpriseOne clients and servers to handle processing requests and run transactions. A client runs one process, and servers can have multiple instances of a process. PeopleSoft EnterpriseOne processes can also be dedicated to specific tasks (for example, workflow messages and data replication) to ensure that critical processes don't have to wait if the server is particularly busy.
Environment Workbench	An application that, during the Installation Workbench process, copies the environment information and Object Configuration Manager tables for each environment from the Planner data source to the System-release number data source. It also updates the Environment Plan detail record to reflect completion.
escalation monitor	A batch process that monitors pending requests or activities and restarts or forwards them to the next step or user after they have been inactive for a specified amount of time.

event rule	A logic statement that instructs the system to perform one or more operations based on an activity that can occur in a specific application, such as entering a form or exiting a field.
facility	An entity within a business for which you want to track costs. For example, a facility might be a warehouse location, job, project, work center, or branch/plant. A facility is sometimes referred to as a <i>business unit</i> .
fast path	A command prompt that enables the user to move quickly among menus and applications by using specific commands.
file server	A server that stores files to be accessed by other computers on the network. Unlike a disk server, which appears to the user as a remote disk drive, a file server is a sophisticated device that not only stores files, but also manages them and maintains order as network user request files and make changes to these files.
final mode	The report processing mode of a processing mode of a program that updates or creates data records.
FTP server	A server that responds to requests for files via file transfer protocol.
header information	Information at the beginning of a table or form. Header information is used to identify or provide control information for the group of records that follows.
interface table	See Z table.
integration server	A server that facilitates interaction between diverse operating systems and applications across internal and external networked computer systems.
integrity test	A process used to supplement a company's internal balancing procedures by locating and reporting balancing problems and data inconsistencies.
interoperability model	A method for third-party systems to connect to or access PeopleSoft EnterpriseOne.
in-your-face-error	In PeopleSoft EnterpriseOne, a form-level property which, when enabled, causes the text of application errors to appear on the form.
IServer service	Developed by PeopleSoft, this internet server service resides on the web server and is used to speed up delivery of the Java class files from the database to the client.
jargon	An alternative data dictionary item description that PeopleSoft EnterpriseOne or People World displays based on the product code of the current object.
Java application server	A component-based server that resides in the middle-tier of a server-centric architecture. This server provides middleware services for security and state maintenance, along with data access and persistence.
JDBNET	A database driver that enables heterogeneous servers to access each other's data.
JDEBASE Database Middleware	A PeopleSoft proprietary database middleware package that provides platform-independent APIs, along with client-to-server access.
JDECallObject	An API used by business functions to invoke other business functions.
jde.ini	A PeopleSoft file (or member for iSeries) that provides the runtime settings required for EnterpriseOne initialization. Specific versions of the file or member must reside on every machine running PeopleSoft EnterpriseOne. This includes workstations and servers.
JDEIPC	Communications programming tools used by server code to regulate access to the same data in multiprocess environments, communicate and coordinate between processes, and create new processes.

jde.log	The main diagnostic log file of PeopleSoft EnterpriseOne. This file is always located in the root directory on the primary drive and contains status and error messages from the startup and operation of PeopleSoft EnterpriseOne.
JDENET	PeopleSoft proprietary communications middleware package. This package is a peer-to-peer, message-based, socket-based, multiprocess communications middleware solution. It handles client-to-server and server-to-server communications for all PeopleSoft EnterpriseOne supported platforms.
Location Workbench	An application that, during the Installation Workbench process, copies all locations that are defined in the installation plan from the Location Master table in the Planner data source to the System data source.
logic server	A server in a distributed network that provides the business logic for an application program. In a typical configuration, pristine objects are replicated on to the logic server from the central server. The logic server, in conjunction with workstations, actually performs the processing required when PeopleSoft EnterpriseOne and World software runs.
MailMerge Workbench	An application that merges Microsoft Word 6.0 (or higher) word-processing documents with PeopleSoft EnterpriseOne records to automatically print business documents. You can use MailMerge Workbench to print documents, such as form letters about verification of employment.
master business function (MBF)	An interactive master file that serves as a central location for adding, changing, and updating information in a database. Master business functions pass information between data entry forms and the appropriate tables. These master functions provide a common set of functions that contain all of the necessary default and editing rules for related programs. MBFs contain logic that ensures the integrity of adding, updating, and deleting information from databases.
master table	See published table.
matching document	A document associated with an original document to complete or change a transaction. For example, in PeopleSoft EnterpriseOne Financial Management, a receipt is the matching document of an invoice, and a payment is the matching document of a voucher.
media storage object	Files that use one of the following naming conventions that are not organized into table format: Gxxx, xxxGT, or GTxxx.
message center	A central location for sending and receiving all PeopleSoft EnterpriseOne messages (system and user generated), regardless of the originating application or user.
messaging adapter	An interoperability model that enables third-party systems to connect to PeopleSoft EnterpriseOne to exchange information through the use of messaging queues.
messaging server	A server that handles messages that are sent for use by other programs using a messaging API. Messaging servers typically employ a middleware program to perform their functions.
named event rule (NER)	Encapsulated, reusable business logic created using event rules, rather than C programming. NERs are also called business function event rules. NERs can be reused in multiple places by multiple programs. This modularity lends itself to streamlining, reusability of code, and less work.
<i>nota fiscal</i>	In Brazil, a legal document that must accompany all commercial transactions for tax purposes and that must contain information required by tax regulations.
<i>nota fiscal factura</i>	In Brazil, a nota fiscal with invoice information. See also <i>nota fiscal</i> .

Object Configuration Manager (OCM)	In PeopleSoft EnterpriseOne, the object request broker and control center for the runtime environment. OCM keeps track of the runtime locations for business functions, data, and batch applications. When one of these objects is called, OCM directs access to it using defaults and overrides for a given environment and user.
Object Librarian	A repository of all versions, applications, and business functions reusable in building applications. Object Librarian provides check-out and check-in capabilities for developers, and it controls the creation, modification, and use of PeopleSoft EnterpriseOne objects. Object Librarian supports multiple environments (such as production and development) and enables objects to be easily moved from one environment to another.
Object Librarian merge	A process that blends any modifications to the Object Librarian in a previous release into the Object Librarian in a new release.
Open Data Access (ODA)	An interoperability model that enables you to use SQL statements to extract PeopleSoft EnterpriseOne data for summarization and report generation.
Output Stream Access (OSA)	An interoperability model that enables you to set up an interface for PeopleSoft EnterpriseOne to pass data to another software package, such as Microsoft Excel, for processing.
package	EnterpriseOne objects are installed to workstations in packages from the deployment server. A package can be compared to a bill of material or kit that indicates the necessary objects for that workstation and where on the deployment server the installation program can find them. It is point-in-time snap shot of the central objects on the deployment server.
package build	A software application that facilitates the deployment of software changes and new applications to existing users. Additionally, in PeopleSoft EnterpriseOne, a package build can be a compiled version of the software. When you upgrade your version of the ERP software, for example, you are said to take a package build. Consider the following context: “Also, do not transfer business functions into the production path code until you are ready to deploy, because a global build of business functions done during a package build will automatically include the new functions.” The process of creating a package build is often referred to, as it is in this example, simply as “a package build.”
package location	The directory structure location for the package and its set of replicated objects. This is usually \\deployment server\release\path_code\package\package name. The subdirectories under this path are where the replicated objects for the package are placed. This is also referred to as where the package is built or stored.
Package Workbench	An application that, during the Installation Workbench process, transfers the package information tables from the Planner data source to the System-release number data source. It also updates the Package Plan detail record to reflect completion.
PeopleSoft Database	See JDEBASE Database Middleware.
planning family	A means of grouping end items whose similarity of design and manufacture facilitates being planned in aggregate.
preference profile	The ability to define default values for specified fields for a user-defined hierarchy of items, item groups, customers, and customer groups.
print server	The interface between a printer and a network that enables network clients to connect to the printer and send their print jobs to it. A print server can be a computer, separate hardware device, or even hardware that resides inside of the printer itself.
pristine environment	A PeopleSoft EnterpriseOne environment used to test unaltered objects with PeopleSoft demonstration data or for training classes. You must have this environment so that you can compare pristine objects that you modify.

processing option	A data structure that enables users to supply parameters that regulate the running of a batch program or report. For example, you can use processing options to specify default values for certain fields, to determine how information appears or is printed, to specify date ranges, to supply runtime values that regulate program execution, and so on.
production environment	A PeopleSoft EnterpriseOne environment in which users operate EnterpriseOne software.
production-grade file server	A file server that has been quality assurance tested and commercialized and that is usually provided in conjunction with user support services.
program temporary fix (PTF)	A representation of changes to PeopleSoft software that your organization receives on magnetic tapes or disks.
project	In PeopleSoft EnterpriseOne, a virtual container for objects being developed in Object Management Workbench.
promotion path	<p>The designated path for advancing objects or projects in a workflow. The following is the normal promotion cycle (path):</p> <p>11>21>26>28>38>01</p> <p>In this path, <i>11</i> equals new project pending review, <i>21</i> equals programming, <i>26</i> equals QA test/review, <i>28</i> equals QA test/review complete, <i>38</i> equals in production, <i>01</i> equals complete. During the normal project promotion cycle, developers check objects out of and into the development path code and then promote them to the prototype path code. The objects are then moved to the productions path code before declaring them complete.</p>
proxy server	A server that acts as a barrier between a workstation and the internet so that the enterprise can ensure security, administrative control, and caching service.
published table	Also called a master table, this is the central copy to be replicated to other machines. Residing on the publisher machine, the F98DRPUB table identifies all of the published tables and their associated publishers in the enterprise.
publisher	The server that is responsible for the published table. The F98DRPUB table identifies all of the published tables and their associated publishers in the enterprise.
pull replication	One of the PeopleSoft methods for replicating data to individual workstations. Such machines are set up as pull subscribers using PeopleSoft EnterpriseOne data replication tools. The only time that pull subscribers are notified of changes, updates, and deletions is when they request such information. The request is in the form of a message that is sent, usually at startup, from the pull subscriber to the server machine that stores the F98DRPCN table.
QBE	An abbreviation for query by example. In PeopleSoft EnterpriseOne, the QBE line is the top line on a detail area that is used for filtering data.
real-time event	A service that uses system calls to capture PeopleSoft EnterpriseOne transactions as they occur and to provide notification to third-party software, end users, and other PeopleSoft systems that have requested notification when certain transactions occur.
refresh	A function used to modify PeopleSoft EnterpriseOne software, or subset of it, such as a table or business data, so that it functions at a new release or cumulative update level, such as B73.2 or B73.2.1.
replication server	A server that is responsible for replicating central objects to client machines.
quote order	In PeopleSoft EnterpriseOne Procurement and Subcontract Management, a request from a supplier for item and price information from which you can create a purchase order.

	In PeopleSoft EnterpriseOne Sales Order Management, item and price information for a customer who has not yet committed to a sales order.
selection	Found on PeopleSoft menus, a selection represents functions that you can access from a menu. To make a selection, type the associated number in the Selection field and press Enter.
Server Workbench	An application that, during the Installation Workbench process, copies the server configuration files from the Planner data source to the System-release number data source. It also updates the Server Plan detail record to reflect completion.
spot rate	An exchange rate entered at the transaction level. This rate overrides the exchange rate that is set up between two currencies.
Specification merge	A merge that comprises three merges: Object Librarian merge, Versions List merge, and Central Objects merge. The merges blend customer modifications with data that accompanies a new release.
specification	A complete description of a PeopleSoft EnterpriseOne object. Each object has its own specification, or name, which is used to build applications.
Specification Table Merge Workbench	An application that, during the Installation Workbench process, runs the batch applications that update the specification tables.
store-and-forward	The mode of processing that enables users who are disconnected from a server to enter transactions and then later connect to the server to upload those transactions.
subscriber table	Table F98DRSUB, which is stored on the publisher server with the F98DRPUB table and identifies all of the subscriber machines for each published table.
supplemental data	<p>Any type of information that is not maintained in a master file. Supplemental data is usually additional information about employees, applicants, requisitions, and jobs (such as an employee's job skills, degrees, or foreign languages spoken). You can track virtually any type of information that your organization needs.</p> <p>For example, in addition to the data in the standard master tables (the Address Book Master, Customer Master, and Supplier Master tables), you can maintain other kinds of data in separate, generic databases. These generic databases enable a standard approach to entering and maintaining supplemental data across PeopleSoft EnterpriseOne systems.</p>
table access management (TAM)	The PeopleSoft EnterpriseOne component that handles the storage and retrieval of use-defined data. TAM stores information, such as data dictionary definitions; application and report specifications; event rules; table definitions; business function input parameters and library information; and data structure definitions for running applications, reports, and business functions.
Table Conversion Workbench	An interoperability model that enables the exchange of information between PeopleSoft EnterpriseOne and third-party systems using non-PeopleSoft EnterpriseOne tables.
table conversion	An interoperability model that enables the exchange of information between PeopleSoft EnterpriseOne and third-party systems using non-PeopleSoft EnterpriseOne tables.
table event rules	Logic that is attached to database triggers that runs whenever the action specified by the trigger occurs against the table. Although PeopleSoft EnterpriseOne enables event rules to be attached to application events, this functionality is application specific. Table event rules provide embedded logic at the table level.
terminal server	A server that enables terminals, microcomputers, and other devices to connect to a network or host computer or to devices attached to that particular computer.

three-tier processing	The task of entering, reviewing and approving, and posting batches of transactions in PeopleSoft EnterpriseOne.
three-way voucher match	In PeopleSoft EnterpriseOne Procurement and Subcontract Management, the process of comparing receipt information to supplier's invoices to create vouchers. In a three-way match, you use the receipt records to create vouchers.
transaction processing (TP) monitor	A monitor that controls data transfer between local and remote terminals and the applications that originated them. TP monitors also protect data integrity in the distributed environment and may include programs that validate data and format terminal screens.
transaction set	An electronic business transaction (electronic data interchange standard document) made up of segments.
trigger	One of several events specific to data dictionary items. You can attach logic to a data dictionary item that the system processes automatically when the event occurs.
triggering event	A specific workflow event that requires special action or has defined consequences or resulting actions.
two-way voucher match	In PeopleSoft EnterpriseOne Procurement and Subcontract Management, the process of comparing purchase order detail lines to the suppliers' invoices to create vouchers. You do not record receipt information.
User Overrides merge	Adds new user override records into a customer's user override table.
variance	In Capital Asset Management, the difference between revenue generated by a piece of equipment and costs incurred by the equipment. In EnterpriseOne Project Costing and EnterpriseOne Manufacturing Management, the difference between two methods of costing the same item (for example, the difference between the frozen standard cost and the current cost is an engineering variance). Frozen standard costs come from the Cost Components table, and the current costs are calculated using the current bill of material, routing, and overhead rates.
Version List merge	The Versions List merge preserves any non-XJDE and non-ZJDE version specifications for objects that are valid in the new release, as well as their processing options data.
visual assist	Forms that can be invoked from a control via a trigger to assist the user in determining what data belongs in the control.
vocabulary override	An alternate description for a data dictionary item that appears on a specific PeopleSoft EnterpriseOne or World form or report.
wchar_t	An internal type of a wide character. It is used for writing portable programs for international markets.
web application server	A web server that enables web applications to exchange data with the back-end systems and databases used in eBusiness transactions.
web server	A server that sends information as requested by a browser, using the TCP/IP set of protocols. A web server can do more than just coordination of requests from browsers; it can do anything a normal server can do, such as house applications or data. Any computer can be turned into a web server by installing server software and connecting the machine to the internet.
Windows terminal server	A multiuser server that enables terminals and minimally configured computers to display Windows applications even if they are not capable of running Windows software themselves. All client processing is performed centrally at the Windows terminal server and only display, keystroke, and mouse commands are transmitted over the network to the client terminal device.

workbench	A program that enables users to access a group of related programs from a single entry point. Typically, the programs that you access from a workbench are used to complete a large business process. For example, you use the EnterpriseOne Payroll Cycle Workbench (P07210) to access all of the programs that the system uses to process payroll, print payments, create payroll reports, create journal entries, and update payroll history. Examples of PeopleSoft EnterpriseOne workbenches include Service Management Workbench (P90CD020), Line Scheduling Workbench (P3153), Planning Workbench (P13700), Auditor's Workbench (P09E115), and Payroll Cycle Workbench.
work day calendar	In EnterpriseOne Manufacturing Management, a calendar that is used in planning functions that consecutively lists only working days so that component and work order scheduling can be done based on the actual number of work days available. A work day calendar is sometimes referred to as planning calendar, manufacturing calendar, or shop floor calendar.
workflow	The automation of a business process, in whole or in part, during which documents, information, or tasks are passed from one participant to another for action, according to a set of procedural rules.
workgroup server	A server that usually contains subsets of data replicated from a master network server. A workgroup server does not perform application or batch processing.
XAPI events	A service that uses system calls to capture PeopleSoft EnterpriseOne transactions as they occur and then calls third-party software, end users, and other PeopleSoft systems that have requested notification when the specified transactions occur to return a response.
XML CallObject	An interoperability capability that enables you to call business functions.
XML Dispatch	An interoperability capability that provides a single point of entry for all XML documents coming into PeopleSoft EnterpriseOne for responses.
XML List	An interoperability capability that enables you to request and receive PeopleSoft EnterpriseOne database information in chunks.
XML Service	An interoperability capability that enables you to request events from one PeopleSoft EnterpriseOne system and receive a response from another PeopleSoft EnterpriseOne system.
XML Transaction	An interoperability capability that enables you to use a predefined transaction type to send information to or request information from PeopleSoft EnterpriseOne. XML transaction uses interface table functionality.
XML Transaction Service (XTS)	Transforms an XML document that is not in the PeopleSoft EnterpriseOne format into an XML document that can be processed by PeopleSoft EnterpriseOne. XTS then transforms the response back to the request originator XML format.
Z event	A service that uses interface table functionality to capture PeopleSoft EnterpriseOne transactions and provide notification to third-party software, end users, and other PeopleSoft systems that have requested to be notified when certain transactions occur.
Z table	A working table where non-PeopleSoft EnterpriseOne information can be stored and then processed into PeopleSoft EnterpriseOne. Z tables also can be used to retrieve PeopleSoft EnterpriseOne data. Z tables are also known as interface tables.
Z transaction	Third-party data that is properly formatted in interface tables for updating to the PeopleSoft EnterpriseOne database.

Index

A

- absolute position, activating 89
- accounting periods, assigning to column headings 161
- Acrobat Reader form 166
- action messages
 - defining in business functions 237
 - definition 232
 - understanding 233
- Add Argument List form 255
- Add EnterpriseOne Object to the project form 18
- Add Object form 18
- additional documentation xx
- Additional Properties form 48
- additional properties, defining for application reports 48
- Adobe Acrobat Reader, viewing reports 49
- Advance Section event
 - description 215
 - values held in the runtime structures 222, 224, 228
- Advanced Operations form 149
- After Last Object Printed event
 - description 215
 - values held in the runtime structures 224, 227
- aggregates
 - descriptions 114
 - selecting operators and operands 115
- Aggregations form 113, 115
- Align Objects form 86
- alignment
 - aligning fields within or across sections 86
 - justifying text 99
 - setting the grid alignment 56
- Alignment Grid form 56
- alpha variables
 - description 66
- alternative descriptions
 - setting up for business view favorites 128
- API

- adding records to the subsystem table 179, 180
 - definition 174
- application fundamentals xix
- Application Programming Interface, *See* API
- application reports
 - creating 43
 - creating calculation columns 47
 - creating with the Report Director 43
 - defining additional properties 48
 - defining level breaks 48
 - defining page breaks 48
 - defining sort properties 48
 - description 27
 - selecting records to include 48
 - selecting Report Director templates 45
- Arabic 20
- Assignment form 142, 143, 145
- assignments
 - creating in event rules 142
 - understanding 140
 - using in level break footers 114
- Associated Description Properties form 115
- associated descriptions
 - adding to level break headers 115
 - understanding 113
- asynchronous
 - defining for report interconnects 246
 - processing subsystem jobs 177
- asynchronous processing 245
- attachments, adding and deleting 106
- audit trails, reviewing 166
- automatically generated rows 76, 79

B

- bar code fonts, setting up 95
- Batch Application Design form 18
- batch error messages
 - calling Work Center APIs 233
 - first-level messages 232
 - second-level messages 232
 - third-level messages 233
 - understanding 231

- understanding components 234
 - using action messages 233
 - using level break messages 232
 - using text substituted messages 233
 - batch events
 - additional batch events 214
 - Do Section 214
 - report level events 214
 - section level events 215
 - understanding 214
 - using system functions 219
 - batch processes
 - creating as subsystem jobs 177
 - creating in Report Design Aid 201
 - batch processing
 - processing batch events 214
 - processing data selection and data sequencing 209
 - processing events and attached event rules 221
 - processing level break sections 211
 - processing report sections 202
 - processing sections 204
 - understanding 201
 - using database output to update the database 173
 - batch runtime processing
 - objects available 221
 - understanding 221
 - batch versions
 - copying XJDE and ZJDE versions 19
 - creating from the Report Director 31, 35, 40, 48
 - definition 7
 - deleting from multiple locations 17
 - opening 17
 - Before Level Break event
 - description 215
 - values held in the runtime structures 223, 225
 - boxes
 - associating with data fields 101
 - understanding 101
 - BrowsER
 - accessing for a report template 150
 - accessing for report templates 149
 - understanding 149
 - Browsing form 150
 - Business Function Design form 180
 - Business Function Search form 160
 - Business Functions form 160
 - business functions, creating for level break messages 235
 - Business View Column Browser, showing and hiding 56
 - business view columns
 - adding and removing in detail sections 21
 - selecting for columnar sections 29
 - selecting for group sections 34
 - selecting for tabular sections 39
 - understanding 65
 - business view favorites
 - adding business views 126
 - adding notes 127
 - adding to favorites folders 124
 - adding to favorites subfolders 125
 - modifying and deleting notes 128
 - selecting 23, 46
 - setting up 123
 - setting up alternative descriptions 128
 - understanding 123
 - viewing alternative descriptions 130
 - Business View Selection Option form 29
 - business views
 - adding to favorites folders and subfolders 126
 - selecting for columnar sections 29
 - selecting for detail sections 20, 23
 - selecting for group sections 34
 - selecting for tabular sections 39
 - selecting from favorites 23, 46
 - selecting from the Favorite Business Views tab 23
 - selecting from the Select Business View tab 23
 - setting up favorites 123
 - understanding business view columns 65
 - using in subsection joins 135
- ## C
- calculation columns
 - creating in tabular sections 47
 - defining 74
 - removing calculations 74
 - understanding 73
 - Calculation Row Properties form 78
 - calculation rows
 - adding 78

- overriding variable properties 82
 - overriding variables 82
 - understanding 76
- cAllowUserIdToChange parameter 239
- Cell Properties form 81
- cells
 - defining 80
 - defining in tabular sections 71
 - overriding calculation row variables 82
 - overriding constant row variables 82
 - overriding data row variables 81
 - overriding properties 80
 - overriding underline row variables 82
- child sections
 - available events 196
 - understanding 135
- colors
 - for fonts 93
 - supported for printing 93
- Column Data Selection form 47
- Column Heading Properties form 69
- column headings
 - assigning account periods 161
 - changing text 68
 - in columnar sections 9
 - naming smart field columns 46
 - renaming the Row Description column 43
- Column Inclusion event
 - comparing to the Do Section event 147
 - using 147
- column properties
 - understanding 59
 - viewing and modifying 62
 - viewing from the column tab 62
- column spacing, changing 90
- Column Variable Properties form 72
- column width, changing 88
- columnar section
 - changing the length of fields 88
- Columnar Section form 60
- Columnar Section Spacing form 91
- columnar sections
 - adding and removing business view columns 21, 65
 - adding and removing data fields 68
 - available events 196
 - changing the width of columns 88
 - characteristics of 9
 - creating level break headers 114
 - creating with the Report Director 28
 - deciding when to use 9
 - defining 28
 - defining data selection 21
 - defining data sequencing 21
 - defining sort order 21
 - defining sort properties 21
 - displaying conditionally 84
 - filtering data 21
 - hiding 84
 - modifying row spacing 90
 - processing 205
 - renaming 83
 - reprinting last line on next page 102
 - selecting business views 20
 - setting up totals 9
 - using in subsection joins 136
- columns
 - adding and removing business view columns 21
 - aligning within or across sections 85, 86
 - changing spacing 89
 - creating calculations 73
 - defining in tabular sections 71
 - defining percentages 75
 - modifying column width 87
 - understanding smart fields 119
 - using Row Description columns 74
- comments
 - adding to reports 105
 - adding, modifying, and deleting on a data field 106
- comments, submitting xxiv
- common elements xxv
- company title
 - description 67
 - See Also* runtime fields
- constant events 218
- Constant Row Properties form 79
- constant rows
 - adding 79
 - overriding variable properties 82
 - overriding variables 82
- constants
 - description 66
- contact information xxiv
- Copy Object form 18
- Create New Report form 17
- Create New Smart Field form 121

- Criteria Design form 142
 - cross-references xxiii
 - CSV
 - setting the grid alignment 55
 - showing the Tip Dialog box 54
 - custom sections
 - attaching logic 148, 209
 - available events 196
 - creating 148
 - understanding 148, 209
 - Customer Connection website xx
- D**
- Data Dictionary Browser form 170
 - Data Dictionary Browser, showing and hiding 56
 - data dictionary fields
 - creating for level break messages 234
 - description 67
 - showing and hiding text overrides 55
 - using to create event rule variables 146
 - Data Dictionary Item Type form 253, 256
 - data fields
 - adding and removing 68
 - aligning within or across sections 85
 - associating boxes and lines 101
 - changing colors 94
 - changing decimal scaling for 72
 - changing font properties 94
 - changing names of 69
 - inserting into columnar sections 68
 - inserting into page footers 109
 - inserting into page headers 109
 - inserting into report footers 109
 - inserting into report headers 108
 - justifying text (alignment) 99
 - modifying field length 87
 - types of 66
 - understanding 66
 - Data Item Specifications form 253, 256
 - Data Row Properties form 77
 - data rows
 - adding 77
 - overriding variable properties 81
 - overriding variables 81
 - understanding 76
 - data selection
 - defining in columnar, group, and tabular sections 21
 - processing of 209
 - Data Selection form 25
 - data sequencing
 - defining in columnar sections 21, 30
 - defining in group sections 21, 34
 - defining in subsection joins 137
 - defining in tabular sections 21, 39
 - defining using the Advanced Option 48
 - processing of 209
 - Data Sequencing form 24
 - Data Sequencing Help form 43
 - Data Structure:Level break message form 240
 - data structures
 - creating for level break message business functions 235
 - creating for text substituted level break messages 234
 - creating processing option data structures 169
 - data, filtering in columnar, group, and tabular sections 21
 - database maintenance
 - using database output 173
 - using table conversions 173
 - using table I/O (in event rules) 173
 - database output
 - description 174
 - updating the database using batch applications 173
 - updating, inserting, and deleting records 173
 - working with 173
 - Date Title Preview form 158
 - Date Title Revisions form 157
 - Date Title Search form 160
 - date titles
 - adding to financial reports 160
 - assigning accounting periods to column headings 161
 - customizing 157
 - defining custom 157
 - description 133
 - previewing 158
 - shipped with the software 155
 - using in financial reports 156
 - date variable data fields 67
 - date variables
 - description 66
 - decimal scaling
 - changing for all fields in a report 73

- changing for all fields in a section 72
- changing for individual fields 72
- definition 72
- default report settings 16
- Define Calculation form 47
- Define Sort Properties form 30, 35, 40
- Define Sub Section Join form 137
- Delete of form 19
- dependent sections, *See* report sections
- description columns, *See* Row Description columns
- descriptions, associating in level break headers 115
- detail sections
 - adding and removing business view columns 21, 65
 - adding columns using Quick Section 24
 - adding from the menu 20, 23
 - adding in Report Design Aid 20
 - changing descriptions 84
 - definition 8
 - design capabilities 8
 - displaying conditionally 84, 85
 - hiding 84
 - joining 137
 - renaming 83
 - setting page breaks 102
- Director, *See* Report Director
- Director templates, *See* Report Director templates
- Director's Finish form 31
- display tree, showing and hiding 56
- Do Balance Auditor event, description 215
- Do Initialize Printer event, description 215
- Do Section event
 - description 215
 - understanding 214
 - values held in the runtime structures 223, 226
- Do Tabular Break event, description 215
- documentation
 - printed xx
 - related xx
 - updates xx
- double byte fonts
 - aligning 99
 - understanding 93
- drill down

- activating 163
- defining 164, 165
- description 133
- understanding 163
- dynamic positioning
 - activating 96
 - applying font substitutions to report templates 98
 - defining font substitutions 96
 - overriding font substitutions 98
 - understanding 95

E

- edit codes
 - selecting 193
 - understanding 193
- End Break Section event, description 216
- End Lvl Brk Footer Section event 213
 - description 216
- End Lvl Brk Header Section event 213
 - description 216
- End Report event, description 215
- End Section event, description 216
- error messages, *See* batch error messages
- event flow
 - processing the Advance Section event 222, 224, 228
 - processing the After Last Object Printed event 224, 227
 - processing the Before Level Break event 223, 225
 - processing the Do Section event 226
 - processing the Initialize Section event 222
- event levels
 - object events for constants 199
 - object level events for variables 198
 - report level events 196
 - section level 196
 - understanding 196
- event rule assignments, creating 143
- event rule variables
 - creating 146
 - naming 146
 - understanding 146
- event rules
 - calling system functions in 144
 - changing sequence 142
 - creating assignments 142
 - creating event rule variables 146

- creating for processing options 195
- creating if/while statements 139
- description 133
- selecting from available fields 140
- understanding 139
- understanding events 195
- using Column Inclusion or Do Section 147
- using text variables in 143
- Event Rules Design form 142, 246
- Event Rules Variables form 147
- events
 - constants and variables 218
 - object level events for constants 199
 - object level events for variables 198
 - page footer section 217
 - page header section 216
 - report footer section 217
 - report header section 217
 - report level 196
 - section level 196, 215
 - understanding 195
- Expression Manager form 74, 78, 82
- expressions, understanding 140

F

- favorite business views, *See* business view
- favorites
 - selecting from the Favorite Business Views tab 23
- field length, changing 88
- field properties, viewing 59
- fields
 - aligning within or across sections 85, 86
 - changing font properties 94
 - descriptions of prefix codes 140
 - justifying text 99
 - modifying length 87
 - selecting for detail section layout 21
- Fields tab, Columnar Section form 62
- Financial Account Level of Detail Row Generation form 79
- financial report date titles 156
- first-level messages, understanding 232
 - See Also* level break messages
- Font form 99
- font properties
 - changing for all fields in a report 94
 - changing for all fields in a section 94

- changing for an individual field 94
- Font Substitution by Language Revisions form 97
- Font Substitution by Language Type Revisions form 98
- font substitutions
 - applying to report templates 98
 - defining 96
 - defining for language and line printers 97
 - modifying 97
 - overriding 98
 - viewing by language type 97
- fonts
 - activating dynamic positioning 95
 - aligning bar codes 99
 - aligning double byte 99
 - assigning by language 99
 - changing properties 91
 - changing when printing 95
 - selecting colors 93
 - setting up bar codes 95
 - understanding barcodes 94
 - understanding defaults 16
 - understanding double byte 93
 - understanding proportional and nonproportional 91
 - using True Type 98
- footer sections
 - characteristics of page footers 12
 - characteristics of report footers 12
 - creating 107
 - defining level break fields 8
 - understanding page footers 7
 - understanding report footers 7
- Form Interconnections form 164, 165

G

- general, description of system
- functions 219
- Glossary Items form 240
- grid alignment, setting 56
- Group Section form 60
- group sections
 - adding and removing business view columns 21, 65
 - adding using Report Design Aid 20
 - available events 196
 - characteristics 9
 - creating level break headers 114

- creating with the Report Director 33
- deciding when to use 10
- defining 33
- defining data selection 21
- defining data sequencing 21
- defining sort order 21
- defining sort properties 21
- displaying conditionally 84
- filtering data 21
- hiding 84
- processing 205
- renaming 83
- reprinting last line on next page 102
- selecting business views 20
- setting up totals 10
- typical event flow 222
- using in subsection joins 136

H

- header sections
 - characteristics 12
 - creating 107
 - defining level break fields 8
 - populating page headers
 - automatically 29
 - understanding page headers 7
 - understanding report headers 7
- Help with Section Data Selection form 48

I

- if/while statements
 - creating in event rules 142
 - understanding 140
- independent sections, *See* report sections
- Init Break Section event, description 216
- Init Lvl Brk Footer Section event
 - understanding 213
- Init Lvl Brk Footer Section event,
 - description 216
- Init Lvl Brk Header Section event
 - understanding 213
- Init Lvl Brk Header Section event,
 - description 216
- Initialize Report event, description 215
- Initialize Section
 - values held in the runtime
 - structures 222
- Initialize Section event
 - description 216

- invisible sections
 - defining in properties 85
 - showing and hiding 55

J

- JDE.DataItem Properties form 170
- Job Submission form 95
- joined sections
 - attaching logic 208
 - modifying and severing 137
 - processing 208
 - understanding the join 136

L

- Language Font Revisions form 99
- language, setting up alternative descriptions
 - for business view favorites 128
- level break fields
 - defining 114
 - hiding in the detail section 115
 - in application reports 43
 - in tabular sections 38, 40
- Level Break Footer form 115
- level break footers
 - available events 196
 - creating 115
 - defining for group and columnar
 - sections 115
 - defining level break fields 8
 - inserting descriptions 116
 - modifying 114
 - reprinting at page break 116
 - selecting aggregates 115
 - selecting operators 113
 - understanding 113
 - using assignments in 114
- Level Break form 114, 115
- level break headers
 - associating descriptions 115
 - available events 196
 - creating 114
 - defining for group and columnar
 - sections 114
 - defining level break fields 8
 - modifying 114
 - understanding 111, 112
- level break messages
 - creating business function data structures
 - for 235

- creating business functions for 235
- creating data items for 234
- creating data structures for 234
- defining level of messages 232
- understanding 232
- understanding components 234
- using action messages 233
- level break processing
 - End Lvl Brk Header Section and End Lvl Brk Footer Section events 213
 - understanding 211
- level break section events
 - End Lvl Brk Header Section and End Lvl Brk Footer Section 213
 - Init Lvl Brk Footer Section 213
 - Init Lvl Brk Header Section 213
 - understanding 213
- level break sections
 - defining for columnar sections 9
 - defining for group sections 10
 - Init Lvl Brk Footer Section event 213
 - Init Lvl Brk Header Section 213
 - processing 211
 - processing events 213
- level breaks fields
 - defining in application reports 48
- levels, understanding 111
- lines
 - associating with data fields 101
 - understanding 101
- List of values form 23
- logic 8
 - See Also* event rules
 - creating for custom sections 148, 209
 - creating in joined sections 208
 - understanding processing option logic 195

M

- Mapping Targets form 175
- Mappings form 175
- margins, showing and hiding 55
- media objects, description of system functions 219
- messages
 - action messages 233
 - batch error messages 231
 - level break messages 232
 - text substituted messages 233

- understanding level break messages 232
- messaging
 - batch error messages 231
 - description of system functions 219
- MMA Partners xx

N

- Named Event Rules Design form 256
- Named Mapping form 255
- naming conventions
 - event rule variables 146
 - modifying batch versions beginning with XJDE and ZJDE 19
 - naming report objects 15
 - Report Director templates 183
- Navigation Assistant
 - showing and hiding 55
 - understanding user options for 54
- notes xxiii
 - adding to favorites, folders, and subfolders 127
 - modifying and deleting from favorites, folders, and subfolders 128
- Notes Revisions form 127
- number of non optimized inclusion rows 77
- number of optimized inclusion rows 77
- numeric fields
 - changing decimal scaling for 72
 - changing the appearance of 100
 - understanding formatting 100
- numeric variable data fields 67
- numeric variables
 - description 66
 - formatting 100

O

- Object Design Properties form 62
- Object Folder Revisions form 124
- object level events
 - descriptions of constant and variable events 218
 - events available for constants 199
 - events available for variables 198
- Object Management Workbench form 18
- Object Management Workbench, creating report objects 18
- objects

- batch runtime processing 221
- creating in Object Management Workbench 18
- description of system functions 219
- naming 15
- understanding in PeopleSoft EnterpriseOne 7
 - See Also* report objects
- working with 65
- optimize rows, understanding 77

P

- page breaks
 - defining in application reports 48
 - inserting manually 102
 - understanding manual page breaks 102
- page footer events 217
- Page Footer form 109
- page footers
 - available events 196
 - characteristics 12
 - creating 109
 - example 12
 - understanding 107
 - using data fields in 109
- Page Header Details form 29, 34, 38, 46
- page header events, descriptions of each 216
- Page Header form 109
- page headers
 - adding data fields 66
 - available events 196
 - characteristics 12
 - creating 108
 - populating automatically 29
 - understanding 107
 - using data fields 109
- Page n of Total, description 67
 - See Also* runtime fields
- page number data fields 67
- page number, description 67
 - See Also* runtime fields
- parent sections
 - understanding 135
- parent/child relationships, subsection joins 135
- PeopleBooks
 - ordering xx

- PeopleCode, typographical conventions xxii
- PeopleSoft application fundamentals xix
- PeopleSoft Report Design Aid form 17
- percent calculations, defining 76
- percentages, calculating 75
- performance enhancement in tabular sections, row optimization 77
- prefix codes, descriptions 140
- prerequisites xix
- preview
 - changing number of lines to display 55
 - previewing date titles 158
 - previewing reports from Report Design Aid 50
- printed documentation xx
- printing
 - colors supported 93
 - printing text attachments on reports 152
 - repeating the last line of a page as the first line on the succeeding page 102
- Processing Option Design form 169
- processing option logic
 - adding to the report 171
 - understanding 195
- processing option template
 - adding logic to the report 171
- processing option templates
 - adding tabs 170
 - attaching to report templates 170
 - creating 169
 - description 133
 - designing 168
 - guidelines for basic event rules 195
 - understanding 167
- properties
 - changing fonts 91
 - changing font properties 94
 - defining sort properties 21
 - overriding cell properties 80
 - understanding report object properties 83
 - understanding report properties 60
 - understanding section properties 60
 - viewing column properties 62
 - viewing field properties 62
 - viewing row properties 63
- Properties form 60, 180

Purge Financial Reporting Drill Down
Work File form 166

Q

Quick Section form 21
Quick Section, using to add business view
columns to detail sections 24

R

Range of Values form 22

records

selecting to include in columnar
sections 30
selecting to include in group
sections 35
selecting to include in tabular
sections 40

Refresh Section event, description 216

related documentation xx

report components, understanding 6

Report Data Structure form 180

report date, description 67

See Also runtime fields

report design

adding and removing attachments and
comments 105
creating report models 13
determining report sections 14
guidelines 71
surveying stakeholders 13
understanding the process 13

Report Design Aid

configuring the design workspace 53
creating batch processes 201
understanding 5
understanding the design workspace 53

Report Director

creating application reports 43
creating columnar sections 28
creating detail sections using 20
creating group section reports 33
creating tabular sections 38
customizing directors 6
understanding 27
viewing results 50

Report Director forms

Column Data Selection 47
Define Calculation 47
Define Sort Properties 30, 35, 40

defining Smart Field Parameters 47

Page Header Details 46

Section Data Sequencing 48

Section Layout 29, 34, 39

Smart Field Data Selection 47

understanding 6

Report Director templates

adding 185

adding and modifying 183

description 134

selecting 45

understanding 27, 183

Report Director Templates Revisions

form 184

report footer events 217

Report Footer form 109

report footers

available events 196

characteristics 12

creating 109

example 12

understanding 107

using data fields 109

report header events 217

Report Header form 108

report headers

available events 196

characteristics 11

creating 108

example 11

understanding 107

using data fields 108

report interconnects

asynchronous and synchronous
processing 245

creating 246

in batch applications 245

understanding 245

report level events

descriptions of each 214

events available 196

report objects

available for batch processing 221

business view columns 65

creating from Object Management
Workbench 18

creating from Report Design Aid 17

data fields 65

definition 7

deleting 19

- deleting from multiple locations 17
- description of alphabetical codes 221
- descriptions of each type 66
- report planning checklist 14
- Report Preview form 50
- report processing
 - asynchronous and synchronous report interconnects 245
 - optimizing tabular row processing 77
 - overview 6
 - processing events 214
 - processing level breaks 211
 - processing sections 202, 204
 - understanding 201
- report sections
 - adding and removing business view columns 68
 - adding lines and boxes 101
 - aligning fields across 87
 - aligning fields within 87
 - changing decimal scaling in tabular sections 72
 - changing font properties 94
 - characteristics of columnar sections 9
 - characteristics of group sections 9
 - characteristics of page footers 12
 - characteristics of page headers 12
 - characteristics of report footers 12
 - characteristics of report headers 11
 - characteristics of tabular sections 10
 - creating logic for custom sections 148
 - creating totals for columnar and group sections 69
 - custom sections 148, 209
 - definition 7
 - dependent (level-two) sections 202
 - determining sections required 14
 - hiding unconditionally 84
 - independent (level-one) sections 202
 - inserting additional sections 6
 - joining 135
 - joining sections in a report 133
 - modifying column spacing 90
 - parent sections 202
 - processing 202
 - selecting smart fields 46
 - showing and hiding 84
 - showing and hiding conditionally 85
 - showing and hiding titles 55
 - showing and hiding unconditionally 85
 - understanding properties 60
 - viewing event rules 149
- report templates
 - accessing BrowsER 149
 - applying font substitution 98
 - changing decimal scaling 73
 - changing font properties 94
 - default settings 16
 - definition 7
 - deleting 19
 - deleting from multiple locations 17
 - opening 17
 - reviewing event rules 150
 - reviewing results 49
 - saving 49
- report time, description 67
 - See Also* runtime fields
- report title, description 67
 - See Also* runtime fields
- reports
 - section processing 204
- reports, understanding default settings 16
 - See Also* report templates
- right margin, showing and hiding 55
- Row Description columns
 - creating 75
 - deleting 75
 - including in application reports 43
 - including in tabular sections 11
 - working with 74
- row optimization 77
- row properties
 - viewing 59, 63
 - viewing from section properties 63
- row spacing
 - changing in columnar sections 90
 - changing in tabular sections with added rows 91
- rows
 - adding calculation rows 78
 - adding constant rows 79
 - adding data rows 77
 - adding manually 77
 - adding sum rows 78
 - adding underline rows 79
 - changing spacing 90
 - defining in tabular sections 71
 - generating automatically 79
 - modifying spacing 91
- rulers, showing and hiding 55

- runtime engine 222
 - runtime fields
 - company title 67
 - Page n of Total, 67
 - page number 67
 - report date 67
 - report time 67
 - report title 67
 - runtime structures
 - Do Section event 223
 - values held after processing the Advance Section event 222, 224, 228
 - values held after processing the After Last Object Printed event 224, 227
 - values held after processing the Before Level Break event 223, 225
 - values held after processing the Do Section event 226
 - values held after processing the Initialize Section event 222
- S**
- second-level messages, understanding 232
 - See Also* level break messages
 - section data selection, defining 25
 - See Also* data selection
 - section data sequencing, defining 24
 - See Also* data sequencing
 - Section Layout form 29, 34, 39
 - section level events
 - descriptions of each 215
 - Do Section 214
 - events available 196
 - level break section 213
 - page footer events 217
 - page header events 216
 - report footer events 217
 - report header events 217
 - section processing
 - processing data selection and data sequencing 209
 - processing group and columnar sections 205
 - processing joined sections 208
 - processing tabular sections 207
 - understanding 204
 - section properties, viewing 59
 - section titles, showing and hiding 55
 - sections
 - description of system functions 219
 - selecting for columnar section reports 29
 - selecting for group section reports 34
 - selecting for tabular section reports 38
 - showing invisible sections 55
 - understanding 7
 - See Also* report sections
 - Select a Column form 255
 - Select a Table form 255
 - Select Business View form 23
 - Select Columns form 46
 - Select Processing Option Template form 171
 - Select User Defined Code form 169
 - Single Value form 160
 - Smart Field Criteria form 251
 - Smart Field Data Selection form 47
 - Smart Field Name form 46
 - Smart Field Parameters form 47
 - Smart Field Template Revisions form 257
 - smart field templates
 - creating 257
 - smart fields
 - adding and deleting in report sections 121
 - adding to report sections 121
 - adding to reports 119
 - creating custom 248
 - creating templates 27
 - selecting templates 120
 - selecting to include in report sections 46
 - understanding 119, 247
 - using in application reports 44
 - sort properties
 - defining 30, 35, 40
 - defining for an application report 48
 - understanding 21
 - Sub Section Join form 136
 - Submit Job-Submitted Job Search form 166
 - Submit Job-Work With Batch Versions-Available Versions form 166
 - subsection joins
 - creating 135, 136
 - defining data sequencing 137
 - description 133
 - joining existing detail sections 135
 - modifying and severing 137

- understanding parent/child sections 135
- subsystem jobs
 - adding API records to the subsystem table 180
 - adding records to the subsystem table using API 179
 - defining 180
 - processing asynchronously 177
 - understanding 177
 - understanding definitions 179
- subsystem table, adding API records 179, 180
- suggestions, submitting xxiv
- Sum Row Properties form 78
- sum rows
 - adding 78
 - understanding 76
- Suspend Section event, description 216
- synchronous processing 245
- system functions
 - attaching to an event 144
 - descriptions of categories 219
 - understanding 140
 - using in batch events 219
 - using in event rules 145
- System Functions form 145, 152

T

- Tab Properties form 169
- table conversions
 - description 173
 - using to maintain the database 173
- Table I/O, description 174
- tabs
 - adding to processing option templates 170
 - showing and hiding in Report Design Aid 55
- tabular optimization 77
- tabular reports
 - creating with the Report Director 38
 - defining 38
- Tabular Section form 60
- tabular sections
 - activating drill down 163
 - adding and removing business view columns 21, 65
 - adding using Report Design Aid 20
 - advantages of using 11

- automatic totalling 38
- available events 196
- changing decimal scaling 72
- characteristics 10
- deciding when to use 11
- defining calculation columns 74
- defining data selection 21
- defining data sequencing 21
- defining drill down 165
- defining percent calculations 76
- defining sort order 21
- defining sort properties 21
- design capabilities 11
- filtering data 21
- hiding 84
- including Row Description columns 11, 74
- including totals 11
- modifying column spacing 90
- modifying row spacing 91
- optimizing tabular row processing 77
- overriding cells 81
- overriding properties of cells 80
- processing 207
- renaming 83
- reviewing audit trails 166
- section properties 61
- selecting business views 20
- selecting records 40
- understanding 37
- understanding columns, rows, and cells 71
- using spreadsheet functionality 38
- working with objects 71
- working with objects unique to tabular sections 71
- working with rows 76

templates, *See* processing option templates, Report Director templates, report templates, smart field templates

text

- default settings 16
- disconnecting from variable in group sections 69
- justifying 99, 100
- wrapping 89

text attachments

- adding to reports 151
- description 134
- printing on reports 152

text justification
 changing for variables 100
 understanding 99

text overrides, showing and hiding 55

text substituted messages
 creating business function data structures
 for 235
 creating data items for 234
 creating data structures for 234
 understanding 233

text variables
 adding and using 143
 creating 143
 description 67
 understanding 143
 using in event rules 144

Text Variables form 144

text wrapping, activating 89
 See Also absolute position

third-level messages, understanding 233
 See Also level break messages

titles, showing and hiding 55

totals
 defining for columnar sections 9
 defining for group sections 10
 including in tabular sections 11
 performing in-section totaling 69
 selecting operators and operands 115

transaction processing
 defining for report interconnects 246
 description of system functions 219

typical event flow for group sections 222

typographical conventions xxii

U

UBE log file, locating number of optimized
 rows 77

UBE, report object type 7, 16

Underline Row Properties form 79

underline rows
 adding 79
 overriding variables and variable
 properties 82
 understanding 76

User Defined Codes form 169

User Options form 50

user options, setting 55

V

variable events 218

Variable Options Selection form 147

versions, *See* batch versions

visual cues xxiii

W

warnings xxiii

Welcome to the Report Design Director
 form 27

Work Center
 APIs 233
 calling initialization API for batch error
 messages 239
 calling processing API for batch error
 messages 239

Work With Applications form 165, 246

Work With Column Headings form 161

Work With Favorites Description
 Translation form 124, 128

Work With Favorites form 124

Work with Font Substitution by Language
 Type form 97

Work with Fonts form 98

Work With Forms form 165

Work With Smart Field Templates
 form 253

Work With Versions form 165, 246

workflow, description of system
 functions 219

workspace, configuring 53