

---

# Enterprise PeopleTools 8.48 PeopleBook: Crystal Reports for PeopleSoft

---

**June 2006**

Enterprise PeopleTools 8.48 PeopleBook: Crystal Reports for PeopleSoft  
SKU PT848CYR-B 0606  
Copyright © 1988-2006, 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 Siebel 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.

#### *Apache Software Foundation*

This product includes software developed by the Apache Software Foundation (<http://www.apache.org/>). Copyright © 2000-2003. The Apache Software Foundation. All rights reserved. Licensed under the Apache License, Version 2.0 (the “License”); you may not use this file except in compliance with the License. You may obtain a copy of the License at <http://www.apache.org/licenses/LICENSE-2.0>.

Unless required by applicable law or agreed to in writing, software distributed under the License is distributed on an “AS IS” BASIS, WITHOUT WARRANTIES OR CONDITIONS OF ANY KIND, either express or implied. See the License for the specific language governing permissions and limitations under the License.

#### *OpenSSL*

Copyright © 1998-2005 The OpenSSL Project. All rights reserved.

This product includes software developed by the OpenSSL Project for use in the OpenSSL Toolkit (<http://www.openssl.org/>).

THIS SOFTWARE IS PROVIDED BY THE OpenSSL PROJECT “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 OpenSSL PROJECT 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.

#### *Loki Library*

Copyright © 2001 by Andrei Alexandrescu. This code accompanies the book: Alexandrescu, Andrei. “Modern C++ Design: Generic Programming and Design Patterns Applied”. Copyright © 2001 Addison-Wesley. Permission to use, copy, modify, distribute and sell this software for any purpose is hereby granted without fee, provided that the above copyright notice appear in all copies and that both that copyright notice and this permission notice appear in supporting documentation.

#### *Helma Project*

Copyright © 1999-2004 Helma Project. 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 HELMA PROJECT 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.

Helma includes third party software released under different specific license terms. See the licenses directory in the Helma distribution for a list of these license.

#### *Sarissa*

Copyright © 2004 Manos Batsis.

This library is free software; you can redistribute it and/or modify it under the terms of the GNU Lesser General Public License as published by the Free Software Foundation; either version 2.1 of the License, or (at your option) any later version.

This library is distributed in the hope that it will be useful, but WITHOUT ANY WARRANTY; without even the implied warranty of MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the GNU Lesser General Public License for more details.

You should have received a copy of the GNU Lesser General Public License along with this library; if not, write to the Free Software Foundation, Inc., 59 Temple Place, Suite 330, Boston, MA 02111-1307 USA.

#### *ICU*

ICU License - ICU 1.8.1 and later COPYRIGHT AND PERMISSION NOTICE Copyright © 1995-2003 International Business Machines Corporation and others. All rights reserved.

Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the "Software"), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, provided that the above copyright notice(s) and this permission notice appear in all copies of the Software and that both the above copyright notice(s) and this permission notice appear in supporting documentation. THE SOFTWARE IS PROVIDED "AS IS," WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NON-INFRINGEMENT OF THIRD PARTY RIGHTS. IN NO EVENT SHALL THE COPYRIGHT HOLDER OR HOLDERS INCLUDED IN THIS NOTICE BE LIABLE FOR ANY CLAIM, OR ANY SPECIAL INDIRECT OR CONSEQUENTIAL DAMAGES, OR ANY DAMAGES WHATSOEVER RESULTING FROM LOSS OF USE, DATA OR PROFITS, WHETHER IN AN ACTION OF CONTRACT, NEGLIGENCE OR OTHER TORTIOUS ACTION, ARISING OUT OF OR IN CONNECTION WITH THE USE OR PERFORMANCE OF THIS SOFTWARE. Except as contained in this notice, the name of a copyright holder shall not be used in advertising or otherwise to promote the sale, use or other dealings in this Software without prior written authorization of the copyright holder.

All trademarks and registered trademarks mentioned herein are the property of their respective owners.

*Sun's JAXB Implementation – JSDK 1.5 relaxngDatatype.jar 1.0 License*

Copyright © 2001, Thai Open Source Software Center Ltd, Sun Microsystems. All rights reserved.

THIS SOFTWARE IS PROVIDED BY THE COPYRIGHT HOLDERS AND CONTRIBUTORS "AS IS" AND ANY EXPRESS 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 REGENTS OR 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.

#### *W3C IPR SOFTWARE NOTICE*

Copyright © 2000 World Wide Web Consortium, (Massachusetts Institute of Technology, Institut National de Recherche en Informatique et en Automatique, Keio University). All Rights Reserved.

Note: The original version of the W3C Software Copyright Notice and License could be found at <http://www.w3.org/Consortium/Legal/copyright-software-19980720>.

THIS SOFTWARE AND DOCUMENTATION IS PROVIDED "AS IS," AND COPYRIGHT HOLDERS MAKE NO REPRESENTATIONS OR WARRANTIES, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO, WARRANTIES OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE OR THAT THE USE OF THE SOFTWARE OR DOCUMENTATION WILL NOT INFRINGE ANY THIRD PARTY PATENTS, COPYRIGHTS, TRADEMARKS OR OTHER RIGHTS. COPYRIGHT HOLDERS WILL NOT BE LIABLE FOR ANY DIRECT, INDIRECT, SPECIAL OR CONSEQUENTIAL DAMAGES ARISING OUT OF ANY USE OF THE SOFTWARE OR DOCUMENTATION.

# Contents

**General Preface**

**About This PeopleBook .....ix**

PeopleSoft Enterprise Application Prerequisites.....ix

Application Fundamentals.....ix

Documentation Updates and Printed Documentation.....x

    Obtaining Documentation Updates.....x

    Downloading and Ordering Printed Documentation.....x

Additional Resources.....xi

Typographical Conventions and Visual Cues.....xii

    Typographical Conventions.....xii

    Visual Cues.....xiii

    Country, Region, and Industry Identifiers.....xiii

    Currency Codes.....xiv

Comments and Suggestions.....xiv

Common Elements Used in PeopleBooks.....xiv

**Preface**

**Crystal Reports for PeopleSoft Enterprise Preface.....xvii**

Crystal Reports for PeopleSoft Enterprise.....xvii

**Chapter 1**

**Getting Started With Crystal Reports for PeopleSoft Enterprise.....1**

Crystal Reports for PeopleSoft Enterprise Overview.....1

Crystal Reports Environments for PeopleSoft Enterprise.....1

Crystal Reports Integrations.....2

Crystal Reports Implementation.....2

**Chapter 2**

**Using Crystal Reports 9.....5**

Understanding Crystal Reports 9 Compatibility Issues.....5

Understanding QAS.....6

    Pages to Configure QAS.....6

    Configuring QAS.....6

Configuring Crystal Reports 9.....	6
Specifying Crystal/Business Interlink/JDeveloper Options.....	7
Specifying the Path for Production of Crystal Reports.....	8
Running Client Setup.....	9
Signing In to a PeopleSoft Database.....	11
Creating and Formatting Reports in Crystal Reports 9.....	11
Creating Reports in Crystal Reports 9.....	11
Formatting Reports in Crystal Reports 9.....	12
Modifying Default Settings in Crystal Reports 9.....	13
Running Crystal 9 Reports.....	14
Running Crystal 9 Reports from PeopleSoft Process Scheduler.....	14
Running Standard Reports from Within Crystal Reports 9.....	19
Launching Crystal Reports 9 with Microsoft Windows-based PeopleSoft Query.....	20
Printing Crystal 9 Reports.....	21

**Chapter 3**

<b>Using Crystal Reports XI.....</b>	<b>23</b>
Understanding Crystal Reports XI Compatibility Issues.....	23
Creating and Formatting Reports in Crystal Reports XI.....	23
Creating Reports in Crystal Reports XI.....	23
Formatting Reports in Crystal Reports XI.....	24
Modifying Default Settings in Crystal Reports XI.....	25
Saving Reports in Crystal Reports XI.....	26
Running Crystal XI Reports.....	27
Running Crystal XI reports from PeopleSoft Process Scheduler.....	27

**Chapter 4**

<b>Working with Multiple Languages.....</b>	<b>29</b>
Understanding How to Work with Multiple Languages.....	29
Data Returned by the Report.....	29
Report Layout and Boilerplate Text.....	29
Crystal Reports Designer/Runtime Language Versions.....	30
Language Parameter for pscrrun.exe.....	32
Configuration of Crystal Reports for Multilingual Environments.....	32
Translated Report Searches.....	32

**Glossary of PeopleSoft Enterprise Terms.....35**

**Index .....57**



# About This PeopleBook

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

This preface discusses:

- PeopleSoft Enterprise application prerequisites.
- 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 elements, such as fields and check boxes, that require additional explanation. If an 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 Enterprise applications are defined in this preface.

---

---

## PeopleSoft Enterprise 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 Enterprise applications.

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

You should be familiar with navigating the system and adding, updating, and deleting information by using PeopleSoft Enterprise menus, pages, 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 Enterprise applications most effectively.

---

## Application Fundamentals

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

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 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 Enterprise applications. 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.
- Download and order printed documentation.

### Obtaining Documentation Updates

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

---

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

---

### See Also

Oracle's PeopleSoft Customer Connection, [http://www.oracle.com/support/support\\_peoplesoft.html](http://www.oracle.com/support/support_peoplesoft.html)

### Downloading and Ordering Printed Documentation

In addition to the complete line of documentation that is delivered on your PeopleBook CD-ROM, Oracle makes PeopleSoft Enterprise documentation available to you via Oracle's website. You can:

- Download PDF files.
- Order printed, bound volumes.

#### Downloading PDF Files

You can download PDF versions of PeopleSoft Enterprise documentation online via the Oracle Technology Network. Oracle makes these PDF files available online for each major release shortly after the software is shipped.

See Oracle Technology Network, <http://www.oracle.com/technology/documentation/psftent.html>.

#### Ordering Printed, Bound Volumes

You can order printed, bound volumes of selected documentation via the Oracle Store.

See Oracle Store, [http://oraclestore.oracle.com/OA\\_HTML/ibeCCtpSctDspRte.jsp?section=14021](http://oraclestore.oracle.com/OA_HTML/ibeCCtpSctDspRte.jsp?section=14021)

## Additional Resources

The following resources are located on Oracle's PeopleSoft Customer Connection website:

Resource	Navigation
Application maintenance information	Updates + Fixes
Business process diagrams	Support, Documentation, Business Process Maps
Interactive Services Repository	Support, Documentation, Interactive Services Repository
Hardware and software requirements	Implement, Optimize + Upgrade; Implementation Guide; Implementation Documentation and Software; Hardware and Software Requirements
Installation guides	Implement, Optimize + Upgrade; Implementation Guide; Implementation Documentation and Software; Installation Guides and Notes
Integration information	Implement, Optimize + Upgrade; Implementation Guide; Implementation Documentation and Software; Pre-Built Integrations for PeopleSoft Enterprise and JD Edwards EnterpriseOne Applications
Minimum technical requirements (MTRs)	Implement, Optimize + Upgrade; Implementation Guide; Supported Platforms
Documentation updates	Support, Documentation, Documentation Updates
PeopleBooks support policy	Support, Support Policy
Prerelease notes	Support, Documentation, Documentation Updates, Category, Release Notes
Product release roadmap	Support, Roadmaps + Schedules
Release notes	Support, Documentation, Documentation Updates, Category, Release Notes
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
<b>Bold</b>	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 Enterprise 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.
“ ” (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 ( ).

Typographical Convention or Visual Cue	Description
[ ] (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 Enterprise 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 Oracle reference and training materials. Please send your suggestions to your product line documentation manager at Oracle Corporation, . Or email us at [appsdoc@us.oracle.com](mailto:appsdoc@us.oracle.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

<b>As of Date</b>	The last date for which a report or process includes data.
<b>Business Unit</b>	An ID that represents a high-level organization of business information. You can use a business unit to define regional or departmental units within a larger organization.
<b>Description</b>	Enter up to 30 characters of text.
<b>Effective Date</b>	The date on which a table row becomes effective; the date that an action begins. For example, to close out a ledger on June 30, the effective date for the ledger closing would be July 1. This date also determines when you can view and change the information. Pages or panels and batch processes that use the information use the current row.
<b>Once, Always, and Don't Run</b>	Select Once to run the request the next time the batch process runs. After the batch process runs, the process frequency is automatically set to Don't Run.

	Select Always to run the request every time the batch process runs.
	Select Don't Run to ignore the request when the batch process runs.
<b>Process Monitor</b>	Click to access the Process List page, where you can view the status of submitted process requests.
<b>Report Manager</b>	Click to access the Report List page, where you can view report content, check the status of a report, and see content detail messages (which show you a description of the report and the distribution list).
<b>Request ID</b>	An ID that represents a set of selection criteria for a report or process.
<b>Run</b>	Click to access the Process Scheduler request page, where you can specify the location where a process or job runs and the process output format.
<b>SetID</b>	An ID that represents a set of control table information, or TableSets. TableSets enable you to share control table information and processing options among business units. The goal is to minimize redundant data and system maintenance tasks. When you assign a setID to a record group in a business unit, you indicate that all of the tables in the record group are shared between that business unit and any other business unit that also assigns that setID to that record group. For example, you can define a group of common job codes that are shared between several business units. Each business unit that shares the job codes is assigned the same setID for that record group.
<b>Short Description</b>	Enter up to 15 characters of text.
<b>User ID</b>	An ID that represents the person who generates a transaction.



# Crystal Reports for PeopleSoft Enterprise Preface

This book discusses the Crystal Reports for PeopleSoft Enterprise.

---

## Crystal Reports for PeopleSoft Enterprise

Crystal Reports for PeopleSoft Enterprise helps you generate clear and easy-to-read printed reports containing data from your PeopleSoft applications. You can generate standard reports already created and saved in Crystal Reports, or create your own custom reports.



# CHAPTER 1

## Getting Started With Crystal Reports for PeopleSoft Enterprise

This chapter provides an overview of Crystal Reports and discusses:

- Crystal Reports integrations
- Crystal Reports implementation

---

### Crystal Reports for PeopleSoft Enterprise Overview

Crystal Reports for PeopleSoft Enterprise enables you to generate both standard and custom printed reports containing data from your PeopleSoft applications.

---

**Note.** Crystal Reports have many more features than are described in this book. See your Crystal Reports documentation for more information. You must have Crystal Reports installed to gain access to this documentation.

---

See *Crystal Reports documentation*.

---

**Note.** Crystal reports in PeopleTools are language-sensitive.

---

See [Chapter 4, “Working with Multiple Languages,” page 29](#).

---

### Crystal Reports Environments for PeopleSoft Enterprise

PeopleSoft applications are delivered to work with the Crystal Reports 9 runtime environment. PeopleSoft Process Scheduler report definitions are configured to use the Crystal Reports 9 print engine, and the delivered Crystal report definition files are in the Crystal 9 format. You use the Crystal Reports 9 product to create and edit report definitions.

If you are using PeopleSoft PeopleTools 8.48 and above, you can optionally use the BusinessObjects Enterprise XI runtime environment to run and view your reports. With BusinessObjects Enterprise XI, you use the Crystal Reports XI product to create and edit report definitions. A PeopleSoft-supplied conversion program, `psrconv.exe`, converts the Crystal report definition files from the Crystal Reports 9 format to the Crystal Reports XI format.

For PeopleSoft applications, you must use either the Crystal Reports 9 or the BusinessObjects Enterprise XI runtime environment. You cannot run a mixed environment in which some reports run using Crystal 9 and some reports run using BusinessObjects Enterprise XI.

See [Chapter 3, “Using Crystal Reports XI,” page 23](#).

### See Also

*The Enterprise PeopleTools 8.48 Installation guide for your database platform, Installing and Configuring Software for Crystal Reports*

---

## Crystal Reports Integrations

Crystal Reports work with PeopleSoft Query. You use PeopleSoft Query to extract specific subsets of data from your database. You can then use Crystal Reports to format that data and present the information in an easy-to-understand layout.

---

## Crystal Reports Implementation

Crystal Reports implementation can be divided into the following phases:

- Install Crystal Reports.
- Create and save queries in PeopleSoft Query.
- Create and save report definitions in Crystal Reports.

### Installing Crystal Reports

If you want to design new Crystal reports, you must install Crystal Reports, which is packaged with PeopleSoft products:

**Note.** If you are using the Process Scheduler server to run existing Crystal reports, you do not have to install Crystal Reports. All necessary files are installed automatically when you boot the Process Scheduler server. In general, this book assumes that you have Crystal Reports installed.

Step	Cross-Reference
Install Crystal Reports for PeopleSoft on your PeopleTools Development Environment (a Windows-based workstation).	<i>The Enterprise PeopleTools 8.48 Installation guide for your database platform, Installing and Configuring Software for Crystal Reports.</i>

### Creating and Saving Queries in PeopleSoft Query

Before you can generate formatted output in Crystal Reports, you need to create and save queries in PeopleSoft Query:

Step	Cross-Reference
Create and save a query to extract a selected subset of your data.	See <i>Enterprise PeopleTools 8.48 PeopleBook: PeopleSoft Query</i> .

## Creating and Saving Report Definitions in Crystal Reports

After you've generated and saved queries, you can create report definitions in Crystal Reports to format the fields (columns) used in the queries:

Step	Cross-Reference
Create the report definition.	See <a href="#">Chapter 2, "Using Crystal Reports 9," Creating and Formatting Reports in Crystal Reports 9, page 11.</a>
Save the report definition.	See <a href="#">Chapter 2, "Using Crystal Reports 9," Creating and Formatting Reports in Crystal Reports 9, page 11.</a>
Run the report.	See <a href="#">Chapter 2, "Using Crystal Reports 9," Running Crystal 9 Reports, page 14.</a>

---

**Note.** Crystal report definitions do not contain actual data from your database, so each time you use Crystal Reports, PeopleSoft Query retrieves the most recent data. This action ensures that your printed reports always contain current information. However, if you want to track the changes over time, you can save the data with a report.

---

### Other Sources of Information

This section provides information to consider before you begin to use Crystal Reports for PeopleSoft products.

Other PeopleSoft sources of information include installation guides, release notes, PeopleSoft PeopleBooks, red papers, the Updates and Fixes area of Customer Connection, and PeopleSoft curriculum courses.

See [Chapter 3, "Using Crystal Reports XI," page 23.](#)

### See Also

*Enterprise PeopleTools 8.48 PeopleBook: Getting Started with PeopleTools*



## CHAPTER 2

# Using Crystal Reports 9

This chapter provides an overview of Crystal Reports 9 compatibility issues, Query Access Services (QAS) and discusses how to:

- Configure Crystal Reports 9.
- Create and format reports in Crystal Reports 9.
- Run Crystal Reports 9.

---

## Understanding Crystal Reports 9 Compatibility Issues

When you upgrade to Crystal Reports 9, consider the following compatibility issues :

- Crystal Reports 9 can run any report that is saved in the Crystal Reports 8.5 format.

When you run a Crystal Reports 8.5 report in the Crystal Reports 9 application or through the PeopleSoft Process Scheduler, the Crystal Reports application runs the Verify Database function, which picks up any errors—such as missing fields—in the report. If errors are detected, you must correct the report before you can run it successfully.

- When you run reports using the PeopleSoft Process Scheduler in the PeopleSoft Pure Internet Architecture, they are created in the Crystal Reports 9 .rpt format and you cannot open them using Crystal Reports 8.5.

You can use Crystal Reports 8.5 report templates to generate reports; however, to ensure compatibility, you should create the reports in the Crystal Reports 9 format.

See *The Enterprise PeopleTools 8.48 Installation guide for your database platform, Installing and Configuring Software for Crystal Reports, Converting Crystal Reports, Converting pre-PeopleTools 8 Crystal Reports to PeopleTools 8 Crystal Reports.*

- If you use PeopleSoft Process Scheduler to run Crystal reports, you should not install a version of Crystal Reports that is different from the version that is delivered to work with Process Scheduler on the same machine.
- When exporting a query from Microsoft Windows-based PeopleSoft Query to Crystal Reports 9 or launching the report converter with a version of the Crystal print engine that is earlier than version 9, you will receive the following message: *Wrong version of CRPE32.DLL found. Please perform a Workstation Installation from the Configuration Manager.*
- Crystal Reports 9 is more particular than earlier versions of Crystal Reports about null values being passed to its in-built functions.

To prevent errors occurring in formulas, check that the values you are passing are not null. For example, instead of

```
compare = toText ({CUSTOMER_SALES.END_DATE});
```

```

, use
if (IsNull({CUSTOMER_SALES.END_DATE})) then
chooseDate := "";
else
chooseDate := {CUSTOMER_SALES.END_DATE};

```

- If you are upgrading from previous versions of PeopleSoft PeopleTools, your pre-PeopleTools 8 Crystal reports will need to be converted to the PeopleTools 8 Crystal reports format.

The PeopleTools RPT Conversion utility pscvtrpt.exe is a standalone program that converts your .rpt files from the format used in previous releases to the PeopleSoft PeopleTools 8 format.

See *The Enterprise PeopleTools 8.48 Installation guide for your database platform, Installing and Configuring Software for Crystal Reports, Converting Crystal Reports, Converting pre-PeopleTools 8 Crystal Reports to PeopleTools 8 Crystal Reports*

---

## Understanding QAS

Query Access Services (QAS) are implemented using the PeopleTools Integration Broker (IB) framework. All the web services exposed by QAS are implemented as synchronous inbound messages using the IB framework. The Integration Gateway web application receives all the web services requests and forwards them to the Integration Engine (application server) for processing.

### Pages to Configure QAS

Page Name	Object Name	Navigation	Usage
Query Access Services	PSQASCONFIG	PeopleTools, Query Access Services, Configure, Query Access Services	Define the QAS Integration Gateways URL and the QAS results repository URL.

### Configuring QAS

To configure QAS, access the Query Access Services page.

See *The Enterprise PeopleTools 8.48 Installation guide for your database platform, Installing and Configuring Software for Crystal Reports, Converting Crystal Reports, Converting pre-PeopleTools 8 Crystal Reports to PeopleTools 8 Crystal Reports*

---

## Configuring Crystal Reports 9

This section discusses how to:

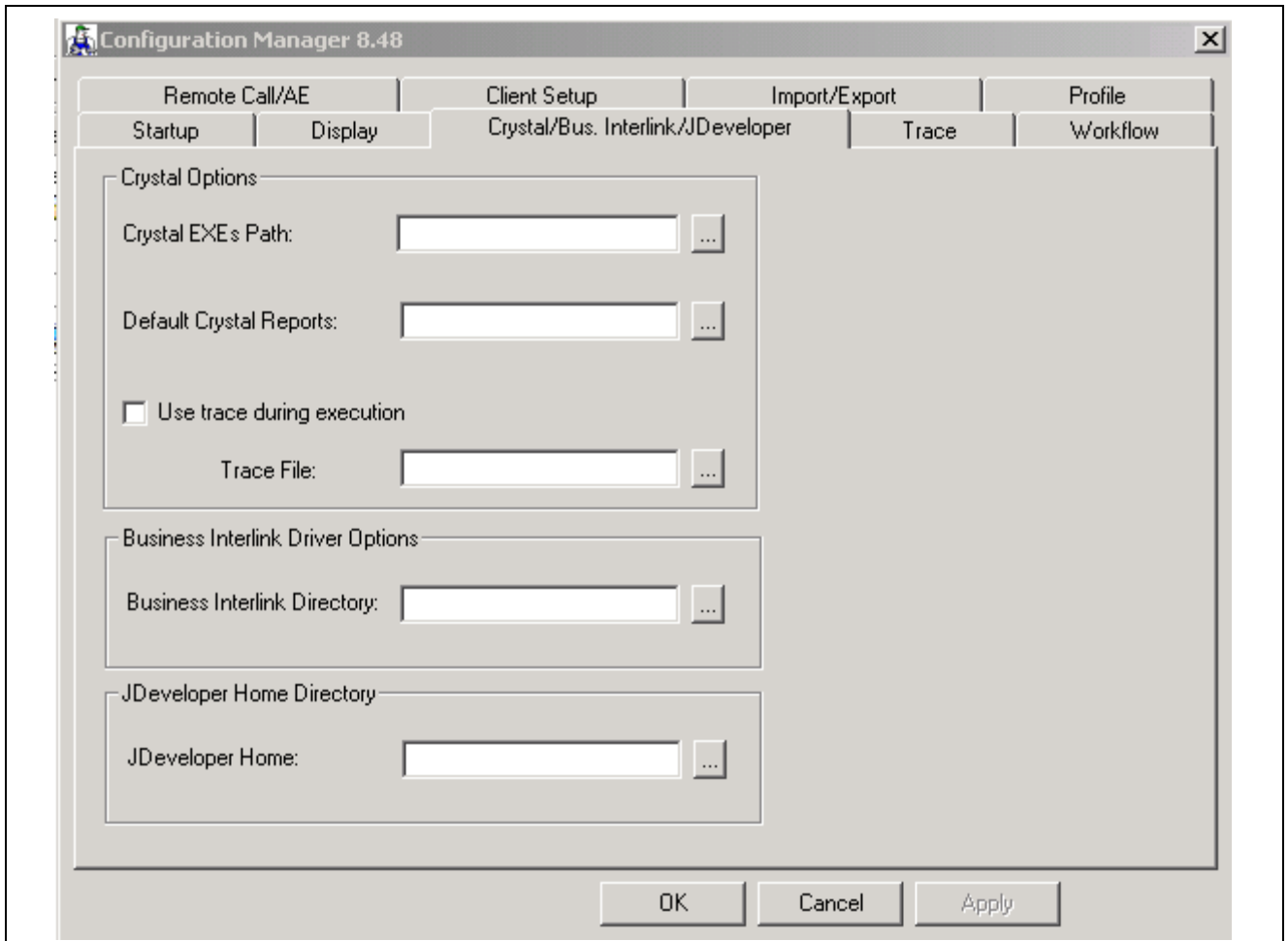
- Specify Crystal/Business Interlink/JDeveloper options.

- Specify the path for production of Crystal reports.
- Run Client Setup.
- Sign in to a PeopleSoft Database.

**Note.** These configuration options are relevant only if you have installed Crystal Reports 9.

See *The Enterprise PeopleTools 8.48 Installation guide for your database platform, Installing and Configuring Software for Crystal Reports, Installing Crystal Reports 9.*

Access the PeopleTools Configuration Manager.



Configuration Manager 8.48 dialog box

1. Select Start, Programs, PeopleTools 8.4, Configuration Manager.
2. Alternatively, go to <PS\_HOME>\bin\client\winx86\ and launch pscfg.exe.

## Specifying Crystal/Business Interlink/JDeveloper Options

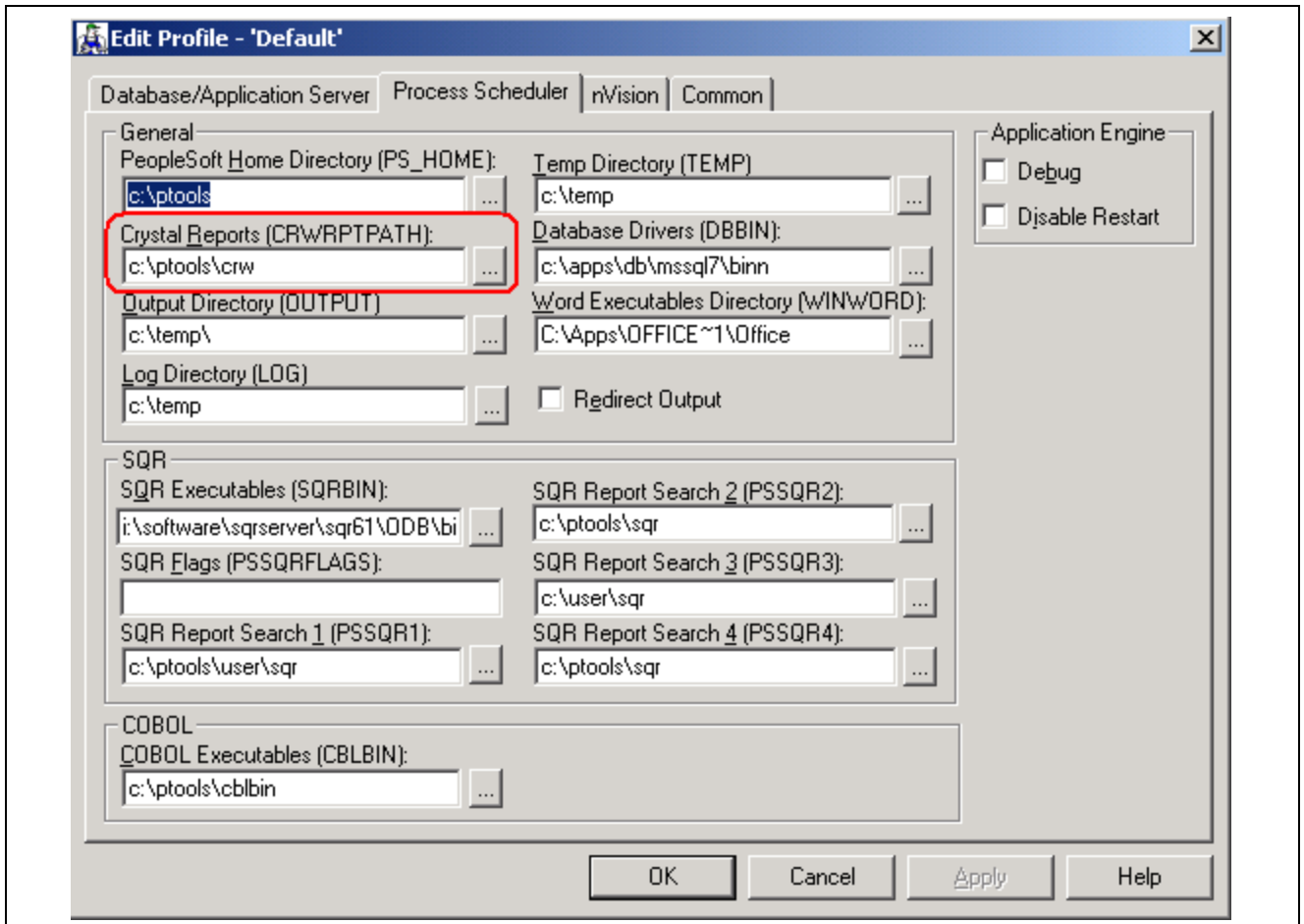
Use the Crystal/Bus. Interlink/JDeveloper tab to specify the locations of Crystal Reports executables and the default location for Crystal Reports that are generated through PeopleSoft Query; the latter must be a directory to which the user has write access. This tab also enables you to specify the location of Business Interlink drivers and the JDeveloper Home Directory.

<b>Crystal EXEs Path</b>	If you have Crystal Reports installed locally on the workstation, the Crystal EXEs Path parameter is populated automatically. If you have Crystal Reports installed on a network drive, set the Crystal EXEs Path parameter to reflect the location of the Crystal Reports executables, for example: n:\hr880\bin\client\winx86\crystal.
<b>Default Crystal Reports</b>	This option enables you to specify the default location of your Crystal reports. <hr/> <b>Note.</b> If you are creating a Crystal report from PeopleSoft Query and this path is invalid, you will receive an error message. If a path is not specified, PeopleSoft Query tries to write the file to the language directory beneath the directory containing Crystal Reports (CRWRPTPATH). <hr/>
<b>Use trace during execution</b>	When this option is selected, Crystal writes the trace statements to a log file that you specify in the Trace File field. This file is written to the workstation's %TEMP% directory by default. <hr/> <b>Note.</b> When you are tracing Crystal reports through the Process Scheduler, edit the settings in the Crystal section of the psprcs.cfg configuration file. (This file is located in <PS_HOME>/appserv/prcs/<dbname> for UNIX and in <PS_HOME>\appserv\prcs\<dbname> for Microsoft Windows.) Change <i>Trace=YES</i> and specify a location for <i>TraceFile</i> , supplying a full path and file name. <hr/>

## Specifying the Path for Production of Crystal Reports

In the Configuration Manager, select the Profile tab, select a profile to edit, and then select the Process Scheduler tab.

See *Enterprise PeopleTools 8.48 PeopleBook: System and Server Administration*, “Using PeopleSoft Configuration Manager,” Configuring User Profiles.



Configuration Manager - Process Scheduler Settings dialog box

In the Crystal Reports [CRWRPTPATH] field, enter the path to your Crystal production reports.

**Note.** CRWRPTPATH is a read-only directory that is intended to hold production reports.

See [Chapter 4, “Working with Multiple Languages,” Configuration of Crystal Reports for Multilingual Environments, page 32](#) and [Chapter 4, “Working with Multiple Languages,” Translated Report Searches, page 32](#).

## Running Client Setup

If you have installed Crystal Reports on your Microsoft Windows-based development workstation, use the Client Setup tab of the Configuration Manager to configure your workstation to run successfully with your PeopleSoft system.

**Note.** Remember that the Client Setup tab is not the only tab that contains essential values for the PeopleSoft workstation. You should make sure that all of the tabs reflect the correct values for your site, especially the Process Scheduler tab for the Default profile.

The Client Setup tab helps you to:

- Install a PeopleSoft program group on the workstation.
- Set up a system data source name (DSN) using the server and database name information from the Startup tab.

- Install the PeopleSoft Open Database Connectivity (ODBC) driver that is required for Open Query and Crystal Reports.

---

**Note.** You can run two copies of the same version of PeopleTools on one machine; however, we support only one version of the PeopleSoft ODBC driver on one machine. This means that you cannot have PeopleTools 7.5 and PeopleTools 8 on the same machine and expect Crystal Reports to work with both PeopleTools builds. For instance, you cannot get PeopleTools 7.5 Crystal Reports to work with the PeopleTools 8.x PS ODBC driver.

---

- Install Crystal Reports runtime .dlls on the workstation.
- Configure a PeopleSoft ODBC DSN.

---

**Important!** These Client Setup functions are performed when you click OK or Apply on Configuration Manager only if the Install Workstation check box on the Client Setup tab is selected.

---

**Note.** Any files that are installed by Client Setup on the workstation from the file server, including ODBC driver files, use the paths that are specified in the default profile.

---

To run Client Setup:

1. In the Configuration Manager, select the Client Setup tab.
2. In the Group Title text box, enter the name of the program group for the icons that you want on the client workstation.

You can call the program group anything you want, but this book refers to it by its default name, *PeopleSoft 8*.

3. Select check boxes to create shortcut links for any PeopleSoft applications that you want to access from the workstation.

When you run Client Setup, it uninstalls any existing shortcuts in the PeopleSoft 8 program group, and installs shortcuts for the applications that you have selected. If you subsequently want to install or uninstall shortcuts, you can always rerun Client Setup.

4. Select the Install PeopleSoft ODBC Driver check box if you want to install the PeopleSoft ODBC driver and set up a user ODBC DSN required by PeopleSoft Open Query and by Crystal Reports.
  - You can click ODBC Administrator to directly access the Microsoft ODBC Administrator and verify the installation and configuration of the ODBC DSN.
  - If you install the ODBC Driver Manager 3.5, reboot the workstation after running Client Setup.
5. Select the Install Workstation check box.

This check box determines whether Client Setup runs when you click Apply or OK in Configuration Manager. If this box is not selected, Client Setup either creates or updates settings in the registry, but does not set up the PeopleSoft 8 program group or install local .dlls.

6. Click Apply to run Client Setup and apply the other Configuration Manager settings.
7. To view a list of the files that were installed and the actions that were taken by Client Setup, you can open the psinstal.log file in your TEMP directory.

## Signing In to a PeopleSoft Database

You must sign in to a PeopleSoft database before you can generate a PeopleSoft report from Crystal Reports. When you open Crystal Reports and create a new report, Crystal Reports prompts you to sign in to a PeopleSoft database using the Crystal Reports sign-in dialog. When you run a preexisting report, you sign in to a PeopleSoft database using the PeopleSoft sign-in dialog. After successfully signing in to a database, you have full reporting flexibility.

---

## Creating and Formatting Reports in Crystal Reports 9

This section discusses how to:

- Create reports in Crystal Reports 9.
- Format reports in Crystal Reports 9.
- Modify default settings in Crystal Reports 9.

See *Crystal Reports 9 documentation*.

### Creating Reports in Crystal Reports 9

Access Crystal Reports 9.

1. Select Start, Programs, Crystal Reports 9 to display the Welcome to Crystal Reports window.
2. Select the Using the Report Wizard option.

The Report Wizard guides you through the creation of a typical report.

3. Click the OK button.

You will see the Crystal Reports Gallery page.

4. Click the OK button to select the Standard Wizard.

The Standard Report Creation dialog box appears.

5. Click the + sign to the left of the Create New Connection folder to display its contents.

6. Click the + sign to the left of the ODBC (RDO) folder.

The ODBC (RDO) dialog box appears.

7. Select *PeopleSoft PeopleTools* as the DSN.

---

**Note.** When signing in to two-tier, make sure that the Server Name and other three-tier fields are not populated in the PeopleSoft PeopleTools DSN. These will be picked up as defaults for the connection information that you enter.

---

8. Click Finish.

The PeopleSoft Signon screen appears.

9. Enter the database name, user ID, and password, and click OK.

10. If needed, click the + sign to the left of the PeopleSoft PeopleTools folder under ODBC (RDO), and then click the + sign to the left of QUERY to display a list of queries.

The list contains all the queries from which you can create a report.

11. Highlight a query from the list, and click the > button.

The query that you selected appears in the Selected Tables group box, indicating that it has been added.

12. You can select additional queries if necessary.

When you have completed your selections, click the Next button to navigate to the Fields dialog box.

---

**Note.** If you have selected multiple queries, clicking Next at this point takes you to the Link dialog box.

---

13. Highlight one or more fields and click the > button, or click the >> button to add all the fields from the query that you want to appear on your report.

When fields have been added, the < and << buttons become active.

14. (Optional) Click the Next button, and select from the following dialog boxes:

- **Grouping:** Sort records by their values in the Group By fields.
- **Record Selection:** Select a subset of information. The data can be filtered so that only a subset appears on the report.
- **Template:** Select a template for the report.

15. Click Finish, and select the Design tab or Preview tab to format your report.

## Formatting Reports in Crystal Reports 9

Access your report in Crystal Reports 9.

1. With the report on screen, select the Design tab.
2. Enter the appropriate values:

---

**Note.** In most cases, you need to enter the appropriate field type (text field, and so on) before you can enter information.

---

- *Report Header:* Enter the title of the report and other information that you want to appear at the top of the first page.
  - *Page Header:* Enter or modify the column headings and other identifying information that you want to appear at the top of each page.
  - *Details:* This is the main section of the report. The rows of data from your database appear here.
  - *Report Footer:* Enter the information that you want in the footer of the report. You can include a summary on the last page of your report.
  - *Page Footer:* Enter a page number or other information that you want to appear at the bottom of the page.
3. Select the Preview tab to preview your report.

The page orientation is portrait or landscape by default according to the number and width of the columns that are in your query. If the query columns do not fit in landscape, Crystal Reports displays as many columns as will fit on the page and does not display the others.

You adjust the formatting from within the print preview window. For example, you can resize headings or re-center the report title. Select the Design tab to return to the report template.

4. Click the Refresh button to refresh your data after making changes.

5. Click the Save button to save your report.

---

**Important!** If your reports contain numeric fields that are formatted to have single- or double-line borders at the top of the container, you may experience incorrect justification of numbers in the HTML output. To resolve this issue, either draw lines above the numeric fields using the line drawing tool or insert summary fields into a blank text object and then format the container text object to include borders above the text.

---

## Modifying Default Settings in Crystal Reports 9

You can set a number of different defaults in Crystal Reports 9.

---

**Note.** If you modify a query to include additional fields, you need to modify the report definition in Crystal Reports 9 to include the new fields in your report. To modify the report definition, select Database, Verify Database.

---

### Changing Default Column Headings and Report Titles

Access your report in Crystal Reports 9.

1. Select the Design tab and, in the Page Header section, double-click the column heading or report title that you want to change. (You can also click the text object and select Edit, Edit Text.)

A ruler appears above the text object, and a hatched box appears around the text. The Crystal text formatting features (such as font, bold, italics, and so on) are available in this mode.

2. Edit the text, and then click a blank area of the report to deselect the text object.

The system displays the new text in the display window.

---

**Note.** You can make the column headings as long as you want. However, if you make them much longer than the current heading, you will need to enlarge the text box to fit the heading.

---

### Changing Fonts

Access your report in Crystal Reports 9.

1. Make sure that the item is selected and select Format, Format Text.

The Format Editor dialog box appears.

2. Select the Font tab.
3. Choose a font, style, size, and color.

### Adding a Print Date Field

Access your report in Crystal Reports 9.

1. If the Field Explorer is not already displayed, select View, Field Explorer to display it.
2. If necessary, click the + symbol to the left of Special Fields.
3. Drag the Print Date field from the Field Explorer to the appropriate area of the report.

Print Date dialog box appears where you dragged the field.

To modify the format of the Print Date field, right-click the Print Date box and select the Format field.

---

## Running Crystal 9 Reports

This section discusses how to:

- Run Crystal 9 reports from PeopleSoft Process Scheduler.
- Run standard reports from within Crystal Reports 9.
- Launch Crystal Reports 9 with Microsoft Windows-based PeopleSoft Query.
- Print Crystal 9 reports.

---

**Note.** If you want to run Crystal jobs in background mode, you need to update some values in the system registry. See the red paper “PS/nVision in the PeopleSoft Internet Architecture” on Oracle’s PeopleSoft Customer Connection website for the details. The section “Running Multi-Concurrent PS/nVision Reports” covers system settings that are relevant to all programs that you can run in the background—including nVision and Crystal.

---

---

**Note.** You can use the PeopleSoft RPT Conversion utility `pscvtrpt.exe` to repair `.rpt` files when you are experiencing problems with a report that has already been converted to PeopleTools 8 format as part of the upgrade procedure. See *The Enterprise PeopleTools 8.48 Installation guide for your database platform, Installing and Configuring Software for Crystal Reports, Converting Crystal Reports, Converting pre-PeopleTools 8 Crystal Reports to PeopleTools 8 Crystal Reports* .

---

### Running Crystal 9 Reports from PeopleSoft Process Scheduler

Crystal 9 reports can be run from PeopleSoft Process Scheduler in the following ways:

- As a process definition.
- As part of a job.
- As part of a scheduled jobset.
- From an application page.

For any of these run methods, a process type and process definition must exist for each report. To run a process definition or a job, a system process request must be created. This request creates a run control to associate the selected items. Once items are selected to be run and are queued in the PeopleSoft Process Scheduler, Process Monitor shows the status of the processes. You can view completed reports in the Report Manager.

If you submit a process request, you can run the report on a client workstation or on a Microsoft Windows server without having to quit the PeopleSoft system or use a third-party scheduling program. If you schedule processes to run on a Microsoft Windows server, you can run the report at a future date and time.

When Crystal reports are run through PeopleSoft Process Scheduler, you can do one of the following actions:

- Specify an output file name.
- Use the default file name.

The default file name is the report name concatenated with the process instance; this name guarantees uniqueness. You can also tie the default name to information about the process that generated the output by using process instance as the key to the process request table.

---

**Note.** You cannot run alias Crystal reports from the Crystal Reports 9 application or from PeopleSoft Process Scheduler if the alias name contains certain characters. If your alias Crystal report does not run, check the InvalidAliasCharList entry preceding this directory of the registry: HKEY\_LOCAL\_MACHINE\Software\Crystal Decisions\9.0\Crystal Reports\Database\.. If any of the characters in your alias tablename are listed in the entry, either change these characters to characters that are not listed in the entry or change the entry to remove any characters that you want to be able to include in your alias tablename. The entry must contain at least one character.

---



---

**Note.** When running Crystal 9 reports through PeopleSoft Process Scheduler, you are prompted for parameters if the PeopleSoft ODBC driver for the version of PeopleSoft PeopleTools that you are running is not installed.

---



---

**Note.** If you use PeopleSoft Process Scheduler to run a report and you select the File/XLS option, you may find that the totals do not align with the detail columns that the totals represent. In this event, you can address these alignment issues by following the guidelines that are provided in the appropriate documentation.

---

See *Enterprise PeopleTools 8.48 PeopleBook: PeopleSoft Process Scheduler*, “Submitting and Scheduling Process Requests”.

See “Exporting to Microsoft Excel” <http://www.businessobjects.com>

## Formatting Reports in PeopleSoft Process Scheduler

You can format Crystal reports that will be run through the PeopleSoft Process Scheduler by specifying output options for:

- System settings.
- Process types.
- Process definitions.
- Scheduled JobSet items.
- Process requests.

## Formatting System Settings

System settings are system defaults that are related to all processes.

Access the Process Scheduler, System Settings page.

1. Select the Process Output Type Settings tab.
2. Choose the active and default output types for each process type by selecting the appropriate Active and Default Output check boxes.
3. Click the Save button to save your changes.

---

**Note.** The Process Output Format Settings page uses information about output types; therefore, save any changes made to output type settings before attempting to change an output format setting.

---

4. Click the Process Output Format Settings tab.
5. Select the active and default output formats for each combination of process type and output destination type by clicking the desired Active and Default check boxes.

6. Click the Save button to save your changes.

See *Enterprise PeopleTools 8.48 PeopleBook: PeopleSoft Process Scheduler*, “Defining PeopleSoft Process Scheduler Support Information,” Defining System Settings.

## Formatting Process Type Definitions

Process type definitions globally define the command line, parameter list, working directory and other general parameters for a specific process type.

Access the PeopleTools, Process Scheduler, Process Type Definition page.

1. In the Parameters field, enter the `%%OUTDESTTYPE%%` value for the `-OT` variable and the `%%OUTDESTFORMAT%%` value for the `-OF` variable.
2. Click the Save button to save your changes.

See *Enterprise PeopleTools 8.48 PeopleBook: PeopleSoft Process Scheduler*, “Defining PeopleSoft Process Scheduler Support Information,” Defining Process Type Definitions.

## Formatting Process Definitions

A process definition needs to exist for each Crystal report that is to be run or scheduled using PeopleSoft Process Scheduler.

Access the PeopleTools, Process Scheduler, Processes, Process Definition page.

1. Select the Destination tab.
2. In the Output Destination Options section, choose the output options in the Type and Format drop-down list boxes.

These drop-down list boxes will display only those output types and output formats that were made active on the System Settings page. Output options set on the Process Definition page cannot be overridden on the Process Scheduler Request page.

3. Click the Save button to save your changes.

See *Enterprise PeopleTools 8.48 PeopleBook: PeopleSoft Process Scheduler*, “Defining PeopleSoft Process Scheduler Support Information,” Defining Process Definitions.

## Formatting Scheduled JobSet Items

Jobs can be created if the user needs to run a series of processes.

Access the PeopleTools, Process Scheduler, Schedule JobSet Definitions, Schedule JobSet Items page.

1. Select the Output Settings tab.
2. Specify the output type and output format from the Type and Format drop-down list boxes .

---

**Note.** You can specify options for individual jobs and processes. These options override the output options that are specified for the parent job. Output options set at the job level apply to all items of that job.

---

3. To specify options for individual jobs or processes, expand the hierarchical view of the job and select the output type and output format for the required items from the Type and Format drop-down list boxes.
4. Click the Save button to save your changes.

See *Enterprise PeopleTools 8.48 PeopleBook: PeopleSoft Process Scheduler*, “Defining Jobs and JobSets,” Defining Scheduled JobSets.

## Formatting Process Requests

Access the PeopleTools, Process Scheduler, System Process Requests page.

1. Select a run control ID and click Run to submit a process request and be routed to the Process Requests page.
2. Select the output type and output format from the Type and Format drop-down list boxes.

---

**Note.** You can specify options for individual jobs and processes. These options override the output options that are specified for the parent job. Output options set at the job level apply to all items of that job.

---

3. To specify output options for jobs or processes within a job, click the Description of the main job to access the Job Detail page and select the output type and output format from the Type and Format drop-down list boxes.

See *Enterprise PeopleTools 8.48 PeopleBook: PeopleSoft Process Scheduler*, “Submitting and Scheduling Process Requests,” Scheduling Process Requests.

## Runtime Prompts

When you are running a Crystal report that has runtime prompts in PeopleSoft Pure Internet Architecture, the prompt values need to be passed using the command line. You can do this either by hard-coding static values in the Process Definition page or by creating a PeopleSoft Pure Internet Architecture page to gather values from the users and dynamically pass them into the command line.

---

**Note.** The number and order of the prompt values must be exact.

---

For example, if you have a report whose query prompts on Business Unit and you want the report to run only for business unit BU001, you could hard-code that prompt value in quotes into the process definition:

Process & Definition		Process Definition Options	Override Options	Destination
<b>Process Type:</b>	Crystal			
<b>Name:</b>	Employees By Department for BU001			
<b>Override Options</b>				
<b>Parameters</b>				
<b>Parameter List*:</b>	Append	-ORIENTL "BU001"		
<b>Command Line*:</b>	None			
<b>Working Directory*:</b>	None			

Example of Override Options page

The resulting command line would look similar to this:

```
C:\PT848\BIN\CLIENT\WINX86\PSCRRUN.EXE -CTMICROSFT -CDPT848 -COUSER1
-CPOPRPSWD -I45 -RP"Employees by Department for BU001" -OT5
-OPDistribution List -LGENG -OF8 -ORIENTL "BU001"
```

---

**Note.** The executable program for Crystal Reports 9 is PSCRRUN.EXE. The executable used with BusinessObjects Enterprise XI is PSBOERUN.EXE. The command line executable changes when you convert your reports to the Crystal XI format.

See *The Enterprise PeopleTools 8.48 Installation guide for your database platform, Installing and Configuring Software for Crystal Reports, Converting Crystal Reports, Converting Reports from Crystal Reports 9 format to Crystal Reports XI format.*

---

To allow users to dynamically select prompt values at runtime:

1. Using PeopleSoft Application Designer, create a PeopleSoft Pure Internet Architecture Run Control page.
2. Insert an edit box for each prompt field.
3. Click the newly inserted edit box to display the Edit Box Properties dialog box.
4. Use the drop-down list boxes to select the record and field that you are prompting on.
5. Save your changes.
6. Go to Process Scheduler and modify the process definition parameter list to include your prompt field using the format `:RECORD.FIELD`.

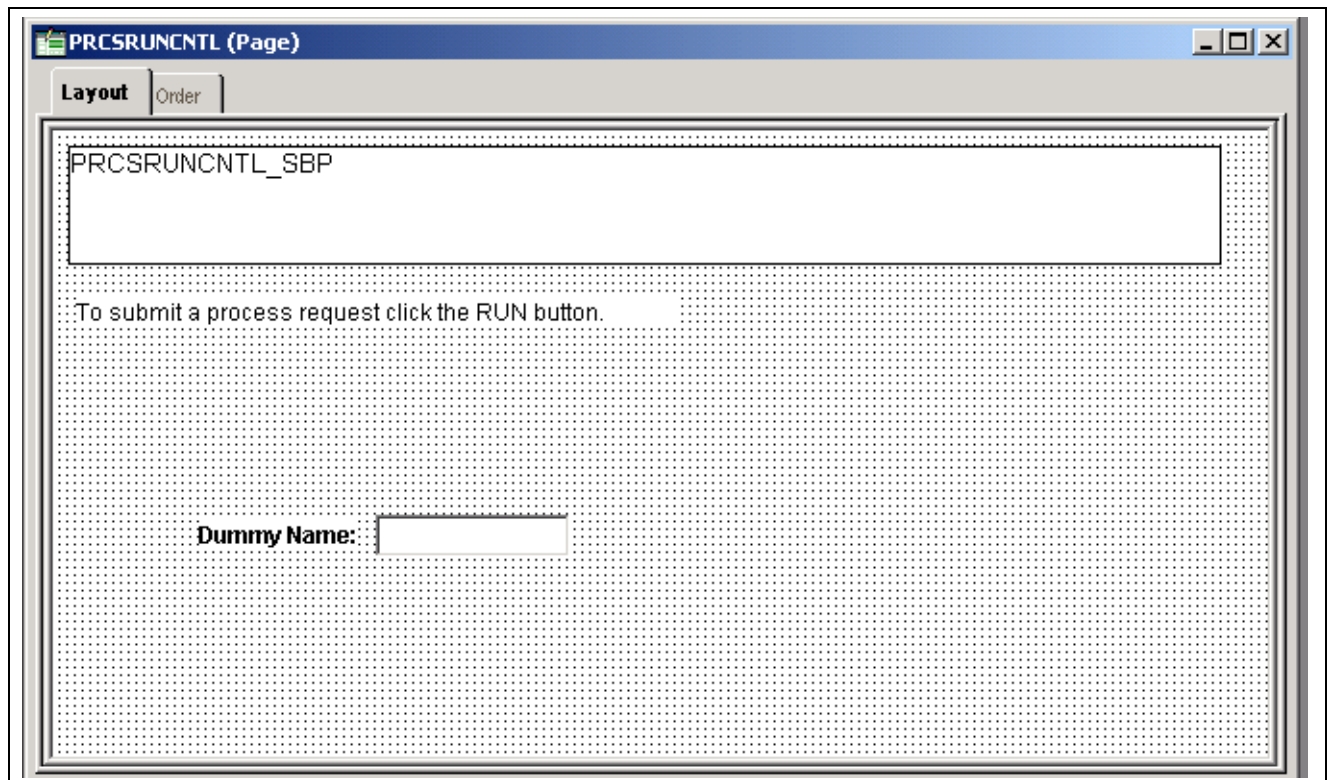
See *Enterprise PeopleTools 8.48 PeopleBook: PeopleSoft Process Scheduler.*

---

**Note.** The resulting command line would look the same as the preceding example except, instead of `BU001`, it would contain the selected value.

---

The following screen is an example of a PeopleSoft Pure Internet Architecture Run Control page in Application Designer:



Example of PeopleSoft Application Designer - Run Control page

The following screen is an example of the Override Options page, where you would modify the Process Scheduler Process Definition parameter list to include your prompt field:

Example of Process Definition - Override Options page

## Running Standard Reports from Within Crystal Reports 9

To run standard reports from within Crystal Reports 9, the system uses a query that is created in PeopleSoft Query and a report definition that is created in Crystal Reports. All the elements are predefined; you can only view and print the reports.

Access Crystal Reports 9.

1. Select Start, Programs, Crystal Reports 9.

The Welcome to Crystal Reports dialog box appears.

2. Select the Open an Existing Report option if it is not already selected.

Crystal Reports displays a list of report files, which use the .rpt file extension.

3. Double-click the name of the report that you want to open, or highlight it and click OK.

Crystal Reports opens the selected report template and displays it as it is formatted for printing.

4. Select File, Print Preview or click the Print Preview button on the Crystal Reports toolbar to view the report before you print.

When you've signed in to your database, Crystal Reports displays a print preview containing the rows of data that will appear in the printed report. You can perform the following actions:

- To refresh the data and ensure that you see the most current information, click the Refresh button on the Crystal toolbar or select Report, Refresh Report Data.
- If you need to, adjust the fields and objects in the report so that the report prints properly on your printer.
- To print the report, select File, Print, Printer or click the Print button on the Crystal toolbar.

Select the options that you want in the Print dialog box and click OK.

## Launching Crystal Reports 9 with Microsoft Windows-based PeopleSoft Query

If you have access to the Microsoft Windows version of Query Designer, which means that if you have a Microsoft Windows-based workstation set up as a PeopleTools development environment, you can run queries directly to Crystal Reports 9 from Query Designer. This option is not available from web-based Query Manager or Query Viewer. However, users who do not have access to Windows Query Designer can schedule a predefined Crystal Report to run on a Process Scheduler server, and the results can be routed to PeopleSoft Report Manager.

You can export queries to Crystal Reports 9 to create default reports. Default Crystal reports are generated in the following ways:

- When you create a default Crystal report from PeopleSoft Query, Query creates a report using the file name (ACTQRY).RPT. Query uses the selected column list to define the content of the default Crystal report.
- When you create a default report from a new or *unnamed* query object, PeopleSoft Query uses the in-memory selected column list to generate the default Crystal report.
- When you create a default Crystal report from a *named* query object, the saved representation of the selected column list is used to generate the default Crystal report.

If you want to run your report directly from Microsoft Windows-based PeopleSoft Query, the query and report names must match to use the formatting that you have created in Crystal Reports every time you print the report. If you always update and print the report from within Crystal Reports, name-matching is not a concern.

When using Microsoft Windows-based Query Designer, any modification to a previously saved query needs to be saved before downloading query results to Crystal Reports 9. A message will appear in Query Designer reminding users to save their work to ensure accurate data are displayed. New ad hoc queries that have never been saved before in the database can be downloaded to Crystal Reports 9 without having to save after every modification.

---

**Note.** End users should create and maintain reports in Crystal Reports. PeopleSoft Query is used to create and maintain the queries that generate report contents.

---

To run a query with Crystal Reports output:

1. Launch Application Designer, and then select Go, Query.
2. Select File, Open or click the Open Query button to display the Open Query dialog box.
3. Click the down arrow to the right of the Name field to display a list of existing queries.
4. Highlight the name of the query that you want to base the report on and click OK.

If none of the saved queries meets your needs, you can create a new query.

5. Click the Run Query button to run the query.
6. Click the Run to Crystal Report button to run the query to Crystal Reports.

The system automatically opens the Crystal Reports application and creates a new Crystal report.

7. Use Crystal Reports to format your data, add a report title, modify column headings, and so on.

### Repeated Query Prompts

PeopleSoft Query cannot supply values to Crystal Reports at runtime. Crystal Reports stores the default values as NULL and does not allow you to change stored procedure values, so you must enter the prompt values twice.

When queries include prompts, you are prompted once at design time and once at runtime to enter the appropriate values. This behavior is related to the definition of a stored procedure.

Most databases can return any number of result-set columns based solely on the input to a stored procedure. For Crystal Reports to create a static report template, it must run the stored procedure with the default parameter values once before it can request the definition of the result set. Because of this, the stored procedure (the query) is run once at design time (to fill in the result set descriptions) and again at runtime (as expected).

---

**Note.** You will be prompted when verifying the database in the report. The issue is the same as the design-time prompt followed by the runtime prompt issue just described. Enter the appropriate values after choosing to verify the database.

---

### See Also

*Enterprise PeopleTools 8.48 PeopleBook: PeopleSoft Query*, “Creating and Running Simple Queries”

## Printing Crystal 9 Reports

After running the Crystal 9 report and saving the file, you can print the report by clicking the Print button or selecting File, Print, Printer. As with many Microsoft Windows applications, you can choose to print the entire report or only a few pages, specify the number of copies to print, and indicate whether you want the copies collated.

---

**Note.** If you want to run your report directly from Microsoft Windows-based PeopleSoft Query, the query and report names must match to use the formatting that you have just created in Crystal Reports every time you print the report. If you always update and print the report from within Crystal Reports, it does not matter if the query and report names match.

---

---

**Note.** If you print reports using the PeopleSoft Process Scheduler, you must have the Windows service BEA ProcMGR Log On value set to *This Account* and the specified Windows user account should have printing permission to the printer where the reports will be printed. You must also define the appropriate paper size in the Crystal process type definition.

---

See *Enterprise PeopleTools 8.48 PeopleBook: PeopleSoft Process Scheduler*, “Defining PeopleSoft Process Scheduler Support Information,” Entering Global Definitions for Processes.

To print HTML reports from Crystal Reports, open the appropriate HTML file and print it from the browser. Crystal Reports uses the default page setting to print the report. Sometimes the right side of the report will be cut off when it is sent to the printer, even though it appears in the Crystal Report viewer.

To change your default page settings to print HTML reports:

1. Select File, Page Setup.
2. Change the left and right margin settings to create smaller margins.



## CHAPTER 3

# Using Crystal Reports XI

This chapter provides an overview of Crystal Reports XI compatibility issues and discusses how to:

- Create and formatting reports in Crystal Reports XI.
- Run Crystal XI reports.

---

## Understanding Crystal Reports XI Compatibility Issues

To run Crystal Reports XI report definitions using BusinessObjects Enterprise XI through the PeopleSoft Process Scheduler, the Crystal Reports XI report definitions must reside in the BusinessObjects Enterprise XI report repository.

Crystal 9 report definition files can be converted to Crystal XI format and published into the BusinessObjects Enterprise XI Report Repository using the PeopleTools Report Conversion Utility: pscrconv.exe.

Converting reports without publishing them to the BusinessObjects Enterprise XI report repository allows you to switch from running Crystal Reports 9 report definitions to running Crystal Reports XI report definitions using Crystal Reports XI on a client machine.

---

**Note.** Versions previous to PeopleSoft PeopleTools 8 Crystal Reports must be converted to PeopleTools 8 Crystal Reports before they can be converted to run in BusinessObjects Enterprise XI.

---

See *The Enterprise PeopleTools 8.48 Installation guide for your database platform, Installing and Configuring Software for Crystal Reports, Converting Crystal Reports, Converting Reports from Crystal Reports 9 format to Crystal Reports XI format.*

---

## Creating and Formatting Reports in Crystal Reports XI

This section discusses how to:

- Create reports in Crystal Reports XI.
- Format reports in Crystal Reports XI.
- Modify default settings in Crystal Reports XI.
- Saving reports in Crystal Reports XI.

### Creating Reports in Crystal Reports XI

Access Crystal Reports XI.

1. From the Crystal Reports XI Start page, select the Standard Report Creation Wizard link under the New Reports area of the Getting Started section.
2. In the Available Data Sources dialog box, double-click Create New Connection.
3. Double-click the PeopleSoft Enterprise folder to display the Connection Info screen.

---

**Note.** If the PeopleSoft Enterprise folder is not present, you haven't installed the security plug-ins.

---

4. In the Server Name field, enter the URL to access the current PeopleSoft Enterprise domain that you specify in the Central Management Console, Authentication, PeopleSoft Enterprise tab. For example: *http://megar102903.peoplesoft.com:8000/PSIGW/QueryListeningConnector*.
5. Enter the user name and password.
6. Click Finish.

---

**Note.** When you've added a new connection, the connection URL appears in the Data dialog box. You can bookmark the URL by right-clicking it and selecting Add to Favorites. In the future, you can access this URL from the favorites list within Crystal Reports.

---

7. In the Data dialog box, open the QUERY folder under PeopleSoft Enterprise.
8. Select a query that you want to use for your report, and click the > button to move it to the Selected Tables area.
9. Click Next.
10. In the Fields Display dialog box, select the fields that you want to appear in the report, and then click > to move the fields to the Display area.
11. Click Next repeatedly to bypass the next three optional dialog boxes—Grouping, Record Selection, and Template—if appropriate.
12. When you've finished making your selections, click Finish to preview the report in the Crystal Reports Explorer window.
13. Select the Design tab and Report tab to format the report.
14. When you are satisfied with the report, select File, Save As to save your report.

See *The Enterprise PeopleTools 8.48 Installation guide for your database platform, Installing and Configuring Software for Crystal Reports*.

## Formatting Reports in Crystal Reports XI

Access your report in Crystal Reports XI.

1. With the report on screen, select the Design tab.
2. Enter the appropriate values:

---

**Note.** In most cases, you need to enter the appropriate field type (text field, and so on) before you can enter information.

---

- *Report Header:* Enter the title of the report and other information that you want to appear at the top of the first page.
- *Page Header:* Enter or modify the column headings and other identifying information that you want to appear at the top of each page.

- *Details*: This is main section of the report, where the rows of data from your database appear.
  - *Report Footer*: Enter the information that you want in the footer of the report. You can include a summary on the last page of your report.
  - *Page Footer*: Enter a page number or other information that you want to appear at the bottom of the page.
3. Select the Preview tab to preview your report.  
The page orientation is portrait or landscape by default according to the number and width of the columns that are in your query. If the query columns do not fit in the landscape orientation, Crystal Reports displays as many columns as will fit on the page and does not display the others.  
You can make any adjustments to the formatting, such as resizing headings, from within the print preview window. For example, if the report title is not centered properly, you can move it. Select the Design tab to return to the report template.
  4. Click the Refresh button to refresh your data after making changes.
  5. Click the Save button to save your report.

See *Crystal Reports XI documentation*.

## Modifying Default Settings in Crystal Reports XI

You can set a number of different defaults in Crystal Reports XI.

---

**Note.** If you modify a query to include additional fields, you need to modify the report definition in Crystal Reports XI to include the new fields in your report. To modify the report definition, select the Verify Database option from the Database menu.

---

### Changing Default Column Headings and Report Titles

Access your report in Crystal Reports XI.

1. Select the Design tab and, in the Page Header section, double-click the column heading or report title that you want to change.

Alternatively, click the text object and select Edit, Edit Text.

A ruler appears above the text object, and a hatched box appears around the text. The Crystal text formatting features (such as font, bold, italics, and so on) are available in this mode.

2. Edit the text, and then click a blank area of the report to deselect the text object.

The system displays the new text in the display window.

---

**Note.** You can make the column headings as long as you want. However, if you make them much longer than the current heading, you will need to enlarge the text box.

---

### Changing Fonts

Access your report in Crystal Reports XI.

1. Make sure that the item is selected and select Format, Format Text.  
The Format Editor dialog box appears.
2. Select the Font tab.
3. Choose a font, style, size, and color.

## Adding a Print Date Field

Access your report in Crystal Reports XI.

1. If the Field Explorer is not already displayed, select View, Field Explorer to display it.
2. If necessary, click the + button to the left of Special Fields.
3. Drag the Print Date field from the Field Explorer to the appropriate area of the report.

A box titled Print Date appears where you dragged the field.

To modify the format of the Print Date field, right-click this field and select the Format field.

## Saving Reports in Crystal Reports XI

You can save your Crystal XI reports to a local folder or to a folder in the BusinessObjects Enterprise report repository.

### Saving to a Local Folder

Access your report in Crystal Reports XI.

1. Select File, Save As.
2. In the Save As dialog box, specify the location of the folder where you want to save the report.
3. Click OK.

---

**Note.** A report saved locally must be published to the BusinessObjects Enterprise report repository before it can be run using the Process Scheduler.

See *The Enterprise PeopleTools 8.48 Installation guide for your database platform, Installing and Configuring Software for Crystal Reports, Converting Crystal Reports, Converting Reports from Crystal Reports 9 format to Crystal Reports XI format.*

---

### Saving to a BusinessObjects Enterprise Folder

Access your report in Crystal Reports XI.

1. Select File, Save As.
2. In the Save As dialog box, click the Enterprise icon to access the Log on to BusinessObjects Enterprise screen.
3. Enter the CMS Machine Name in the System field.  
This value can be found in the CMS Machine Name field of the PeopleTools, Query Access Services, Configure, BusinessObjects Enterprise page. For example, *asanpedr083104:6400*.
4. Enter the user name and password, where the user name is in the format of BOE Domain Name\User Name.  
This value is the same as that shown in the CMS User Name field of the PeopleTools, Query Access Services, Configure, BusinessObjects Enterprise page. For example, *A8488043\VP1*.
5. Select *PeopleSoft Enterprise* in the Authentication drop-down list box.
6. Click OK.
7. Select File, Save As.
8. Specify the location of the folder where you want to save your reports.

See *The Enterprise PeopleTools 8.48 Installation guide for your database platform, Installing and Configuring Software for Crystal Reports, Administering and Using BusinessObjects Enterprise XI*.

---

## Running Crystal XI Reports

This section discusses how to run Crystal XI reports from PeopleSoft Process Scheduler.

### Running Crystal XI reports from PeopleSoft Process Scheduler

Crystal XI reports, like Crystal 9 reports, can be run from the Process Scheduler in the following ways:

- As a process definition.
- As part of a job.
- As part of a scheduled jobset.
- From an application page.

For any of these run methods, a process type and process definition must exist for each report. To run a process definition or a job, a system process request must be created. This creates a run control to associate the selected items. Once items have been selected to be run and are queued in the Process Scheduler, Process Monitor will show the status of the processes. Completed reports can be viewed in the Report Manager.

See [Chapter 2, “Using Crystal Reports 9.” Running Crystal 9 Reports from PeopleSoft Process Scheduler, page 14](#) and *Enterprise PeopleTools 8.48 PeopleBook: PeopleSoft Process Scheduler*, “Submitting and Scheduling Process Requests”.



## CHAPTER 4

# Working with Multiple Languages

This chapter discusses how to work with multiple languages.

---

## Understanding How to Work with Multiple Languages

This section discusses:

- Data returned by the report.
- Report layout and boilerplate text.
- Crystal Reports Designer/Runtime language versions.
- Language parameter for pserrun.exe.
- Configuration of Crystal Reports for multilingual environments.
- Translated report searches.

### Data Returned by the Report

Data that is returned by Crystal Reports 9 is fetched from the database using PeopleSoft Query; data that is returned by BusinessObjects Enterprise XI is fetched from the database using Query Access Services (QAS). Therefore, the data is already language-sensitive due to the automatic joining to related language tables that PeopleSoft Query performs. No special logic is required to ensure that appropriate descriptions from related language tables are returned in Crystal Reports output.

See *Enterprise PeopleTools 8.48 PeopleBook: PeopleSoft Query*, “Getting Started with PeopleSoft Query”.

See *The Enterprise PeopleTools 8.48 Installation guide for your database platform, Installing and Configuring Software for Crystal Reports, Install BusinessObjects Enterprise XI, Understanding QAS*.

### Report Layout and Boilerplate Text

The Crystal Reports .rpt file contains the layout of the report and any text that is hard-coded into the layout, such as column headings, headers, and footers. Because Crystal Reports does not provide any ability to maintain multiple translations of this boilerplate text in a single .rpt file, you must maintain a separate copy of the report layout for each language.

For use with the Crystal Reports 9 runtime environment, PeopleSoft PeopleTools maintains separate directories on the file and report servers within the <PS\_HOME>\CRW directory that correspond to the language codes that are available for your PeopleSoft implementation. Each directory contains the appropriate report in the specified language if the report has been translated. PeopleSoft PeopleTools reads the report from the directory that corresponds to the user's preferred language. If it cannot find the report there, Crystal Reports 9 uses the report in the base language directory <PS\_HOME>\CRW. Finally, if the report is not in the directory corresponding to the user's current language or in the base directory, PeopleSoft PeopleTools uses the copy of the report in the <PS\_HOME>\CRW\ENG directory.

For use with the BusinessObjects XI runtime environment, PeopleSoft PeopleTools maintains separate language subdirectories in the BusinessObjects Enterprise report repository.

## Crystal Reports Designer/Runtime Language Versions

Crystal Reports is available in several different language editions. You receive the appropriate language edition of Crystal Reports based on the languages that you license when you purchase Oracle's PeopleSoft Enterprise software. Each language version of Crystal Reports is functionally identical; the primary difference is the language of the Crystal Reports Designer user interface. You do not need to match the language of the Crystal Reports design or runtime engine to the language of the report that you are creating unless you are using the Crystal ToWords function. You can overcome this limitation by using the PSToWords or PSToWordsLoc functions.

### Using PSToWords and PSToWordsLoc

PSToWords and PSToWordsLoc are similar to the Crystal ToWords function in that they convert a numerical amount into a textual representation of that amount, as you see on checks. But unlike ToWords, these functions are independent of the installed language of Crystal Reports Designer. After you configure the location of the supporting .dlls, these functions appear in the Crystal Function Editor as new Additional Functions.

### Configuring Crystal Reports Designer to Use PSToWords

PSToWords and PSToWordsLoc functionality is contained in three files called `psicuuc22.dll`, `psicudt22l.dll`, and `psicuin22.dll`. These files are located in your <PS\_HOME>\bin\client\winx86 directory. To use these functions in Crystal Reports Designer, you must either add the location of these .dll files to your PATH environment variable so that Crystal Reports can find and load them or—for Crystal Reports 9—copy them to your local directory where `crw32.exe` is installed (C:\Program Files\BusinessObjects\Crystal Reports 9). For Crystal Reports XI, you don't have to copy the files because the installation program automatically does this for you. For Process Scheduler to use these functions in a scheduled report, you do not need to configure anything because <PS\_HOME>\bin\client\winx86 is the current directory for the Process Scheduler.

You can type *PSToWords* or *PSToWordsLoc* directly in the Function Editor, or you can choose these functions from the list of Additional Functions in the Function Editor of the Crystal Reports 9 Designer. To confirm that the .dlls are loaded in Crystal Designer, select Help, About, More Info, and check that the three `psicu` files are listed.

### Syntax for PSToWords and PSToWordsLoc

The syntax for *PSToWords* is `PSToWords (number, places)`, where *number* is a numeric amount and *places* is the number of decimal places or precision to print. For instance, `PSToWords (12.345, 2)` prints *twelve and 35 / 100*.

The syntax for *PSToWordsLoc* is `PSToWordsLoc (locale, number, places)`, where the *locale* parameter specifies an International Organization for Standardization (ISO) language or locale code. For instance, `PSToWordsLoc ("es", 12.345, 2)` prints *doce y 35 / 100*. For examples of ISO locales that are used in PeopleSoft Enterprise products, see the following cross-references.

See *Enterprise PeopleTools 8.48 PeopleBook: Global Technology*, “Adding New Languages,” Determining PeopleSoft and ISO Codes for Your Language.

See *Enterprise PeopleTools 8.48 PeopleBook: Global Technology*, “Controlling International Preferences,” Using Browser Language Settings to Determine the Sign-in Language.

## Converting Entities to Characters

Crystal Reports is Unicode-enabled, except in Application Protocol Interface (API) function calls. To work around this limitation, `PSToWords` and `PSToWordsLoc` return any non-USASCII characters as HTML decimal entities. To convert these entities to Unicode characters, you need to include a report custom function in your `.rpt` file. In Crystal Reports Designer Formula Workshop, create a new Report Custom Function called `PSToUChar` and paste in the following code:

```
Function (StringVar instring)
    local StringVar outstring := "";
    local NumberVar i;
    local StringVar curtoken;
    local NumberVar toklen;
    local StringVar widechar;

    //Convert Entities to ChrW

    for i := 1 to (Length(instring)) Do
    (
        curtoken := mid(instring,i,2);
        toklen := instr(i+2,instring,";")-(i+2);

        if curtoken = "&#" then widechar := chrw(val(mid(instring,i+2,toklen)));
        if curtoken = "&#" then outstring := outstring + widechar;
        if curtoken = "&#" then i:=i+toklen+2;

        if curtoken <> "&#" then outstring := outstring + mid(instring,i,1);
    );
    outstring;
```

A report-defined function enables you to define a function to be saved within the `.rpt` file. The syntax for this function is

```
PSToUChar(PSToWords(number,places))
```

or

```
PSToUChar(PSToWordsLoc(locale,number,places))
```

## Limitations

The largest number converted to words is 999,999,999.999 for most languages. Numbers higher than that amount, or where the encoded string of words would exceed 254 bytes, appear as digits rather than as words.

Because Thai words for numbers often exceed the 254-byte limit when encoded as entities, you can use the special locale `x-th` instead of `th` to return the Thai characters without encoding them as entities. Using the special locale allows a longer string to be processed, but requires a server with a system default locale set to Thai. The syntax for Thai processed in this way is: `ToWordsLoc("x-th", number, places)`.

## Language Parameter for pscrrun.exe

PeopleSoft Process Scheduler uses the pscrrun.exe process to run Crystal Reports 9. The process's language code parameter specifies the language directory that pscrrun.exe uses to fully qualify the report path. Unlike Structured Query Reports (SQRs), pscrrun.exe searches for a separate Crystal Reports file for each translation of the report. The language directory parameters are needed because each language-specific report is stored in a separate language directory. If the report is not found in the language that is specified by the parameter, pscrrun.exe looks in the default, base-language directory.

Typically, the language parameter is passed to pscrrun.exe from the run control that is associated with your Crystal report.

---

**Note.** The executable program for Crystal Reports 9 is PSCRRUN.EXE. The executable program for BusinessObjects Enterprise XI is PSBOERUN.EXE. The command line executable changes when you convert your reports to the Crystal XI format.

See *The Enterprise PeopleTools 8.48 Installation guide for your database platform, Installing and Configuring Software for Crystal Reports, Converting Crystal Reports, Converting Reports from Crystal Reports 9 format to Crystal Reports XI format.*

---

### See Also

*Enterprise PeopleTools 8.48 PeopleBook: PeopleSoft Process Scheduler*

## Configuration of Crystal Reports for Multilingual Environments

The PeopleSoft system allows you to use a single Crystal Reports server for all languages. The following features support this functionality:

- Unicode support

Crystal Reports for PeopleSoft products support Unicode.

- Locale formatting

Locale formatting is based on the user personalizations of the user who is scheduling the report, not the formatting set on the report server. If you do not want locale formatting to be based on the user personalizations of the user who is scheduling the report—for example, if the user wants to preserve the date or time formatting that is hard-coded in the report file—then use the -LX0 parameter to disable locale processing.

- ToWords functionality

The ToWords function (used in printing checks) is supplemented by PStoWords, which can support any PeopleSoft-supported language instead of just the language of the installed version of Crystal Reports.

See [Chapter 4, “Working with Multiple Languages,” Crystal Reports Designer/Runtime Language Versions, page 30.](#)

## Translated Report Searches

To call up translated production reports in the correct language, the Crystal Reports for PeopleSoft application performs the following steps in this order:

1. The -RP parameter specifies a path and report name, including the .rpt extension.

If the report exists, the Crystal Reports for PeopleSoft application selects the report. If the report does not exist, the search for the report fails.

2. The -RP parameter specifies a path but does not specify the full report name, including the .rpt extension.

Crystal Reports looks for translated reports based on the path in the -RP parameter as follows:

- a. The Crystal Reports for PeopleSoft application appends the language code, as defined by the -LG parameter of the command line, to the path that is set in the -RP parameter and searches for the report.
- b. If the report does not exist, the application appends the language code that uses the preferred language as specified on the user's machine to the path that is set in the -RP parameter and searches for the report.
- c. If the report still does not exist, the application appends the language code that uses the base language as defined for the PeopleSoft system to the path that is set in the -RP parameter and searches for the report.
- d. If the report still does not exist, the application searches for the report using the path that is set in the -RP parameter.

If the report is not found in any of these directories, the search fails.

3. The -RP parameter is not specified.

Crystal Reports 9 looks for translated reports based on the CRWRPTPATH environment variable as follows:

- a. The Crystal Reports for PeopleSoft application appends the language code, as defined by the -LG parameter of the command line, to the path that is set in the directory that is specified by the CRWRPTPATH environment variable and searches for the report.
- b. If the report does not exist, the application appends the language code that is the preferred language as specified on the user's machine to the path that is set in the directory specified by CRWRPTPATH and searches for the report.
- c. If the report still does not exist, the application appends the language code that is the base language as defined for the PeopleSoft system to the path that is set in the directory that is specified by CRWRPTPATH and searches for the report.
- d. If the report still does not exist, the application searches for the report using the path that is set in the directory that is specified by CRWRPTPATH.

If the report is not found in any of these directories, the search fails.

BusinessObjects Enterprise XI searches for translated reports in the BusinessObjects Enterprise report repository in the same way.

See *Enterprise PeopleTools 8.48 PeopleBook: PeopleSoft Process Scheduler*, "Defining PeopleSoft Process Scheduler Support Information" and [Chapter 2, "Using Crystal Reports 9," Specifying the Path for Production of Crystal Reports, page 8](#).



# Glossary of PeopleSoft Enterprise Terms

<b>absence entitlement</b>	This element defines rules for granting paid time off for valid absences, such as sick time, vacation, and maternity leave. An absence entitlement element defines the entitlement amount, frequency, and entitlement period.
<b>absence take</b>	This element defines the conditions that must be met before a payee is entitled to take paid time off.
<b>academic career</b>	In PeopleSoft Enterprise Campus Solutions, all course work that a student undertakes at an academic institution and that is grouped in a single student record. For example, a university that has an undergraduate school, a graduate school, and various professional schools might define several academic careers—an undergraduate career, a graduate career, and separate careers for each professional school (law school, medical school, dental school, and so on).
<b>academic institution</b>	In PeopleSoft Enterprise Campus Solutions, an entity (such as a university or college) that is independent of other similar entities and that has its own set of rules and business processes.
<b>academic organization</b>	In PeopleSoft Enterprise Campus Solutions, an entity that is part of the administrative structure within an academic institution. At the lowest level, an academic organization might be an academic department. At the highest level, an academic organization can represent a division.
<b>academic plan</b>	In PeopleSoft Enterprise Campus Solutions, an area of study—such as a major, minor, or specialization—that exists within an academic program or academic career.
<b>academic program</b>	In PeopleSoft Enterprise Campus Solutions, the entity to which a student applies and is admitted and from which the student graduates.
<b>accounting class</b>	In PeopleSoft Enterprise Performance Management, the accounting class defines how a resource is treated for generally accepted accounting practices. The Inventory class indicates whether a resource becomes part of a balance sheet account, such as inventory or fixed assets, while the Non-inventory class indicates that the resource is treated as an expense of the period during which it occurs.
<b>accounting date</b>	The accounting date indicates when a transaction is recognized, as opposed to the date the transaction actually occurred. The accounting date and transaction date can be the same. The accounting date determines the period in the general ledger to which the transaction is to be posted. You can only select an accounting date that falls within an open period in the ledger to which you are posting. The accounting date for an item is normally the invoice date.
<b>accounting split</b>	The accounting split method indicates how expenses are allocated or divided among one or more sets of accounting ChartFields.
<b>accumulator</b>	You use an accumulator to store cumulative values of defined items as they are processed. You can accumulate a single value over time or multiple values over time. For example, an accumulator could consist of all voluntary deductions, or all company deductions, enabling you to accumulate amounts. It allows total flexibility for time periods and values accumulated.
<b>action reason</b>	The reason an employee's job or employment information is updated. The action reason is entered in two parts: a personnel action, such as a promotion, termination, or change from one pay group to another—and a reason for that action. Action reasons are used by PeopleSoft Enterprise Human Resources, PeopleSoft Enterprise Benefits

	Administration, PeopleSoft Enterprise Stock Administration, and the COBRA Administration feature of the Base Benefits business process.
<b>action template</b>	In PeopleSoft Enterprise Receivables, outlines a set of escalating actions that the system or user performs based on the period of time that a customer or item has been in an action plan for a specific condition.
<b>activity</b>	<p>In PeopleSoft Enterprise Learning Management, an instance of a catalog item (sometimes called a class) that is available for enrollment. The activity defines such things as the costs that are associated with the offering, enrollment limits and deadlines, and waitlisting capacities.</p> <p>In PeopleSoft Enterprise Performance Management, the work of an organization and the aggregation of actions that are used for activity-based costing.</p> <p>In PeopleSoft Enterprise Project Costing, the unit of work that provides a further breakdown of projects—usually into specific tasks.</p> <p>In PeopleSoft Workflow, a specific transaction that you might need to perform in a business process. Because it consists of the steps that are used to perform a transaction, it is also known as a step map.</p>
<b>address usage</b>	In PeopleSoft Enterprise Campus Solutions, a grouping of address types defining the order in which the address types are used. For example, you might define an address usage code to process addresses in the following order: billing address, dormitory address, home address, and then work address.
<b>adjustment calendar</b>	In PeopleSoft Enterprise Campus Solutions, the adjustment calendar controls how a particular charge is adjusted on a student's account when the student drops classes or withdraws from a term. The charge adjustment is based on how much time has elapsed from a predetermined date, and it is determined as a percentage of the original charge amount.
<b>administrative function</b>	In PeopleSoft Enterprise Campus Solutions, a particular functional area that processes checklists, communication, and comments. The administrative function identifies which variable data is added to a person's checklist or communication record when a specific checklist code, communication category, or comment is assigned to the student. This key data enables you to trace that checklist, communication, or comment back to a specific processing event in a functional area.
<b>admit type</b>	In PeopleSoft Enterprise Campus Solutions, a designation used to distinguish first-year applications from transfer applications.
<b>agreement</b>	In PeopleSoft Enterprise eSettlements, provides a way to group and specify processing options, such as payment terms, pay from a bank, and notifications by a buyer and supplier location combination.
<b>allocation rule</b>	In PeopleSoft Enterprise Incentive Management, an expression within compensation plans that enables the system to assign transactions to nodes and participants. During transaction allocation, the allocation engine traverses the compensation structure from the current node to the root node, checking each node for plans that contain allocation rules.
<b>alternate account</b>	A feature in PeopleSoft Enterprise General Ledger that enables you to create a statutory chart of accounts and enter statutory account transactions at the detail transaction level, as required for recording and reporting by some national governments.
<b>analysis database</b>	In PeopleSoft Enterprise Campus Solutions, database tables that store large amounts of student information that may not appear in standard report formats. The analysis database tables contain keys for all objects in a report that an application program can use to reference other student-record objects that are not contained in the printed report. For instance, the analysis database contains data on courses that are considered

for satisfying a requirement but that are rejected. It also contains information on courses captured by global limits. An analysis database is used in PeopleSoft Enterprise Academic Advisement.

<b>Application Messaging</b>	PeopleSoft Application Messaging enables applications within the PeopleSoft Enterprise product family to communicate synchronously or asynchronously with other PeopleSoft Enterprise and third-party applications. An application message defines the records and fields to be published or subscribed to.
<b>AR specialist</b>	Abbreviation for <i>receivables specialist</i> . In PeopleSoft Enterprise Receivables, an individual in who tracks and resolves deductions and disputed items.
<b>arbitration plan</b>	In PeopleSoft Enterprise Pricer, defines how price rules are to be applied to the base price when the transaction is priced.
<b>assessment rule</b>	In PeopleSoft Enterprise Receivables, a user-defined rule that the system uses to evaluate the condition of a customer's account or of individual items to determine whether to generate a follow-up action.
<b>asset class</b>	An asset group used for reporting purposes. It can be used in conjunction with the asset category to refine asset classification.
<b>attribute/value pair</b>	In PeopleSoft Enterprise Directory Interface, relates the data that makes up an entry in the directory information tree.
<b>audience</b>	In PeopleSoft Enterprise Campus Solutions, a segment of the database that relates to an initiative, or a membership organization that is based on constituent attributes rather than a dues-paying structure. Examples of audiences include the Class of '65 and Undergraduate Arts & Sciences.
<b>authentication server</b>	A server that is set up to verify users of the system.
<b>base time period</b>	In PeopleSoft Enterprise Business Planning, the lowest level time period in a calendar.
<b>benchmark job</b>	In PeopleSoft Enterprise Workforce Analytics Solution, a benchmark job is a job code for which there is corresponding salary survey data from published, third-party sources.
<b>billing career</b>	In PeopleSoft Enterprise Campus Solutions, the one career under which other careers are grouped for billing purposes if a student is active simultaneously in multiple careers.
<b>bio bit or bio brief</b>	In PeopleSoft Enterprise Campus Solutions, a report that summarizes information stored in the system about a particular constituent. You can generate standard or specialized reports.
<b>book</b>	In PeopleSoft Enterprise Asset Management, used for storing financial and tax information, such as costs, depreciation attributes, and retirement information on assets.
<b>branch</b>	A tree node that rolls up to nodes above it in the hierarchy, as defined in PeopleSoft Tree Manager.
<b>budgetary account only</b>	An account used by the system only and not by users; this type of account does not accept transactions. You can only budget with this account. Formerly called "system-maintained account."
<b>budget check</b>	In commitment control, the processing of source transactions against control budget ledgers, to see if they pass, fail, or pass with a warning.
<b>budget control</b>	In commitment control, budget control ensures that commitments and expenditures don't exceed budgets. It enables you to track transactions against corresponding budgets and terminate a document's cycle if the defined budget conditions are not met.

For example, you can prevent a purchase order from being dispatched to a vendor if there are insufficient funds in the related budget to support it.

<b>budget period</b>	The interval of time (such as 12 months or 4 quarters) into which a period is divided for budgetary and reporting purposes. The ChartField allows maximum flexibility to define operational accounting time periods without restriction to only one calendar.
<b>business activity</b>	The name of a subset of a detailed business process. This might be a specific transaction, task, or action that you perform in a business process.
<b>business event</b>	In PeopleSoft Enterprise Receivables, defines the processing characteristics for the Receivable Update process for a draft activity.  In PeopleSoft Enterprise Sales Incentive Management, an original business transaction or activity that may justify the creation of a PeopleSoft Enterprise Incentive Management event (a sale, for example).
<b>business process</b>	A standard set of 17 business processes are defined and maintained by the PeopleSoft Enterprise product families and are supported by the Business Process Engineering group. An example of a business process is Order Fulfillment, which is a business process that manages sales orders and contracts, inventory, billing, and so forth.  See also <i>detailed business process</i> .
<b>business task</b>	The name of the specific function depicted in one of the business processes.
<b>business unit</b>	A corporation or a subset of a corporation that is independent with regard to one or more operational or accounting functions.
<b>buyer</b>	In PeopleSoft Enterprise eSettlements, an organization (or business unit, as opposed to an individual) that transacts with suppliers (vendors) within the system. A buyer creates payments for purchases that are made in the system.
<b>campus</b>	In PeopleSoft Enterprise Campus Solutions, an entity that is usually associated with a distinct physical administrative unit, that belongs to a single academic institution, that uses a unique course catalog, and that produces a common transcript for students within the same academic career.
<b>catalog item</b>	In PeopleSoft Enterprise Learning Management, a specific topic that a learner can study and have tracked. For example, "Introduction to Microsoft Word." A catalog item contains general information about the topic and includes a course code, description, categorization, keywords, and delivery methods. A catalog item can have one or more learning activities.
<b>catalog map</b>	In PeopleSoft Enterprise Catalog Management, translates values from the catalog source data to the format of the company's catalog.
<b>catalog partner</b>	In PeopleSoft Enterprise Catalog Management, shares responsibility with the enterprise catalog manager for maintaining catalog content.
<b>categorization</b>	Associates partner offerings with catalog offerings and groups them into enterprise catalog categories.
<b>category</b>	In PeopleSoft Enterprise Campus Solutions, a broad grouping to which specific comments or communications (contexts) are assigned. Category codes are also linked to 3C access groups so that you can assign data-entry or view-only privileges across functions.
<b>channel</b>	In PeopleSoft MultiChannel Framework, email, chat, voice (computer telephone integration [CTI]), or a generic event.
<b>ChartField</b>	A field that stores a chart of accounts, resources, and so on, depending on the PeopleSoft Enterprise application. ChartField values represent individual account numbers, department codes, and so forth.

<b>ChartField balancing</b>	You can require specific ChartFields to match up (balance) on the debit and the credit side of a transaction.
<b>ChartField combination edit</b>	The process of editing journal lines for valid ChartField combinations based on user-defined rules.
<b>ChartKey</b>	One or more fields that uniquely identify each row in a table. Some tables contain only one field as the key, while others require a combination.
<b>checkbook</b>	In PeopleSoft Enterprise Promotions Management, enables you to view financial data (such as planned, incurred, and actual amounts) that is related to funds and trade promotions.
<b>checklist code</b>	In PeopleSoft Enterprise Campus Solutions, a code that represents a list of planned or completed action items that can be assigned to a staff member, volunteer, or unit. Checklists enable you to view all action assignments on one page.
<b>class</b>	In PeopleSoft Enterprise Campus Solutions, a specific offering of a course component within an academic term.  See also <i>course</i> .
<b>Class ChartField</b>	A ChartField value that identifies a unique appropriation budget key when you combine it with a fund, department ID, and program code, as well as a budget period. Formerly called <i>sub-classification</i> .
<b>clearance</b>	In PeopleSoft Enterprise Campus Solutions, the period of time during which a constituent in PeopleSoft Enterprise Contributor Relations is approved for involvement in an initiative or an action. Clearances are used to prevent development officers from making multiple requests to a constituent during the same time period.
<b>clone</b>	In PeopleCode, to make a unique copy. In contrast, to <i>copy</i> may mean making a new reference to an object, so if the underlying object is changed, both the copy and the original change.
<b>cohort</b>	In PeopleSoft Enterprise Campus Solutions, the highest level of the three-level classification structure that you define for enrollment management. You can define a cohort level, link it to other levels, and set enrollment target numbers for it.  See also <i>population</i> and <i>division</i> .
<b>collection</b>	To make a set of documents available for searching in Verity, you must first create at least one collection. A collection is set of directories and files that allow search application users to use the Verity search engine to quickly find and display source documents that match search criteria. A collection is a set of statistics and pointers to the source documents, stored in a proprietary format on a file server. Because a collection can only store information for a single location, PeopleTools maintains a set of collections (one per language code) for each search index object.
<b>collection rule</b>	In PeopleSoft Enterprise Receivables, a user-defined rule that defines actions to take for a customer based on both the amount and the number of days past due for outstanding balances.
<b>comm key</b>	See <i>communication key</i> .
<b>communication key</b>	In PeopleSoft Enterprise Campus Solutions, a single code for entering a combination of communication category, communication context, communication method, communication direction, and standard letter code. Communication keys (also called <i>comm keys</i> or <i>speed keys</i> ) can be created for background processes as well as for specific users.

<b>compensation object</b>	In PeopleSoft Enterprise Incentive Management, a node within a compensation structure. Compensation objects are the building blocks that make up a compensation structure's hierarchical representation.
<b>compensation structure</b>	In PeopleSoft Enterprise Incentive Management, a hierarchical relationship of compensation objects that represents the compensation-related relationship between the objects.
<b>component interface</b>	A component interface is a set of application programming interfaces (APIs) that you can use to access and modify PeopleSoft Enterprise database information using a program instead of the PeopleSoft client.
<b>condition</b>	In PeopleSoft Enterprise Receivables, occurs when there is a change of status for a customer's account, such as reaching a credit limit or exceeding a user-defined balance due.
<b>configuration parameter catalog</b>	Used to configure an external system with PeopleSoft Enterprise. For example, a configuration parameter catalog might set up configuration and communication parameters for an external server.
<b>configuration plan</b>	In PeopleSoft Enterprise Incentive Management, configuration plans hold allocation information for common variables (not incentive rules) and are attached to a node without a participant. Configuration plans are not processed by transactions.
<b>constituents</b>	In PeopleSoft Enterprise Campus Solutions, friends, alumni, organizations, foundations, or other entities affiliated with the institution, and about which the institution maintains information. The constituent types delivered with PeopleSoft Enterprise Contributor Relations Solutions are based on those defined by the Council for the Advancement and Support of Education (CASE).
<b>content reference</b>	Content references are pointers to content registered in the portal registry. These are typically either URLs or iScripts. Content references fall into three categories: target content, templates, and template pagelets.
<b>context</b>	In PeopleCode, determines which buffer fields can be contextually referenced and which is the current row of data on each scroll level when a PeopleCode program is running.  In PeopleSoft Enterprise Campus Solutions, a specific instance of a comment or communication. One or more contexts are assigned to a category, which you link to 3C access groups so that you can assign data-entry or view-only privileges across functions.  In PeopleSoft Enterprise Incentive Management, a mechanism that is used to determine the scope of a processing run. PeopleSoft Enterprise Incentive Management uses three types of context: plan, period, and run-level.
<b>control table</b>	Stores information that controls the processing of an application. This type of processing might be consistent throughout an organization, or it might be used only by portions of the organization for more limited sharing of data.
<b>cost-plus contract line</b>	A rate-based contract line associated with a fee component of Award, Fixed, Incentive, or Other. Rate-based contract lines associated with a fee type of None are not considered cost-plus contract lines.
<b>cost profile</b>	A combination of a receipt cost method, a cost flow, and a deplete cost method. A profile is associated with a cost book and determines how items in that book are valued, as well as how the material movement of the item is valued for the book.
<b>cost row</b>	A cost transaction and amount for a set of ChartFields.
<b>course</b>	In PeopleSoft Enterprise Campus Solutions, a course that is offered by a school and that is typically described in a course catalog. A course has a standard syllabus and

credit level; however, these may be modified at the class level. Courses can contain multiple components such as lecture, discussion, and lab.

See also *class*.

<b>course share set</b>	In PeopleSoft Enterprise Campus Solutions, a tag that defines a set of requirement groups that can share courses. Course share sets are used in PeopleSoft Enterprise Academic Advisement.
<b>current learning</b>	In PeopleSoft Enterprise Learning Management, a self-service repository for all of a learner's in-progress learning activities and programs.
<b>data acquisition</b>	In PeopleSoft Enterprise Incentive Management, the process during which raw business transactions are acquired from external source systems and fed into the operational data store (ODS).
<b>data cube</b>	In PeopleSoft Analytic Calculation Engine, a data cube is a container for one kind of data (such as Sales data) and works with in tandem with one or more dimensions. Dimensions and data cubes in PeopleSoft Analytic Calculation Engine are unrelated to dimensions and online analytical processing (OLAP) cubes in PeopleSoft Cube Manager.
<b>data elements</b>	Data elements, at their simplest level, define a subset of data and the rules by which to group them.  For Workforce Analytics, data elements are rules that tell the system what measures to retrieve about your workforce groups.
<b>dataset</b>	A data grouping that enables role-based filtering and distribution of data. You can limit the range and quantity of data that is displayed for a user by associating dataset rules with user roles. The result of dataset rules is a set of data that is appropriate for the user's roles.
<b>delivery method</b>	In PeopleSoft Enterprise Learning Management, identifies the primary type of delivery method in which a particular learning activity is offered. Also provides default values for the learning activity, such as cost and language. This is primarily used to help learners search the catalog for the type of delivery from which they learn best. Because PeopleSoft Enterprise Learning Management is a blended learning system, it does not enforce the delivery method.  In PeopleSoft Enterprise Supply Chain Management, identifies the method by which goods are shipped to their destinations (such as truck, air, and rail). The delivery method is specified when creating shipment schedules.
<b>delivery method type</b>	In PeopleSoft Enterprise Learning Management, identifies how learning activities can be delivered—for example, through online learning, classroom instruction, seminars, books, and so forth—in an organization. The type determines whether the delivery method includes scheduled components.
<b>detailed business process</b>	A subset of the business process. For example, the detailed business process named Determine Cash Position is a subset of the business process called Cash Management.
<b>dimension</b>	In PeopleSoft Analytic Calculation Engine, a dimension contains a list of one kind of data that can span various contexts, and it is a basic component of an analytic model. Within the analytic model, a dimension is attached to one or more data cubes. In PeopleSoft Cube Manager, a dimension is the most basic component of an OLAP cube and specifies the PeopleSoft metadata to be used to create the dimension's rollup structure. Dimensions and data cubes in PeopleSoft Analytic Calculation Engine are unrelated to dimensions and OLAP cubes in PeopleSoft Cube Manager.
<b>directory information tree</b>	In PeopleSoft Enterprise Directory Interface, the representation of a directory's hierarchical structure.

<b>division</b>	In PeopleSoft Enterprise Campus Solutions, the lowest level of the three-level classification structure that you define in PeopleSoft Enterprise Recruiting and Admissions for enrollment management. You can define a division level, link it to other levels, and set enrollment target numbers for it.  See also <i>population</i> and <i>cohort</i> .
<b>document sequencing</b>	A flexible method that sequentially numbers the financial transactions (for example, bills, purchase orders, invoices, and payments) in the system for statutory reporting and for tracking commercial transaction activity.
<b>dynamic detail tree</b>	A tree that takes its detail values—dynamic details—directly from a table in the database, rather than from a range of values that are entered by the user.
<b>edit table</b>	A table in the database that has its own record definition, such as the Department table. As fields are entered into a PeopleSoft Enterprise application, they can be validated against an edit table to ensure data integrity throughout the system.
<b>effective date</b>	A method of dating information in PeopleSoft Enterprise applications. You can predate information to add historical data to your system, or postdate information in order to enter it before it actually goes into effect. By using effective dates, you don't delete values; you enter a new value with a current effective date.
<b>EIM ledger</b>	Abbreviation for <i>Enterprise Incentive Management ledger</i> . In PeopleSoft Enterprise Incentive Management, an object to handle incremental result gathering within the scope of a participant. The ledger captures a result set with all of the appropriate traces to the data origin and to the processing steps of which it is a result.
<b>elimination set</b>	In PeopleSoft Enterprise General Ledger, a related group of intercompany accounts that is processed during consolidations.
<b>entry event</b>	In PeopleSoft Enterprise General Ledger, Receivables, Payables, Purchasing, and Billing, a business process that generates multiple debits and credits resulting from single transactions to produce standard, supplemental accounting entries.
<b>equitization</b>	In PeopleSoft Enterprise General Ledger, a business process that enables parent companies to calculate the net income of subsidiaries on a monthly basis and adjust that amount to increase the investment amount and equity income amount before performing consolidations.
<b>equity item limit</b>	In PeopleSoft Enterprise Campus Solutions, the amounts of funds set by the institution to be awarded with discretionary or gift funds. The limit could be reduced by amounts equal to such things as expected family contribution (EFC) or parent contribution. Students are packaged by Equity Item Type Groups and Related Equity Item Types. This limit can be used to assure that similar student populations are packaged equally.
<b>event</b>	A predefined point either in the Component Processor flow or in the program flow. As each point is encountered, the event activates each component, triggering any PeopleCode program that is associated with that component and that event. Examples of events are FieldChange, SavePreChange, and RowDelete.  In PeopleSoft Enterprise Human Resources, also refers to an incident that affects benefits eligibility.
<b>event propagation process</b>	In PeopleSoft Enterprise Sales Incentive Management, a process that determines, through logic, the propagation of an original PeopleSoft Enterprise Incentive Management event and creates a derivative (duplicate) of the original event to be processed by other objects. PeopleSoft Enterprise Enterprise Sales Incentive Management uses this mechanism to implement splits, roll-ups, and so on. Event propagation determines who receives the credit.
<b>exception</b>	In PeopleSoft Enterprise Receivables, an item that either is a deduction or is in dispute.

<b>exclusive pricing</b>	In PeopleSoft Enterprise Order Management, a type of arbitration plan that is associated with a price rule. Exclusive pricing is used to price sales order transactions.
<b>fact</b>	In PeopleSoft Enterprise applications, facts are numeric data values from fields from a source database as well as an analytic application. A fact can be anything you want to measure your business by, for example, revenue, actual, budget data, or sales numbers. A fact is stored on a fact table.
<b>financial aid term</b>	In PeopleSoft Enterprise Campus Solutions, a combination of a period of time that the school determines as an instructional accounting period and an academic career. It is created and defined during the setup process. Only terms eligible for financial aid are set up for each financial aid career.
<b>forecast item</b>	A logical entity with a unique set of descriptive demand and forecast data that is used as the basis to forecast demand. You create forecast items for a wide range of uses, but they ultimately represent things that you buy, sell, or use in your organization and for which you require a predictable usage.
<b>fund</b>	In PeopleSoft Enterprise Promotions Management, a budget that can be used to fund promotional activity. There are four funding methods: top down, fixed accrual, rolling accrual, and zero-based accrual.
<b>gap</b>	In PeopleSoft Enterprise Campus Solutions, an artificial figure that sets aside an amount of unmet financial aid need that is not funded with Title IV funds. A gap can be used to prevent fully funding any student to conserve funds, or it can be used to preserve unmet financial aid need so that institutional funds can be awarded.
<b>generic process type</b>	In PeopleSoft Process Scheduler, process types are identified by a generic process type. For example, the generic process type SQR includes all SQR process types, such as SQR process and SQR report.
<b>gift table</b>	In PeopleSoft Enterprise Campus Solutions, a table or so-called <i>donor pyramid</i> describing the number and size of gifts that you expect will be needed to successfully complete the campaign in PeopleSoft Enterprise Contributor Relations. The gift table enables you to estimate the number of donors and prospects that you need at each gift level to reach the campaign goal.
<b>GL business unit</b>	Abbreviation for <i>general ledger business unit</i> . A unit in an organization that is an independent entity for accounting purposes. It maintains its own set of accounting books.  See also <i>business unit</i> .
<b>GL entry template</b>	Abbreviation for <i>general ledger entry template</i> . In PeopleSoft Enterprise Campus Solutions, a template that defines how a particular item is sent to the general ledger. An item-type maps to the general ledger, and the GL entry template can involve multiple general ledger accounts. The entry to the general ledger is further controlled by high-level flags that control the summarization and the type of accounting—that is, accrual or cash.
<b>GL Interface process</b>	Abbreviation for <i>General Ledger Interface process</i> . In PeopleSoft Enterprise Campus Solutions, a process that is used to send transactions from PeopleSoft Enterprise Student Financials to the general ledger. Item types are mapped to specific general ledger accounts, enabling transactions to move to the general ledger when the GL Interface process is run.
<b>group</b>	In PeopleSoft Enterprise Billing and Receivables, a posting entity that comprises one or more transactions (items, deposits, payments, transfers, matches, or write-offs).  In PeopleSoft Enterprise Human Resources Management and Supply Chain Management, any set of records that are associated under a single name or variable to

	run calculations in PeopleSoft business processes. In PeopleSoft Enterprise Time and Labor, for example, employees are placed in groups for time reporting purposes.
<b>incentive object</b>	In PeopleSoft Enterprise Incentive Management, the incentive-related objects that define and support the PeopleSoft Enterprise Incentive Management calculation process and results, such as plan templates, plans, results data, and user interaction objects.
<b>incentive rule</b>	In PeopleSoft Enterprise Sales Incentive Management, the commands that act on transactions and turn them into compensation. A rule is one part in the process of turning a transaction into compensation.
<b>incur</b>	In PeopleSoft Enterprise Promotions Management, to become liable for a promotional payment. In other words, you owe that amount to a customer for promotional activities.
<b>initiative</b>	In PeopleSoft Enterprise Campus Solutions, the basis from which all advancement plans are executed. It is an organized effort targeting a specific constituency, and it can occur over a specified period of time with specific purposes and goals. An initiative can be a campaign, an event, an organized volunteer effort, a membership drive, or any other type of effort defined by the institution. Initiatives can be multipart, and they can be related to other initiatives. This enables you to track individual parts of an initiative, as well as entire initiatives.
<b>inquiry access</b>	In PeopleSoft Enterprise Campus Solutions, a type of security access that permits the user only to view data.  See also <i>update access</i> .
<b>institution</b>	In PeopleSoft Enterprise Campus Solutions, an entity (such as a university or college) that is independent of other similar entities and that has its own set of rules and business processes.
<b>integration</b>	A relationship between two compatible integration points that enables communication to take place between systems. Integrations enable PeopleSoft Enterprise applications to work seamlessly with other PeopleSoft Enterprise applications or with third-party systems or software.
<b>integration point</b>	An interface that a system uses to communicate with another PeopleSoft Enterprise application or an external application.
<b>integration set</b>	A logical grouping of integrations that applications use for the same business purpose. For example, the integration set <code>ADVANCED_SHIPPING_ORDER</code> contains all of the integrations that notify a customer that an order has shipped.
<b>item</b>	In PeopleSoft Enterprise Inventory, a tangible commodity that is stored in a business unit (shipped from a warehouse).  In PeopleSoft Enterprise Demand Planning, Inventory Policy Planning, and Supply Planning, a noninventory item that is designated as being used for planning purposes only. It can represent a family or group of inventory items. It can have a planning bill of material (BOM) or planning routing, and it can exist as a component on a planning BOM. A planning item cannot be specified on a production or engineering BOM or routing, and it cannot be used as a component in a production. The quantity on hand will never be maintained.
	In PeopleSoft Enterprise Receivables, an individual receivable. An item can be an invoice, a credit memo, a debit memo, a write-off, or an adjustment.
<b>item shuffle</b>	In PeopleSoft Enterprise Campus Solutions, a process that enables you to change a payment allocation without having to reverse the payment.

<b>joint communication</b>	In PeopleSoft Enterprise Campus Solutions, one letter that is addressed jointly to two people. For example, a letter might be addressed to both Mr. Sudhir Awat and Ms. Samantha Mortelli. A relationship must be established between the two individuals in the database, and at least one of the individuals must have an ID in the database.
<b>keyword</b>	In PeopleSoft Enterprise Campus Solutions, a term that you link to particular elements within PeopleSoft Enterprise Student Financials, Financial Aid, and Contributor Relations. You can use keywords as search criteria that enable you to locate specific records in a search dialog box.
<b>KPI</b>	An abbreviation for <i>key performance indicator</i> . A high-level measurement of how well an organization is doing in achieving critical success factors. This defines the data value or calculation upon which an assessment is determined.
<b>LDIF file</b>	Abbreviation for <i>Lightweight Directory Access Protocol (LDAP) Data Interchange Format file</i> . Contains discrepancies between PeopleSoft Enterprise data and directory data.
<b>learner group</b>	In PeopleSoft Enterprise Learning Management, a group of learners who are linked to the same learning environment. Members of the learner group can share the same attributes, such as the same department or job code. Learner groups are used to control access to and enrollment in learning activities and programs. They are also used to perform group enrollments and mass enrollments in the back office.
<b>learning components</b>	In PeopleSoft Enterprise Learning Management, the foundational building blocks of learning activities. PeopleSoft Enterprise Learning Management supports six basic types of learning components: web-based, session, webcast, test, survey, and assignment. One or more of these learning component types compose a single learning activity.
<b>learning environment</b>	In PeopleSoft Enterprise Learning Management, identifies a set of categories and catalog items that can be made available to learner groups. Also defines the default values that are assigned to the learning activities and programs that are created within a particular learning environment. Learning environments provide a way to partition the catalog so that learners see only those items that are relevant to them.
<b>learning history</b>	In PeopleSoft Enterprise Learning Management, a self-service repository for all of a learner's completed learning activities and programs.
<b>ledger mapping</b>	You use ledger mapping to relate expense data from general ledger accounts to resource objects. Multiple ledger line items can be mapped to one or more resource IDs. You can also use ledger mapping to map dollar amounts (referred to as <i>rates</i> ) to business units. You can map the amounts in two different ways: an actual amount that represents actual costs of the accounting period, or a budgeted amount that can be used to calculate the capacity rates as well as budgeted model results. In PeopleSoft Enterprise Warehouse, you can map general ledger accounts to the EW Ledger table.
<b>library section</b>	In PeopleSoft Enterprise Incentive Management, a section that is defined in a plan (or template) and that is available for other plans to share. Changes to a library section are reflected in all plans that use it.
<b>linked section</b>	In PeopleSoft Enterprise Incentive Management, a section that is defined in a plan template but appears in a plan. Changes to linked sections propagate to plans using that section.
<b>linked variable</b>	In PeopleSoft Enterprise Incentive Management, a variable that is defined and maintained in a plan template and that also appears in a plan. Changes to linked variables propagate to plans using that variable.
<b>LMS</b>	Abbreviation for <i>learning management system</i> . In PeopleSoft Enterprise Campus Solutions, LMS is a PeopleSoft Enterprise Student Records feature that provides a

common set of interoperability standards that enable the sharing of instructional content and data between learning and administrative environments.

<b>load</b>	In PeopleSoft Enterprise Inventory, identifies a group of goods that are shipped together. Load management is a feature of PeopleSoft Enterprise Inventory that is used to track the weight, the volume, and the destination of a shipment.
<b>local functionality</b>	In PeopleSoft Enterprise HRMS, the set of information that is available for a specific country. You can access this information when you click the appropriate country flag in the global window, or when you access it by a local country menu.
<b>location</b>	Locations enable you to indicate the different types of addresses—for a company, for example, one address to receive bills, another for shipping, a third for postal deliveries, and a separate street address. Each address has a different location number. The primary location—indicated by a <i>1</i> —is the address you use most often and may be different from the main address.
<b>logistical task</b>	In PeopleSoft Enterprise Services Procurement, an administrative task that is related to hiring a service provider. Logistical tasks are linked to the service type on the work order so that different types of services can have different logistical tasks. Logistical tasks include both preapproval tasks (such as assigning a new badge or ordering a new laptop) and postapproval tasks (such as scheduling orientation or setting up the service provider email). The logistical tasks can be mandatory or optional. Mandatory preapproval tasks must be completed before the work order is approved. Mandatory postapproval tasks, on the other hand, must be completed before a work order is released to a service provider.
<b>market template</b>	In PeopleSoft Enterprise Incentive Management, additional functionality that is specific to a given market or industry and is built on top of a product category.
<b>mass change</b>	In PeopleSoft Enterprise Campus Solutions, mass change is a SQL generator that can be used to create specialized functionality. Using mass change, you can set up a series of Insert, Update, or Delete SQL statements to perform business functions that are specific to the institution.  See also <i>3C engine</i> .
<b>match group</b>	In PeopleSoft Enterprise Receivables, a group of receivables items and matching offset items. The system creates match groups by using user-defined matching criteria for selected field values.
<b>MCF server</b>	Abbreviation for <i>PeopleSoft MultiChannel Framework server</i> . Comprises the universal queue server and the MCF log server. Both processes are started when <i>MCF Servers</i> is selected in an application server domain configuration.
<b>merchandising activity</b>	In PeopleSoft Enterprise Promotions Management, a specific discount type that is associated with a trade promotion (such as off-invoice, billback or rebate, or lump-sum payment) that defines the performance that is required to receive the discount. In the industry, you may know this as an offer, a discount, a merchandising event, an event, or a tactic.
<b>meta-SQL</b>	Meta-SQL constructs expand into platform-specific SQL substrings. They are used in functions that pass SQL strings, such as in SQL objects, the <i>SQLExec</i> function, and PeopleSoft Application Engine programs.
<b>metastring</b>	Metastrings are special expressions included in SQL string literals. The metastrings, prefixed with a percent (%) symbol, are included directly in the string literals. They expand at run time into an appropriate substring for the current database platform.
<b>multibook</b>	In PeopleSoft Enterprise General Ledger, multiple ledgers having multiple-base currencies that are defined for a business unit, with the option to post a single

	transaction to all base currencies (all ledgers) or to only one of those base currencies (ledgers).
<b>multicurrency</b>	The ability to process transactions in a currency other than the business unit's base currency.
<b>national allowance</b>	In PeopleSoft Enterprise Promotions Management, a promotion at the corporate level that is funded by nondiscretionary dollars. In the industry, you may know this as a national promotion, a corporate promotion, or a corporate discount.
<b>need</b>	In PeopleSoft Enterprise Campus Solutions, the difference between the cost of attendance (COA) and the expected family contribution (EFC). It is the gap between the cost of attending the school and the student's resources. The financial aid package is based on the amount of financial need. The process of determining a student's need is called <i>need analysis</i> .
<b>node-oriented tree</b>	A tree that is based on a detail structure, but the detail values are not used.
<b>pagelet</b>	Each block of content on the home page is called a pagelet. These pagelets display summary information within a small rectangular area on the page. The pagelet provide users with a snapshot of their most relevant PeopleSoft Enterprise and non-PeopleSoft Enterprise content.
<b>participant</b>	In PeopleSoft Enterprise Incentive Management, participants are recipients of the incentive compensation calculation process.
<b>participant object</b>	Each participant object may be related to one or more compensation objects. See also <i>compensation object</i> .
<b>partner</b>	A company that supplies products or services that are resold or purchased by the enterprise.
<b>pay cycle</b>	In PeopleSoft Enterprise Payables, a set of rules that define the criteria by which it should select scheduled payments for payment creation.
<b>payment shuffle</b>	In PeopleSoft Enterprise Campus Solutions, a process allowing payments that have been previously posted to a student's account to be automatically reapplied when a higher priority payment is posted or the payment allocation definition is changed.
<b>pending item</b>	In PeopleSoft Enterprise Receivables, an individual receivable (such as an invoice, a credit memo, or a write-off) that has been entered in or created by the system, but hasn't been posted.
<b>PeopleCode</b>	PeopleCode is a proprietary language, executed by the PeopleSoft Enterprise component processor. PeopleCode generates results based on existing data or user actions. By using various tools provided with PeopleTools, external services are available to all PeopleSoft Enterprise applications wherever PeopleCode can be executed.
<b>PeopleCode event</b>	See <i>event</i> .
<b>PeopleSoft Pure Internet Architecture</b>	The fundamental architecture on which PeopleSoft 8 applications are constructed, consisting of a relational database management system (RDBMS), an application server, a web server, and a browser.
<b>performance measurement</b>	In PeopleSoft Enterprise Incentive Management, a variable used to store data (similar to an aggregator, but without a predefined formula) within the scope of an incentive plan. Performance measures are associated with a plan calendar, territory, and participant. Performance measurements are used for quota calculation and reporting.
<b>period context</b>	In PeopleSoft Enterprise Incentive Management, because a participant typically uses the same compensation plan for multiple periods, the period context associates

a plan context with a specific calendar period and fiscal year. The period context references the associated plan context, thus forming a chain. Each plan context has a corresponding set of period contexts.

<b>person of interest</b>	A person about whom the organization maintains information but who is not part of the workforce.
<b>personal portfolio</b>	In PeopleSoft Enterprise Campus Solutions, the user-accessible menu item that contains an individual's name, address, telephone number, and other personal information.
<b>plan</b>	In PeopleSoft Enterprise Sales Incentive Management, a collection of allocation rules, variables, steps, sections, and incentive rules that instruct the PeopleSoft Enterprise Incentive Management engine in how to process transactions.
<b>plan context</b>	In PeopleSoft Enterprise Incentive Management, correlates a participant with the compensation plan and node to which the participant is assigned, enabling the PeopleSoft Enterprise Incentive Management system to find anything that is associated with the node and that is required to perform compensation processing. Each participant, node, and plan combination represents a unique plan context—if three participants are on a compensation structure, each has a different plan context. Configuration plans are identified by plan contexts and are associated with the participants that refer to them.
<b>plan template</b>	In PeopleSoft Enterprise Incentive Management, the base from which a plan is created. A plan template contains common sections and variables that are inherited by all plans that are created from the template. A template may contain steps and sections that are not visible in the plan definition.
<b>planned learning</b>	In PeopleSoft Enterprise Learning Management, a self-service repository for all of a learner's planned learning activities and programs.
<b>planning instance</b>	In PeopleSoft Enterprise Supply Planning, a set of data (business units, items, supplies, and demands) constituting the inputs and outputs of a supply plan.
<b>population</b>	In PeopleSoft Enterprise Campus Solutions, the middle level of the three-level classification structure that you define in PeopleSoft Enterprise Recruiting and Admissions for enrollment management. You can define a population level, link it to other levels, and set enrollment target numbers for it.  See also <i>division</i> and <i>cohort</i> .
<b>portal registry</b>	In PeopleSoft Enterprise applications, the portal registry is a tree-like structure in which content references are organized, classified, and registered. It is a central repository that defines both the structure and content of a portal through a hierarchical, tree-like structure of folders useful for organizing and securing content references.
<b>price list</b>	In PeopleSoft Enterprise Pricer, enables you to select products and conditions for which the price list applies to a transaction. During a transaction, the system either determines the product price based on the predefined search hierarchy for the transaction or uses the product's lowest price on any associated, active price lists. This price is used as the basis for any further discounts and surcharges.
<b>price rule</b>	In PeopleSoft Enterprise Pricer, defines the conditions that must be met for adjustments to be applied to the base price. Multiple rules can apply when conditions of each rule are met.
<b>price rule condition</b>	In PeopleSoft Enterprise Pricer, selects the price-by fields, the values for the price-by fields, and the operator that determines how the price-by fields are related to the transaction.
<b>price rule key</b>	In PeopleSoft Enterprise Pricer, defines the fields that are available to define price rule conditions (which are used to match a transaction) on the price rule.

<b>primacy number</b>	In PeopleSoft Enterprise Campus Solutions, a number that the system uses to prioritize financial aid applications when students are enrolled in multiple academic careers and academic programs at the same time. The Consolidate Academic Statistics process uses the primacy number indicated for both the career and program at the institutional level to determine a student's primary career and program. The system also uses the number to determine the primary student attribute value that is used when you extract data to report on cohorts. The lowest number takes precedence.
<b>primary name type</b>	In PeopleSoft Enterprise Campus Solutions, the name type that is used to link the name stored at the highest level within the system to the lower-level set of names that an individual provides.
<b>process category</b>	In PeopleSoft Process Scheduler, processes that are grouped for server load balancing and prioritization.
<b>process group</b>	In PeopleSoft Enterprise Financials, a group of application processes (performed in a defined order) that users can initiate in real time, directly from a transaction entry page.
<b>process definition</b>	Process definitions define each run request.
<b>process instance</b>	A unique number that identifies each process request. This value is automatically incremented and assigned to each requested process when the process is submitted to run.
<b>process job</b>	You can link process definitions into a job request and process each request serially or in parallel. You can also initiate subsequent processes based on the return code from each prior request.
<b>process request</b>	A single run request, such as a Structured Query Report (SQR), a COBOL or Application Engine program, or a Crystal report that you run through PeopleSoft Process Scheduler.
<b>process run control</b>	A PeopleTools variable used to retain PeopleSoft Process Scheduler values needed at runtime for all requests that reference a run control ID. Do not confuse these with application run controls, which may be defined with the same run control ID, but only contain information specific to a given application process request.
<b>product</b>	A PeopleSoft Enterprise or third-party product. PeopleSoft organizes its software products into product families and product lines. Interactive Services Repository contains information about every release of every product that PeopleSoft sells, as well as products from certified third-party companies. These products appear with the product name and release number.
<b>product category</b>	In PeopleSoft Enterprise Incentive Management, indicates an application in the PeopleSoft Enterprise Incentive Management suite of products. Each transaction in the PeopleSoft Enterprise Incentive Management system is associated with a product category.
<b>product family</b>	A group of products that are related by common functionality. The family names that can be searched using Interactive Service Repository are Oracle's PeopleSoft Enterprise, PeopleSoft EnterpriseOne, PeopleSoft World, and third-party, certified partners.
<b>product line</b>	The name of a PeopleSoft Enterprise product line or the company name of a third-party certified partner. Integration Services Repository enables you to search for integration points by product line.
<b>programs</b>	In PeopleSoft Enterprise Learning Management, a high-level grouping that guides the learner along a specific learning path through sections of catalog items. PeopleSoft Enterprise Learning Systems provides two types of programs—curricula and certifications.

<b>progress log</b>	In PeopleSoft Enterprise Services Procurement, tracks deliverable-based projects. This is similar to the time sheet in function and process. The service provider contact uses the progress log to record and submit progress on deliverables. The progress can be logged by the activity that is performed, by the percentage of work that is completed, or by the completion of milestone activities that are defined for the project.
<b>project transaction</b>	In PeopleSoft Enterprise Project Costing, an individual transaction line that represents a cost, time, budget, or other transaction row.
<b>promotion</b>	In PeopleSoft Enterprise Promotions Management, a trade promotion, which is typically funded from trade dollars and used by consumer products manufacturers to increase sales volume.
<b>prospects</b>	In PeopleSoft Enterprise Campus Solutions, students who are interested in applying to the institution.  In PeopleSoft Enterprise Contributor Relations, individuals and organizations that are most likely to make substantial financial commitments or other types of commitments to the institution.
<b>publishing</b>	In PeopleSoft Enterprise Incentive Management, a stage in processing that makes incentive-related results available to participants.
<b>rating components</b>	In PeopleSoft Enterprise Campus Solutions, variables used with the Equation Editor to retrieve specified populations.
<b>record group</b>	A set of logically and functionally related control tables and views. Record groups help enable TableSet sharing, which eliminates redundant data entry. Record groups ensure that TableSet sharing is applied consistently across all related tables and views.
<b>record input VAT flag</b>	Abbreviation for <i>record input value-added tax flag</i> . Within PeopleSoft Enterprise Purchasing, Payables, and General Ledger, this flag indicates that you are recording input VAT on the transaction. This flag, in conjunction with the record output VAT flag, is used to determine the accounting entries created for a transaction and to determine how a transaction is reported on the VAT return. For all cases within Purchasing and Payables where VAT information is tracked on a transaction, this flag is set to Yes. This flag is not used in PeopleSoft Enterprise Order Management, Billing, or Receivables, where it is assumed that you are always recording only output VAT, or in PeopleSoft Enterprise Expenses, where it is assumed that you are always recording only input VAT.
<b>record output VAT flag</b>	Abbreviation for <i>record output value-added tax flag</i> .  See <i>record input VAT flag</i> .
<b>recname</b>	The name of a record that is used to determine the associated field to match a value or set of values.
<b>recognition</b>	In PeopleSoft Enterprise Campus Solutions, the recognition type indicates whether the PeopleSoft Enterprise Contributor Relations donor is the primary donor of a commitment or shares the credit for a donation. Primary donors receive hard credit that must total 100 percent. Donors that share the credit are given soft credit. Institutions can also define other share recognition-type values such as memo credit or vehicle credit.
<b>reference data</b>	In PeopleSoft Enterprise Sales Incentive Management, system objects that represent the sales organization, such as territories, participants, products, customers, and channels.
<b>reference object</b>	In PeopleSoft Enterprise Incentive Management, this dimension-type object further defines the business. Reference objects can have their own hierarchy (for example, product tree, customer tree, industry tree, and geography tree).

<b>reference transaction</b>	In commitment control, a reference transaction is a source transaction that is referenced by a higher-level (and usually later) source transaction, in order to automatically reverse all or part of the referenced transaction's budget-checked amount. This avoids duplicate postings during the sequential entry of the transaction at different commitment levels. For example, the amount of an encumbrance transaction (such as a purchase order) will, when checked and recorded against a budget, cause the system to concurrently reference and relieve all or part of the amount of a corresponding pre-encumbrance transaction, such as a purchase requisition.
<b>regional sourcing</b>	In PeopleSoft Enterprise Purchasing, provides the infrastructure to maintain, display, and select an appropriate vendor and vendor pricing structure that is based on a regional sourcing model where the multiple ship to locations are grouped. Sourcing may occur at a level higher than the ship to location.
<b>relationship object</b>	In PeopleSoft Enterprise Incentive Management, these objects further define a compensation structure to resolve transactions by establishing associations between compensation objects and business objects.
<b>remote data source data</b>	Data that is extracted from a separate database and migrated into the local database.
<b>REN server</b>	Abbreviation for <i>real-time event notification server</i> in PeopleSoft MultiChannel Framework.
<b>requester</b>	In PeopleSoft Enterprise eSettlements, an individual who requests goods or services and whose ID appears on the various procurement pages that reference purchase orders.
<b>reversal indicator</b>	In PeopleSoft Enterprise Campus Solutions, an indicator that denotes when a particular payment has been reversed, usually because of insufficient funds.
<b>role</b>	Describes how people fit into PeopleSoft Workflow. A role is a class of users who perform the same type of work, such as clerks or managers. Your business rules typically specify what user role needs to do an activity.
<b>role user</b>	A PeopleSoft Workflow user. A person's role user ID serves much the same purpose as a user ID does in other parts of the system. PeopleSoft Workflow uses role user IDs to determine how to route worklist items to users (through an email address, for example) and to track the roles that users play in the workflow. Role users do not need PeopleSoft user IDs.
<b>roll up</b>	In a tree, to roll up is to total sums based on the information hierarchy.
<b>run control</b>	A run control is a type of online page that is used to begin a process, such as the batch processing of a payroll run. Run control pages generally start a program that manipulates data.
<b>run control ID</b>	A unique ID to associate each user with his or her own run control table entries.
<b>run-level context</b>	In PeopleSoft Enterprise Incentive Management, associates a particular run (and batch ID) with a period context and plan context. Every plan context that participates in a run has a separate run-level context. Because a run cannot span periods, only one run-level context is associated with each plan context.
<b>SCP SCBM XML message</b>	Abbreviation for <i>Supply Chain Planning Supply Chain Business Modeler Extensible Markup Language message</i> . Supply Chain Business Modeler uses XML as the format for all data that it imports and exports.
<b>search query</b>	You use this set of objects to pass a query string and operators to the search engine. The search index returns a set of matching results with keys to the source documents.
<b>search/match</b>	In PeopleSoft Enterprise Campus Solutions and PeopleSoft Enterprise Human Resources Management Solutions, a feature that enables you to search for and identify duplicate records in the database.

<b>seasonal address</b>	In PeopleSoft Enterprise Campus Solutions, an address that recurs for the same length of time at the same time of year each year until adjusted or deleted.
<b>section</b>	In PeopleSoft Enterprise Incentive Management, a collection of incentive rules that operate on transactions of a specific type. Sections enable plans to be segmented to process logical events in different sections.
<b>security event</b>	In commitment control, security events trigger security authorization checking, such as budget entries, transfers, and adjustments; exception overrides and notifications; and inquiries.
<b>serial genealogy</b>	In PeopleSoft Enterprise Manufacturing, the ability to track the composition of a specific, serial-controlled item.
<b>serial in production</b>	In PeopleSoft Enterprise Manufacturing, enables the tracing of serial information for manufactured items. This is maintained in the Item Master record.
<b>service impact</b>	In PeopleSoft Enterprise Campus Solutions, the resulting action triggered by a service indicator. For example, a service indicator that reflects nonpayment of account balances by a student might result in a service impact that prohibits registration for classes.
<b>service indicator</b>	In PeopleSoft Enterprise Campus Solutions, indicates services that may be either withheld or provided to an individual. Negative service indicators indicate holds that prevent the individual from receiving specified services, such as check-cashing privileges or registration for classes. Positive service indicators designate special services that are provided to the individual, such as front-of-line service or special services for disabled students.
<b>session</b>	<p>In PeopleSoft Enterprise Campus Solutions, time elements that subdivide a term into multiple time periods during which classes are offered. In PeopleSoft Enterprise Contributor Relations, a session is the means of validating gift, pledge, membership, or adjustment data entry . It controls access to the data entered by a specific user ID. Sessions are balanced, queued, and then posted to the institution's financial system. Sessions must be posted to enter a matching gift or pledge payment, to make an adjustment, or to process giving clubs or acknowledgements.</p> <p>In PeopleSoft Enterprise Learning Management, a single meeting day of an activity (that is, the period of time between start and finish times within a day). The session stores the specific date, location, meeting time, and instructor. Sessions are used for scheduled training.</p>
<b>session template</b>	In PeopleSoft Enterprise Learning Management, enables you to set up common activity characteristics that may be reused while scheduling a PeopleSoft Enterprise Learning Management activity—characteristics such as days of the week, start and end times, facility and room assignments, instructors, and equipment. A session pattern template can be attached to an activity that is being scheduled. Attaching a template to an activity causes all of the default template information to populate the activity session pattern.
<b>setup relationship</b>	In PeopleSoft Enterprise Incentive Management, a relationship object type that associates a configuration plan with any structure node.
<b>share driver expression</b>	In PeopleSoft Enterprise Business Planning, a named planning method similar to a driver expression, but which you can set up globally for shared use within a single planning application or to be shared between multiple planning applications through PeopleSoft Enterprise Warehouse.
<b>single signon</b>	With single signon, users can, after being authenticated by a PeopleSoft Enterprise application server, access a second PeopleSoft Enterprise application server without entering a user ID or password.

<b>source key process</b>	In PeopleSoft Enterprise Campus Solutions, a process that relates a particular transaction to the source of the charge or financial aid. On selected pages, you can drill down into particular charges.
<b>source transaction</b>	In commitment control, any transaction generated in a PeopleSoft Enterprise or third-party application that is integrated with commitment control and which can be checked against commitment control budgets. For example, a pre-encumbrance, encumbrance, expenditure, recognized revenue, or collected revenue transaction.
<b>speed key</b>	See <i>communication key</i> .
<b>SpeedChart</b>	A user-defined shorthand key that designates several ChartKeys to be used for voucher entry. Percentages can optionally be related to each ChartKey in a SpeedChart definition.
<b>SpeedType</b>	A code representing a combination of ChartField values. SpeedTypes simplify the entry of ChartFields commonly used together.
<b>staging</b>	A method of consolidating selected partner offerings with the offerings from the enterprise's other partners.
<b>standard letter code</b>	In PeopleSoft Enterprise Campus Solutions, a standard letter code used to identify each letter template available for use in mail merge functions. Every letter generated in the system must have a standard letter code identification.
<b>statutory account</b>	Account required by a regulatory authority for recording and reporting financial results. In PeopleSoft Enterprise, this is equivalent to the Alternate Account (ALTACCT) ChartField.
<b>step</b>	In PeopleSoft Enterprise Sales Incentive Management, a collection of sections in a plan. Each step corresponds to a step in the job run.
<b>storage level</b>	In PeopleSoft Enterprise Inventory, identifies the level of a material storage location. Material storage locations are made up of a business unit, a storage area, and a storage level. You can set up to four storage levels.
<b>subcustomer qualifier</b>	A value that groups customers into a division for which you can generate detailed history, aging, events, and profiles.
<b>Summary ChartField</b>	You use summary ChartFields to create summary ledgers that roll up detail amounts based on specific detail values or on selected tree nodes. When detail values are summarized using tree nodes, summary ChartFields must be used in the summary ledger data record to accommodate the maximum length of a node name (20 characters).
<b>summary ledger</b>	An accounting feature used primarily in allocations, inquiries, and PS/nVision reporting to store combined account balances from detail ledgers. Summary ledgers increase speed and efficiency of reporting by eliminating the need to summarize detail ledger balances each time a report is requested. Instead, detail balances are summarized in a background process according to user-specified criteria and stored on summary ledgers. The summary ledgers are then accessed directly for reporting.
<b>summary time period</b>	In PeopleSoft Enterprise Business Planning, any time period (other than a base time period) that is an aggregate of other time periods, including other summary time periods and base time periods, such as quarter and year total.
<b>summary tree</b>	A tree used to roll up accounts for each type of report in summary ledgers. Summary trees enable you to define trees on trees. In a summary tree, the detail values are really nodes on a detail tree or another summary tree (known as the <i>basis</i> tree). A summary tree structure specifies the details on which the summary trees are to be built.
<b>syndicate</b>	To distribute a production version of the enterprise catalog to partners.

<b>system function</b>	In PeopleSoft Enterprise Receivables, an activity that defines how the system generates accounting entries for the general ledger.
<b>system source</b>	<p>The system source identifies the source of a transaction row in the database. For example, a transaction that originates in PeopleSoft Enterprise Expenses contains a system source code of BEX (Expenses Batch).</p> <p>When PeopleSoft Enterprise Project Costing prices the source transaction row for billing, the system creates a new row with a system source code of PRP (Project Costing pricing), which represents the system source of the new row. System source codes can identify sources that are internal or external to the PeopleSoft Enterprise system. For example, processes that import data from Microsoft Project into PeopleSoft Enterprise applications create transaction rows with a source code of MSP (Microsoft Project).</p>
<b>TableSet</b>	A means of sharing similar sets of values in control tables, where the actual data values are different but the structure of the tables is the same.
<b>TableSet sharing</b>	Shared data that is stored in many tables that are based on the same TableSets. Tables that use TableSet sharing contain the SETID field as an additional key or unique identifier.
<b>target currency</b>	The value of the entry currency or currencies converted to a single currency for budget viewing and inquiry purposes.
<b>tax authority</b>	In PeopleSoft Enterprise Campus Solutions, a user-defined element that combines a description and percentage of a tax with an account type, an item type, and a service impact.
<b>template</b>	A template is HTML code associated with a web page. It defines the layout of the page and also where to get HTML for each part of the page. In PeopleSoft Enterprise, you use templates to build a page by combining HTML from a number of sources. For a PeopleSoft Enterprise portal, all templates must be registered in the portal registry, and each content reference must be assigned a template.
<b>territory</b>	In PeopleSoft Enterprise Sales Incentive Management, hierarchical relationships of business objects, including regions, products, customers, industries, and participants.
<b>third party</b>	A company or vendor that has extensive PeopleSoft Enterprise product knowledge and whose products and integrations have been certified and are compatible with PeopleSoft Enterprise applications.
<b>3C engine</b>	Abbreviation for <i>Communications, Checklists, and Comments engine</i> . In PeopleSoft Enterprise Campus Solutions, the 3C engine enables you to automate business processes that involve additions, deletions, and updates to communications, checklists, and comments. You define events and triggers to engage the engine, which runs the mass change and processes the 3C records (for individuals or organizations) immediately and automatically from within business processes.
<b>3C group</b>	Abbreviation for <i>Communications, Checklists, and Comments group</i> . In PeopleSoft Enterprise Campus Solutions, a method of assigning or restricting access privileges. A 3C group enables you to group specific communication categories, checklist codes, and comment categories. You can then assign the group inquiry-only access or update access, as appropriate.
<b>TimeSpan</b>	A relative period, such as year-to-date or current period, that can be used in various PeopleSoft Enterprise General Ledger functions and reports when a rolling time frame, rather than a specific date, is required. TimeSpans can also be used with flexible formulas in PeopleSoft Enterprise Projects.

<b>trace usage</b>	In PeopleSoft Enterprise Manufacturing, enables the control of which components will be traced during the manufacturing process. Serial- and lot-controlled components can be traced. This is maintained in the Item Master record.
<b>transaction allocation</b>	In PeopleSoft Enterprise Incentive Management, the process of identifying the owner of a transaction. When a raw transaction from a batch is allocated to a plan context, the transaction is duplicated in the PeopleSoft Enterprise Incentive Management transaction tables.
<b>transaction state</b>	In PeopleSoft Enterprise Incentive Management, a value assigned by an incentive rule to a transaction. Transaction states enable sections to process only transactions that are at a specific stage in system processing. After being successfully processed, transactions may be promoted to the next transaction state and “picked up” by a different section for further processing.
<b>Translate table</b>	A system edit table that stores codes and translate values for the miscellaneous fields in the database that do not warrant individual edit tables of their own.
<b>tree</b>	The graphical hierarchy in PeopleSoft Enterprise systems that displays the relationship between all accounting units (for example, corporate divisions, projects, reporting groups, account numbers) and determines roll-up hierarchies.
<b>tuition lock</b>	In PeopleSoft Enterprise Campus Solutions, a feature in the Tuition Calculation process that enables you to specify a point in a term after which students are charged a minimum (or <i>locked</i> ) fee amount. Students are charged the locked fee amount even if they later drop classes and take less than the normal load level for that tuition charge.
<b>unclaimed transaction</b>	In PeopleSoft Enterprise Incentive Management, a transaction that is not claimed by a node or participant after the allocation process has completed, usually due to missing or incomplete data. Unclaimed transactions may be manually assigned to the appropriate node or participant by a compensation administrator.
<b>universal navigation header</b>	Every PeopleSoft Enterprise portal includes the universal navigation header, intended to appear at the top of every page as long as the user is signed on to the portal. In addition to providing access to the standard navigation buttons (like Home, Favorites, and signoff) the universal navigation header can also display a welcome message for each user.
<b>update access</b>	In PeopleSoft Enterprise Campus Solutions, a type of security access that permits the user to edit and update data.  See also <i>inquiry access</i> .
<b>user interaction object</b>	In PeopleSoft Enterprise Sales Incentive Management, used to define the reporting components and reports that a participant can access in his or her context. All PeopleSoft Enterprise Sales Incentive Management user interface objects and reports are registered as user interaction objects. User interaction objects can be linked to a compensation structure node through a compensation relationship object (individually or as groups).
<b>variable</b>	In PeopleSoft Enterprise Sales Incentive Management, the intermediate results of calculations. Variables hold the calculation results and are then inputs to other calculations. Variables can be plan variables that persist beyond the run of an engine or local variables that exist only during the processing of a section.
<b>VAT exception</b>	Abbreviation for <i>value-added tax exception</i> . A temporary or permanent exemption from paying VAT that is granted to an organization. This terms refers to both VAT exoneration and VAT suspension.
<b>VAT exempt</b>	Abbreviation for <i>value-added tax exempt</i> . Describes goods and services that are not subject to VAT. Organizations that supply exempt goods or services are unable to recover the related input VAT. This is also referred to as exempt without recovery.

<b>VAT exoneration</b>	Abbreviation for <i>value-added tax exoneration</i> . An organization that has been granted a permanent exemption from paying VAT due to the nature of that organization.
<b>VAT suspension</b>	Abbreviation for <i>value-added tax suspension</i> . An organization that has been granted a temporary exemption from paying VAT.
<b>warehouse</b>	A PeopleSoft Enterprise data warehouse that consists of predefined ETL maps, data warehouse tools, and DataMart definitions.
<b>work order</b>	In PeopleSoft Enterprise Services Procurement, enables an enterprise to create resource-based and deliverable-based transactions that specify the basic terms and conditions for hiring a specific service provider. When a service provider is hired, the service provider logs time or progress against the work order.
<b>worker</b>	A person who is part of the workforce; an employee or a contingent worker.
<b>workset</b>	A group of people and organizations that are linked together as a set. You can use worksets to simultaneously retrieve the data for a group of people and organizations and work with the information on a single page.
<b>worksheet</b>	A way of presenting data through a PeopleSoft Enterprise Business Analysis Modeler interface that enables users to do in-depth analysis using pivoting tables, charts, notes, and history information.
<b>worklist</b>	The automated to-do list that PeopleSoft Workflow creates. From the worklist, you can directly access the pages you need to perform the next action, and then return to the worklist for another item.
<b>XML link</b>	The XML Linking language enables you to insert elements into XML documents to create a links between resources.
<b>XML schema</b>	An XML definition that standardizes the representation of application messages, component interfaces, or business interlinks.
<b>XPI</b>	Abbreviation for <i>eXtended Process Integrator</i> . PeopleSoft XPI is the integration infrastructure that enables both real-time and batch communication with JD Edwards EnterpriseOne applications.
<b>yield by operation</b>	In PeopleSoft Enterprise Manufacturing, the ability to plan the loss of a manufactured item on an operation-by-operation basis.
<b>zero-rated VAT</b>	Abbreviation for <i>zero-rated value-added tax</i> . A VAT transaction with a VAT code that has a tax percent of zero. Used to track taxable VAT activity where no actual VAT amount is charged. Organizations that supply zero-rated goods and services can still recover the related input VAT. This is also referred to as exempt with recovery.

# Index

## A

- (ACTQRY).RPT report 20
- additional documentation x
- alias reports, limitations of running 15
- application fundamentals ix

## C

- characters 31
- client setup, running 9
- column headings, modifying defaults 13, 25
- comments, submitting xiv
- common elements xiv
- compatibility issues 5, 23
- Configuration Manager 6
- Configuration Manager - Process Scheduler Settings dialog box 8
- Configuration Manager 8.48 dialog box 6
- contact information xiv
- cross-references xiii
- CRWRPTPATH, specifying 9
- Crystal 9 5
- Crystal EXEs path 8
- Crystal Reports
  - adding print date field 13, 26
  - changing defaults 13, 25
  - changing fonts 13, 25
  - configuring 6
  - configuring for multilingual environments 32
  - configuring the designer 30
  - creating 11
  - creating and saving 3
  - creating in Crystal Reports XI 23
  - creating reports in 23
  - formatting 12, 24
  - getting started 1
  - installing 2
  - launching with PeopleSoft Query 20
  - modifying 13, 25
  - printing 21
  - running 14
  - running from Process Scheduler 14, 27
  - running from within 19
  - saving reports in 26

- searching for translated 32
- specifying interlink options 7
- specifying production path 8
- understanding compatibility issues 5, 23
- using 5
- versions for multiple languages 30

- Crystal Reports Designer 30
- Crystal Reports XI
  - creating reports 23
- Crystal XI vs. Crystal 9 23
- Customer Connection website x

## D

- date field 13, 26
- defaults
  - changing column headings 13, 25
  - changing fonts 13, 25
  - changing report titles 13, 25
  - launching reports 20
  - modifying 13, 25
  - specifying Crystal EXEs path 8
  - specifying customized report location 8
  - specifying production report path 8
- designer, *See* Query Designer, running reports with
- details section 12, 25
- documentation
  - printed x
  - related x
  - updates x

## F

- fonts, changing 13, 25
- footers, page 12, 25
- footers, report 12, 25

## G

- globalization
  - language sensitivity for report data 29
  - report layout and boilerplate text 29
  - searching for translated reports 32
  - the language parameter for pscrrun.exe 32
  - versions for multiple languages 30

glossary 35

## H

headers, page 12, 24  
headers, report 12, 24  
HTML reports, printing 21

## I

installation 2  
integration 2

## L

language codes 30  
language sensitivity 29  
languages, multiple 29  
limitations 31

## M

multilingual environments 32

## N

notes xiii

## O

output options, setting 15, 16, 17

## P

page footers 12, 25  
page headers 12, 24  
paths  
    specifying CRWRPTPATH 9  
    specifying Crystal EXEs 8  
    using production reports 8  
PeopleBooks  
    ordering x  
PeopleCode, typographical  
    conventions xii  
PeopleSoft Application Designer - Run  
    Control page 17  
PeopleSoft database, signing into 11  
PeopleSoft Process Scheduler  
    defining paper size 21  
    running reports 5, 14, 27  
    tracing reports through 8  
    using JobSet Definition page 16  
    using Process Definition - Override  
        Options page 17  
    using Process Definition page 16  
    using Process Type Definition page 16

    using System Process Requests page 17  
    using System Settings page 15  
PeopleSoft Query 2  
    exporting to Crystal 5  
    launching reports with 20  
    understanding repeated prompts 20  
PeopleTools Configuration Manager 6  
prerequisites ix  
print date fields 13, 26  
printed documentation x  
process requests, running reports  
    using 14, 27  
Process Scheduler, *See* PeopleSoft Process  
    Scheduler  
    formatting 15  
production reports, specifying path for 8  
pscfg.exe 6  
pserrun.exe 32  
PSToUChar 31  
PSToWords function 30  
PSToWordsLoc function 30

## Q

queries  
    creating 2  
    exporting to Crystal 5  
    running with Crystal Reports 20  
    saving 2  
Query Designer, running reports with 20  
query prompts 20

## R

records  
    selecting 12  
    sorting 12  
related documentation x  
related language tables 29  
repeated query prompts 20  
report definitions  
    creating 3  
    saving 3  
report footers 12, 25  
report headers 12, 24  
report titles, modifying defaults 13, 25  
reports  
    creating 11  
    formatting 12, 15, 24  
    launching with PeopleSoft Query 20  
    modifying defaults 13, 25

- previewing 12, 25
- printing 19, 21
- refreshing 12, 19, 25
- running 14
- running from Crystal Reports 19
- running from PeopleSoft Process Scheduler 14, 27
- running from Query Designer 20
- running with runtime prompts 17
- saving 13, 25
- searching for translated 32
- specifying default location 8
- specifying output options 15, 16, 17
- translating 30
- understanding limitations of running
  - alias reports 15
  - using (ACTQRY).RPT 20
- runtime prompts, setting 17

**S**

- suggestions, submitting xiv
- syntax 30

**T**

- templates, selecting 12
- terms 35
- titles 12, 24
- ToWords function 30
- translated reports 32
- two-tier, logging into 11
- typographical conventions xii

**U**

- Unicode 31
- Use trace during execution 8

**V**

- visual cues xiii

**W**

- warnings xiii
- workstations, setting up 9

