
Enterprise PeopleTools 8.50 Installation for DB2 UDB for z/OS

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Enterprise PeopleTools 8.50
Installation for DB2 UDB for z/OS
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Contents

Preface

About This Documentation.....	xix
Understanding This Documentation.....	xix
Audience.....	xix
Typographical Conventions and Visual Cues.....	xx
Products.....	xxi
Related Information.....	xxii
Comments and Suggestions.....	xxii

Chapter 1

Preparing for Installation.....	1
Understanding the PeopleSoft Installation.....	1
Using Oracle E-Delivery to Obtain Installation Files.....	2
Assembling Related Documentation.....	2
Verifying Hardware and Software Requirements	3
Considering Project Planning.....	4
Planning Your Initial Configuration.....	4
Understanding Workstations.....	5
Defining the File Server.....	5
Defining the Database Server.....	6
Defining the Application Server.....	6
Defining the Batch Server.....	7
Defining Installation Locations.....	7
Defining the Web Server.....	8
Defining Server Domain Configurations.....	8
Using Laser Printers.....	9
Planning Database Creation.....	9
Understanding Database Creation.....	9
Using Multiple Databases.....	10
Determining Databases and Database Names.....	10
Using Standard Database Names.....	11
Choosing Owner ID Processing Option.....	11
Planning Multilingual Strategy.....	13
Understanding Multilingual Issues.....	13

Choosing a Base Language.....	14
Selecting Additional Languages.....	15
Selecting a Database Character Set.....	15
Reviewing Updates and Fixes Required at Installation.....	17
Verifying Database Server Sizing.....	18
Defining DB2 UDB for z/OS Subsystem Configuration.....	18
Understanding DB2 Configuration Requirements.....	18
Defining EDM Pool Considerations	18
Defining Decimal Arithmetic.....	19
Using DSMAX.....	19
Using CMTSTAT/IDTHTOIN.....	19
Using CCSID and DB2 z/OS Database Storage Encoding Schemes.....	20
Using DECIMAL.....	20
Installing Supporting Applications.....	20
Setting Up Database Connectivity	22
Using Connect ID.....	22
Understanding Connect ID	23
Using Connect ID.....	23
Setting Up z/OS User IDs.....	24
Understanding User ID Setup.....	24
Creating PeopleSoft User IDs.....	25
Using Storage Enhancements for z/OS.....	26
Understanding z/OS Storage Enhancements.....	27
Prerequisites.....	27
Enabling the Shared Library Feature.....	27
Performing Backups.....	28
Using PeopleSoft Change Assistant and PeopleSoft Change Impact Analyzer.....	28

Chapter 2

Installing Web Server Products.....	31
Installing Oracle WebLogic Server.....	31
Understanding the Oracle WebLogic Installation.....	31
Prerequisites.....	32
Obtaining Oracle WebLogic Installation Files from E-Delivery.....	32
Installing Oracle WebLogic in GUI Mode.....	33
Installing Oracle WebLogic on Linux or Solaris.....	41
Installing Oracle WebLogic on Linux or Solaris in Silent Mode.....	47
Installing Oracle WebLogic on AIX, HP-UX Itanium, or HP-UX PA-RISC in Console Mode.....	49
Installing Oracle WebLogic on AIX, HP-UX Itanium, or HP-UX PA-RISC in Silent Mode.....	56

Upgrading JDK for Oracle WebLogic.....	57
Configuring for Daylight Savings Time Change.....	60
Removing the Oracle WebLogic Installation on Microsoft Windows.....	61
Removing the Oracle WebLogic Installation in Console Mode.....	63
Installing IBM WebSphere Application Server.....	64
Understanding WebSphere Distribution.....	65
Prerequisites.....	65
Obtaining WebSphere Installation Files from E-Delivery.....	66
Installing WebSphere ND 7.0 in GUI Mode.....	67
Creating an Application Server Profile.....	76
Installing WebSphere ND 7.0 in Silent Mode.....	84
Reviewing Logs.....	86
Uninstalling WebSphere ND 7.0.....	87
Installing IBM HTTP Server 7.0 and Web Server Plug-ins.....	87

Chapter 3

Installing Additional Components.....	103
Installing Oracle Tuxedo.....	103
Understanding Oracle Tuxedo.....	104
Prerequisites.....	104
Obtaining the Oracle Tuxedo Installation Files from E-Delivery.....	105
Removing the Oracle Tuxedo Installation from Windows (Optional).....	105
Designating the Application Server Administrator on Windows.....	107
Installing Oracle Tuxedo on Windows.....	107
Checking the Windows Service Account.....	118
Setting Up the Windows Services for Oracle Tuxedo.....	119
Verifying the Server Installation on Windows.....	120
Removing the Oracle Tuxedo Installation from UNIX (Optional).....	121
Completing the Preinstallation Checklist on UNIX.....	121
Designating the Oracle Tuxedo Owner on UNIX.....	122
Installing Oracle Tuxedo on UNIX.....	122
Verifying the Server Installation on UNIX.....	125
Ensuring that Oracle Tuxedo Coexists with Earlier Versions.....	125
Installing Micro Focus Net Express for Windows.....	127
Understanding the Micro Focus Net Express Installation.....	127
Prerequisites.....	127
Obtaining Installation Files for Micro Focus Net Express from E-Delivery.....	127
Installing Micro Focus Net Express.....	128
Installing Micro Focus Server Express for UNIX and Linux.....	135

Understanding Micro Focus Server Express.....	135
Prerequisites.....	136
Obtaining the Installation Files for Micro Focus Server Express from E-Delivery.....	136
Installing Micro Focus Server Express.....	137

Chapter 4

Using the PeopleSoft Installer.....	143
Understanding the PeopleSoft Installer.....	143
Defining the PeopleSoft Installer.....	143
Understanding PeopleSoft Servers.....	144
Defining Supported Server Combinations.....	144
Obtaining License Codes.....	145
Prerequisites.....	145
Verifying Necessary Files for Installation on Windows.....	146
Obtaining the PeopleSoft Installation Files from E-Delivery.....	147
Running the PeopleSoft Installer.....	148
Understanding the PeopleSoft Installer.....	148
Starting the PeopleSoft Installer.....	149
Installing PeopleSoft PeopleTools in GUI Mode.....	150
Installing PeopleSoft PeopleTools in Console Mode.....	160
Installing the Verity Integration Kit.....	162
Understanding the Verity Installation.....	162
Installing the Verity Integration Kit in GUI Mode.....	163
Installing the Verity Integration Kit in Console Mode.....	166
Installing PeopleSoft Application Software.....	168
Loading the Multilanguage Files.....	169

Chapter 5

Setting Up the Windows File Server.....	171
Understanding the File Server.....	171
Mapping a Drive on the Install Workstation.....	172
Installing PeopleSoft PeopleTools on the File Server.....	173
Installing PeopleSoft Application Software.....	174
Loading the Multilanguage Files.....	175
Binding Windows “SQR for PeopleSoft” DB2 Connect Packages.....	176

Chapter 6

Setting Up the Install Workstation.....	179
Understanding the Install Workstation.....	179
Prerequisites.....	179
Starting Configuration Manager.....	180
Setting Startup Options.....	180
Editing the Default Profile.....	181
Running Client Setup.....	183
Installing PeopleSoft ODBC Driver and Crystal Runtime.....	183

Chapter 7

Setting Up the Batch Environment on z/OS.....	185
Understanding COBOL.....	185
Setting Up Your Batch Environment.....	186
Completing the Preinstallation Worksheet.....	186
Allocating z/OS Partitioned Datasets.....	192
Using PeopleSoft Server Transfer.....	192
Understanding PeopleSoft Server Transfer.....	192
Running the PeopleSoft Server Transfer Program.....	193
Transferring Files to Host Manually.....	196
Mapping PeopleSoft Installation Directories to z/OS.....	196
Setting up the USS Environment Variables and Granting Access to USS Files.....	198
Installing SQR for z/OS.....	198
Binding the SQR DB2 Plan.....	199
Assembling PeopleTools Programs.....	199
Compiling and Link-Editing DB2 COBOL.....	199
Compiling and Link-Editing COBOL.....	200

Chapter 8

Creating a Database.....	201
Understanding Database Creation.....	202
Planning Your Installation.....	202
Using %UpdateStats.....	202
Using Temporary Tables.....	205
Transferring DDL Scripts to z/OS.....	205
Creating PS.PSDBOWNER Table.....	207
Granting Privileges on PS.PSDBOWNER.....	207
Granting Privileges to Owner ID	208

Creating DB2 Databases, Storage Groups, and Tablespaces.....	208
Understanding DB2 Databases, Storage Groups, and Tablespaces.....	208
Customizing the Database Name.....	209
Working with Tablespaces.....	211
Creating Tables.....	213
Configuring the DB2 Connect Gateway.....	214
Creating Data Mover Import Scripts.....	214
Understanding Data Mover Import Scripts.....	214
Working with Multilingual Databases.....	215
Running Database Setup to Create Data Mover Import Scripts.....	215
Running Data Mover Import Scripts.....	221
Understanding Data Mover Import Scripts.....	221
Populating Tables in the PeopleSoft Database.....	221
Validating Files.....	222
Troubleshooting.....	222
Improving Performance.....	224
Improving Execution.....	225
Creating Indexes	225
Updating Database to Latest PeopleTools Release.....	226
Understanding Database Updates.....	227
Cleaning Up Data.....	228
Updating PeopleTools System Tables.....	228
Updating PeopleTools Database Objects.....	230
Updating PeopleTools Multilingual Objects.....	232
Deleting Obsolete PeopleTools Database Objects.....	234
Applying Patched PeopleTools Database Objects.....	236
Altering PeopleTools Tables.....	237
Migrating Records to New Tablespaces.....	240
Updating PeopleTools System Data.....	245
Running PeopleTools Conversions.....	247
Converting Integration Broker.....	250
Running Additional PeopleTools Conversions.....	252
Changing the User Interface.....	253
Running the DB2 RUNSTATS Utility.....	255
Creating PeopleSoft Views.....	255
Understanding PeopleSoft Views.....	255
Creating Views in Data Mover.....	255
Creating Views in Application Designer.....	255
Building Temporary Tables.....	258
Understanding Temporary Tables.....	258

Running SQR SETSPACE.SQR.....	258
Correcting Invalid Database/Tablespace Combinations.....	259
Setting the Number of Temporary Tables.....	260
Using the Volatile Table Attribute.....	261
Building the Temporary Tables and Their Indexes.....	261
Creating PeopleSoft Triggers.....	265
Understanding PeopleSoft Triggers.....	265
Creating Triggers in Data Mover.....	265
Creating Triggers in Application Designer.....	265
Running Additional Data Mover Scripts.....	268
Installing a Multilingual PeopleTools System Database.....	268
Understanding the Multilingual Database Project.....	268
Applying the Multilingual Database Project.....	269
Populating the Translated System Data.....	269
Running SQR Reports.....	269
Binding the dbcalls.bnd.....	270
Running SQRs on the Client Workstation.....	270
Creating a Shortcut to Run SQRs	272
Updating PeopleSoft System Tables.....	272
Understanding PeopleSoft System Tables.....	272
Updating PeopleSoft System Tables.....	273
Binding DB2 Plans	273
Running VERSION Application Engine Program.....	273
Changing the Base Language.....	274
Checking the Database.....	274
Running Alter Audit.....	275
Disabling %UpdateStats.....	279

Chapter 9A

Configuring the Application Server on Windows.....	281
Understanding the Application Server.....	281
Prerequisites.....	282
Setting Up COBOL for Remote Call.....	283
Verifying Database Connectivity.....	283
Creating, Configuring, and Starting an Initial Application Server Domain.....	283
Creating, Configuring, and Starting the Application Server Domain.....	284
Testing the Three-Tier Connection.....	286
Importing an Existing Application Server Domain Configuration.....	287
Setting Up a Custom Application Server Domain Configuration.....	289

Troubleshooting Common Errors.....	291
Configuring Asian Language Fonts.....	292

Chapter 9B

Configuring the Application Server on UNIX.....	293
Understanding the Application Server.....	293
Understanding the Application Server Domain Processes.....	294
Prerequisites.....	295
Setting Environment Variables.....	295
Setting Up COBOL for Remote Call.....	296
Verifying Database Connectivity.....	296
Creating, Configuring, and Starting an Initial Application Server Domain.....	296
Creating, Configuring, and Starting the Application Server Domain.....	297
Testing the Three-Tier Connection.....	299
Importing an Existing Application Server Domain Configuration.....	300
Setting Up a Custom Application Server Domain Configuration.....	302
Troubleshooting Common Errors.....	304
Configuring Asian Language Fonts.....	305

Chapter 10A

Setting Up the PeopleSoft Pure Internet Architecture in GUI Mode.....	307
Understanding PeopleSoft Pure Internet Architecture.....	307
Using Authentication Domains in the PeopleSoft Pure Internet Architecture Installation.....	309
Installing the PeopleSoft Pure Internet Architecture on Oracle WebLogic in GUI Mode.....	310
Installing the PeopleSoft Pure Internet Architecture on WebSphere in GUI Mode.....	321
Prerequisites.....	321
Installing the PeopleSoft Pure Internet Architecture on WebSphere.....	322
Uninstalling the PeopleSoft Pure Internet Architecture from WebSphere.....	331
Testing the PeopleSoft Pure Internet Architecture Installation.....	332
Starting and Stopping Oracle WebLogic.....	332
Starting and Stopping IBM WebSphere Application Servers.....	333
Accessing the PeopleSoft Signon.....	337
Completing Post-Installation Steps.....	338
Updating the Installation Table.....	339
Updating PeopleTools Options.....	339
Updating Database Information.....	339

Chapter 10B

Setting Up the PeopleSoft Pure Internet Architecture in Console Mode.....	341
Understanding PeopleSoft Pure Internet Architecture.....	341
Using Authentication Domains in the PeopleSoft Pure Internet Architecture Installation.....	343
Installing the PeopleSoft Pure Internet Architecture on Oracle WebLogic in Console Mode.....	344
Installing the PeopleSoft Pure Internet Architecture on IBM WebSphere in Console Mode.....	349
Prerequisites.....	349
Installing the PeopleSoft Pure Internet Architecture on IBM WebSphere Application Server ND.....	350
Uninstalling the PeopleSoft Pure Internet Architecture from IBM WebSphere	354
Testing the PeopleSoft Pure Internet Architecture Installation.....	354
Starting and Stopping Oracle WebLogic.....	355
Starting and Stopping IBM WebSphere Application Servers.....	355
Accessing the PeopleSoft Signon.....	359
Completing Post-Installation Steps.....	360
Updating the Installation Table.....	361
Updating PeopleTools Options.....	361
Updating Database Information.....	361

Chapter 11A

Setting Up Process Scheduler on Windows.....	363
Prerequisites.....	363
Setting Up Process Scheduler Security.....	364
Understanding Process Scheduler Security.....	364
Changing User Account to Start ORACLE ProcMGR V10gR3 with VS2005.....	364
Granting Process Scheduler Administrative Rights.....	367
Setting Up Process Scheduler to Transfer Reports and Logs to the Report Repository.....	368
Understanding Report Distribution.....	369
Setting Up Single Signon to Navigate from PIA to Report Repository.....	370
Determining the Transfer Protocol.....	371
Starting the Distribution Agent.....	371
Setting Up the Report Repository.....	371
Setting Up the Distribution for Your Process Scheduler Server.....	377
Setting Up Sending and Receiving of Report Folders in the Report Manager.....	378
Setting Environment Variables.....	379
Setting Up Process Scheduler Server Agent.....	379
Understanding Process Scheduler Server Agent.....	379
Creating and Configuring a Process Scheduler Server.....	380
Reconfiguring a Process Scheduler Server.....	384
Verifying the Process Scheduler Server Status.....	385

Starting Process Scheduler as a Windows Service (Optional).....	386
Configuring the Process Scheduler for Word for Windows (Optional).....	389
Configuring Setup Manager.....	389
Setting Up PS/nVision.....	390
Understanding the PS/nVision Setup.....	391
Associating the AppID for Microsoft Excel.....	391
Modifying the DCOMCNFG Settings.....	392
Modifying the Process Scheduler Configuration File.....	392

Chapter 11B

Setting Up Process Scheduler on UNIX.....395

Prerequisites.....	395
Setting Up Process Scheduler Security.....	396
Understanding Process Scheduler Security.....	396
Granting Process Scheduler Administrative Rights.....	396
Setting Up Process Scheduler to Transfer Reports and Logs to the Report Repository.....	397
Understanding Report Distribution.....	398
Setting Up Single Signon to Navigate from PIA to Report Repository.....	399
Determining the Transfer Protocol.....	400
Starting the Distribution Agent.....	400
Setting Up the Report Repository.....	400
Setting Up the Distribution for Your Process Scheduler Server.....	405
Setting Up Sending and Receiving of Report Folders in the Report Manager.....	406
Setting Up Process Scheduler Server Agent.....	407
Understanding Process Scheduler Server Agent.....	407
Changing the Default Operating System.....	407
Creating and Configuring a Process Scheduler Server.....	408
Reconfiguring a Process Scheduler Server.....	411
Verifying the Process Scheduler Server Status.....	412

Chapter 11C

Setting Up Process Scheduler on z/OS.....415

Prerequisites.....	415
Granting Required Authorization in DB2 and UNIX System Services.....	416
Setting UNIX System Services Authorization.....	416
Setting DB2 Authorization.....	418
Setting Up Process Scheduler Security.....	418
Understanding Process Scheduler Security.....	419

Granting Process Scheduler Administrative Rights.....	419
Setting Up Process Scheduler to Transfer Reports and Logs to the Report Repository.....	420
Understanding Report Distribution.....	420
Setting Up Single Signon to Navigate from PIA to Report Repository.....	421
Determining the Transfer Protocol.....	422
Starting the Distribution Agent.....	422
Setting Up the Report Repository.....	422
Setting Up the Distribution for Your Process Scheduler Server.....	426
Setting Up Sending and Receiving of Report Folders in the Report Manager.....	427
Setting Up Process Scheduler Server Agent.....	427
Understanding Process Scheduler Server Agent.....	427
Changing the Default Operating System.....	428
Setting Up Your Environment.....	428
Validating and Editing the ODBC Initialization File.....	428
Creating and Configuring a Process Scheduler Server.....	429
Configuring Process Scheduler Server.....	430
Working with Shell JCL Templates.....	434
Starting a Process Scheduler Server.....	439
Verifying the Process Scheduler Server Status.....	440
Stopping the Process Scheduler Server.....	441

Chapter 12

Installing and Configuring Software for Crystal Reports.....	443
Understanding Crystal Reports Software Installation and Configuration.....	443
Determining the Crystal Reports Runtime Environment.....	444
Obtaining BusinessObjects Enterprise and Crystal Reports Files from E-Delivery.....	445
Installing Crystal Reports 2008.....	446
Understanding the Crystal Reports 2008 SP1 Installation.....	446
Installing Crystal Reports 2008 SP1.....	447
Installing BusinessObjects Enterprise XI 3.1.....	452
Understanding the BusinessObjects Enterprise XI 3.1 Installation.....	452
Understanding Integration Between BusinessObjects Enterprise XI 3.1 and PeopleSoft Enterprise.....	454
Understanding Query Access Services.....	456
Reviewing Key BusinessObjects Enterprise XI 3.1 Components.....	458
Planning your BusinessObjects Enterprise XI 3.1 Integration.....	458
Installing the PeopleSoft Application Environment.....	461
Installing Required at Installation Patches.....	461
Creating a Web Server for BusinessObjects Enterprise XI 3.1 on Windows.....	462
Installing BusinessObjects Enterprise XI 3.1 on Windows.....	474

Installing BusinessObjects Integration Kit for PeopleSoft on Windows.....	489
Installing Fix Pack 1.6 on Windows.....	499
Installing TrueType Fonts on Windows.....	501
Creating a Web Server for BusinessObjects Enterprise XI 3.1 on UNIX or Linux.....	502
Installing BusinessObjects Enterprise XI 3.1 on UNIX or Linux.....	506
Installing BusinessObjects Integration Kit for PeopleSoft on UNIX or Linux.....	509
Installing Fix Pack 1.6 on UNIX or Linux.....	511
Installing TrueType Fonts in UNIX or Linux.....	512
Confirming Access to the BusinessObjects Enterprise XI 3.1 Administration and Central Management Console.....	513
Configuring the PeopleSoft Application for BusinessObjects Enterprise XI 3.1 Integration.....	515
Importing Security Certificate to the Oracle WebLogic Server.....	526
Importing Security Certificate to the IBM WebSphere Server.....	529
Configuring the BusinessObjects Enterprise XI 3.1 Server.....	537
Configuring Crystal Reports 2008 for BusinessObjects Enterprise XI 3.1.....	543
Verifying the PeopleSoft to BusinessObjects Enterprise XI 3.1 Integration.....	547
Migrating your BusinessObjects Enterprise XI 3.1 Installation to a New Version of PeopleTools.....	548
Administering and Using BusinessObjects Enterprise XI 3.1.....	549
Understanding PeopleSoft Permission Lists, Roles, and Users Involved in PeopleSoft Integration with BusinessObjects Enterprise XI 3.1.....	549
Changing the Data Source of the BusinessObjects Enterprise XI 3.1 Report Repository.....	551
Returning to Crystal 2008 from BusinessObjects Enterprise XI 3.1.....	553
Enabling Logging in BusinessObjects Enterprise XI 3.1.....	553
Using Manual Deployment.....	555
Removing the Integrated BusinessObjects Enterprise XI 3.1 Installation.....	556
Uninstalling PeopleSoft for BusinessObjects Enterprise XI 3.1 on Windows.....	557
Uninstalling BusinessObjects Enterprise XI 3.1 on Windows.....	557
Uninstalling PeopleSoft for BusinessObjects Enterprise XI 3.1 on UNIX or Linux.....	558
Converting Crystal Reports.....	559
Selecting the Crystal Reports Conversion Method.....	559
Converting Existing Crystal Reports to Crystal Reports 2008 Format.....	560
Converting Reports from Crystal Reports 9 Format to Run with BusinessObjects Enterprise XI 3.1.....	561
 Chapter 13A	
Compiling COBOL on Windows.....	577
Understanding COBOL.....	577
Prerequisites.....	578
Compiling COBOL Source Files.....	578

Understanding COBOL Compilation.....	578
Compiling COBOL with CBLBLD.BAT.....	578
Compiling COBOL with CBLMAKE.BAT.....	580
Defining the GNT and INT Files.....	581
Distributing COBOL Binaries.....	582

Chapter 13B

Compiling COBOL on UNIX.....	583
Understanding COBOL.....	583
Prerequisites.....	584
Modifying the Liblist (IBM AIX 5.3 and HP-UX Only).....	584
Understanding Liblist Modifications.....	584
Modifying the Liblist File.....	584
Modifying the Cobopt File (SuSE Linux Enterprise Server Only).....	585
Understanding the \$COBDIR/etc/cobopt File Modification.....	586
Modifying the File on zSeries Platforms.....	586
Compiling COBOL Programs.....	586
Understanding COBOL Compilation.....	586
Compiling COBOL on UNIX.....	587
Linking COBOL.....	587
Understanding COBOL Linking.....	588
Linking COBOL Components on UNIX.....	588
Recompiling COBOL on UNIX.....	588

Chapter 14

Installing PeopleSoft Change Assistant.....	591
Understanding PeopleSoft Change Assistant.....	591
Installing and Configuring PeopleSoft Change Assistant.....	591
Installing PeopleSoft Change Assistant.....	592
Setting Up Security for PeopleSoft Change Assistant.....	597
Verifying the Path Variable.....	597
Scanning the Workstation.....	597
Specifying Options.....	598
Specifying Change Assistant Options.....	598
Setting Email Options.....	599
Setting Up Web Services Options.....	599
Setting Environment Management Options.....	600
Exporting Jobs to XML, HTML, or Microsoft Excel Format.....	601

Validating Change Assistant Settings.....	601

Chapter 15

Installing PeopleSoft Change Impact Analyzer	605
Prerequisites.....	605
Installing PeopleSoft Change Impact Analyzer.....	605

Appendix A

Adding New Product Modules.....	611
Adding New Modules to PeopleSoft 8.4 Installations.....	611

Appendix B

Extracting DDL for PTSYS Database.....	613
Understanding the PTGENDDL.DMS Script.....	613
Using the PTGENDDL.DMS Script.....	613

Appendix C

Installing and Configuring DB2 Connect.....	623
Understanding DB2 Connect.....	623
Verifying Supported Versions.....	624
Defining DB2 Connect Architecture.....	624
Understanding DB2 Connect Architecture.....	624
Using DB2 Connect Enterprise Edition.....	625
Using DB2 Connect Personal Edition.....	625
Defining PeopleSoft Three-Tier Configuration with DB2 Connect.....	626
Setting Up DDF on the Mainframe.....	627
Configuring TCP/IP on the Client.....	628
Configuring the DB2 Connect Gateway on Windows.....	629
Binding DB2 Connect Packages for an EBCDIC Installation.....	639
Binding DB2 Connect Packages for a Unicode Installation.....	642
Setting DB2CodePage For A Unicode Database.....	651
Setting Up the DB2 Connect Gateway on UNIX.....	652
Confirming DB2 Connect/ODBC Settings.....	652
Setting CLI/ODBC Trace with the Client Configuration Assistant.....	654

Appendix D

Installing PeopleBooks	657
Understanding PeopleBooks.....	657
Installing and Accessing PeopleBooks.....	658
Prerequisites.....	658
Accessing Oracle PeopleSoft Enterprise Hosted PeopleBooks.....	659
Obtaining the PeopleBooks Installation Files from E-Delivery.....	660
Installing the PeopleBooks Installation Software in GUI Mode.....	661
Installing the PeopleBooks Installation Software in Console Mode.....	673
Implementing the PSOL Server for PeopleBooks.....	679
Understanding PeopleBooks in the PeopleSoft Pure Internet Architecture.....	679
Managing the PSOL Server.....	679
Updating the Registry PATH Parameter.....	683
Configuring Context-Sensitive Help.....	683
Enabling the Help Link from the Application Pages.....	683
Enabling F1 Help.....	684
Administering PeopleBooks.....	684
Understanding PeopleBook Administration.....	685
Using the PSOL Manager Utility.....	685
Creating and Recreating Search Collections.....	686
Changing the PSOL Manager Password.....	687
Specifying a Trusted Client.....	687

Appendix E

Installing Web Application Deployment Tools	689
Prerequisites.....	689
Installing the Web Application Deployment Tools on WebLogic in GUI Mode.....	690
Installing the Web Application Deployment Tools on WebSphere in GUI Mode.....	696
Installing the Web Application Deployment Tools on WebLogic in Console Mode.....	702
Installing the Web Application Deployment Tools on IBM WebSphere in Console Mode.....	706
Testing and Troubleshooting the Web Application Deployment.....	708

Appendix F

Setting Up a Unicode Database.....	709
Prerequisites.....	709
Defining Conversion Pages for Unicode Conversion Services.....	709
Fulfilling Connectivity Requirements.....	710

Appendix G

Using the PeopleSoft Tablespace DDL Automation Assistance Tool.....	711
Understanding the PeopleSoft Tablespace DDL Automation Assistance Tool.....	711
Understanding PSTAAT Workstation Requirements	712
Understanding the PSTAAT Graphical User Interface	712
Understanding the Various PSTAAT Input and Output Files.....	723
Using PSTAAT to Create TBDDL and IXDDL.....	727
Using PSTAAT to Customize DDL	730
Understanding How PSTAAT Assigns an Object Naming Convention.....	731
Choosing a Primary Database Prefix and Maximum Number of Tables per Tablespace and Tablespaces per Database.....	731
Using the New Name Parameter to Override Tablespace Name.....	732
Customizing DDL Scripts.....	733
Recalculating Primary and Secondary Space Allocations and Setting a Minimum Secondary Space Allocation With PSTAAT.....	734
Using PSTAAT to Override the Default Bufferpool Assignment.....	735
Using PSTAAT to Override the Default Segment Size.....	736
Validating Input.....	737
Using PSTAAT to Reassign Temporary Tables to Additional Tablespaces.....	739
Using PSTAAT to Isolate Other Tables to Individual Tablespaces.....	744
Using PSTAAT to Convert EBCDIC DDL to Unicode DDL.....	745
Understanding the EBCDIC DDL to Unicode DDL Conversion.....	745
Creating Database, Tablespace, and Table Shell DDL for an EBCDIC to Unicode Database Conversion.....	746
Using PSTAAT to Install PeopleSoft Databases.....	750

Appendix H

Using the XSLT Mapper with Oracle BPEL Process Manager.....	753
Understanding the XSLT Mapper.....	753
Installing the Needed Version of JDeveloper.....	753
Setting Up the XSLT Mapper.....	753

Index	755

About This Documentation

This preface discusses:

- Understanding This Documentation
- Audience
- Typographical Conventions and Visual Cues
- Products
- Related Information
- Comments and Suggestions

Understanding This Documentation

This documentation is designed to direct you through a basic PeopleSoft installation. It is not a substitute for the database administration documentation provided by your relational database management system (RDBMS) vendor, the network administration documentation provided by your network vendor, or the installation and configuration documentation for additional software components that are used with PeopleSoft products.

Required updates to this installation documentation are provided in the form of “Required for Install” incidents, which are available on My Oracle Support.

Instructions for installing Oracle’s PeopleSoft Enterprise PeopleTools are provided in PeopleSoft PeopleTools installation guides. Application-specific installation instructions are provided in a separate document for the PeopleSoft application. For instance, if you are installing Oracle’s PeopleSoft Enterprise Customer Relationship Management (CRM), you need both the PeopleSoft PeopleTools installation guide and the additional instructions provided for installing PeopleSoft CRM.

To find the installation documentation for PeopleSoft PeopleTools or for your PeopleSoft application, go to My Oracle Support and search for the installation guide for your product and release.

Note. Before proceeding with your installation, check My Oracle Support to ensure that you have the latest version of this installation guide for the correct release of the PeopleSoft product that you are installing.

Audience

This documentation is written for the individuals responsible for installing and administering the PeopleSoft environment. This documentation assumes that you have a basic understanding of the PeopleSoft system. One of the most important components in the installation and maintenance of your PeopleSoft system is your on-site expertise.

You should be familiar with your operating environment and RDBMS and have the necessary skills to support that environment. You should also have a working knowledge of:

- SQL and SQL command syntax.
- PeopleSoft system navigation.

- PeopleSoft windows, menus, and pages, and how to modify them.
- Microsoft Windows.

Oracle recommends that you complete training, particularly a PeopleSoft Server Administration and Installation course, before performing an installation.

See Oracle University <http://education.oracle.com>

Typographical Conventions and Visual Cues

To help you locate and understand information easily, the following conventions are used in this documentation:

Convention	Description
Monospace	Indicates a PeopleCode program or other code, such as scripts that you run during the install. Monospace is also used for messages that you may receive during the install process.
<i>Italics</i>	Indicates field values, emphasis, and book-length publication titles. Italics is also used to refer to words as words or letters as letters, as in the following example: Enter the letter <i>O</i> . Italics are also used to indicate user-supplied information. For example, the term <i>domain</i> is used as a placeholder for the actual domain name in the user's environment. When two such placeholders are used together, they may be set apart with angle brackets. For example, the path <code><PS_CFG_HOME>/appserv/<domain></code> includes two placeholders that require user-supplied information.
Initial Caps	Field names, commands, and processes are represented as they appear on the window, menu, or page.
lower case	File or directory names are represented in lower case, unless they appear otherwise on the interface.
Menu, Page	A comma (,) between menu and page references indicates that the page exists on the menu. For example, "Select Use, Process Definitions" indicates that you can select the Process Definitions page from the Use menu.
Cross-references	Cross-references that begin with <i>See</i> refer you to additional documentation that will help you implement the task at hand. We highly recommend that you reference this documentation. Cross-references under the heading <i>See Also</i> refer you to additional documentation that has more information regarding the subject.
" " (quotation marks)	Indicate chapter titles in cross-references and words that are used differently from their intended meaning.

Convention	Description
Note. Note text.	Text that begins with <i>Note.</i> indicates information that you should pay particular attention to as you work with your PeopleSoft system.
Important! Important note text.	A note that begins with <i>Important!</i> is crucial and includes information about what you need to do for the system to function properly.
Warning! Warning text.	A note that begins with <i>Warning!</i> contains critical configuration information or implementation considerations; for example, if there is a chance of losing or corrupting data. Pay close attention to warning messages.

Products

This documentation may refer to these products and product families:

- Oracle® BPEL Process Manager
- Oracle® Enterprise Manager
- Oracle® Tuxedo
- Oracle® WebLogic Server
- Oracle's PeopleSoft Application Designer
- Oracle's PeopleSoft Change Assistant
- Oracle's PeopleSoft Change Impact Analyzer
- Oracle's PeopleSoft Data Mover
- Oracle's PeopleSoft Process Scheduler
- Oracle's PeopleSoft Pure Internet Architecture
- Oracle's PeopleSoft Enterprise Customer Relationship Management
- Oracle's PeopleSoft Enterprise Financial Management
- Oracle's PeopleSoft Enterprise Human Resources Management Systems
- Oracle's PeopleSoft Enterprise Learning Management
- Oracle's PeopleSoft Enterprise Pay/Bill Management
- Oracle's PeopleSoft Enterprise PeopleTools
- Oracle's PeopleSoft Enterprise Performance Management
- Oracle's PeopleSoft Enterprise Portal Solutions
- Oracle's PeopleSoft Enterprise Staffing Front Office
- Oracle's PeopleSoft Enterprise Supply Chain Management
- SAP® BusinessObjects Crystal Reports® 2008 SP1
- SAP® BusinessObjects™ Enterprise XI 3.1

See <http://www.oracle.com/applications/peoplesoft-enterprise.html> for a list of PeopleSoft Enterprise products.

Related Information

Oracle provides reference information about PeopleSoft PeopleTools and your particular PeopleSoft application. The following documentation is available on My Oracle Support:

- Enterprise PeopleTools PeopleBook: Getting Started with PeopleTools for your release. This documentation provides a high-level introduction to PeopleTools technology and usage.
- PeopleSoft Enterprise Application Fundamentals PeopleBook for your PeopleSoft application and release. This documentation provides essential information about the setup, design, and implementation of your PeopleSoft application.

To access PeopleSoft PeopleBooks, go to My Oracle Support and search for the PeopleSoft PeopleBooks for your application and release.

To install additional component software products for use with PeopleSoft products, including those products that are packaged with your PeopleSoft products, you should refer to the documentation provided with those products, as well as this documentation.

Comments and Suggestions

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

PSOFT-Infodev_US@oracle.com

While we cannot guarantee to answer every email message, we will pay careful attention to your comments and suggestions. We are always improving our product communications for you.

CHAPTER 1

Preparing for Installation

This chapter discusses:

- Understanding the PeopleSoft Installation
- Using Oracle E-Delivery to Obtain Installation Files
- Assembling Related Documentation
- Verifying Hardware and Software Requirements
- Considering Project Planning
- Planning Your Initial Configuration
- Planning Database Creation
- Planning Multilingual Strategy
- Reviewing Updates and Fixes Required at Installation
- Verifying Database Server Sizing
- Defining DB2 UDB for z/OS Subsystem Configuration
- Installing Supporting Applications
- Setting Up Database Connectivity
- Using Connect ID
- Setting Up z/OS User IDs
- Using Storage Enhancements for z/OS
- Performing Backups
- Using PeopleSoft Change Assistant and PeopleSoft Change Impact Analyzer

Understanding the PeopleSoft Installation

This chapter will help you plan and prepare for a basic PeopleSoft installation. Before you begin the installation, please note:

- If you will be upgrading your current release after you perform this installation, you also need to install Change Assistant. The page on My Oracle Support containing your upgrade documentation and files includes information on which tool you need.

- For critical issues related to the installation process, see the My Oracle Support web site. Be sure to read the “Required for Installation or Upgrade” incidents for the PeopleSoft PeopleTools version that you are installing.
- For online technical support information, use the My Oracle Support web site. My Oracle Support includes tools for self-directed searches of information including reference documents and problem resolutions, as well as service request management tools.

See My Oracle Support, <https://metalink.oracle.com>

- To download software and documentation, use the Oracle E-Delivery web site, and the Oracle Technology Network.

See Oracle E-Delivery, <http://edelivery.oracle.com>

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

- This installation guide may refer you to PeopleBooks for more information or instructions. If you install PeopleBooks to your web server, you can easily refer to the documentation during the installation process.

See Also

"Installing PeopleBooks"

"Installing PeopleSoft Change Assistant"

Task 1-1: Using Oracle E-Delivery to Obtain Installation Files

Before beginning the installation, you should have obtained the PeopleSoft installation software by downloading the necessary zip files from the Oracle E-Delivery web site. Use the documentation available on E-Delivery to be sure that you obtain all the zip files required for your environment.

See Oracle E-Delivery, <http://edelivery.oracle.com>

Task 1-2: Assembling Related Documentation

Before you begin your installation, you should have the following documentation ready for reference:

- Locate the application-specific installation documentation for any PeopleSoft applications that you plan to install.

Be sure to use both the PeopleTools Installation Guide for your database platform *and* the application-specific installation instructions. (For example, if you are installing CRM, you need to have the PeopleTools Installation Guide for the appropriate PeopleTools release and the CRM installation instructions.) The application installation instructions are available on My Oracle Support.

See My Oracle Support, (search for installation instructions for your application).

- Locate the database administration manuals provided by your RDBMS vendor, the network administration manuals provided by your network vendor, and the installation and configuration manuals for additional software components used with the PeopleSoft installation.

- For administration information regarding your database platform, please refer to the relevant appendix in the following PeopleBook.

See *Enterprise PeopleTools 8.50 PeopleBook: Data Management*.

Task 1-3: Verifying Hardware and Software Requirements

Before you begin your PeopleSoft installation you must verify that you have the correct hardware and software in place to support a successful installation.

Warning! If you are unable to meet any of the criteria outlined in the *Enterprise PeopleTools 8.50 Hardware and Software Requirements* documentation and the certification information on My Oracle Support, contact Oracle before going forward with the installation. Attempting to complete an installation on an unsupported configuration can be a *very* costly decision, and Oracle will not provide support for such PeopleSoft installations.

Use the following sources of information on currently supported hardware and software:

- The *Enterprise PeopleTools 8.50 Hardware and Software Requirements* book provides an overview of PeopleSoft architecture, as well as general information on the hardware and software required for a successful installation.

This book is a snapshot of supported configurations; it does not provide up-to-the-minute information on supported maintenance releases or required patches. Be sure to check the certification information on My Oracle Support (discussed next) to verify time-sensitive information, such as supported versions of additional software components used with PeopleSoft PeopleTools. To find the hardware and software requirements guide, sign on to My Oracle Support and search for hardware and software requirements.

- The certification information on My Oracle Support provides the most current support information on hardware platforms, RDBMS versions, client connectivity versions, required compiler versions, and additional component versions.

The information in this database supplements and supersedes any information in the *Enterprise PeopleTools 8.50 Hardware and Software Requirements* book. To find the Certifications for PeopleSoft People Tools, sign on to My Oracle Support, and select the Certification tab. Then select PeopleSoft Enterprise Certifications and follow the instructions.

- Before you begin your installation, read the version of the document "Required Operating System, RDBMS & Additional Component Patches Required for Installation" that is appropriate for your database platform and other configuration.

See "Required Operating System, RDBMS & Additional Component Patches Required for Installation," My Oracle Support, (search for the article name).

- Additional documentation for DB2 UDB for z/OS is available on My Oracle Support.

See "Important PTFs for PeopleSoft on DB2 UDB for z/OS," My Oracle Support (search for the article name).

See "PeopleTools Certification FAQs - Database Platforms - DB2 for z/OS" My Oracle Support, (search for the article name).

Note. DB2 UDB for z/OS is the official IBM name for the DBMS. For the sake of brevity, this documentation sometimes refers to DB2 UDB for z/OS as *DB2 z/OS*, and it sometimes refers to DB2 UDB for Linux, UNIX, and Windows as *DB2/LUW*.

Task 1-4: Considering Project Planning

Identify the maintenance schedule for upcoming PeopleTools and application releases. These releases are typically on a regular schedule (for example, quarterly, biannually) and should be included in your project planning and budgeting processes. Maintenance schedules are posted on My Oracle Support. It is important to plan regular maintenance in your overall project plans. For example, for a year-long enterprise upgrade, development, and conversion project, make sure to set aside time for applying the PeopleTools minor releases that ship during that time frame. Otherwise, if you fall behind, you may find that you need a fix shipped with one of the minor releases that cannot be backported as a patch.

Task 1-5: Planning Your Initial Configuration

This section discusses:

- Understanding Workstations
- Defining the File Server
- Defining the Database Server
- Defining the Application Server
- Defining the Batch Server
- Defining Installation Locations
- Defining the Web Server
- Defining Server Domain Configurations
- Using Laser Printers

Note. DB2 UDB for z/OS is the official IBM name for the DBMS. For the sake of brevity, this documentation sometimes refers to DB2 UDB for z/OS as *DB2 z/OS*, and it sometimes refers to DB2 UDB for Linux, UNIX, and Windows as *DB2/LUW*.

Note. Oracle supports a number of versions of UNIX and Linux in addition to Microsoft Windows for the PeopleSoft installation. Throughout this book, there are references to operating systems. Where necessary, this book refers to specific operating systems by name (for example, Solaris, HP-UX, or Linux); however, for simplicity the word UNIX is often used to refer to all UNIX-like operating systems, including Linux.

Note. COBOL is not needed for PeopleTools or for applications that contain no COBOL programs. Check My Oracle Support for details about whether your application requires COBOL.

See "PeopleSoft Enterprise Frequently Asked Questions About PeopleSoft and the Micro Focus COBOL Compiler," My Oracle Support (search for article title).

See Installing Supporting Applications.

Understanding Workstations

This section discusses:

- Using the PeopleTools Development Environment (Windows-Based Clients)
- Using Workstations Equipped with Supported Web Browsers

Note. With the PeopleSoft Pure Internet Architecture, Windows-based clients are primarily used as a development environment. End users can use any machine equipped with a supported web browser.

Using the PeopleTools Development Environment (Windows-Based Clients)

Windows-based clients are referred to as the PeopleTools Development Environment. These clients—which run on supported Microsoft Windows platforms—can connect to the PeopleSoft database directly using client connectivity software (a two-tier connection) or through a PeopleSoft application server (a three-tier connection).

Three-tier connectivity offers great performance advantages over two-tier (especially over a WAN), reduces network traffic, and generally does not require that you install database connectivity on the client. However, any Windows-based clients that will be running Data Mover scripts against the database, or running COBOL or Structured Query Report (SQR) batch processes on the client, must have database connectivity installed.

You need to have the PeopleTools Development Environment set up to create your database. For more information on setting up the PeopleTools Development Environment, refer to the following PeopleBook.

See *Enterprise PeopleTools 8.50 PeopleBook: System and Server Administration*, "Using PeopleSoft Configuration Manager."

For installation purposes, you must set up at least one Windows-based client for sign-on using a two-tier connection to the database, so that it can create and populate the PeopleSoft database. This documentation refers to this client as the install workstation. Depending on your installation plan, you may want to set up more than one install workstation so that you can perform asynchronous installation tasks in parallel.

Note. The Microsoft Windows machine that you use to perform your PeopleSoft PeopleTools installation must be running in 256-color mode or higher when running the PeopleSoft installation and database configuration on Microsoft Windows. This is not necessary for UNIX or console mode.

Using Workstations Equipped with Supported Web Browsers

To run the PeopleSoft Pure Internet Architecture, the client workstation only needs a web browser that is HTML 4.0 compliant. You may need an additional workstation for demonstration and testing purposes if you plan to use a browser running on a platform other than Microsoft Windows—such as Macintosh or UNIX.

See *Enterprise PeopleTools 8.50 PeopleBook: PeopleTools Portal Technology*.

Task 1-5-1: Defining the File Server

For DB2 z/OS, the file server is used as a staging location to FTP files to the z/OS batch server only.

The file server is the environment (or file) repository for the PeopleTools Development Environment, which is needed for the Database Configuration Wizard. The file server is also the repository for the files necessary to perform an upgrade. This includes Change Assistant and all of the executables and scripts that are necessary to perform an upgrade. In addition, the file server is a source repository for COBOL and SQR (you will apply patches and updates from My Oracle Support directly to the file server and then copy the updated files to your other servers).

Important! Remember, a COBOL compiler is not needed for PeopleTools unless your application contains COBOL programs. If your application requires COBOL and you're running on Windows, we require that you maintain a central repository of your COBOL source code on the Windows file server.

See the task Installing Supporting Applications later in this chapter for details on where you should install your COBOL compiler.

If you follow the default procedures recommended in this documentation, the install workstations, Windows batch servers, and Windows report servers will access the PeopleSoft files on the file server by pointing to a directory conventionally referred to as *PS_HOME* on a shared network drive. You can install SQR and Crystal Reports on the file server, or install them locally on Windows batch servers and on Windows-based clients that will be running these processes locally.

Task 1-5-2: Defining the Database Server

The servers that host your PeopleSoft databases need sufficient processing, storage, and networking resources to process the database requests, store the data and transaction logs, and communicate freely to the clients of this data. These databases will include your own PeopleSoft database prototypes as well as any system and demonstration databases delivered directly from Oracle with the PeopleSoft installation media.

See Planning Database Creation.

Database sizes vary depending on the applications that you install. The size of your prototype PeopleSoft database will also depend on the amount of data to be converted from your legacy system. A good rule of thumb for estimating the size of your prototype PeopleSoft database is to estimate the amount of disk space needed for the data to be converted from your legacy system, add to this the size required for the PeopleSoft System database, and then add an additional 50 percent of this combined figure to allow for growth.

Note. If possible, you may want to separate your PeopleSoft applications into their own subsystem away from other applications. Most sites have separate subsystems for production, development, and testing.

Task 1-5-3: Defining the Application Server

The application server is the centerpiece of the PeopleSoft Pure Internet Architecture. It connects to the PeopleSoft database and handles almost all SQL-intensive interactions with the database server required during online transaction processing. Windows-based clients, in three-tier, communicate with the application server using Oracle Tuxedo messages. In the PeopleSoft Pure Internet Architecture, the application server interacts with user workstations through a web server.

The application server also provides functionality required for application messaging and for implementing the PeopleSoft Pure Internet Architecture. An application server is required in all PeopleSoft installations.

When installing the PeopleSoft software on the z/OS mainframe, you must install one or more dedicated UNIX or Windows application servers. You should plan to connect the application server to the database using the highest bandwidth connection available.

All application servers require database connectivity to the database server. Before beginning your installation, make sure that you can connect from the application server to the database server using a SQL client tool. This topic will be addressed later in this chapter.

See Also

Enterprise PeopleTools 8.50 PeopleBook: PeopleTools Portal Technology

Task 1-5-4: Defining the Batch Server

The term *batch server* is equivalent to the term *Process Scheduler server*. PeopleSoft batch processes, such as COBOL and SQR, are scheduled and invoked by a Process Scheduler server. In almost all configurations, batch server SQR and COBOL files are located and executed on the same computer as the database server.

For the DB2 z/OS batch server on the mainframe, the SQR and COBOL files must be transferred from the file server, and COBOL source files must be compiled.

Oracle supports setting up the batch environments on a dedicated server, an application server, or even on the database server.

For Windows-specific batch processes—such as Crystal Reports, nVision reports, Microsoft Word, or Cube Manager—you need to set up a Windows batch environment on a Windows application server or on a dedicated Windows workstation.

Any computer operating as a batch server must have database connectivity installed so that it can make a two-tier connection to the PeopleSoft database.

See Also

Enterprise PeopleTools 8.50 PeopleBook: PeopleSoft Process Scheduler

Task 1-5-5: Defining Installation Locations

As you proceed through the PeopleSoft PeopleTools installation, you are asked to specify several installation locations. This documentation uses the following terms to describe the installation locations used during the PeopleSoft PeopleTools installation:

- *PS_HOME*: Holds the PeopleSoft PeopleTools and PeopleSoft application files.

Note. For information on setting up *PS_HOME* as a read-only environment, see *Enterprise PeopleTools 8.50 PeopleBook: System and Server Administration*, “Securing *PS_HOME* and *PS_CFG_HOME*.”

See "Using the PeopleSoft Installer."

- *PS_CFG_HOME*: Holds the configuration files for the application server, batch server and search server domains.

See Defining Server Domain Configurations.

- *PIA_HOME*: Holds the webserv directory, and the files for the PeopleSoft Pure Internet Architecture installation. With one exception, the directory where you install PeopleSoft Pure Internet Architecture, *PIA_HOME*, does not have to be the same as the location where you install PeopleSoft PeopleTools and the application software, *PS_HOME*. However, be aware that if you plan to install PeopleBooks, you must install PeopleSoft Pure Internet Architecture to the *PS_HOME* directory. In order to use the search facility with PeopleBooks, you must specify the same location for *PS_HOME* and *PIA_HOME*.

See "Setting Up the PeopleSoft Pure Internet Architecture (in GUI Mode and in Console Mode)."

In addition to these installation locations, there are home directories for the various supporting software, such as Oracle WebLogic, which are described in the appropriate chapters.

Task 1-5-6: Defining the Web Server

A web server is required to run the PeopleSoft Pure Internet Architecture. The PeopleSoft Pure Internet Architecture is certified to work with either of the following two J2EE web application servers (also commonly referred to as web servers):

- Oracle WebLogic Server
- IBM WebSphere Server

You can refer to the *Enterprise PeopleTools 8.50 Hardware and Software Requirements* guide or the Certifications page on My Oracle Support for supported web server combinations.

In conjunction with Oracle WebLogic and IBM WebSphere, Oracle has also certified the use of the following HTTP servers as reverse proxy servers (RPS):

- With Oracle WebLogic, the certified HTTP servers are Microsoft IIS, Sun Java System web server, Apache HTTP server, and Oracle HTTP Server.
- With IBM WebSphere, the certified HTTP servers are IBM HTTP Server (IHS), Microsoft IIS, and Sun Java System web server.

Oracle WebLogic, IBM WebSphere, and the supported reverse proxy servers will provide out-of-the-box SSL support across all supported operating systems. Oracle WebLogic and IBM WebSphere provide demo digital certificates, but for production grade SSL you must purchase digital certificates from a Certificate Authority supported by the web server that you are using (for example, Verisign, Baltimore, Entrust, and so on).

Task 1-5-7: Defining Server Domain Configurations

When you install PeopleSoft PeopleTools 8.50 and the PeopleSoft application software, the PeopleSoft installer places the required files into the specified *PS_HOME* directory. When you create an application server, batch server, or search server domain, the configuration files associated with that domain are installed into a directory referred to as *PS_CFG_HOME*.

By default, the system separates the binary files (executables and libraries) stored in *PS_HOME* from the ASCII files (configuration and log files) associated with a domain stored in *PS_CFG_HOME*. This separation applies only to these servers:

- PeopleSoft Application Server
- PeopleSoft Process Scheduler Server
- PeopleSoft Search Server

When you use the PSADMIN utility, the system creates the *PS_CFG_HOME* directory based upon environment variables associated with the current user, as follows:

Operating System	User Environment Variable	PS_CFG_HOME Default Location
UNIX	HOME	\$HOME/psft/pt/<peopletools_version>
Microsoft Windows	USERPROFILE	%USERPROFILE%\psft\pt<peopletools_version>

For example, if USERPROFILE is C:\Documents and Settings\asmith and the PeopleTools version is 8.50, by default *PS_CFG_HOME* would be C:\Documents and Settings\asmith\psft\pt\8.50. The configuration and log files for the application server, process scheduler server, and search server are installed below this directory.

This server domain configuration allows for a more flexible installation. You also have the opportunity to place different security restrictions on the binary and configuration files. To take advantage of this flexibility, you have the option to specify a different location by setting a *PS_CFG_HOME* environment variable. Before doing so, however, consult the following reference for a more complete explanation of this feature.

See *Enterprise PeopleTools 8.50 PeopleBook: System and Server Administration*, "Working with Server Domain Configuration."

Task 1-5-8: Using Laser Printers

Along with the printer you will need a Windows printer driver to print the online reports that produce 180-character-wide reports using the HP LinePrinter font. Your printer must be configured with sufficient memory (typically 1.5 MB) to produce graphics images for page printouts.

See Also

Verifying Hardware and Software Requirements

Enterprise PeopleTools 8.50 Hardware and Software Requirements

My Oracle Support, Certifications

Task 1-6: Planning Database Creation

This section discusses:

- Understanding Database Creation
- Using Multiple Databases
- Determining Databases and Database Names
- Using Standard Database Names
- Choosing Owner ID Processing Option

Understanding Database Creation

When performing a PeopleSoft installation, you will create these types of PeopleSoft databases:

- System (also called SYS) databases, which contain the PeopleSoft PeopleTools and product-specific metadata required for development of a production database.

- Demo (DMO) databases, which are populated with sample data for study, demonstration, or training purposes.

Note. To properly install a Demo database, you must select both the System Database and the Demo Database options during the installation of PeopleSoft applications.

The System and Demo PeopleSoft databases are installed using a *multiple-database strategy*, where the “logical” PeopleSoft database actually comprises multiple “physical” databases that share a common *owner ID*. This is explained in more detail in the following section.

Task 1-6-1: Using Multiple Databases

To facilitate optimal performance and minimal use of shared mainframe resources, Oracle employs a multiple-database strategy on DB2 z/OS. Oracle uses multiple DB2 databases for installing both Demo and System PeopleSoft databases.

This multiple-database strategy provides the following benefits:

- Reducing DBD size improves performance by easing virtual storage constraints.
- Avoids exceeding the DB2 restriction limiting DBD size to no more than 25 percent of EDM pool size.
- Improves DDL concurrency in certain PeopleSoft operations.

For instance, when Process Scheduler is invoked, it holds share locks on the DBD of the database where the Process Scheduler tables are located. Isolating these tables to its own database avoids potential lockouts of other processes running concurrently with Process Scheduler.

The installation process creates all of the DB2 objects with the same owner ID. The PeopleSoft reference to owner ID equates to the CREATOR field found in the SYSIBM SYSTABLES Catalog table. A PeopleSoft database is a logical concept that includes all of the PeopleSoft objects and application data belonging to a single PeopleSoft product line sharing the same owner ID, distributed across multiple physical DB2 databases. The owner ID common to all of these objects is stored in the PeopleSoft PeopleTools tables PS.PSDBOWNER and PSSTATUS.

Oracle defines a standard set of DB2 databases for each product line in a DDL script that you will be instructed to edit and run in the "Creating a Database" chapter.

Task 1-6-2: Determining Databases and Database Names

Before you begin the installation process, you should determine how many PeopleSoft databases (System or Demo) of which type you need and how you intend to use them. You should also determine the names of the databases at this point, using database names that:

- Are UPPERCASE.
- Capture information about the PeopleSoft product line and the type of database.

For example, you may want to create two databases with the names PSHRDMO and PSHRSYS, using the two characters HR (for Human Resources) to indicate the product line.

The PeopleSoft System and Demo databases are delivered with a seven-character database name that serves two functions. It serves as:

- The name of the PeopleSoft logical database (which, for the System and Demo databases is actually composed of multiple DB2 databases)
- The seven-character name of the "root" physical DB2 database, from which the names of the additional physical DB2 databases that comprise the single PeopleSoft logical database are derived

The DB2 database naming convention is explained in more detail in the following section.

Task 1-6-3: Using Standard Database Names

The PeopleSoft database naming convention for DB2 z/OS uses one seven-character DB2 database name for a database containing all of the PeopleSoft system tables except for tables used by Process Scheduler. We refer to this database as the *root* database. A second database name with an eighth character of *T* is reserved just for Process Scheduler due to persistent share locks. The remaining DB2 database names have an eighth character, appended to the root database name, identifying a specific application group within a PeopleSoft product line.

Later in this guide, you will run a Data Mover Import script that requires you to select a database name to identify this PeopleSoft database. This database name is actually nothing more than a label that serves two purposes. It enables the DB2 Connect connectivity software to identify the appropriate configuration to connect to your DB2 subsystem, and it is the high-level key on the table PS.PSDBOWNER from which the owner ID of the objects in the PeopleSoft database is derived during the sign-on process. When users sign on to a PeopleSoft database from a client workstation, they enter this database name in the PeopleSoft sign-on panel. The database name must be catalogued in the IBM DB2 Connect connectivity software in order to complete the database connection.

See "Creating a Database,"

Task 1-6-4: Choosing Owner ID Processing Option

This section discusses:

- Understanding Owner ID Processing
- Using Primary Authorization ID Processing
- Using Secondary Authorization ID Processing

Understanding Owner ID Processing

Each PeopleSoft database that you create must have a valid owner ID. All of the objects in a PeopleSoft database will share the same owner ID. Besides being found in the CREATOR field of the SYSIBM system catalog tables, such as SYSIBM.SYSTABLES, this value is stored in the OwnerID field of the PS.PSDBOWNER and PSSTATUS PeopleSoft PeopleTools tables.

Oracle recommends that you not use an owner ID used by a non-PeopleSoft application, because this can create problems when auditing your database.

There are two security-related processing options to choose from when establishing the owner ID:

- Primary authorization ID processing
- Secondary authorization ID processing

There is an additional PeopleSoft ID (known as the access ID) that is directly linked to the decision to use primary or secondary authorization ID processing. Functionally, this is the ID that has the DB2 access and authorities to perform the bulk of the SQL processing within the PeopleSoft database. Individual user IDs would not be granted the level of DB2 authority that the access ID possesses. There will either be a direct relationship between the name of this ID and the owner ID, or an indirect one, depending on which authorization method is chosen.

Using Primary Authorization ID Processing

The primary authorization ID is the simplest implementation of table ownership. The primary authorization ID and the DB2 owner ID of the PeopleSoft database objects are the same ID. In this option, the owner ID defined in DB2 will be the same name as the PeopleSoft access ID defined in the PeopleSoft PeopleTools tables. The PeopleSoft access ID is the DB2 owner ID.

Using Secondary Authorization ID Processing

Most PeopleSoft customers use secondary authorization ID processing to establish an owner ID.

The DB2 owner ID of the PeopleSoft database objects is established as an external security system group, referred to as a "secondary authorization ID," rather than a primary authorization ID. A secondary authorization ID is not given direct logon access to the database, but because it is the DB2 owner ID, it has direct access to the PeopleSoft database objects. Logon access is generally granted to a primary authorization ID, but with secondary authorization ID processing, the primary authorization ID has no direct access to the PeopleSoft database objects.

By issuing the SQL command

```
SET CURRENT SQLID = <secondary authorization ID>
```

A primary authorization ID can "transform" itself into the secondary authorization ID, and thereby acquire all of the database object permissions owned by the secondary authorization ID. The mainframe security maintenance package (for example, RACF, Top Secret, ACFII) keeps track and monitors what secondary authorization IDs can be used by a primary authorization ID.

When setting up a PeopleSoft application using secondary authorization ID processing, the access ID is established as a primary authorization ID that has the authority to issue a SET CURRENT SQLID statement setting itself equal to the secondary authorization ID.

The following table summarizes the roles and authorities of the DB2 owner ID, primary and secondary authorization IDs and the access IDs:

Primary Authorization ID Processing			Secondary Authorization ID Processing	
Primary Authorization ID	Secondary Authorization ID		Primary Authorization ID	Secondary Authorization ID
Yes	NA	Same ID as DB2 Object Owner ID (CREATOR)	No	Yes
Yes	NA	Database Log On Access	Yes	No
Yes	NA	DB2 Object Access	No	Yes
Yes	NA	Same ID as PeopleSoft Access Id	Yes	No
No	NA	SET CURRENT SQLID statement required?	Yes	NA

In secondary authorization ID processing, at sign on, PeopleSoft PeopleTools, under authorization of the access ID, issues the SET CURRENT SQLID to the DB2 owner ID. This also occurs when you run COBOL on either the client or the host, or when you run SQR on the client or host.

Note. Often customers ask whether the access ID needs SYSADM authority to the DB2 subsystem. The answer is *no*.

Note. With SYSADM authority, the access ID may issue SET CURRENT SQLID to any authorization ID. If you do not have SYSADM authority, you may issue SET CURRENT SQLID only to your valid authorization IDs. Your z/OS ID has a certain RACF (or equivalent) profile and that profile contains all your assigned secondary authorization groups, which are used as valid authorization IDs. You can SET CURRENT SQLID only to the authorization IDs assigned to you.

Note. At Oracle, we create secondary authorization groups that are equal to the owner of the tables. The access ID is added to this secondary authorization group, and thus the access ID can issue a “SET CURRENT SQLID” only to the owner of the tables (remember owner = RACF group). Using this approach, it is not necessary to grant SYSADM authority to the access ID. The bottom line is that the access ID must have proper security to issue “SET CURRENT SQLID” to the owner of the PeopleSoft tables but this does not require SYSADM authority to the DB2 subsystem.

Task 1-7: Planning Multilingual Strategy

This section discusses:

- Understanding Multilingual Issues
- Choosing a Base Language
- Selecting Additional Languages
- Selecting a Database Character Set

Understanding Multilingual Issues

Before beginning your installation, you should determine which languages your PeopleSoft system will need to support. If multiple languages are required, determine which language will be used most often. These decisions will affect tasks at various stages of the installation, including file server setup, database creation, and the ability to change the base language of the PeopleSoft database after it is created. Even if you do not plan on running your system in more than one language, you should decide the following information before completing this task:

- Database base language
- Additional languages (if any)
- Database character set

The current languages provided by Oracle and their language codes are listed below. These are the languages for which Oracle provides pretranslated products. If you plan to provide users access to your applications in these languages, Oracle recommends that you install the translations during your initial installation. This approach will keep you from having to perform an upgrade if you decide to add the Oracle-provided translations at a later date. After installation, you also have the option of performing your own translations, and adding additional languages.

In considering which languages to include, whether for pretranslated objects or for your own application development, keep in mind that certain languages require a Unicode database.

See Selecting a Database Character Set.

Language Code	Language	Database Character Set
ARA	Arabic	Unicode
CFR	Canadian French	Unicode or non-Unicode
CZE	Czech	Unicode
DAN	Danish	Unicode or non-Unicode
DUT	Dutch	Unicode or non-Unicode
ENG	US English	Unicode or non-Unicode
FIN	Finnish	Unicode or non-Unicode
ESP	Spanish	Unicode or non-Unicode
FRA	French	Unicode or non-Unicode
GER	German	Unicode or non-Unicode
HUN	Hungarian	Unicode
ITA	Italian	Unicode or non-Unicode
JPN	Japanese	Unicode or non-Unicode
KOR	Korean	Unicode
NOR	Norwegian	Unicode or non-Unicode
POL	Polish	Unicode
POR	Portuguese	Unicode or non-Unicode
RUS	Russian	Unicode
SVE	Swedish	Unicode or non-Unicode
THA	Thai	Unicode
UKE	United Kingdom English	Unicode or non-Unicode
ZHS	Simplified Chinese	Unicode
ZHT	Traditional Chinese	Unicode

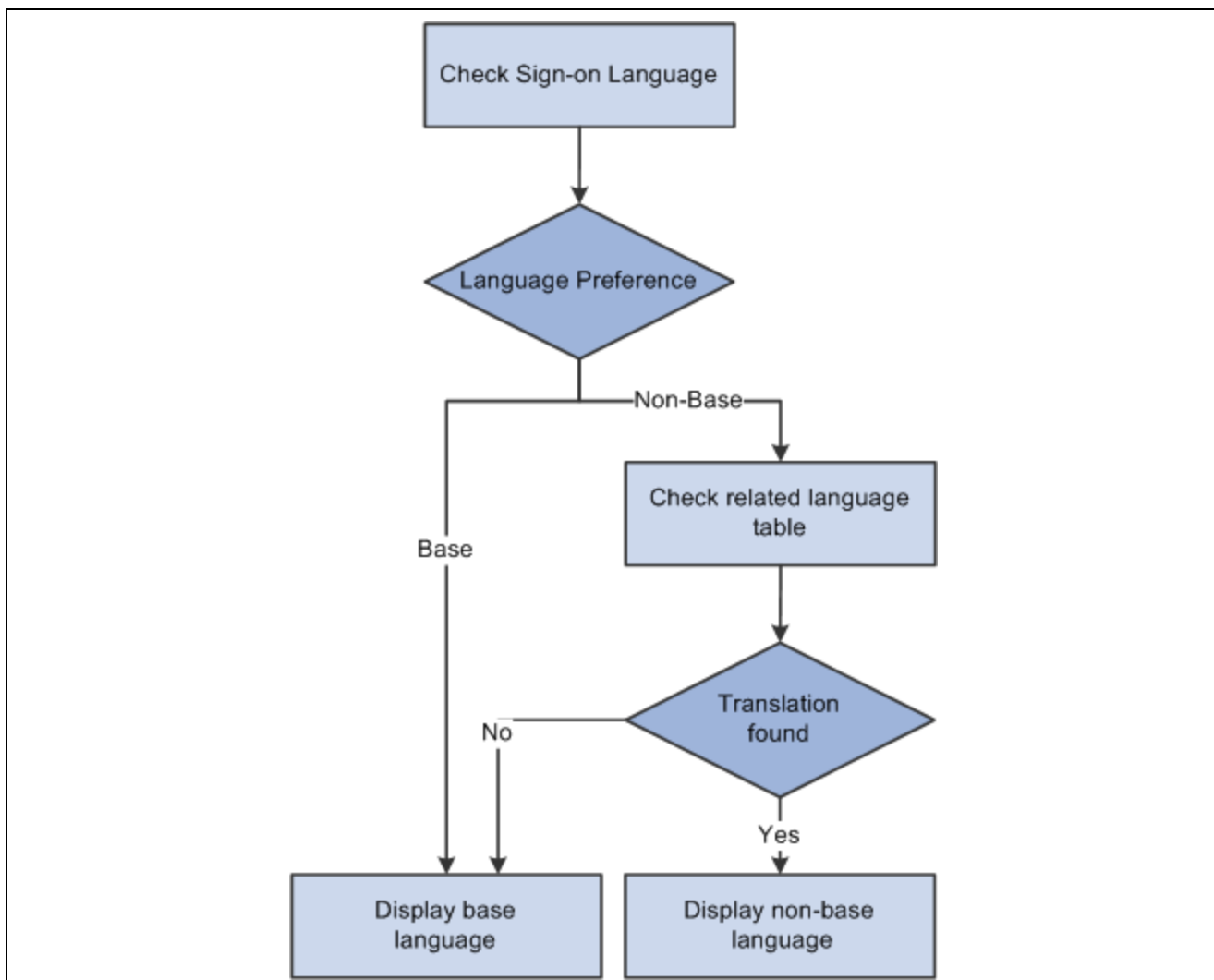
See Also

Enterprise PeopleTools 8.50 PeopleBook: Global Technology

Task 1-7-1: Choosing a Base Language

Each PeopleSoft database can have only one base language. PeopleSoft databases ship with English as the default base language. Typically, the base language of your database should match the language most commonly used by your organization, as it affects the performance of PeopleSoft applications.

When PeopleSoft PeopleTools attempts to open language-sensitive objects (such as pages and menus), it first compares the operator's preferred language to the base language of the database. If the preferred language matches the base language, PeopleSoft PeopleTools immediately loads the required definition from the base language PeopleSoft PeopleTools tables. However, if the user's preferred language differs from the database's base language, PeopleSoft PeopleTools must first query the related language tables for the object. Should a translation of the object not be found in the operator's preferred language, a query is then performed on the base language tables. The following process flow illustrates the selection of the language used for language-sensitive objects, beginning with the language selected when the user signs in to the PeopleSoft application:



Language selection process using the base language and the preferred language

While these queries typically occur very quickly, they still take up valuable processing time. To optimize performance you can set the base language of your database as the language that is used most often by your users. Another consideration is that because PeopleSoft databases are shipped with a base language of English, maintenance is simpler if English remains the base language. Both configurations are supported by Oracle.

Task 1-7-2: Selecting Additional Languages

Because more than one language can coexist in a single PeopleSoft database, you should decide which languages to install. Oracle provides translations of all end-user objects with the Global Multi-Language installation files. It is much easier to install additional languages upon initial database creation than to add them later in your implementation process, so we recommend that you choose which additional languages may be required now. There is no limit to the number of languages that can coexist in a single PeopleSoft database; however, remember that each language will require additional storage space, primarily for PeopleSoft PeopleTools objects.

Task 1-7-3: Selecting a Database Character Set

This section discusses:

- Understanding Character Sets
- Using Unicode Databases
- Using Non-Unicode Databases

Understanding Character Sets

Depending on the languages that you have selected for installation, you need to determine which character set can represent these languages. There are two main steps in selecting a character set. First, if your database supports Unicode, you should decide whether to use it. Second, if you choose not to or cannot yet use Unicode, you should decide which legacy character set is appropriate for the language combination that you've selected.

Please refer to the discussion of CCSID later in this chapter for further information regarding character sets.

See Defining DB2 for z/OS Subsystem Configuration.

On DB2 UDB for z/OS, the PeopleSoft software supports the following CCSIDs:

CCSIDs	Languages Supported
CCSID 37	EBCDIC English
CCSID 500	EBCDIC International
CCSID UNICODE	Unicode

See *Enterprise PeopleTools 8.50 PeopleBook: Global Technology*, "Selecting and Configuring Character Sets and Language Input and Output."

Using Unicode Databases

In addition to supporting several legacy character sets, the PeopleSoft software supports creating Unicode databases using DB2 UDB for z/OS v8.1 New Function Mode. Unicode enables you to maintain data in virtually any modern language in a single database. Prior to Unicode, many languages could not coexist in one database, as they did not share a common character set.

See "Setting Up a Unicode Database."

To create a DB2 UDB for z/OS Unicode database, you must specify the CCSID UNICODE option of the CREATE DATABASE statement.

Unicode databases are required if the languages that you selected do not share the same character set. Typically, a single character set can encode all languages written in a single script. For example, English, French, and Spanish all share the same script (Latin), so they can coexist in a non-Unicode database. However, Japanese does not share the same script as French, so if you need to have Japanese and French coexist in a single system, you need a Unicode database.

If you decide to use Unicode for your database, you do not need to select a character set.

See Understanding Multilingual Issues.

See Understanding Character Sets.

Using Non-Unicode Databases

You can safely use a non-Unicode character set only if your selected languages share the same character set. In this case, you need to decide in which character set your database should be created.

See the section Understanding Multilingual Issues to determine whether a language is supported on Unicode or non-Unicode databases. See the section Understanding Character Sets for supported character sets.

Task 1-8: Reviewing Updates and Fixes Required at Installation

Before beginning the installation, check the Patches and Downloads page on My Oracle Support to identify any updates and fixes required at installation that you will need to apply, based on the products, product version, and PeopleTools version that you are installing. Specific instructions for applying the updates and fixes are included in each listed incident.

Make note of all the updates and fixes, and plan to apply them at appropriate stages during the installation procedure. For example, a replacement for a PeopleTools executable would be applied after installing the media pack to the appropriate server, and so on.

The following procedure describes how to access the Updates and Fixes database. Contact Oracle if you don't have a user ID and password for My Oracle Support.

To review updates and fixes required at installation:

1. Go to My Oracle Support at <https://metalink.oracle.com>.
2. Enter your user name and password to log in.

Note. Be sure to log on, or you will not see all of the menu options.

3. Select Patches & Updates.
4. Select PeopleSoft Products.
5. Select Required for Install or Upgrade.
6. Select PeopleTools as the product line, PeopleTools as the product, and select the appropriate PeopleTools release.

Make sure that the Required for Install option is selected and click the search button (the arrow).

7. Note any PeopleTools updates and fixes that apply to your installation.
8. Return to the Updates and Fixes search page and search for any application-related incidents by selecting the appropriate product line, product, and release.

Make sure the Required for Install option is selected and click the search button (the arrow).

9. Note any application-specific updates and fixes that apply to your installation.

Note. Keep in mind that your installation may require additional software components. In this case you will also need to check for updates and patches for the additional component software. Later chapters cover this topic in detail.

After this installation, you can upgrade your Java Runtime Engine (JRE) to a newer version without upgrading PeopleTools, as long as the new JRE is certified.

See Also

"Installing Web Server Products"

"Installing Additional Components"

"Required Operating System, RDBMS, and Additional Component Patches Required for Installation," My Oracle Support (search for the article title)

Task 1-9: Verifying Database Server Sizing

On your database server, the direct access storage device (DASD) volume(s) making up your storage group(s) should have sufficient space for the demo database. If you plan to substantially increase the size of tables in your demo database, ensure that these volumes have plenty of space, or add additional volumes, so that your file systems have ample space to accommodate growth. You must also alter the primary and secondary quantities of the tablespaces and indexes that you expect to expand. In addition to space requirements, the Database Administrator should verify that ample VTOC directory space is available to avoid problems during installation.

Note. Because many PeopleSoft tables are delivered empty, they take up no physical space in the tablespace, whereas indexes, even those created on an empty table, require a minimum of one track each.

Task 1-10: Defining DB2 UDB for z/OS Subsystem Configuration

This section discusses:

- Understanding DB2 Configuration Requirements
- Defining EDM Pool Considerations
- Defining Decimal Arithmetic
- Using DSMAX
- Using CMTSTAT/IDTHTOIN
- Using CCSID and DB2 z/OS Database Storage Encoding Schemes
- Using DECIMAL

Understanding DB2 Configuration Requirements

The following information provides recommendations for the configuration of the DB2 subsystem that will house the PeopleSoft database. We recommend dedicating a DB2 subsystem to your PeopleSoft application. This will allow you to customize the DB2 ZPARM settings for the subsystem without having an impact on your existing applications.

Task 1-10-1: Defining EDM Pool Considerations

The PeopleSoft installation procedure places all tables for the product you are installing into multiple physical databases using a shared tablespace methodology. Depending on the applications you are installing, the DB2 subsystem could have a minimum EDM Pool Size of 10 to 30 MB.

If the pool size is too small, the database administrator should either increase it or manually edit the DDL scripts provided to create additional databases. If you use DB2 Dynamic SQL Cache, you will need to increase the EDM pool size. It is difficult to recommend an optimum size for the EDM pool. Like buffer pools, there is a tradeoff between performance and memory usage. It also depends very heavily on the mix of transactions versus batch processes executing at a point in time. Customers traditionally allocate between 50 and 100 MB when Dynamic SQL Cache is enabled.

Place the DB2 Dynamic SQL Cache in a Data Space. This will allow for separating the cache from the EDM pool, which results in less competition for EDM space. It also allows for a larger Dynamic SQL Cache (up to 2 GB).

Task 1-10-2: Defining Decimal Arithmetic

Arithmetic operations involving decimal numbers in the PeopleSoft system require a greater decimal precision than earlier versions of PeopleSoft software. DEC31 rules allow a maximum precision of 31 digits in a result rather than only 15. This allows for a greater number of digits in the scale (digits to the right of the decimal), resulting in more accurate calculations, particularly when the “unrestricted” result contains many digits to the right of the decimal. DB2 truncates any digits beyond the calculated scale of the result, without rounding. For example, the number 1.45697, the result of multiplying or dividing another number by 1.456 (assume a scale of 3) will be significantly different from 1.4569 (assume a scale of 4). In addition, in further support of greater accuracy in decimal operations, the PeopleSoft system is utilizing new functionality that permits calculation of a minimum scale of 6 digits in decimal division operations. In prior releases, 3 digits was the maximum, minimum scale.

In past releases, the PeopleSoft system had specific requirements for the DB2 zparms DECARTH, DECDIV3 and MINDVSCL. Through a joint development effort with IBM, functionality has been enhanced to enable control of the functionality provided by these zparms at the DB2 connection level, without impact to other applications running within the same DB2 subsystem.

PeopleSoft code executes the statement *SET CURRENT PRECISION = “D31,6”* for each connection into the database, which will have the effect of running the application in a DB2 subsystem with zparm settings of DECARTH=31 and MINDVSCL=6, overriding what the actual zparm settings may be. DECDIV3 is overridden by MINDVSCL so whether DECDIV3 is YES or NO has no impact on the PeopleSoft application.

Task 1-10-3: Using DSMAX

To reduce the open and close activity of data sets, it is important to set DSMAX correctly. DSMAX should be larger than the maximum number of data sets that are open and in use at one time. For best performance, leave enough margin in your specification of DSMAX that frequently used CLOSE YES data sets can remain open after they are no longer referenced. If data sets are opened and closed frequently, such as every few seconds, you can improve performance by increasing DSMAX. DB2 v6.1 has increased the 10000 limit.

See "Important PTFs for PeopleSoft on DB2 UDB for z/OS," My Oracle Support, (search for the article title).

Task 1-10-4: Using CMTSTAT/IDTHTOIN

We recommend setting the CMTSTAT parameter to INACTIVE and set the IDTHTOIN parameter to 0 (i.e. the IDTHTOIN zparm is ignored when CMTSTAT=INACTIVE). PeopleSoft two tier and three tier will function properly regardless of the values of CMTSTAT and IDTHTOIN. CMTSTAT is set in DSNTIPR and it specifies whether to make a thread active or inactive after it successfully commits or rolls back and holds no database locks or cursors. ACTIVE threads use memory resources as well as contributing to the MAXDBAT limit.

Task 1-10-5: Using CCSID and DB2 z/OS Database Storage Encoding Schemes

PeopleSoft PeopleTools supports only EBCDIC and Unicode data storage encoding schemes (*not* ASCII) on the z/OS database server. Be careful to set the default system encoding scheme (SCCSID as specified in DSNHDECP) in your subsystem for valid EBCDIC translation. PeopleTools Unicode installations will override the SCCSID value by explicitly specifying Unicode as the CCSID when creating the individual databases that will compose a Unicode installation. Consult the DB2 zOS Installation and SQL Reference guides for assistance in setting the default CCSID for your subsystem.

Note that unexpected results may occur when a binary sort is deployed from, or when the collating sequence on a remote machine is different from the host—such as when running COBOL from a Windows or UNIX based platform, and accessing DB2 for z/OS. In house, PeopleSoft has tested with CCSIDs of 37 and 500. For more information, and especially if you use a CCSID other than 37, consult the PeopleBooks for more details about the use of %BINARYSORT and PSOPTIONS.

Also, never change the CCSID in your subsystem without first consulting IBM technical support. Corruption and loss of data could result.

See Also

Enterprise PeopleTools 8.50 PeopleBook: Global Technology

Enterprise PeopleTools 8.50 PeopleBook: System and Server Administration, "Using PeopleTools Utilities"

Task 1-10-6: Using DECIMAL

PeopleSoft PeopleTools supports zparm settings of both DECIMAL=PERIOD and DECIMAL=COMMA. The PeopleTools API is able to identify the zparm value on your particular subsystem. For those subsystems with zparm DECIMAL=PERIOD, no additional logic is invoked. For those subsystems with DECIMAL=COMMA, a parsing routine is invoked to “reformat” any necessary SQL statements to avoid confusion by the DB2 parser in distinguishing a decimal point from a comma. For COBOL programs running on the mainframe, a message is displayed in the job log indicating whether the parsing routine has been activated. Customers running with zparm DECIMAL=COMMA should verify that the parsing function has indeed been activated. Customers running with zparm DECIMAL=PERIOD, should verify that the parsing function *is not* activated, as it is unnecessary and could have negative performance implications.

While PeopleSoft PeopleTools fully supports either setting for zparm DECIMAL, not all product lines support both settings. SQR does not go through the PeopleTools API interface, and therefore each program must be inspected for compliance. Product lines that do not use SQR would support both zparm DECIMAL settings by default (for example, CRM). Product lines that only support one setting will support DECIMAL=PERIOD. Refer to the product line specific Installation addenda for information on whether your product line supports zparm DECIMAL=COMMA.

Task 1-11: Installing Supporting Applications

Oracle requires that a number of supporting applications be installed for the PeopleSoft installation on batch servers and on any Windows-based client on which batch processes will be run locally. (Throughout the rest of this section we refer to these Windows-based clients as *two-tier clients*.) Be sure to check My Oracle Support, Certifications to ensure that you are installing software versions that are certified by Oracle.

- For PeopleSoft applications written in COBOL, install the appropriate version of the COBOL compiler on the server where you will compile:

Note. Remember, COBOL is not needed for PeopleSoft PeopleTools or for applications that do not contain COBOL programs. See My Oracle Support to verify whether your application requires COBOL.

See Planning Your Initial Configuration.

- For UNIX servers, install the appropriate version of Micro Focus ServerExpress.
- For Microsoft Windows servers, install the appropriate version of Micro Focus NetExpress.
- For z/OS servers, install the appropriate version of IBM Enterprise COBOL for z/OS and OS/390.
- If all your servers are on Windows, we recommend that you install a COBOL compiler on the file server.

You can install PeopleSoft PeopleTools plus any patches on the file server, compile your COBOL there, and then copy the COBOL binaries to your application and batch servers.

- If your application and batch servers are on UNIX or Linux, we recommend that you designate a single server as the compile server, so that you can compile COBOL from this central location and then distribute it to the rest of your application and batch servers.

If you use this approach, you only need to copy patches or customizations over to the compile server. Note that this server must have the same operating system as any destination application or batch servers. For example, if your compile server is an HP-UX machine, you can only copy COBOL compiled there to other HP-UX application and batch servers. Oracle recommends this approach. It will help you keep your COBOL source code in sync and only requires that you install COBOL in a single location.

- If you prefer, you can copy patches or customizations to all of your UNIX application and batch servers and compile the COBOL on each machine.

However, Oracle does not recommend this approach. It requires that you install multiple versions of the COBOL compiler, and makes it more likely that your COBOL source code will get out of sync.

Note. The delivered releases before PeopleSoft PeopleTools 8.4 included both source and compiled COBOL for Windows users; on UNIX COBOL had to be compiled. From release 8.4 onwards, the delivered PeopleSoft PeopleTools includes source only on both Windows and UNIX or Linux. If your application requires COBOL, you will need to compile it.

If your application requires COBOL and you are running UNIX or Linux, you need to install the COBOL runtime license on every application and batch server. This is not necessary for Windows, but it *is necessary* to install the COBOL runtime license on each application and batch server where COBOL programs will be executed.

- For more information on COBOL consult the COBOL FAQ available on My Oracle Support.

See "PeopleSoft Enterprise Frequently Asked Questions about PeopleSoft and Micro Focus COBOL Compiler," My Oracle Support, (search for the article name).

- You must install SQR on any non-Windows batch server.
- On Windows batch servers and Windows two-tier clients, you have the option of installing SQR locally, or mapping to a copy installed on the file server.

Because SQR does not require any local registry settings, you can execute SQR from any Windows batch server or two-tier client once SQR has been installed to a shared directory. Installing SQR locally will result in improved performance; over a slow network connection the improvement will be significant.

- z/OS customers should install the appropriate IBM z/OS Java to support JDK/JRE requirements for PeopleSoft software.

The minimum support level required for PeopleSoft PeopleTools 8.50 is JRE 1.6.

- Install Microsoft Office (Excel and Word) on any Windows batch server or two-tier client that will be running nVision or Microsoft Word batch processes.

Microsoft Office must be installed locally, because it requires registry settings.

See Also

Enterprise PeopleTools 8.50 Hardware and Software Requirements

Task 1-12: Setting Up Database Connectivity

As part of preparation, you may wish to set up database connectivity components on the mainframe, set up TCP/IP on database clients (including application servers and any dedicated batch servers), and install software for the DB2 Connect Gateway.

However, it makes sense to wait until after the PeopleSoft database has been created before configuring the DB2 Connect Gateway—using either Client Configuration Assistant (NT) or the Command Line Processor (UNIX)—so that the connection to the database can be tested.

Note. The LDAP client (FMID HRSL180) is required for PSAE on z/OS. On z/OS, the LDAP client resides as a DLL named GLDCLDAP in /usr/lib. Note that /usr/lib must be part of the LIBPATH environment variable.

Note. Before you can run the Process Scheduler from z/OS UNIX System Services, the DB2 systems programmer must have installed DB2 ODBC.

See Also

"Creating a Database"

"Installing and Configuring DB2 Connect"

IBM DB2 Connect documentation

IBM DB2 Installation Guide (for DB2 ODBC)

Task 1-13: Using Connect ID

This section discusses:

- Understanding Connect ID
- Using Connect ID

Understanding Connect ID

All two-tier connections use the PeopleTools connect ID feature.

Two-tier connections include both client workstations and application servers. The connect ID feature allows customers to associate multiple PeopleSoft operators with the same connect ID. The connect ID is granted the minimum privileges required to connect to the database—that is, it has only SELECT privileges on specific PeopleTools tables. After connection, PeopleSoft Security uses the PeopleSoft user ID to control access to objects in the database. The PeopleSoft sign-on process validates the connect ID on the database server, rather than the user ID. Connect ID simplifies database security maintenance. It is not necessary to define and maintain individual user IDs within the database server security. For DB2 z/OS implementations, only the connect ID must be defined in the z/OS security management software (for example, RACF, ACF2, TopSecret), with logon capabilities. The connect ID option eliminates the need to set up each user ID as a valid z/OS ID. One z/OS ID can be created and then many PeopleSoft operators can use this ID as the connect ID to sign on to the PeopleSoft system. This arrangement may be an appropriate choice at customer sites where the PeopleSoft user's only required access to the mainframe is to use the PeopleSoft applications.

The connect ID is granted access using the following steps:

- Define the connect ID as an ID with logon capabilities to the z/OS server in the z/OS security management software.
- Execute script Grant.sql against the database, after the table objects have been created. Grant.sql grants SELECT access to the PeopleTools tables PS.PSDBOWNER, PSSTATUS, PSACCESSPRFL, and PSOPRDEFN.

In addition, the connect ID and connect ID password must be defined in either the Configuration Manager setting to allow a two-tier connection from the client workstation, or in the application server configuration setting, to allow connection to the database from the application server.

Task 1-13-1: Using Connect ID

As an example, when logging into a PeopleSoft database in two-tier mode, the user enters a database name, PeopleSoft operator ID, and password in the PeopleSoft Signon dialog box.

After making the initial connection to the database, the sign-on process performs SELECT statements against a series of PeopleTools tables to obtain data required for sign-on and security. The PeopleSoft user ID and password are validated against the PSOPRDEFN table, regardless of the sign-on option. The access ID and password, which are encrypted, are obtained from the PSACCESSPRFL table.

The sign on process disconnects, and then connects again as the access ID, which has all DML authorities and certain DDL authorities on the PeopleSoft database. If you are using the Secondary Authorization ID option, the sign-on process then sets the current SQLID equal to the owner ID obtained from the PS.PSDBOWNER table.

The example below details the log on and connection process to the PeopleSoft database on z/OS. For clarity, we are using the following parameter values:

- Database Name: PT84
- User ID/Pswd: PSUSER1/PSUSER1
- Connect ID/Pswd: PSNECT/PSNECT
- Access ID/Pswd: PSACCES1/PSACCESS1
- Object Owner ID: PSDBOWNR

Activity	Parameter Value and/or Underlying Statements
User initiates log on by entering the database name, user ID and password.	PT84/PSUSER1/PSUSER1
The connection is established to DB2 z/OS using the database name, the connect ID, and the password (not the user ID).	Connect to PT84 user PSCONCT using PSCONCT
Get PeopleSoft Database owner ID.	SELECT OWNERID FROM PS.PSDBOWNER WHERE DBNAME = :1 :1 = PT84, value returned for OWNERID = PSDBOWNR
Check PSSTATUS.	SELECT OWNERID, TOOLSREL, LASTREFRESHDTM, LASTCHANGEDTTM FROM PSDBOWNR.PSSTATUS
Validate the user ID and password.	SELECT VERSION, OPERPSWD, ENCRYPTED, SYMBOLICID, ACCTLOCK FROM PSDBOWNR.PSOPRDEFN WHERE OPRID = :1 :1 = PSUSER1. The OPERPSWD retrieved is validated against the value entered when the user initiated the log on.
Get the access ID and password.	SELECT ACCESSID, ACCESSPSWD, ENCRYPTED FROM PSDBOWNR.PSACCESSPRFL WHERE SYMBOLICID = :1 The ACCESSID and ACCESSPSWD retrieved into the buffer are PSACCES1/PSACCES1
The current connection with the connect ID is disconnected	Disconnect
A new connection is established logging on with the access ID.	Connect to PT84 USER PSACCES1 USING PSACCES1
The "Set Current SQLID" statement is issued to permit access to the PeopleSoft tables via the access ID without requiring explicit qualification of the SQL statements with the Object Owner ID (PSDBOWNR).	Set CURRENT SQLID = :1 :1 = PSDBOWNR

At this point, access within the PeopleSoft application is governed by PeopleSoft security, based on the permissions defined in the PeopleTools security tables for the user ID that was entered when the logon was initiated (PSUSER1).

Task 1-14: Setting Up z/OS User IDs

This section discusses:

- Understanding User ID Setup
- Creating PeopleSoft User IDs

Understanding User ID Setup

Once you have determined your sign-on strategy, as described in the preceding task, you are ready to create a set of z/OS user IDs required for the PeopleSoft PeopleTools sign-on process and database table access.

Note. All IDs that you create must be in UPPERCASE.

Task 1-14-1: Creating PeopleSoft User IDs

Use this following procedure to create new user IDs for the application.

To create PeopleSoft user IDs:

1. Create a mainframe user ID for connecting to the PeopleSoft database. This mainframe user ID needs to match the PeopleSoft connect ID.

Note. Once your PeopleSoft connect ID is created, you can specify the ID in either the Configuration Manager Startup tab for Windows client connections or the Startup section in the application server configuration file for application server connections. This is done so the client or the application server pass the correct ID to connect to the database.

You must explicitly grant SELECT authority to this mainframe user ID on specific PeopleSoft PeopleTools tables, before attempting to connect to the PeopleSoft database.

2. Create a second mainframe user ID to be used as the PeopleSoft access ID.

The access ID, which is stored in encrypted form in the PeopleSoft database, should either be granted all DML authorities and certain DDL authorities on the PeopleSoft database if using Primary Authorization ID access, or associated with a Secondary Authorization ID with this access, if using Secondary Authorization ID access (the next step). The access ID and access password must be tightly controlled. Both are encrypted in the PeopleSoft database.

Oracle recommends that you set up the access ID in z/OS with a non-expiring password. If company standards mandate that you periodically change the access ID's password, or if the access ID is set up in the z/OS security system with a password that will expire, special processing will be necessary. You must ensure that PeopleSoft databases are updated with the access ID's new password before the password changes in the z/OS security system. The PeopleSoft Security Administrator provides the functionality to change the access ID's password stored in the security tables.

If the mainframe password for the access ID has expired or has been changed before the PeopleSoft database has been updated with the new password, no one will be able to access the PeopleSoft online system.

3. If you are using the Secondary Authorization ID option, set up an external security system group as the owner ID. Make the access ID a member of this group, with authority to SET CURRENT SQLID = <Owner ID>.
4. Grant SELECT authority to owner ID on SYSIBM DB2 catalog tables.

There are certain PeopleSoft processes that perform queries against the SYSIBM DB2 catalog tables. For this reason you must grant SELECT authority on these catalog tables to the owner ID that you choose for the PeopleSoft database. The following table lists DB2 catalog tables used by the PeopleSoft system.

Table	PeopleSoft Process(es)
SYSIBM.SYSTABLES	Application Designer DDDAUDIT.SQR SETDBNAM.SQR SETSPACE.SQR SETTMPIN.SQR %UpdateStats MetaSQL function
SYSIBM.SYSTABLESPACE	SETSPACE.SQR SETDBNAM.SQR
SYSIBM.SYSTRIGGERS	Application Designer DDDAUDIT.SQR
SYSIBM.SYSCOLUMNS	Application Designer
SYSIBM.SYSINDEXES	Application Designer DDDAUDIT.SQR SETBUFF.SQR
SYSIBM.SYSKEYS	Application Designer
SYSIBM.SYSINDEXPART	SETINDEX.SQR
SYSIBM.SYSDATABASE	
SYSIBM.SYSVIEWS	

If the Owner ID does not have proper authority to the SYSIBM tables, 551 SQL codes will result and it will mostly occur when you are attempting to SQL Create or Alter a table using Application Designer. If you are running the listed SQRs outside of PeopleSoft, the ID used to run the SQR will need Select access to the listed tables.

See Also

"Creating a Database"

Enterprise PeopleTools 8.50 PeopleBook: PeopleTools Portal Technologies

Enterprise PeopleTools 8.50 PeopleBook: Data Management

Task 1-15: Using Storage Enhancements for z/OS

This section discusses:

- Understanding z/OS Storage Enhancements
- Prerequisites
- Enabling the Shared Library Feature

Understanding z/OS Storage Enhancements

You must implement the new storage enhancement feature for z/OS. This enhancement introduces the shared library feature of UNIX in a z/OS environment. If your operating system is on z/OS, you must complete the following task to take advantage of this storage enhancement.

Note. It is best to complete this task before installing any PeopleSoft product.

Prerequisites

The PeopleSoft installation requires the use of system shared library modules. When you use system shared library modules, keep in mind that you will want to:

- Specify a SHRLIBRGNSIZE value of at least 350 MB per PeopleTools version of Process Scheduler instance(s).

Approximately 350 MB is required for the PeopleSoft shared library modules residing in each discrete version of PeopleTools installed on your system. Here are two examples of the settings you need if there are three PeopleSoft USS environments installed on your system.

- If you are running the following three instances of Process Scheduler the SHRLIBRGNSIZE BPXPRMxx should be set to at least 1.1 GB:

Instance	PeopleTools version
instance 1	\$PS_HOME_8.44/bin
instance 2	\$PS_HOME_8.43/bin
instance 3	\$PS_HOME_8.42/bin

- If you are running the following three instances of Process Scheduler the SHRLIBRGNSIZE BPXPRMxx should be set to at least 750 MB:

Instance	PeopleTools version
instance 1	\$PS_HOME_8.44/bin
instance 2	\$PS_HOME_8.44/bin
instance 3	\$PS_HOME_8.43/bin

- Allow the user read access to the BPX.FILEATTR.SHARELIB on class type of FACILITY in RACF to allow the usage of extattr command for +l.
- Set the shared library extended attribute on all of the DLL (binaries). This is done when psconfig.sh and psmv.sh scripts are executed in the task “Running PSCONFIG.SH and PSMV.SH Shell Scripts to set up the USS Environment Variables and Grant Access to USS Files” in the chapter “Setting Up the Batch Environment on z/OS.”

Task 1-15-1: Enabling the Shared Library Feature

The following procedure is required to enable the Shared Library feature to take advantage of new storage enhancements.

To enable the Shared Library feature:

- In TSO/E, issue the following command to allow read access to user id *username*:

```
PERMIT BPX.FILEATTR.SHARELIB CALSS(FACILITY) ACCESS(READ) ID(username)
```

2. If no other application on your system is using system shared library modules (files with .so extensions), you can define all the PeopleSoft Shared Library modules. For each Process Scheduler instance per *PS_HOME/bin* directory, set the SHRLIBRGNSIZE to 367001600 in BPXPRMxx. If other applications on your system are using system shared library modules, add the amount that is required for the other applications to the amount required for the PeopleSoft installation. This value will be enabled at the next IPL of the system.

For testing purposes, you can dynamically implement the SHRLIBRGNSIZER from SDSF or the system console by issuing a SETOMVS command to set the SHRLIBRGNSIZE:

```
SETOMVS SHRLIBRGNSIZE=367001600
```

To confirm the new setting, issue the SDSF command D OMVS,O to display the new setting in the MVS SYSLOG:

```
D OMVS,0
```

Note. You can issue the SDSF command D OMVS,L to display the settings for the OMVS system parameters while the processes are running.

Task 1-16: Performing Backups

Before proceeding, you should back up all servers and workstations that are set up for installation so you can recover to this point if necessary. Do the following:

- Back up any changes you made to the database server in setting up your PeopleSoft system.
- Back up any changes you made to your file server while setting aside space for your PeopleSoft system and setting up access privileges.
- Once you set up your install workstations to access the file server and database server simultaneously, back up the workstations.

Task 1-17: Using PeopleSoft Change Assistant and PeopleSoft Change Impact Analyzer

After you have completed the tasks in this book to install PeopleSoft PeopleTools, including installing any necessary patches and fixes, you need to install PeopleSoft Change Assistant. PeopleSoft Change Assistant is a standalone application that enables you to assemble and organize all of the steps necessary to apply patches and fixes for maintenance updates.

PeopleSoft Change Assistant gathers all the necessary information for a maintenance update from the Environment Management Hub and uploads it to My Oracle Support. With the environment data available, My Oracle Support can determine what updates are applicable to your environment. PeopleSoft Change Assistant carries out the following tasks:

- Uploads environment

- Finds required updates
- Downloads updates
- Applies all change packages

You can also install PeopleSoft Change Impact Analyzer, either as part of the PeopleSoft PeopleTools installation, or by itself. PeopleSoft Change Impact Analyzer is a Windows-based tool that you can use to evaluate the effect of changes you make on your installation.

See Also

"Installing PeopleSoft Change Assistant"

"Installing PeopleSoft Change Impact Analyzer"

Enterprise PeopleTools 8.50 PeopleBook: PeopleSoft Change Assistant

Enterprise PeopleTools 8.50 PeopleBook: PeopleSoft Change Impact Analyzer

CHAPTER 2

Installing Web Server Products

This chapter discusses:

- Installing Oracle WebLogic Server
- Installing IBM WebSphere Application Server

Task 2-1: Installing Oracle WebLogic Server

This section discusses:

- Understanding the Oracle WebLogic Installation
- Prerequisites
- Obtaining Oracle WebLogic Installation Files from E-Delivery
- Installing Oracle WebLogic in GUI Mode
- Installing Oracle WebLogic on Linux or Solaris
- Installing Oracle WebLogic on Linux or Solaris in Silent Mode
- Installing Oracle WebLogic on AIX, HP-UX Itanium, or HP-UX PA-RISC in Console Mode
- Installing Oracle WebLogic on AIX, HP-UX Itanium, or HP-UX PA-RISC in Silent Mode
- Upgrading JDK for Oracle WebLogic
- Configuring for Daylight Savings Time Change
- Removing the Oracle WebLogic Installation on Microsoft Windows
- Removing the Oracle WebLogic Installation in Console Mode

Understanding the Oracle WebLogic Installation

PeopleSoft PeopleTools 8.50 supports Oracle WebLogic Server 10.3.1. Oracle provides installation files for Oracle WebLogic on the Oracle E-Delivery site.

To familiarize yourself with the most current support information and information about any required Oracle WebLogic service packs based on operating system platform or PeopleSoft PeopleTools versions, consult My Oracle Support or the hardware and software requirements guide.

Note. If you plan to use BusinessObjects Enterprise XI Release 3.1, you will need to use Oracle WebLogic 10.1.

See Also

Oracle E-Delivery, <http://edelivery.oracle.com>

Enterprise PeopleTools 8.50 Hardware and Software Requirements

My Oracle Support, Certifications

"Clustering and High Availability for Enterprise Tools 8.4x," My Oracle Support, (search for the article title)

"Required Operating System, RDBMS, and Additional Component Patches Required for Installation," My Oracle Support, (search for the title and release number)

"Installing and Configuring Software for Crystal Reports," Installing BusinessObjects Enterprise XI Release 3.1

Prerequisites

It can require up to 800 MB space to install the product. If there is not enough space, the installer displays an error with information about the space limitation. You will need to exit the installation and create some space under your home directory before starting over.

The Oracle WebLogic installer makes use of the default system temp space. It will give an error and indicate that if the temp space is not sufficient.

If you are running on HP-UX Itanium®, HP-UX PA-RISC, or AIX, you must install a platform-specific Java Developers Kit (JDK) before beginning the Oracle WebLogic installation.

See Installing Oracle WebLogic on AIX, HP-UX Itanium, or HP-UX PA-RISC.

Task 2-1-1: Obtaining Oracle WebLogic Installation Files from E-Delivery

The initial portion of the procedure to log in to Oracle E-Delivery was described earlier. At this point you should have already downloaded the necessary files. This section includes additional information on finding and using the files for Oracle WebLogic if necessary.

See "Preparing for Installation," Using E-Delivery.

To obtain the files for Oracle WebLogic installation:

1. After logging in to Oracle E-Delivery, on the Media Search Pack page, select *PeopleSoft Enterprise* from the Select a Product Pack drop-down list.
Select the operating system you are running on from the Platform drop-down list, and click Go.
2. Select the radio button for the PeopleSoft Enterprise - PeopleTools 8.50 Media Pack for your platform and click Continue.

Note. The part numbers vary by platform.

3. Select Oracle WebLogic Server 11gR1 (10.3.1) for your platform, and click Download. Save the zip file to a temporary directory on your local system.

The directory where you save the zip file is referred to in this documentation as *WLS_INSTALL*. You must extract (unzip) the file on the platform for which it is intended. For example, if you download the zip file for Solaris, you must unzip it on Solaris to avoid problems. If you unzip the file to a staging directory on a Microsoft Windows computer and copy the staging directory to a Solaris, the stage area files may be corrupt.

Note. The part numbers are not the same as those for the media packs in the previous step.

4. Extract the files into *WLS_INSTALL*.

Note. If you need to ftp the downloaded file, make sure to FTP it in Binary mode.

The Oracle WebLogic installation files are platform-specific. The following table lists the installation files for the PeopleSoft-supported platforms:

Supported Platform	Oracle WebLogic Installer Name
AIX	wls1031_generic.jar
HP-UX Itanium	wls1031_generic.jar
HP-UX PA-RISC	wls1031_generic.jar
Linux	wls1031_linux32.bin
Microsoft Windows	wls1031_win32.exe
Solaris (SPARC)	wls1031_solaris32.bin

Task 2-1-2: Installing Oracle WebLogic in GUI Mode

After you complete the installation, you must upgrade the JRockit installation.

See Upgrading JDK for Oracle WebLogic.

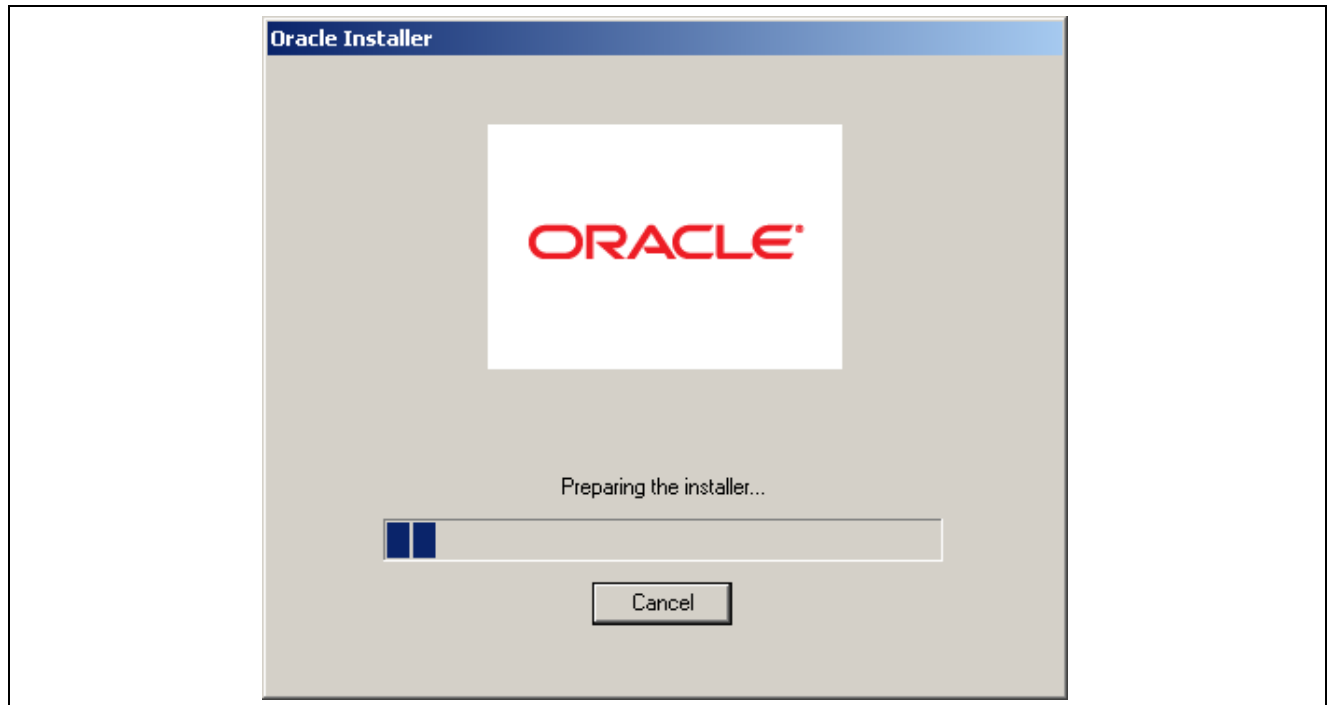
The following procedure assumes that you saved the installation files from Oracle E-Delivery in the directory *WLS_INSTALL*. Installation in GUI mode is normally used for Microsoft Windows operating systems, so this procedure uses the installer for Microsoft Windows, wls1031_win32.exe.

Note. Oracle WebLogic Server 8.1 SP6, 9.2 MP3, and 10.3.1 can coexist on a single machine. If you choose to install this version of Oracle WebLogic in an existing *WLS_HOME* directory (for example, c:\bea), you must shut down all instances of Oracle WebLogic Server running in that *WLS_HOME* before performing this installation.

To install Oracle WebLogic Server 10.3.1:

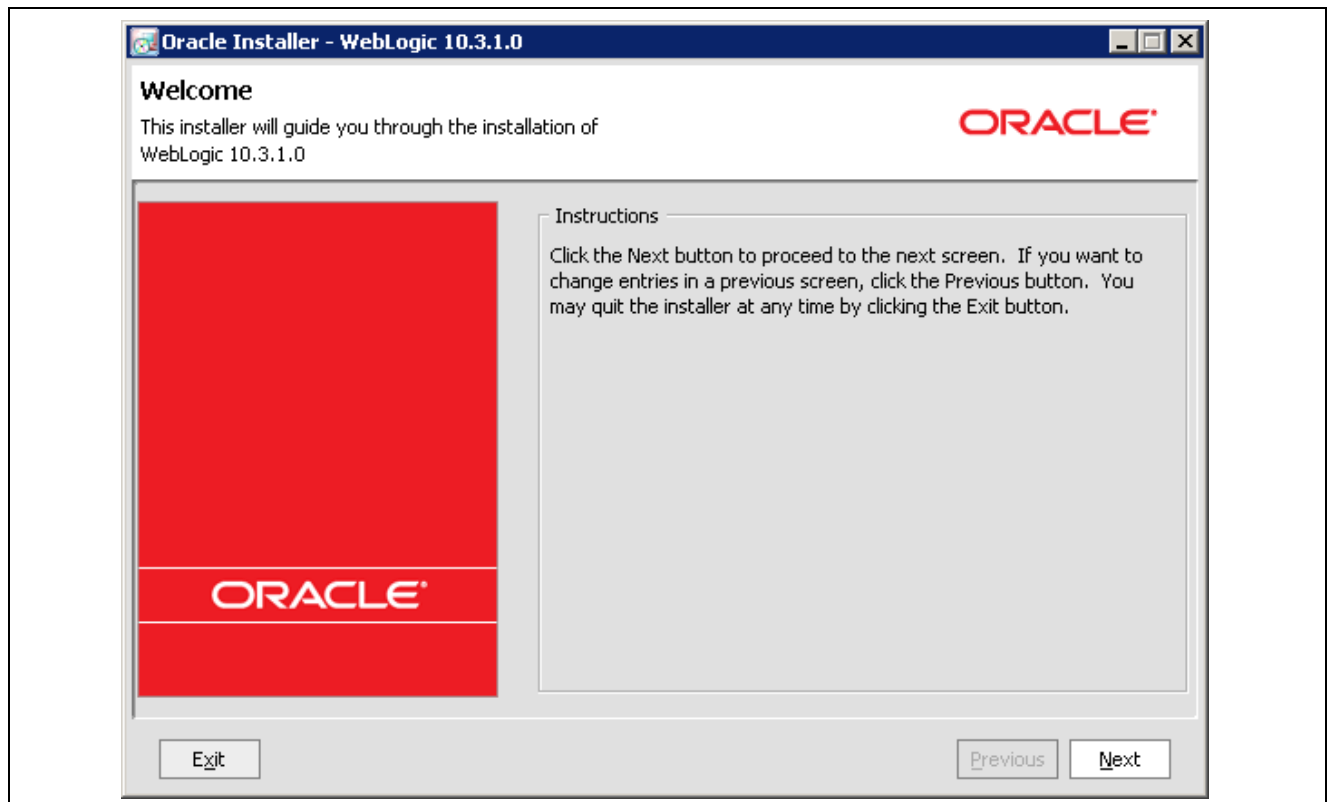
1. Double-click *WLS_INSTALL*/wls1031_win32.exe.

If a security warning appears, click Run to launch the installer.



Oracle Installer window

2. Click Next on the Welcome window.

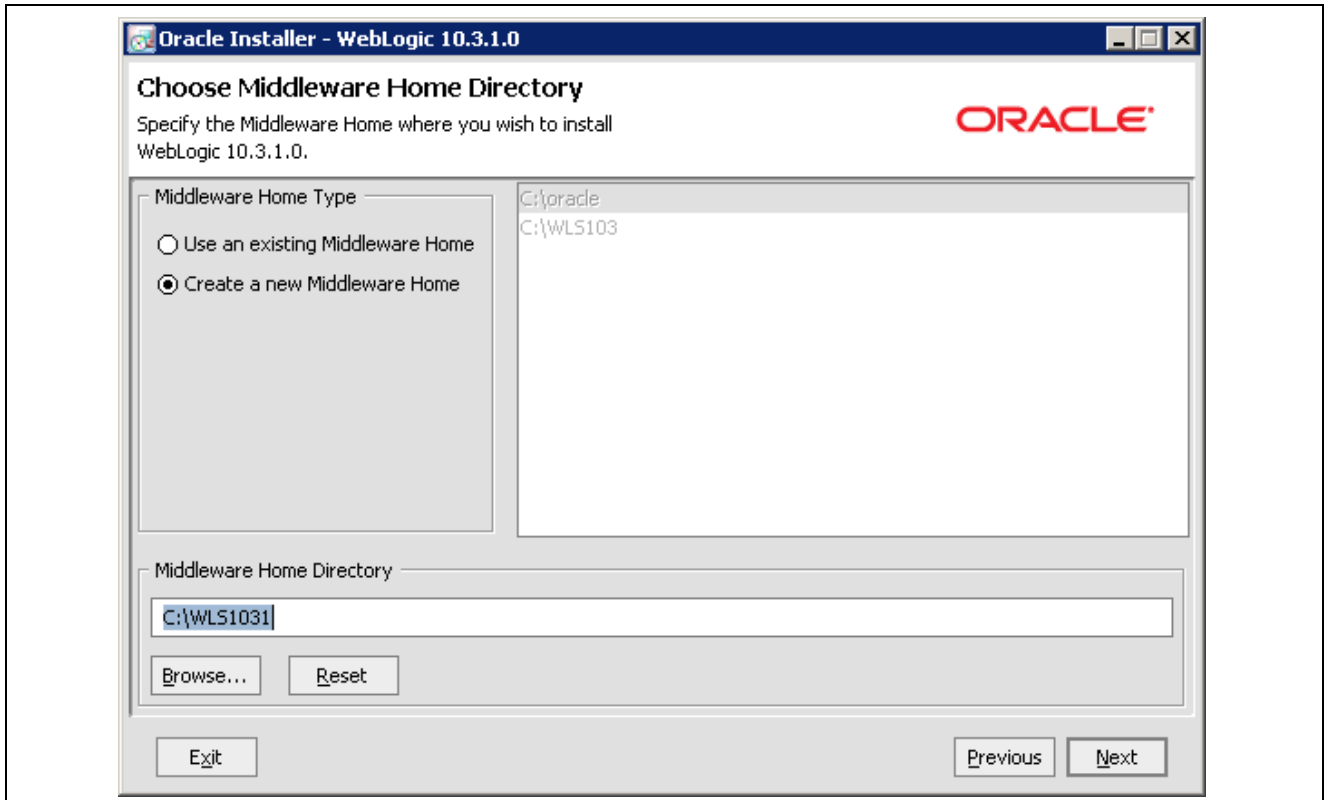


Oracle WebLogic Welcome window

3. Select the option to Create a new Middleware Home, and enter a name or browse to an existing directory.

If the directory does not exist, the Oracle WebLogic installer creates it. The directory where you install Oracle WebLogic is referred to as *WLS_HOME* in this documentation. In this example *WLS_HOME* is C:\WLS1031.

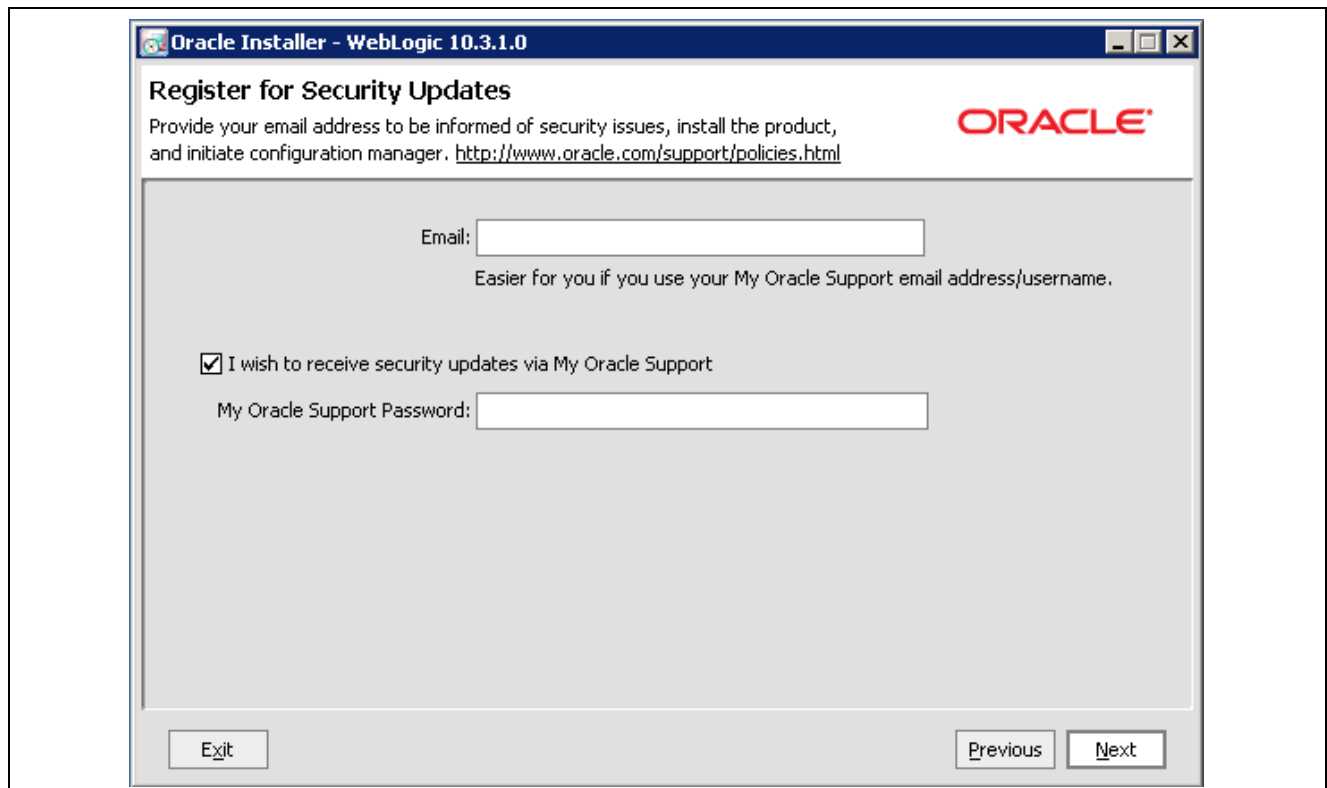
Click Next to continue.



Choose Middleware Home Directory window

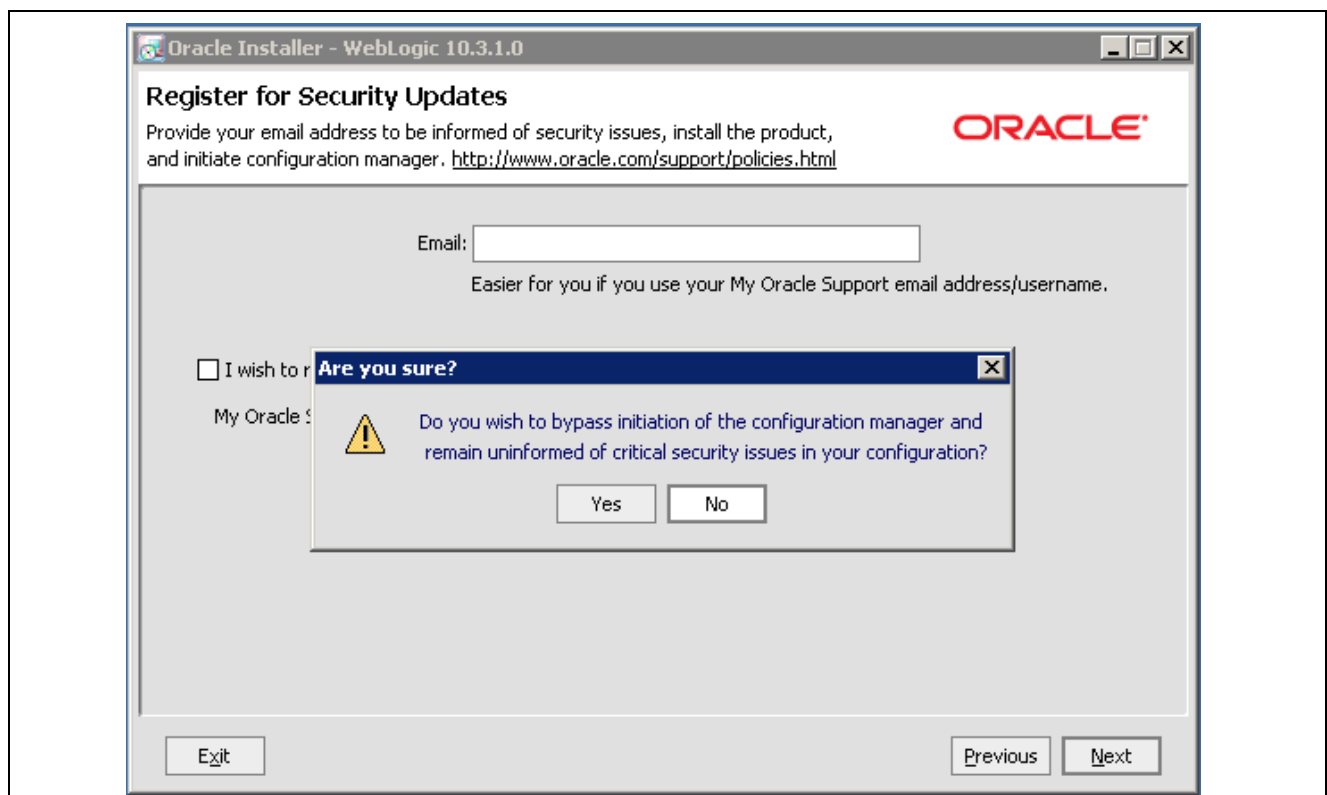
4. Clear the option I wish to receive security updates via My Oracle Support on the Register for Security Updates window.

After you clear the option, a dialog box appears asking for confirmation.



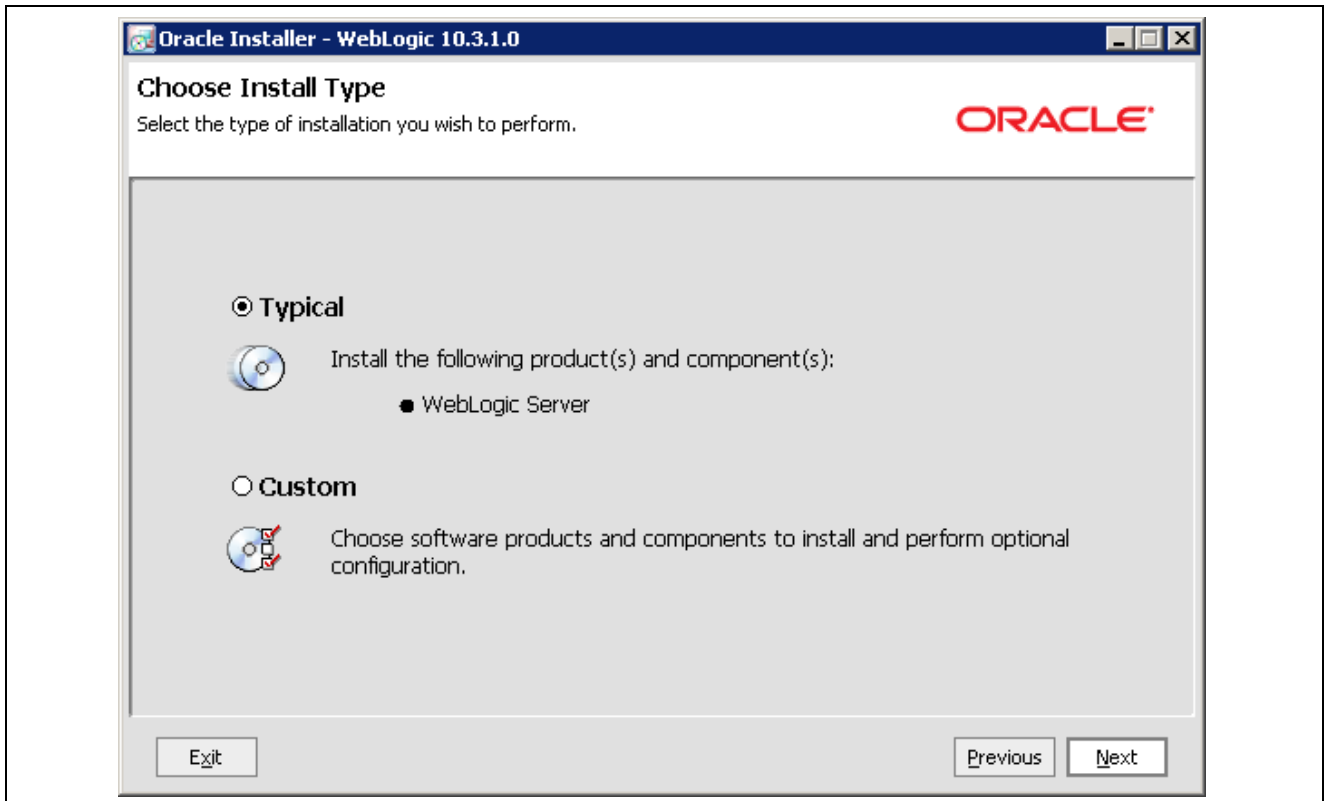
Register for Security Updates windows

5. Click Yes in the "Are you sure?" dialog box, and then click Next on the Register for Security Updates window.



Confirming that you wish to bypass security update registration

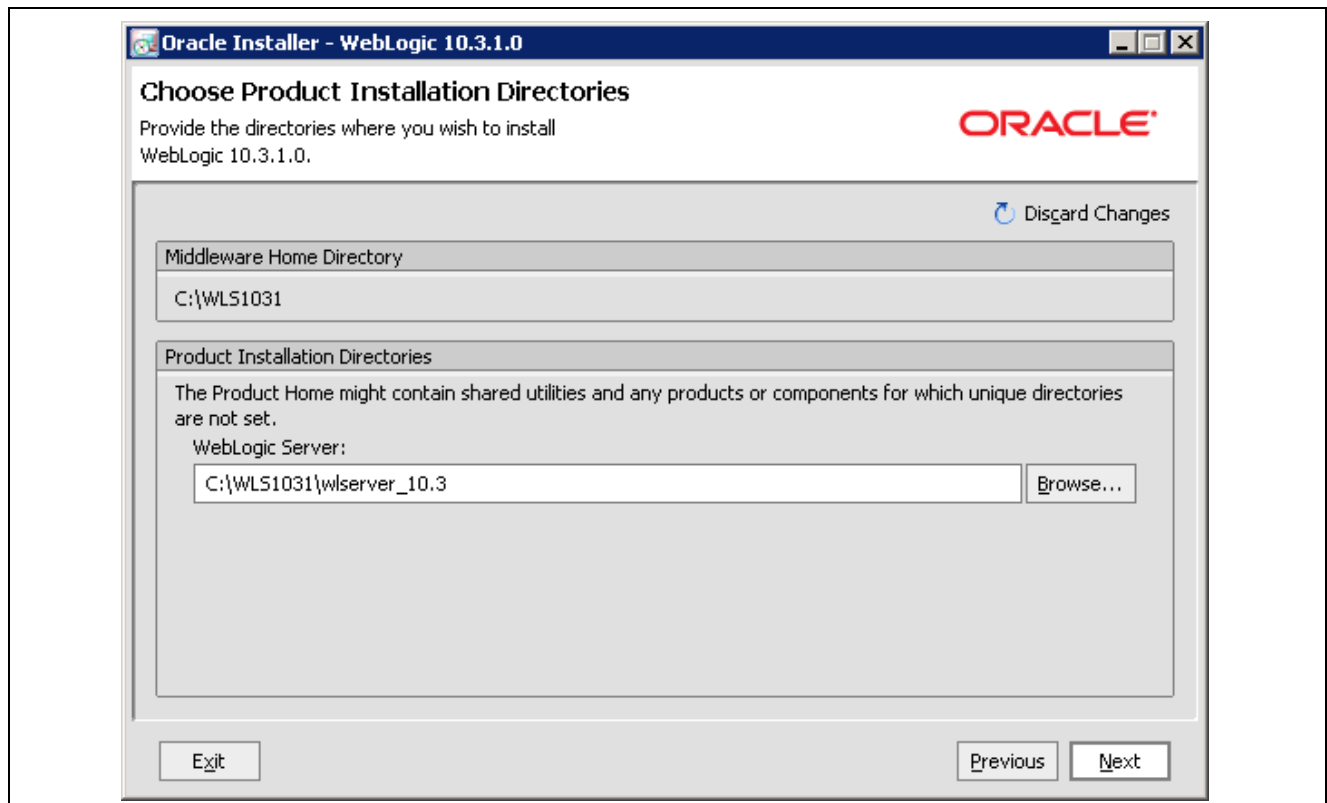
6. Verify that the default option Typical is selected and click Next.



Choose Install Type window

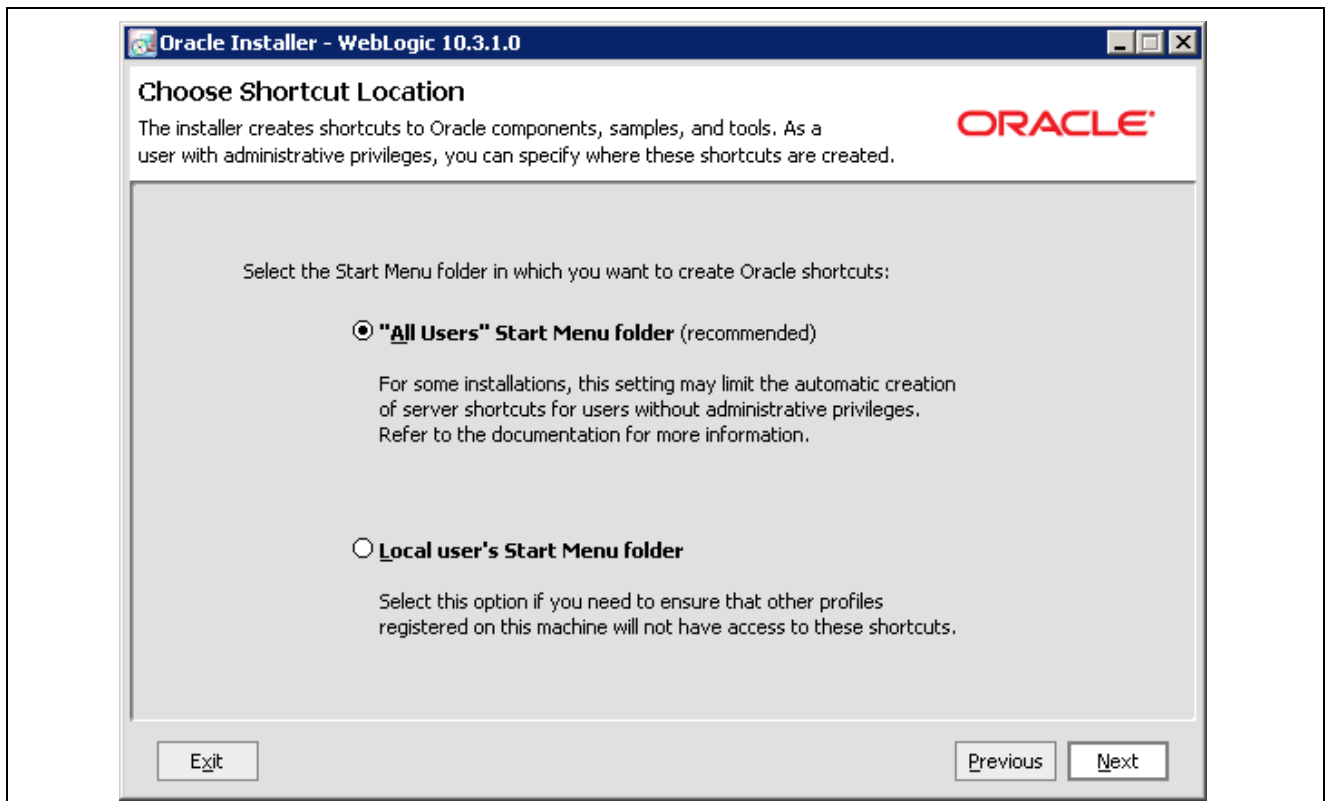
7. Accept the default selection in the Choose Product Installation Directories window, and click Next.

Note. Be sure to accept the default directory. This is important for interaction with Oracle support.



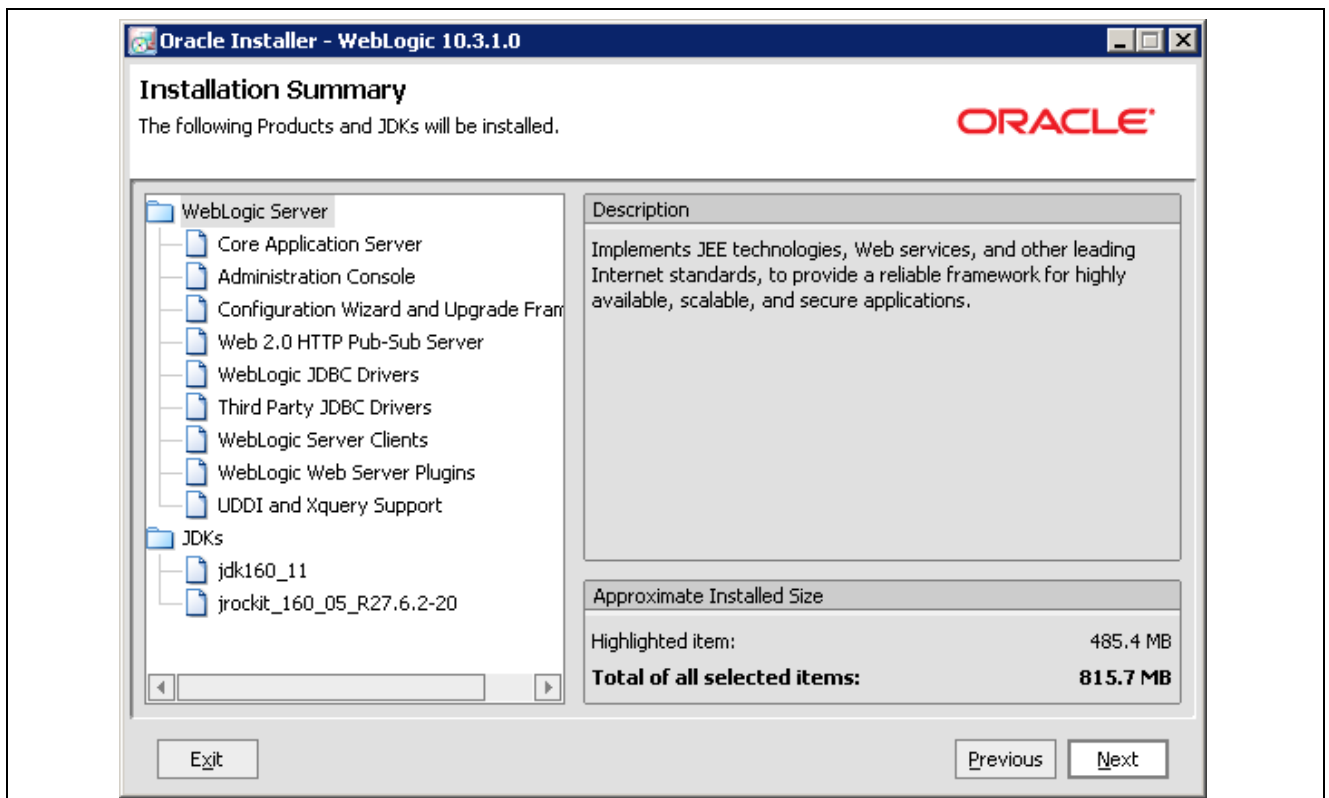
Choose Product Installation Directories window

8. Accept the default selection, “All Users” Start Menu folder (recommended), on the Choose Shortcut Location window, and click Next.



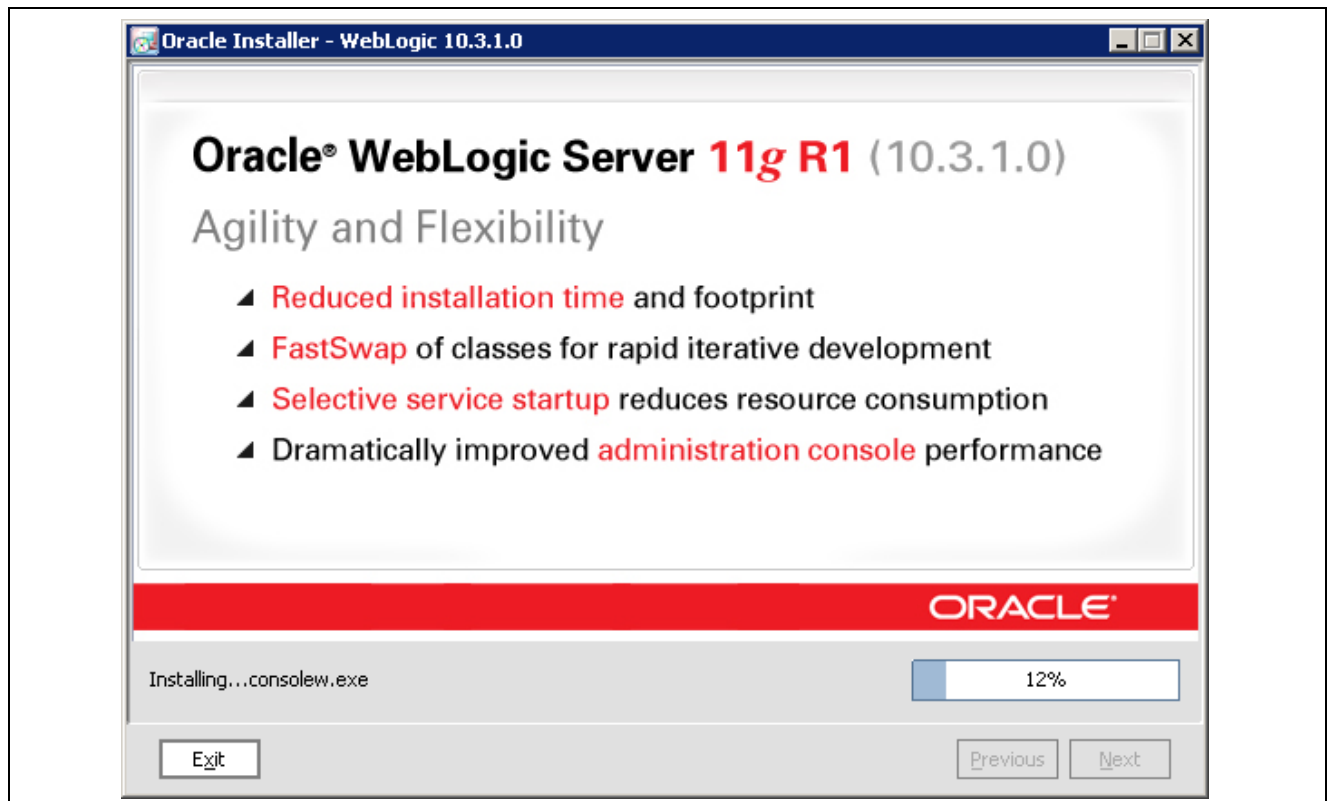
Choose Shortcut Location window

9. Verify your choices in the installation summary, and click Next to begin the installation.



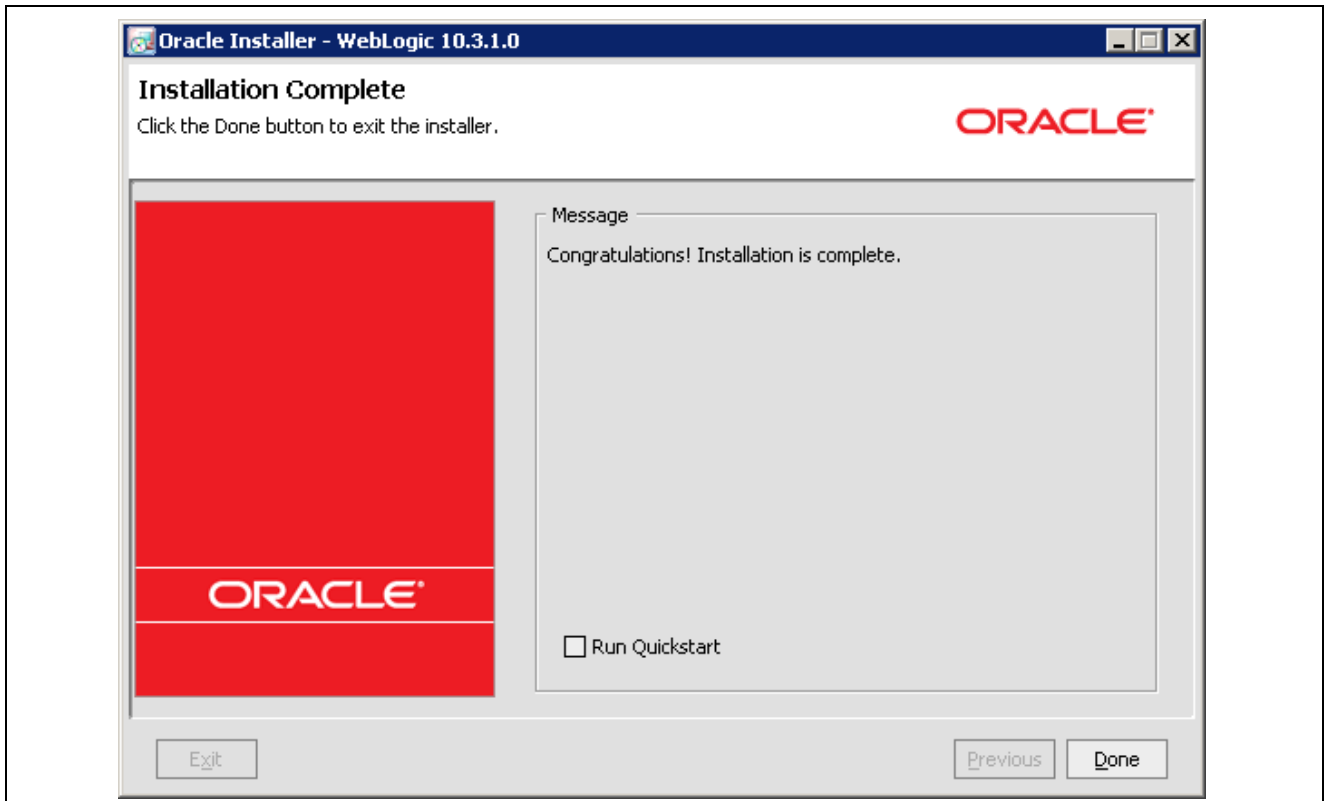
Installation Summary window

A window appears tracking the progress of the installation.



Installation progress window

10. When the installation has completed successfully, clear the Run Quickstart option, and click Done.



Installation Complete window

If you are installing onto Microsoft Windows platform using GUI mode and the installation fails without any message, run the installer from the command prompt using console mode. It will show you more detailed error messages indicating the problem area. The command to run on Microsoft Windows in console mode is:

```
wls1031_win32.exe -mode=console
```

For more information on the steps for running in console mode, see the following section.

If you encounter the following error message while running in console mode on a Microsoft Windows platform, it means an environment variable `_JAVA_OPTIONS` has been set in your system. It causes the Java process initiated by the Oracle WebLogic installer to fail.

**ERROR: JVMPI, an experimental interface, is no longer supported.
Please use the supported interface: the JVM Tool Interface (JVM TI).**

To resolve the problem, remove the environment variable `_JAVA_OPTIONS` from your system and rerun the installation.

Task 2-1-3: Installing Oracle WebLogic on Linux or Solaris

Console mode installation is normally used for Linux and Solaris computers.

After you complete the installation, you must upgrade the JRockit installation for Linux and Sun JDK for Solaris.

See Upgrading JDK for Oracle WebLogic.

To install Oracle WebLogic in console mode:

1. Download the Oracle WebLogic installation file and save it in a local directory, referred to here as *WLS_INSTALL*.

If you downloaded the zip file for the Oracle WebLogic installation from Oracle E-Delivery to a Microsoft Windows computer, FTP the zip file in binary mode to your Linux or Solaris computer before unzipping it into *WLS_INSTALL*.

2. Change directory to *WLS_INSTALL* and make the installation file executable:

- For Linux:

```
chmod a+x wls1031_linux32.bin
```

- For Solaris:

```
chmod a+x wls1031_solaris32.bin
```

3. Use the following command to launch the installer and specify a log file:

Note. The installer creates a log file named *Wls1031Install.log* in the directory *WLS_INSTALL/logs*. Be sure you have write permission to the *WLS_INSTALL* directory.

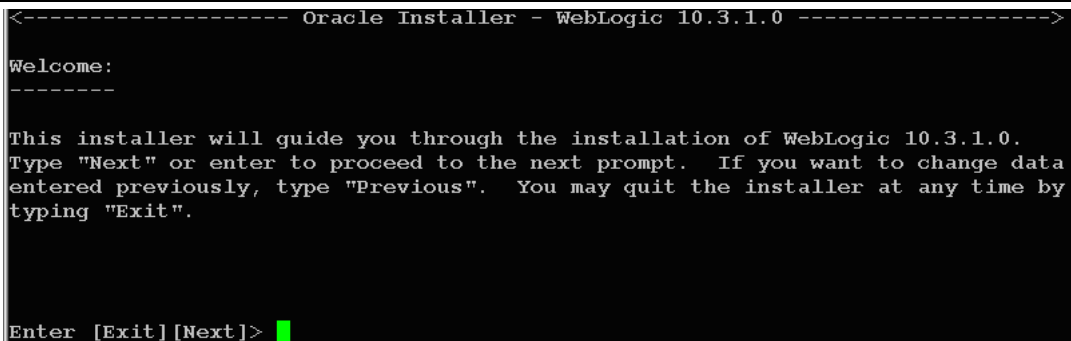
- For Linux:

```
./wls1031_linux32.bin -mode=console -log=./logs/Wls1031Install.log
```

- For Solaris:

```
./wls1031_solaris32.bin -mode=console -log=./logs/Wls1031Install.log
```

4. Type Next after the welcome message:



Oracle Installer WebLogic Welcome prompt

5. Accept the option to Create a new Middleware Home at the next prompt.

You see this prompt only if there are existing Oracle WebLogic installations on your computer. If the installer does not find an existing Middleware Home on your computer, it skips this step.

The installer lists the existing Oracle WebLogic installations on your computer. The selection arrow should point to *Create a new Middleware Home*. Type Next to accept this default option.

Note. Do not type a number; simply type Next.

```

<----- Oracle Installer - WebLogic 10.3.1.0 ----->
Choose Middleware Home Directory:
-----

->1!* Create a new Middleware Home
2! /home/ms23546/wls92mp3_lnx15
3! /home/ms23546/wls92mp3_hpi07
4! /home/ms23546/wls92mp3_ibm31
5! /home/ms23546/wls103Ga_hpi01c2
6! /home/ms23546/wls103Ga_hpi01c
7! /home/ms23546/wls103GaVan_SilentSun17
8! /home/ms23546/wls92mp3_sun06a
9! /home/ms23546/wls103GaVan_lnx16
10! /home/ms23546/wls103GaVan_SilentLnx16
11! /home/ms23546/wls103GaVan_sun17
12! /home/ms23546/wls103GaVan_hpi01c
13! /home/ms23546/wls103GaVan_Silenthpi01c
14! /home/ms23546/wls103GaVan_Sun17
15! /home/ms23546/wls103GaVan_ibm22b
16! /home/ms23546/wls103GaVan_Silentibm22b
17! /home/ms23546/wls103test_Sun17
18! /home/ms23546/wls103GaVan_hpux
19! /home/ms23546/wls103GaVan_Silenthpp03
20! /home/ms23546/wls92mp3_lnx08Console
21! /home/ms23546/Wls103_Sun06
22! /home/ms23546/wls92mp3_lnx08
23! /home/ms23546/wls81sp6_lnx07

Enter index number to select OR [Exit][Previous][Next]> Next_

```

Choose Middleware Home Directory prompt

6. Enter the full path where you want to install Oracle WebLogic, and press ENTER.

In this example, *WLS_HOME* is /home/ms23546/wls1031_consoleLnx16.

The directory where you install Oracle WebLogic is referred to as *WLS_HOME* in this documentation. If the directory does not exist, the installer creates it for you.

```

<----- Oracle Installer - WebLogic 10.3.1.0 ----->
Choose Middleware Home Directory:
-----

"Middleware Home" = [Enter new value or use default
"/home/ms23546/Oracle/Middleware"]

Enter new Middleware Home OR [Exit][Previous][Next]> /home/ms23546/wls1031_conso
leLnx16

```

Specifying the Middleware Home Directory

7. Type Next at the confirmation prompt, and press ENTER.

```

<----- Oracle Installer - WebLogic 10.3.1.0 ----->
Choose Middleware Home Directory:
-----
"Middleware Home" = [/home/ms23546/wls1031_consoleLn16]
Use above value or select another option:
1 - Enter new Middleware Home
2 - Change to default [/home/ms23546/Oracle/Middleware]

Enter option number to select OR [Exit][Previous][Next]> Next_

```

Middleware Home Directory confirmation prompt

8. At the prompt to register for security updates, type 3 and press ENTER.

Note. In the next few steps, you will bypass the security updates registration.

```

<----- Oracle Installer - WebLogic 10.3.1.0 ----->
Register for Security Updates:
-----
Provide your email address to be informed of security issues, install the produc
1!Email:[ ]
2!My Oracle Support Password:[ ]
3!Receive Security Update:[Yes]

Enter index number to select OR [Exit][Previous][Next]> 3

```

Register for Security Updates prompt

9. Type *No* when asked to provide your email address and press ENTER at the following prompt:

```

<----- Oracle Installer - WebLogic 10.3.1.0 ----->
Register for Security Updates:
-----
Provide your email address to be informed of security issues, install the produc
"Receive Security Update:" = [Enter new value or use default "Yes"]

Enter [Yes][No]? No

```

Provide email address prompt

10. Type *Yes* and press ENTER to confirm your choice to bypass the registration at the following prompt:

```

<----- Oracle Installer - WebLogic 10.3.1.0 ----->
Register for Security Updates:
-----
Provide your email address to be informed of security issues, install the product
"Receive Security Update:" = [Enter new value or use default "Yes"]

** Do you wish to bypass initiation of the configuration manager and
** remain uninformed of critical security issues in your configuration?

Enter [Yes][No]? Yes

```

Confirming the choice to bypass registration for security updates

11. Type *Next* at the following prompt and press ENTER.

Note that the value *No* is now populated for item 3, “Receive Security Update”.

```

<----- Oracle Installer - WebLogic 10.3.1.0 ----->
Register for Security Updates:
-----
Provide your email address to be informed of security issues, install the product
1>Email:[ ]
2|My Oracle Support Password:[ ]
3|Receive Security Update:[No]

Enter index number to select OR [Exit][Previous][Next]> Next

```

Verifying the choice to bypass the security updates

12. Enter *1* to select a Typical installation.

```

<----- Oracle Installer - WebLogic 10.3.1.0 ----->
Choose Install Type:
-----
Select the type of installation you wish to perform.

->1|Typical
   | Install the following product(s) and component(s):
   | - WebLogic Server

2|Custom
   | Choose software products and components to install and perform optional
   | configuration.

Enter index number to select OR [Exit][Previous][Next]> 1

```

Choose Install Type prompt

13. Accept the default selection at the Choose Product Installation Directories prompt, and type *Next*.

Note. Be sure to accept the default directory. This is important for interaction with Oracle support.

```

<----- Oracle Installer - WebLogic 10.3.1.0 ----->

Choose Product Installation Directories:
-----

Middleware Home Directory: [/home/ms23546/wls1031_consoleLinux16]

Product Installation Directories:

    "WebLogic Server" = [Enter new value or use default
    "/home/ms23546/wls1031_consoleLinux16/wlserver_10.3"]

Enter new WebLogic Server OR [Exit][Previous][Next]> Next

```

Choose Product Installation Directories prompt

14. Verify your choices in the installation summary, and type Next to begin the installation.

```

<----- Oracle Installer - WebLogic 10.3.1.0 ----->
I
The following Products and JDKs will be installed:
-----

WebLogic Platform 10.3.1.0
|   WebLogic Server
|   |   Core Application Server
|   |   Administration Console
|   |   Configuration Wizard and Upgrade Framework
|   |   Web 2.0 HTTP Pub-Sub Server
|   |   WebLogic JDBC Drivers
|   |   Third Party JDBC Drivers
|   |   WebLogic Server Clients
|   |   WebLogic Web Server Plugins
|   |   UDDI and Xquery Support
|   JDKs
|   |   Sun SDK 1.6.0_11
|   |   Oracle JRockit 1.6.0_05 SDK

*Estimated size of installation: 841.1 MB

Enter [Exit][Previous][Next]> Next

```

Installation summary prompt

A progress indicator appears.


```

<----- Oracle Installer - WebLogic 10.3.1.0 ----->
Installing files..
0%          25%          50%          75%          100%
[-----|-----|-----|-----|]
[*****]

<----- Oracle Installer - WebLogic 10.3.1.0 ----->
Installing JDK...
0%          25%          50%          75%          100%
[-----|-----|-----|-----|]
[*****]

Performing String Substitutions...

<----- Oracle Installer - WebLogic 10.3.1.0 ----->
Configuring OCM...
0%          25%          50%          75%          100%
[-----|-----|-----|-----|]
[*****]

Creating Domains...

<----- Oracle Installer - WebLogic 10.3.1.0 ----->
Installation Complete

Congratulations! Installation is complete.

Press [Enter] to continue or type [Exit]> _

```

Installation progress and completion prompt

15. Type Exit when the installation is complete.

If the installation fails, review the events in the log file *WLS_INSTALL/logs/Wls1031Install.log*.

Task 2-1-4: Installing Oracle WebLogic on Linux or Solaris in Silent Mode

After you complete the installation, you must upgrade the JRockit or JDK installation.

See Upgrading JDK for Oracle WebLogic.

To run the Oracle WebLogic installation in silent mode:

1. Download the Oracle WebLogic installation file and save it in a local directory, referred to here as *WLS_INSTALL*.

If you downloaded the zip file for the Oracle WebLogic installation from Oracle E-Delivery to a Microsoft Windows computer, FTP the zip file in binary mode to your Linux or Solaris computer before unzipping it into *WLS_INSTALL*.

2. Change directory to *WLS_INSTALL* and make the installation file executable:

- For Linux:

```
chmod a+x wls1031_linux32.bin
```

- For Solaris:

```
chmod a+x wls1031_solaris32.bin
```

3. Copy the following content into a text editor and save it in XML format as *installer.xml*:

Note. Review the text and remove the line-continuation arrows, ($\Rightarrow$) before saving.

```
<?xml version="1.0" encoding="UTF-8"?>
<!-- Silent installer option: -mode=silent -silent_xml=/home/me/silent.xml -->
<domain-template-descriptor>
<input-fields>
  <data-value name="BEAHOME" value="ToBeReplacedWithBEAHOME" />
  <data-value name="WLS_INSTALL_DIR" value="ToBeReplacedWithBEAHOME/wlserver_
10.3" />
  <data-value name="COMPONENT_PATHS" value="WebLogic Server/Core Application
Server|WebLogic Server/Administration Console|WebLogic Server/Configuration
Wizard and Upgrade Framework|WebLogic Server/Web 2.0 HTTP Pub-Sub Server|Web
Logic Server/WebLogic JDBC Drivers|WebLogic Server/Third Party JDBC Drivers|Web
Logic Server/WebLogic Server Clients|WebLogic Server/WebLogic Web Server
Plugins|WebLogic Server/UDDI and Xquery Support|WebLogic Server/Workshop Code
Completion Support" />
  <data-value name="INSTALL_NODE_MANAGER_SERVICE" value="no" />
</input-fields>
</domain-template-descriptor>
```

4. Create a local directory to install Oracle WebLogic, referred to here as *WLS_HOME*.
5. Using the text replacement utility in your text editor, replace the string: “ToBeReplacedWithBEAHOME” with the actual directory path you created for the Oracle WebLogic installation.

In this example, *WLS_HOME* is /home/ms23546/wls1031_silentLnx16:

```
<?xml version="1.0" encoding="UTF-8"?>
<!-- Silent installer option: -mode=silent -silent_xml=/home/me/silent.xml -->
<domain-template-descriptor>
<input-fields>
  <data-value name="BEAHOME" value="/home/ms23546/wls1031_silentLnx16" />
  <data-value name="WLS_INSTALL_DIR" value="/home/ms23546/wls1031_silentLnx16
/wlserver_10.3" />
  <data-value name="COMPONENT_PATHS" value="WebLogic Server/Core Application
Server|WebLogic Server/Administration Console|WebLogic Server/Configuration
Wizard and Upgrade Framework|WebLogic Server/Web 2.0 HTTP Pub-Sub Server|Web
Logic Server/WebLogic JDBC Drivers|WebLogic Server/Third Party JDBC Drivers|Web
Logic Server/WebLogic Server Clients|WebLogic Server/WebLogic Web Server
Plugins|WebLogic Server/UDDI and Xquery Support|WebLogic Server/Workshop Code
Completion Support" />
  <data-value name="INSTALL_NODE_MANAGER_SERVICE" value="no" />
```

```
</input-fields>
</domain-template-descriptor>
```

6. Save the installer.xml file in *WLS_INSTALL*.

If it is necessary, FTP it in ASCII mode into the *WLS_INSTALL* directory.

7. Run the following command to launch the installer:

For Linux:

```
WLS_INSTALL/wls1031_linux32.bin -mode=silent -silent_xml=./installer.xml -log=>
/logs/wls1031Install.log
```

For Solaris:

```
WLS_INSTALL/wls1031_solaris32.bin -mode=silent -silent_xml=./installer.xml -log=>
./logs/wls1031Install.log
```

A progress indicator tracks the installation.

8. When the installation is complete, open the *WLS_INSTALL/logs/Wls1031Install.log* file with a text editor to confirm that the installation was successful.

At the end of the log file, you should see the message “The installation was successful!”

Task 2-1-5: Installing Oracle WebLogic on AIX, HP-UX Itanium, or HP-UX PA-RISC in Console Mode

Console mode installation is normally used for AIX and HP-UX computers.

To install Oracle WebLogic on AIX, HP-UX Itanium, or HP-UX PA-RISC, you need to obtain platform-specific Java Developer Kits (JDK):

Note. If you have any questions about obtaining or installing the JDK, contact your AIX or HP-UX vendor.

- For AIX:

- a. Go to the following IBM JDK download site:

<http://www.ibm.com/developerworks/java/jdk/aix/service.html>

Note. You will need to register and log in to use this site.

- b. Select the Java 6 32-bit link.

- c. Download IBM Java 6 (32-bit) JDK SR5 or higher.

- d. Install it on the computer where you want to install Oracle WebLogic.

- For HP-UX Itanium:

- a. Go to the following HP JDK download site:

<http://h20392.www2.hp.com/portal/swdepot/displayProductInfo.do?productNumber=HPUXJDKJRE60>

- b. In the Downloads area, select the link Version 6.0.04 - May 2009.

- c. In the Software Specification drop-down list, select Itanium(R) JDK 6.0.04 – May 09.

- d. Provide the required information.
 - e. Click Next and download JDK using the download key.
 - f. Install the JDK.
- For HP-UX PA-RISC:
 - a. Go to the following HP JDK download site:
<http://h20392.www2.hp.com/portal/swdepot/displayProductInfo.do?productNumber=HPUXJDKJRE60>
 - b. In the Downloads area, select the link Version 6.0.04 - May 2009.
 - c. In the Software Specification drop-down list, select PA-RISC JDK 6.0.04 - May 09
 - d. Provide the required information.
 - e. Click Next and download JDK using the download key.
 - f. Install the JDK.

To install Oracle WebLogic in console mode:

1. Download the Oracle WebLogic installation file and save it in a local directory, referred to here as *WLS_INSTALL*.

If you downloaded the zip file for the Oracle WebLogic installation from Oracle E-Delivery to a Microsoft Windows computer, FTP the zip file in binary mode to your AIX or HP-UX before unzipping it into *WLS_INSTALL*.

2. Change directory to *WLS_INSTALL* and make the installation file executable:

```
chmod a+x wls1031_generic.jar
```

3. Set *JAVA_HOME* to be the location where you installed the platform-specific JDK.

For example, if you installed the JDK in */opt/java6*, use these commands:

```
JAVA_HOME=/opt/java6
export JAVA_HOME
```

4. Create the environment variable *JAVA_HOME_BIN* with the following commands:

```
JAVA_HOME_BIN=$JAVA_HOME/bin/
export JAVA_HOME_BIN
```

Note. Be sure to include the forward slash at the end of *\$JAVA_HOME/bin/*.

5. Run the following command in *WLS_INSTALL* to launch the installer and specify a directory for log files:

Note. The installer creates a log file named *Wls1031Install.log* in the directory *WLS_INSTALL/logs*, and also creates a directory *WLS_INSTALL/cachedir*. The user running the installation must have write permission to the directory.

```
${JAVA_HOME_BIN}java -jar ./wls1031_generic.jar -mode=console -log=./logs⇒
/Wls1031Install.log
```

6. Type Next after the welcome message:

```

<----- Oracle Installer - WebLogic 10.3.1.0 ----->

Welcome :
-----

This installer will guide you through the installation of WebLogic 10.3.1.0.
Type "Next" or enter to proceed to the next prompt. If you want to change data

Enter [Exit][Next]> Next_

```

Oracle Installer for WebLogic Welcome prompt

7. Accept the option to Create a new Middleware Home at the next prompt.

You see this prompt only if there are existing Oracle WebLogic installations on your computer. If the installer does not find an existing Middleware Home on your computer, it skips this step.

The installer lists the existing Oracle WebLogic installations on your computer. The selection arrow should point to *Create a new Middleware Home*. Type Next to accept this default option.

Note. Do not type a number; simply type Next.

```

<----- Oracle Installer - WebLogic 10.3.1.0 ----->

Choose Middleware Home Directory:
-----

->1!* Create a new Middleware Home
 2! /home/ms23546/wls92mp3_lnx15
 3! /home/ms23546/wls92mp3_hpi07
 4! /home/ms23546/wls92mp3_ibm31
 5! /home/ms23546/wls103Ga_hpi01c2
 6! /home/ms23546/wls103Ga_hpi01c
 7! /home/ms23546/wls103GaVan_SilentSun17
 8! /home/ms23546/wls92mp3_sun06a
 9! /home/ms23546/wls103GaVan_lnx16
10! /home/ms23546/wls103GaVan_SilentLnx16
11! /home/ms23546/wls103GaVan_sun17
12! /home/ms23546/wls103GaVan_hpi01c
13! /home/ms23546/wls103GaVan_sun17
14! /home/ms23546/wls103GaVan_ibm22b
15! /home/ms23546/wls103GaVan_Silentibm22b
16! /home/ms23546/wls103test_sun17
17! /home/ms23546/wls103GaVan_hpux
18! /home/ms23546/wls103GaVan_Silenthpp03
19! /home/ms23546/wls92mp3_lnx08Console
20! /home/ms23546/wls103_sun06
21! /home/ms23546/wls92mp3_lnx08
22! /home/ms23546/wls81sp6_lnx07
23! /home/ms23546/wls1031_silentLnx16
24! /home/ms23546/wls1031_consoleLnx16

Enter index number to select OR [Exit][Previous][Next]> Next_

```

Choose Middleware Home Directory prompt

8. Enter the full path where you want to install Oracle WebLogic and press ENTER.

In this example, *WLS_HOME* is /home/ms23546/wls1031_consoleHpi01c.

The directory where you install Oracle WebLogic is referred to as *WLS_HOME* in this documentation. If the directory does not exist, the installer creates it for you.

```

<----- Oracle Installer - WebLogic 10.3.1.0 ----->
Choose Middleware Home Directory:

  "Middleware Home" = [Enter new value or use default
  "/home/ms23546/Oracle/Middleware"]

Enter new Middleware Home OR [Exit][Previous][Next]> /home/ms23546/wls1031_consoleHpi01c

```

Specifying Middleware Home Directory

9. Type *Next* and press ENTER after the confirmation.

```

<----- Oracle Installer - WebLogic 10.3.1.0 ----->
Choose Middleware Home Directory:

  "Middleware Home" = [/home/ms23546/wls1031_consoleHpi01c]
Use above value or select another option:
  1 - Enter new Middleware Home
  2 - Change to default [/home/ms23546/Oracle/Middleware]

Enter option number to select OR [Exit][Previous][Next]> Next

```

Confirming the Middleware Home Directory

10. At the prompt to register for security updates, type *3* and press ENTER.

Note. In the next few steps, you will bypass the security updates registration.

```

<----- Oracle Installer - WebLogic 10.3.1.0 ----->
Register for Security Updates:

Provide your email address to be informed of security issues, install the product

  1>Email:[ ]
  2|My Oracle Support Password:[ ]
  3|Receive Security Update:[Yes]

Enter index number to select OR [Exit][Previous][Next]> 3

```

Register for Security Updates prompt

11. Type *No* when asked to provide your email address and press ENTER at the following prompt:

```

<----- Oracle Installer - WebLogic 10.3.1.0 ----->
Register for Security Updates:
-----
Provide your email address to be informed of security issues, install the produc
    "Receive Security Update:" = [Enter new value or use default "Yes"]

Enter [Yes][No]? No

```

Entering No at the Provide email address prompt

12. Type *Yes* and press ENTER to confirm your choice to bypass the registration at the following prompt:

```

<----- Oracle Installer - WebLogic 10.3.1.0 ----->
Register for Security Updates:
-----
Provide your email address to be informed of security issues, install the produc
    "Receive Security Update:" = [Enter new value or use default "Yes"]

    ** Do you wish to bypass initiation of the configuration manager and
    ** remain uninformed of critical security issues in your configuration?

Enter [Yes][No]? Yes

```

Confirming the choice to bypass the registration for security updates

13. Type *Next* at the following prompt and press ENTER.

Note that the value *No* is now populated for item 3, “Receive Security Update”.

```

<----- Oracle Installer - WebLogic 10.3.1.0 ----->
Register for Security Updates:
-----
Provide your email address to be informed of security issues, install the produc
    1!Email:[]
    2!My Oracle Support Password:[]
    3!Receive Security Update:[No]

Enter index number to select OR [Exit][Previous][Next]> Next

```

Verifying the choice to bypass security updates

14. Enter *1* to select Typical installation.

```

<----- Oracle Installer - WebLogic 10.3.1.0 ----->

Choose Install Type:
-----

Select the type of installation you wish to perform.

->1|Typical
   | Install the following product(s) and component(s):
   | - WebLogic Server

   2|Custom
   | Choose software products and components to install and perform optional
   | configuration.

Enter index number to select OR [Exit][Previous][Next]> 1

```

Choose Install Type prompt

15. At the JDK Selection prompt, verify that the location you set as JAVA_HOME in step 2 is selected. Type Next to continue.

```

<----- Oracle Installer - WebLogic 10.3.1.0 ----->

JDK Selection (Any * indicates Oracle Supplied VM):
-----

JDK(s) chosen for use with this product installation will be installed. Supported
defaults if not deselected will be used in script string-substitution.

   1|Add Local Jdk
   2|/opt/java1.6.0_04[x]

*Estimated size of installation:  474.4 MB

Enter 1 to add or >= 2 to toggle selection OR [Exit][Previous][Next]> Next

```

JDK Selection prompt

16. Accept the default selection at the Choose Product Installation Directories prompt, and type Next.

Note. Be sure to accept the default directory. This is important for interaction with Oracle support.

```

<----- Oracle Installer - WebLogic 10.3.1.0 ----->

Choose Product Installation Directories:
-----

Middleware Home Directory: [/home/ms23546/wls1031_consoleHpi01c]

Product Installation Directories:

   "WebLogic Server" = [Enter new value or use default
   "/home/ms23546/wls1031_consoleHpi01c/wlserver_10.3"]

Enter new WebLogic Server OR [Exit][Previous][Next]> Next

```

Choose Product Installation Directories prompt

17. Verify your choices in the installation summary, and type Next to begin the installation.


```

<----- Oracle Installer - WebLogic 10.3.1.0 ----->

The following Products and JDKs will be installed:
-----

WebLogic Platform 10.3.1.0
|   WebLogic Server
|   |   Core Application Server
|   |   Administration Console
|   |   Configuration Wizard and Upgrade Framework
|   |   Web 2.0 HTTP Pub-Sub Server
|   |   WebLogic JDBC Drivers
|   |   Third Party JDBC Drivers
|   |   WebLogic Server Clients
|   |   WebLogic Web Server Plugins
|   |   UDDI and Xquery Support
|
*Estimated size of installation: 474.4 MB

Enter [Exit] [Previous] [Next]> Next

```

Installation summary prompt

A progress indicator appears.

```

<----- Oracle Installer - WebLogic 10.3.1.0 ----->

Installing files..

0%          25%          50%          75%          100%
[-----|-----|-----|-----|]
[*****]

Performing String Substitutions...

<----- Oracle Installer - WebLogic 10.3.1.0 ----->

Configuring OCM...

0%          25%          50%          75%          100%
[-----|-----|-----|-----|]
[*****]

Creating Domains...

<----- Oracle Installer - WebLogic 10.3.1.0 ----->

Installation Complete

Congratulations! Installation is complete.

Press [Enter] to continue or type [Exit]>

```

Progress indicator and installation complete message

18. Type Exit when the installation is complete.

If the installation fails, review the events in the log file *WLS_INSTALL/logs/Wls1031Install.log*.

Task 2-1-6: Installing Oracle WebLogic on AIX, HP-UX Itanium, or HP-UX PA-RISC in Silent Mode

To install Oracle WebLogic on AIX or HP-UX, you need to obtain platform-specific Java Developer Kits (JDK), as described in the previous section.

See Installing Oracle WebLogic on AIX, HP-UX Itanium, or HP-UX PA-RISC in Console Mode.

To install Oracle WebLogic in silent mode:

1. Download the Oracle WebLogic installation file and save it in a local directory, referred to here as *WLS_INSTALL*.

If you downloaded the zip file for the Oracle WebLogic installation from Oracle E-Delivery to a Microsoft Windows computer, FTP the zip file in binary mode to your AIX or HP-UX computer before unzipping it into *WLS_INSTALL*.

2. Change directory to *WLS_INSTALL* and make the installation file executable:

```
chmod a+x wls1031_generic.jar
```

3. Set *JAVA_HOME* to be the location where you installed the platform-specific JDK.

For example, if you installed the JDK in */opt/java6*, use these commands:

```
JAVA_HOME=/opt/java6
export JAVA_HOME
```

4. Create the environment variable *JAVA_HOME_BIN* with the following commands:

```
JAVA_HOME_BIN=$JAVA_HOME/bin/
export JAVA_HOME_BIN
```

Note. Be sure to include the forward slash ("/") at the end of *\$JAVA_HOME/bin/*.

5. Copy the following content into a text editor and save it in XML format as *installer.xml*:

Note. Review the text and remove the line-continuation arrows, (*⇒*) before saving.

```
<?xml version="1.0" encoding="UTF-8"?>
<!-- Silent installer option: -mode=silent -silent_xml=/home/me/silent.xml -->
<domain-template-descriptor>
<input-fields>
  <data-value name="BEAHOME" value="ToBeReplacedWithBEAHOME" />
  <data-value name="WLS_INSTALL_DIR" value="ToBeReplacedWithBEAHOME/wlserver_⇒
10.3" />
  <data-value name="COMPONENT_PATHS" value="WebLogic Server/Core Application⇒
Server|WebLogic Server/Administration Console|WebLogic Server/Configuration⇒
Wizard and Upgrade Framework|WebLogic Server/Web 2.0 HTTP Pub-Sub Server|Web⇒
Logic Server/WebLogic JDBC Drivers|WebLogic Server/Third Party JDBC Drivers|Web⇒
Logic Server/WebLogic Server Clients|WebLogic Server/WebLogic Web Server⇒
Plugins|WebLogic Server/UDDI and Xquery Support|WebLogic Server/Workshop Code⇒
Completion Support" />
  <data-value name="INSTALL_NODE_MANAGER_SERVICE" value="no" />
</input-fields>
```

```
</domain-template-descriptor>
```

6. Create a local directory to install Oracle WebLogic, referred to here as *WLS_HOME*.
7. Using the text replacement utility in your text editor, replace the string: “ToBeReplacedWithBEAHOME” with the actual directory path you created for the Oracle WebLogic installation.

In this example, *WLS_HOME* is */home/ms23546/wls103GaVan_hpi01c*:

```
<?xml version="1.0" encoding="UTF-8"?>
<!-- Silent installer option: -mode=silent -silent_xml=/home/me/silent.xml -->
<domain-template-descriptor>
<input-fields>
  <data-value name="BEAHOME" value="/home/ms23546/wls103GaVan_hpi01c" />
  <data-value name="WLS_INSTALL_DIR" value="/home/ms23546/wls103GaVan_hpi01c=>
/wlserver_10.3" />
  <data-value name="COMPONENT_PATHS" value="WebLogic Server/Core Application=>
Server|WebLogic Server/Administration Console|WebLogic Server/Configuration=>
Wizard and Upgrade Framework|WebLogic Server/Web 2.0 HTTP Pub-Sub Server|Web=>
Logic Server|WebLogic JDBC Drivers|WebLogic Server/Third Party JDBC Drivers|Web=>
Logic Server|WebLogic Server Clients|WebLogic Server/WebLogic Web Server=>
Plugins|WebLogic Server/UDDI and Xquery Support|WebLogic Server/Workshop Code=>
Completion Support" />
  <data-value name="INSTALL_NODE_MANAGER_SERVICE" value="no" />
</input-fields>
</domain-template-descriptor>
```

8. Save the installer.xml file in *WLS_INSTALL*.
If it is necessary, FTP it in ASCII mode into the *WLS_INSTALL* directory.
9. Make sure you are in *WLS_INSTALL*, and run the following command to launch the installer:

```
${JAVA_HOME_BIN}java -jar ./wls1031_generic.jar -mode=silent -silent_xml=.=>
/installer.xml -log=./logs/wls1031Install.log
```

The installer creates a *WLS_INSTALL/logs* directory containing the log file *Wls1031Install.log*. It also creates a *WLS_INSTALL/cachedir*. The user running the installation must have write permission to the directory.

A progress indicator tracks the installation.

10. When the installation is complete, open the *WLS_INSTALL/logs/Wls1031Install.log* file with a text editor to confirm that the installation was successful.

At the end of the log file, you should see the message “The installation was successful!”

Task 2-1-7: Upgrading JDK for Oracle WebLogic

This section discusses:

- Understanding the JDK Upgrade for WebLogic
- Upgrading JRockit for Microsoft Windows
- Upgrading JRockit for Linux

- Upgrading JDK for Solaris

Understanding the JDK Upgrade for WebLogic

If you installed Oracle WebLogic on Microsoft Windows or Linux, you must upgrade the JRockit installation after completing the Oracle WebLogic installation, as described in this section.

If you installed Oracle WebLogic on Solaris, you must upgrade the Sun JDK after completing the installation, as described in this section.

If you installed Oracle WebLogic on AIX, HP-UX Itanium, or HP-UX PA-RISC operating system platform using the instructions in this section, see the instructions given earlier.

See Installing Oracle WebLogic on AIX, HP-UX Itanium, or HP-UX PA-RISC in Console Mode.

Upgrading JRockit for Microsoft Windows

To upgrade JRockit for an Oracle WebLogic installation on Microsoft Windows:

1. Go to the My Oracle Support web site and log in using your Oracle/PeopleSoft user ID and password.
2. Select the Patches & Updates tab.
3. Select Oracle, Siebel and Hyperion Products.
4. Select Simple Search.
5. Enter the following information:
 - Select *Product or Family* from the Search By drop-down list, and enter ORACLE JROCKIT.
 - Select *Oracle JRockit 27.6.4* from the Release drop-down list.
 - Select *Microsoft Windows (32-bit)* from the Platform or Language drop-down list.
 - Accept Any for the Patch Type and Classification.
6. Click Go.
7. Select *Oracle JRockit: Patch JDK160 ORACLE JROCKIT R27.6.4* from the list of patches.
8. Click Download and save the patch to a convenient directory on your local drive.
For Microsoft Windows, the file name is p8647911_2764_WINNT.zip.
9. Extract the contents of the zip file and copy the new JRockit, named jrockit-jdk1.6.0_14, into *WLS_HOME*.
10. Verify that the JRockit JVM version is 1.6.0_14, by running the following command:

```
%WLS_HOME%\jrockit-jdk1.6.0_14\bin\java -version
```

The response should look like the following:

```
Java version "1.6.0_14"
  Java(TM) SE Runtime Environment (build 1.6.0_14-b08)
  BEA JRockit(R) (build R27.6.4-18_o-117227-1.6.0_14-20090623-2105-windows-=>
  ia32, compiled mode)
```

11. Go to the *WLS_HOME\wlserver_10.3\common\bin* directory and back up the commEnv.cmd file.
12. Open commEnv.cmd in a text editor and find the entry for *JAVA_HOME*.

Change the *JAVA_HOME* setting to the newly installed JRockit directory; for example:

```
set JAVA_HOME=C:\WLS1031\jrockit_160_14
```

13. Save and close commEnv.cmd.

Upgrading JRockit for Linux

To upgrade JRockit for an Oracle WebLogic installation on Linux:

1. Go the My Oracle Support web site and log in using your Oracle/PeopleSoft user ID and password.
2. Select the Patches & Updates tab.
3. Select Oracle, Siebel and Hyperion Products.
4. Select Simple Search.
5. Enter the following information:
 - Select *Product or Family* from the Search By drop-down list, and enter ORACLE JROCKIT.
 - Select *Oracle JRockit 27.6.4* from the Release drop-down list.
 - Select *Linux x86* from the Platform or Language drop-down list.
 - Accept Any for the Patch Type and Classification.
6. Click Go.
7. Select *Oracle JRockit: Patch JDK160 ORACLE JROCKIT R27.6.4* from the list of patches.
8. Click Download and save the patch to a convenient directory on your local drive.
For Linux, the file name is p8647911_2764_LINUX.zip.
9. Extract the contents of the zip file and copy the new JRockit, named jrockit-jdk1.6.0_14, into *WLS_HOME*.
10. Verify that the JRockit JVM version is 1.6.0_14, by running the following command:

```
$WLS_HOME\jrockit-jdk1.6.0_14\bin\java -version
```

The response should look like the following:

```
Java version "1.6.0_14"
```

```
Java(TM) SE Runtime Environment (build 1.6.0_14-b08)
```

```
BEA JRockit(R) (build R27.6.4-18_o-117227-1.6.0_14-20090623-2105-windows-⇒  
ia32, compiled mode)
```

11. Go to the *WLS_HOME*/wlserver_10.3/common/bin directory and back up the commEnv.sh file.
12. Open commEnv.sh in a text editor and find the entry for *JAVA_HOME*.

Change the *JAVA_HOME* setting to the newly installed JRockit directory; for example:

```
set JAVA_HOME=/home/WLS1031/jrockit_160_14
```

13. Save and close commEnv.sh.

Upgrading JDK for Solaris

To upgrade JDK for an Oracle WebLogic installation on Solaris:

1. Download 32-bit Sun JDK 1.6 update 15 or above for Solaris (SPARC) from Sun.
For example the JDK1.6_15 installer for Solaris-sparc is jdk-6u15-solaris-sparc.sh.
2. FTP the installer to the /tmp directory on your Solaris computer using binary mode.
3. Make sure that execute permissions are set on the installer. For example:

```
chmod a+x jdk-6u15-solaris-sparc.sh
```

4. Go to your *WLS_HOME* where you installed the Oracle WebLogic Server 10.3.1.
5. Run the installer; for example:

```
/tmp/jdk-6u12-solaris-sparc.sh
```

The installer will create a new folder (for example, *jdk1.6.0_15*) under *WLS_HOME*.

6. Back up the *commEnv.sh* file under *WLS_HOME/wlserver_10.3/common/bin* directory.
7. Open *commEnv.sh* in a text editor and find the entry for *JAVA_HOME*.

Change the *JAVA_HOME* setting to the newly installed JDK directory; for example:

```
JAVA_HOME=/home/WLS1031/jdk1.6.0_15
```

8. Save the file.

Task 2-1-8: Configuring for Daylight Savings Time Change

As a result of the Energy Policy Act of 2005, Daylight Saving Time (DST) starts a little earlier and ends a little later, from the year 2007. In the United States and Canada, Daylight Saving Time starts on the second Sunday of March and ends on the first Sunday of November.

Note. The version of Oracle WebLogic 10.3.1 provided with PeopleSoft PeopleTools 8.50 includes the DST rules available at the time of packaging. If new rules are implemented after this time, you should use the instructions in this section to update the time zone definition files.

This section provides an example of how the time zone updater utility (TZUPDATER), supplied by each of the four JDK vendors can be used to update the time zone definition files contained in the JDK used by Oracle WebLogic server.

1. Identify and shut down any JVM processes that are using the JDK that you will be updating.
2. For future reference or restoration, back up the location where the targeted JDK is located.

For example, in the case of the Oracle WebLogic 10.3.1 server installed on Microsoft Windows under the default *C:\bea*, back up the *jrockit_160_05* under *C:\bea*.

The JDK being used for different operating systems is different. For Oracle WebLogic 10.3.1, refer to the *commEnv.cmd* file (for Windows, *commEnv.sh* for UNIX) under *WLS_HOME\wlserver_10.3\common\bin* to determine the setting for *JAVA_HOME* and the exact name and location for the JDK being used by your Oracle WebLogic server. *WLS_HOME* is the directory where Oracle WebLogic is installed.

3. Download the appropriate updater utility for your operating system from the JDK vendor.

Operating System	Vendor	Time Zone Updater URL
Sun Sparc Solaris	Sun Microsystems	http://java.sun.com/javase/tzupdater_README.html
Microsoft Windows	Oracle	http://www.oracle.com/technology/software/products/jrockit/index.html
Linux	Oracle	http://www.oracle.com/technology/software/products/jrockit/index.html

Operating System	Vendor	Time Zone Updater URL
HP-UX (RISC and Itanium)	Hewlett Packard	http://www.hp.com/products1/unix/java/DST-US.html
IBM AIX 5L	IBM	http://www-128.ibm.com/developerworks/java/jdk/dst/index.html

Each tzupdater provided by the vendor comes with instructions (typically in a readme file) describing how to:

- Locate the correct JDK.
- Apply classes using the tzupdater or provided scripts.
- Check tzupdater versions.

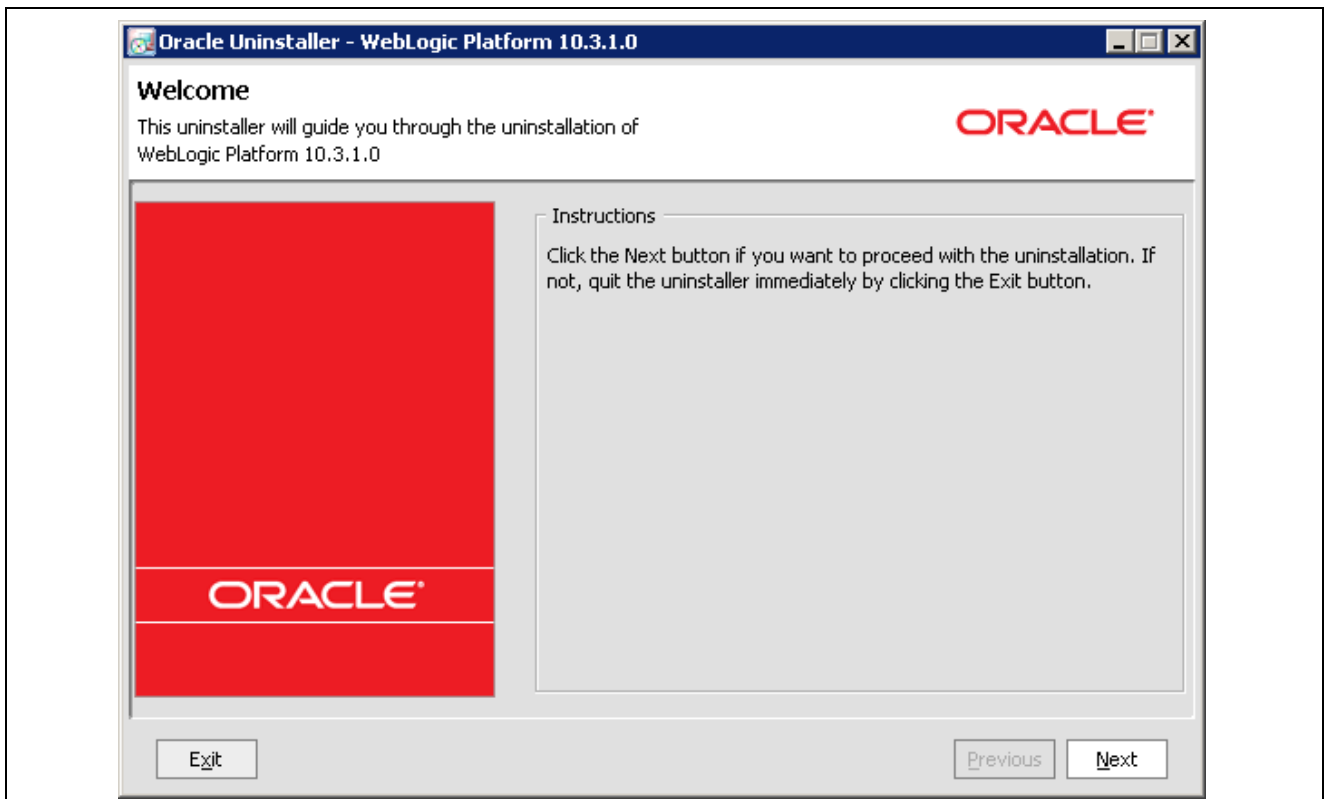
Read the instructions carefully as the steps and instructions are vendor-specific. Keep in mind that these instructions and versions may be updated when the vendor finds it necessary.

Note. After successfully running the TZUPDATER to update a JDK location, the changes will take effect only for newly started Java processes from that location. In the event that you did not identify and stop all Java processes running from this location, it will be necessary to stop and restart these for the changes to take effect.

Task 2-1-9: Removing the Oracle WebLogic Installation on Microsoft Windows

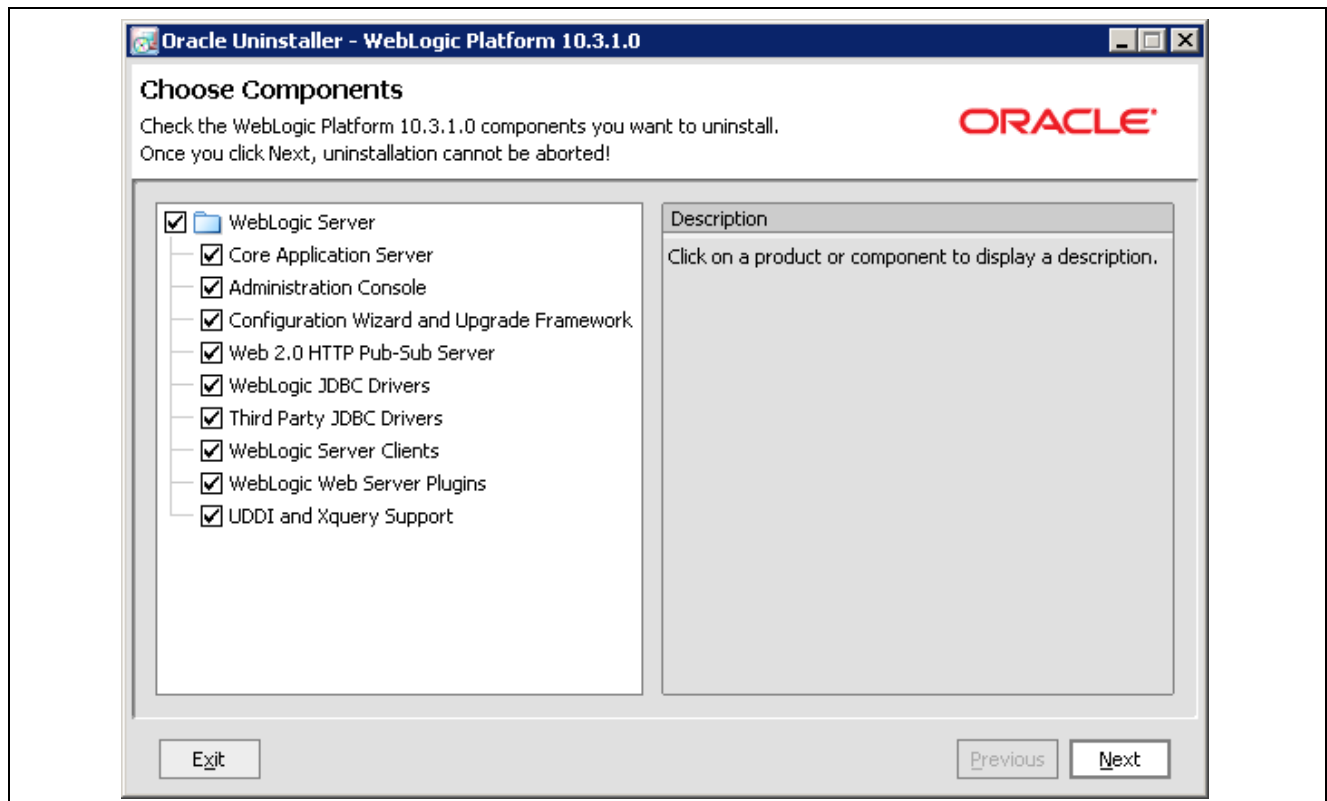
To remove the Oracle WebLogic installation on Microsoft Windows:

1. Select Start, Programs, Oracle WebLogic, Uninstall Oracle WebLogic.



Oracle WebLogic Uninstaller: Welcome window

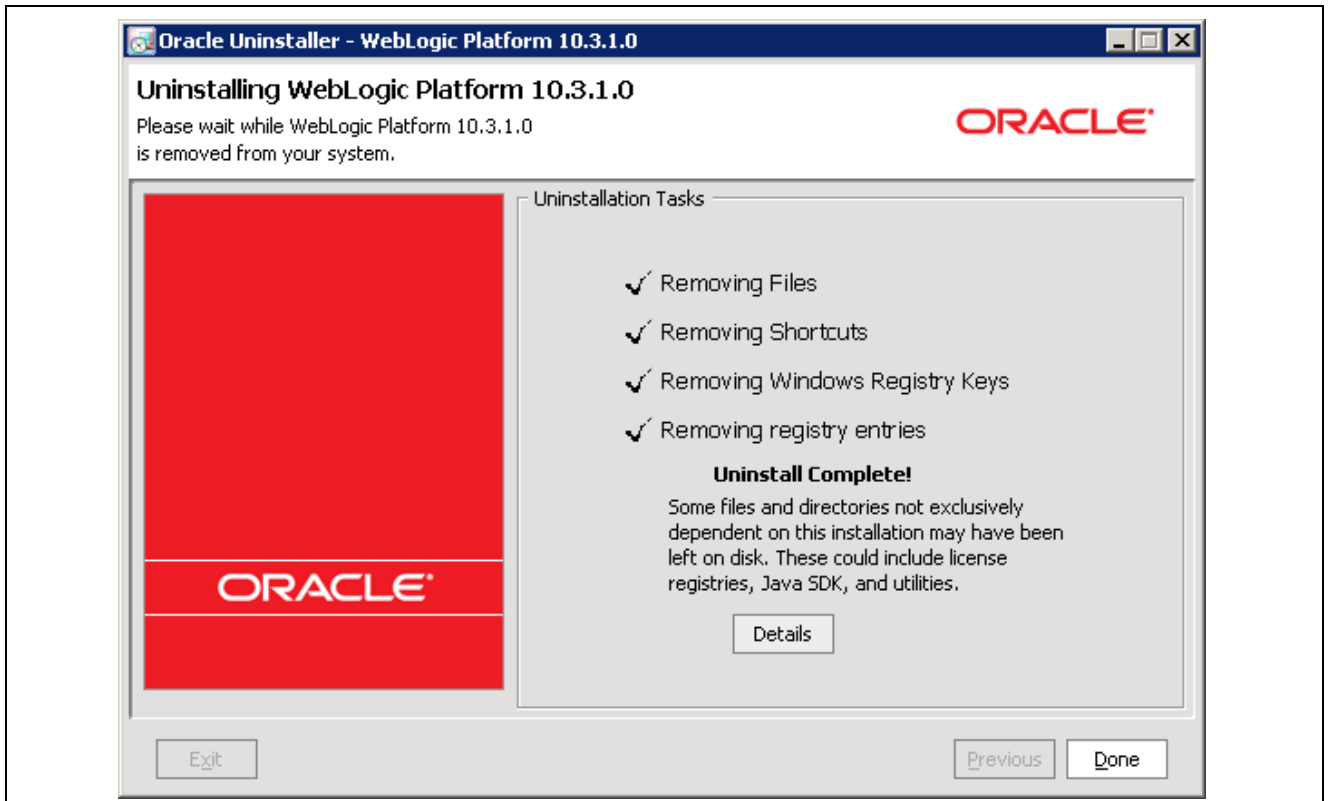
2. Select the components that you want to uninstall (by default all components are selected) and click Next.



Oracle WebLogic Uninstaller: Choose Components window

A progress indicator tracks the components being removed:

3. After all the components are uninstalled, click Done.



Oracle WebLogic Uninstaller: Uninstall Complete window

4. Remove the *WLS_HOME* directory after the uninstallation.

See Also

Retaining Multiple Oracle WebLogic Versions

Task 2-1-10: Removing the Oracle WebLogic Installation in Console Mode

To remove the Oracle WebLogic installation on UNIX or Linux in console mode:

1. Change directory to *WLS_HOME/weblogic_10.3/uninstall*.
2. Run the following command to launch the uninstaller:

```
uninstall.sh
```

Note. To run the uninstaller on Microsoft Windows in console mode, use the command `uninstall.cmd`.

3. Type Next at the Welcome prompt:

```
<-----Oracle Uninstaller - WebLogic Platform 10.3.1.0----->
Welcome:
```

```
Welcome to the WebLogic Platform 10.3.1.0 uninstaller. If
you wish to proceed with the uninstallation type Next,
otherwise, please type Exit to cancel.
```

Enter [Exit][Next]> Next

4. Type Next to accept a full uninstallation.

The screen lists all of the products and components that will be removed. The following example shows the product list for Linux:

```
<-----Oracle Uninstaller - WebLogic Platform 10.3.1.0----->
Choose Products and Components to uninstall:
-----
Check the WebLogic Platform components you want to uninstall.

WebLogic Platform 10.3.1.0
|___WebLogic Server [1] x
|_____Core Application Server [1.1] x
|_____Administration Console [1.2] x
|_____Configuration Wizard and Upgrade Framework [1.3] x
|_____Web 2.0 HTTP Pub-Sub Server [1.4] x
|_____WebLogic JDBC Drivers [1.5] x
|_____Third Party JDBC Drivers [1.6] x
|_____WebLogic Server Clients [1.7] x
|_____WebLogic Web Server Plugins [1.8] x
|_____UDDI and Xquery Support [1.9] x
|___JDKs [2] x
|_____Sun SDK 1.6.0_11 [2.1] x
|_____Oracle JRockit 1.6.0_05 SDK [2.2] x
```

Enter number exactly as it appears in brackets to toggle selection OR [Exit]>=>
Next

5. An indicator shows the progress of the uninstallation process, followed by a completion message.

```
<-----Oracle Uninstaller - WebLogic Platform 10.3.1.0----->
Uninstallation Complete
Uninstallation of selected components has completed successfully.

Press [Enter] to continue
```

6. Manually remove *WLS_HOME* to complete the uninstallation.

Task 2-2: Installing IBM WebSphere Application Server

This section discusses:

- Understanding WebSphere Distribution
- Prerequisites
- Obtaining WebSphere Installation Files from E-Delivery
- Installing WebSphere ND 7.0 in GUI Mode

- Creating an Application Server Profile
- Installing WebSphere ND 7.0 in Silent Mode
- Reviewing Logs
- Uninstalling WebSphere ND 7.0
- Installing IBM HTTP Server 7.0 and Web Server Plug-ins

Understanding WebSphere Distribution

The IBM WebSphere® Application Server can be used as a web server for PeopleSoft PeopleTools for the following operating systems:

- AIX
- HP-UX (PA-RISC 64-bit)
- HP-UX (IPF)
- Oracle Enterprise Linux
- Red Hat Enterprise Linux
- SuSE Linux Enterprise Server
- Solaris
- Microsoft Windows Server 2003 and 2008

Oracle supports WebSphere Application Server Network Deployment 7.0 (referred to as WebSphere ND in this documentation) for PeopleSoft PeopleTools 8.50.

Note. If you plan to use BusinessObjects Enterprise XI Release 3.1, you will need WebSphere 6.1.

See Also

Oracle E-Delivery, <http://edelivery.oracle.com>

Enterprise PeopleTools 8.50 Hardware and Software Requirements

My Oracle Support, Certifications

"Clustering and High Availability for Enterprise Tools 8.4x," My Oracle Support, (search for the article name and select the release)

"Required Operating System, RDBMS, and Additional Component Patches Required for Installation," My Oracle Support, (search for the article name and select the release)

"Installing and Configuring Software for Crystal Reports," Installing BusinessObjects Enterprise XI Release 3.1

Prerequisites

The full lists of prerequisites for WebSphere Application Server Network Deployment 7.0 are available on the IBM website:

See <http://www-01.ibm.com/support/docview.wss?rs=180&uid=swg27006921>

If your operating system is not at the required patch level or if it has latest patches, a warning message will appear at the beginning of the installation. Review patches with an administrator. Apply the required patches (if necessary) and continue with the installation.

In addition, review the following prerequisites before beginning your installation:

- Both WebSphere ND and PeopleSoft Pure Internet Application (PIA) need to be installed and deployed using the same user id. This restriction has been put forth in order to avoid any security and manage profile creation issues.

WebSphere ND can be installed either with root (Admin on Microsoft Windows) or non-root user ids. However, a non-root user is not capable of setting up SSL on WebSphere ND. A root user id is required to configure SSL on WebSphere ND even though the install is done using non-root user id. It is important to remember that root user id is required only for configuration of SSL. For more information on the limitations of non-root user id, see the following information.

See http://publib.boulder.ibm.com/infocenter/wasinfo/v7r0/topic/com.ibm.websphere.installation.nd.doc/info/ae/ae/cins_nonroot.html

- On UNIX platforms, the /var file system is used to store all the security logging information for the system; therefore it is critical that you maintain free space in /var for these operations.
- When you carry out the GUI mode installation on UNIX, executing the installation wizard launches a GUI window. You must run this command from an X-Windows client window (for example, Reflection-X).
- When installing WebSphere ND, always create an *Application Server* profile by default. This is required for successful installation of PeopleSoft Pure Internet Architecture.

Task 2-2-1: Obtaining WebSphere Installation Files from E-Delivery

You can obtain the files needed to install IBM WebSphere Application Server for PeopleSoft PeopleTools 8.50 from the Oracle E-Delivery site. At this point you should have already downloaded the necessary files. This section includes additional information on finding and using the files for IBM WebSphere if necessary.

See <http://edelivery.oracle.com>.

See "Preparing for Installation," Using Oracle E-Delivery to Obtain Installation Files.

1. After logging in to Oracle E-Delivery, on the Media Search Pack page, select *PeopleSoft Enterprise* from the Select a Product Pack drop-down list.

Select the operating system you are running on from the Platform drop-down list, and click Go.

2. Select the radio button for PeopleSoft Enterprise - PeopleTools 8.50 Media Pack and click Continue.
3. Find the necessary files from the list, and click Download.

Save the zip file to a temporary directory on your local system, referred to in this documentation as *CD_INSTALL*.

The distribution is provided as an operating-system-specific zip file. Download and extract the appropriate zip file for your operating system. All WebSphere 7.0 images are 32-bit binaries (except HP-UX Itanium) that can be installed on both 32-bit and 64-bit platforms.

Each zip file, except those for HP-UX operating systems, contains two folders, CD1 and CD2. The zip file for each operating system also includes a read-me file for the WebSphere 7.0 installation, named *readme_WAS7.txt*. The following table lists the contents of a sample file:

Folder Name	Contents
CD1	WebSphere Application Server Network Deployment IBM HTTP Server 32-bit web server plug-in 32-bit Update installer
CD2	64-bit web server plug-in 64-bit Update installer

Note. PeopleSoft PeopleTools 8.50 supports the HTTP Server embedded within WebSphere for both http and https. Use of an external proxy server is optional. Supported proxy servers are IBM Http Server, Sun Java System Web Server and Internet Information Server (Windows only).

The zip files for HP-UX operating systems, HP-UX PA-RISC and HP-UX Itanium, contain only one CD folder. HP-UX Itanium is a 64-bit WebSphere image. HP-UX PA-RISC is a 32-bit WebSphere image, where only 32-bit web server plug-ins are available.

See Also

WebSphere system requirements on IBM web site, <http://www-01.ibm.com/support/docview.wss?rs=180&uid=swg27006921>

Task 2-2-2: Installing WebSphere ND 7.0 in GUI Mode

The WebSphere ND 7.0 installation can be carried out either in GUI mode or in silent mode. See the next section for the silent mode installation.

After installing WebSphere ND 7.0, the script will run the UpdateInstaller in silent mode to upgrade the JRE that comes by default with WebSphere ND 7.0 to IBM JRE 1.6 SR3.

1. Navigate to the directory where you extracted the installation files, referred to as *CD_INSTALL*, and run the following command:

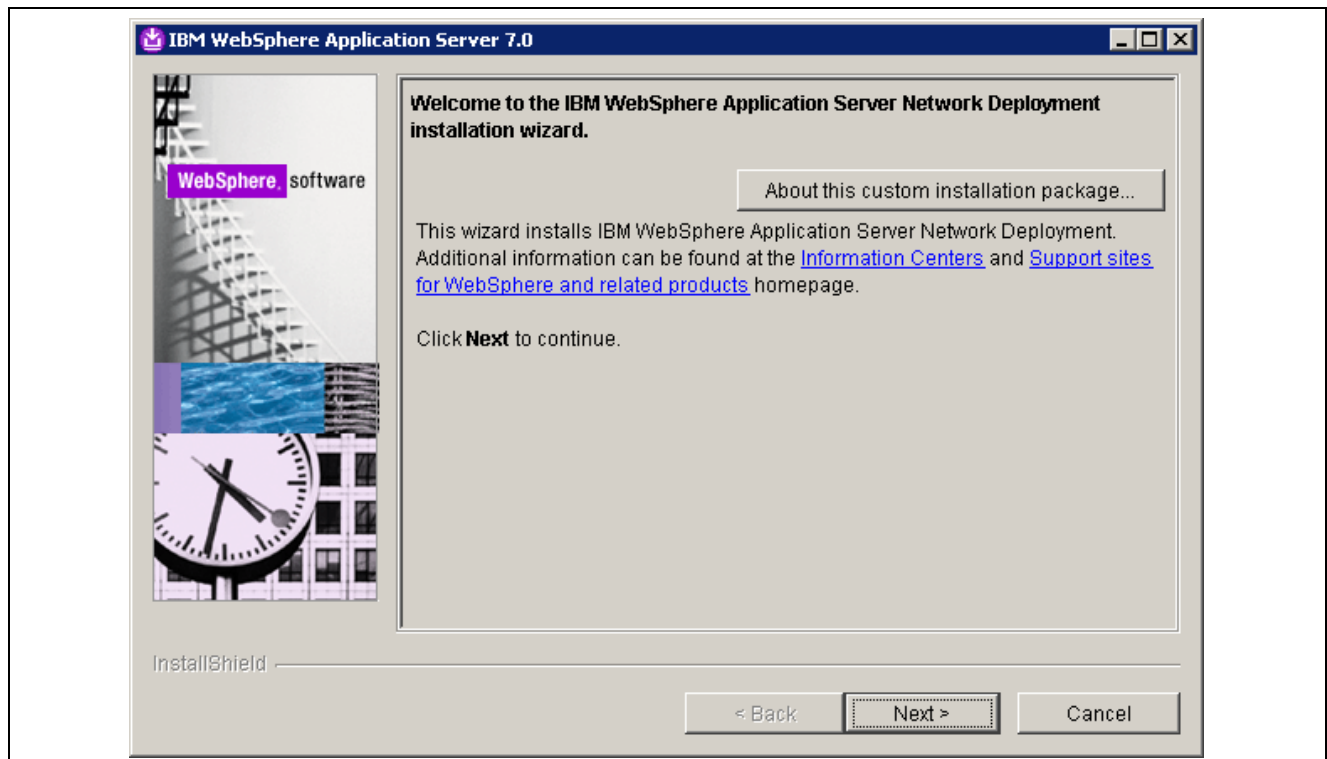
For Windows:

```
CD_INSTALL\CD1\installWAS.bat
```

For UNIX or Linux:

```
CD_INSTALL/CD1/installWAS.sh
```

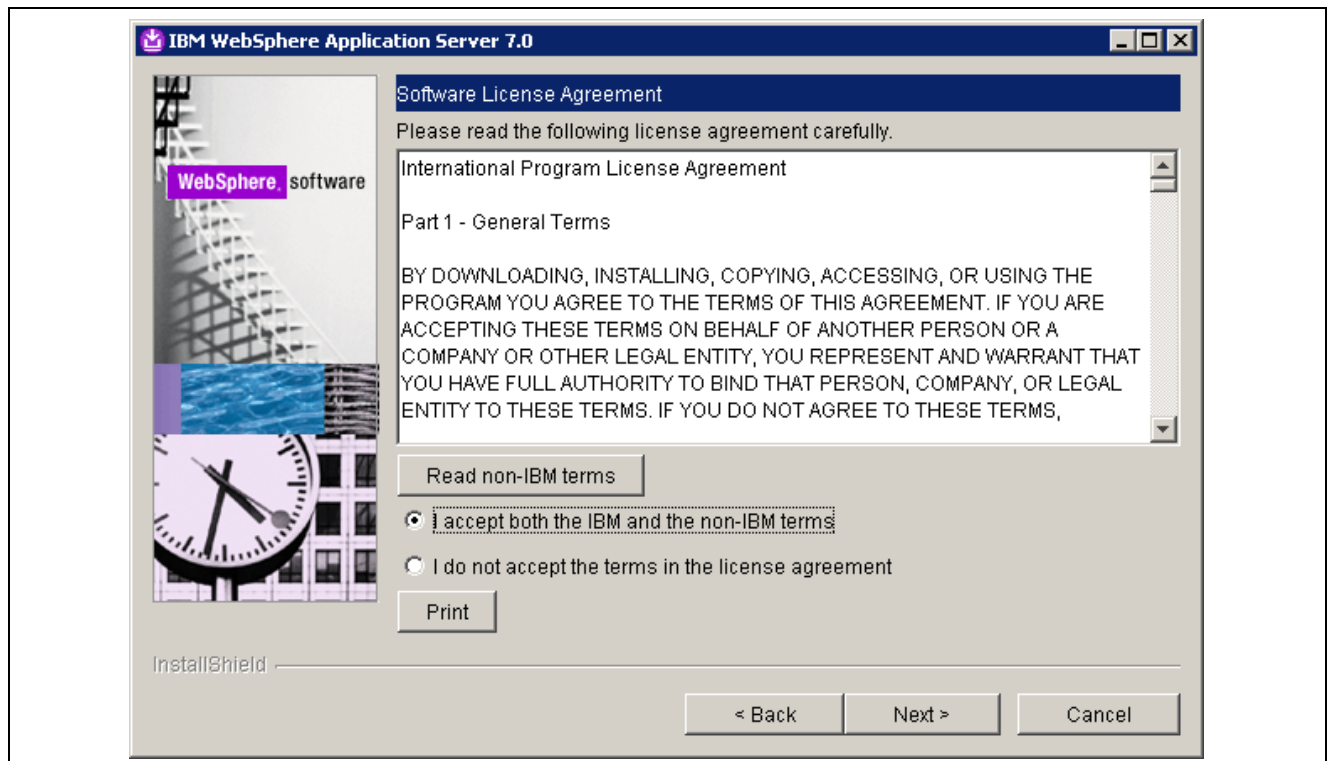
The Welcome screen appears.



WebSphere Application Server Welcome window

2. Click Next to continue.

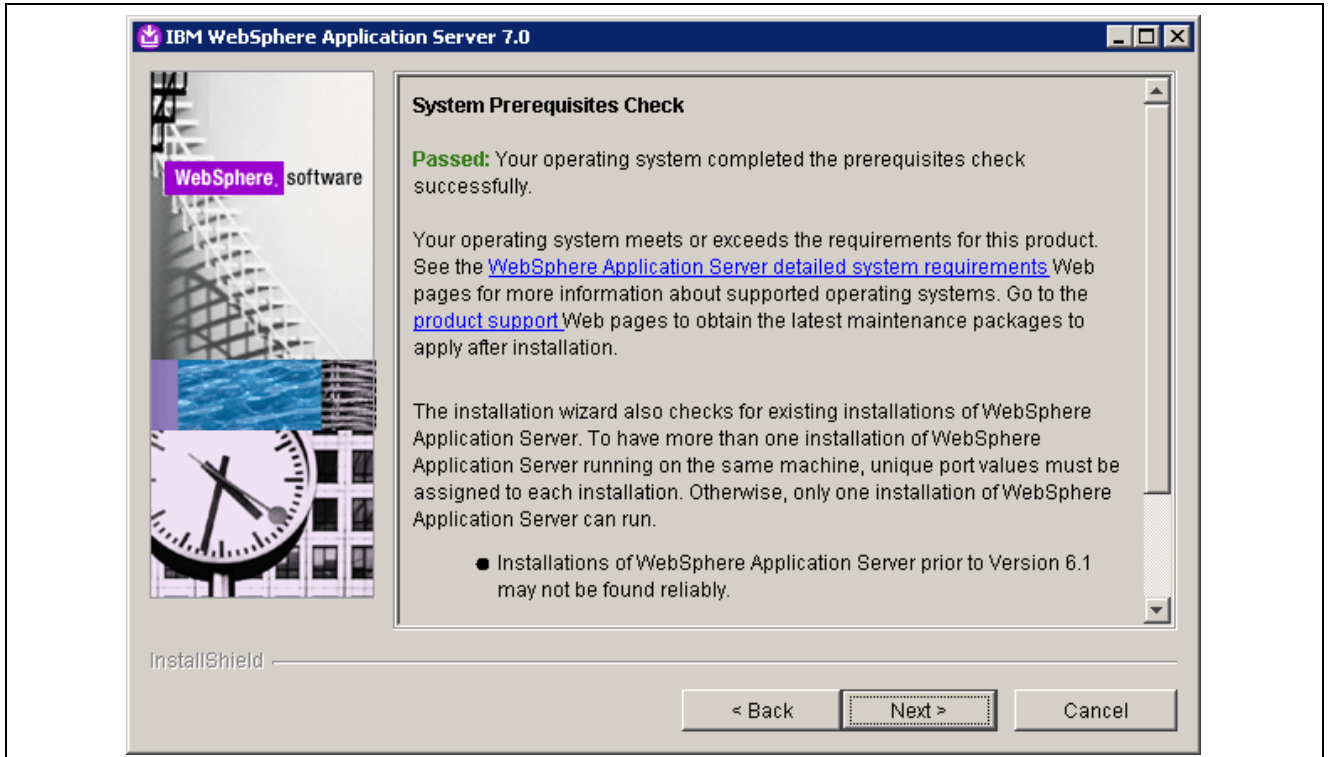
Read the license agreement on the next window.



WebSphere Application Server Software License Agreement window

3. Select the option to accept both IBM and non-IBM terms and click Next.

If you agree to both IBM and non-IBM terms, the installation wizard performs a system prerequisites check. The system prerequisites check might show “Failed” if the operating system version is below the IBM recommended version. It might show “Warning” if the operating system version is above the IBM recommended version. However in either case you will be allowed to proceed with the installation.



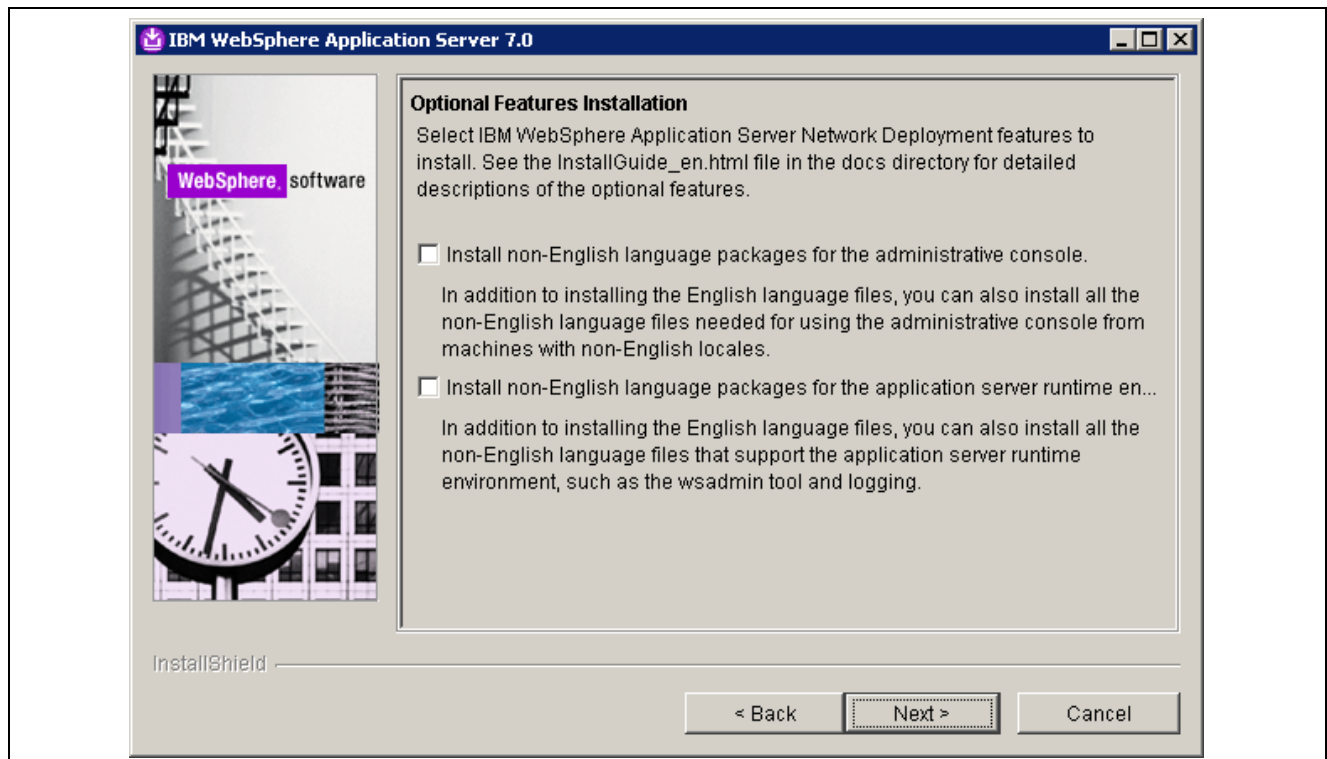
WebSphere Application Server System Prerequisites Check window

4. If you are running as a non-Root (UNIX) or non-Administrator (Windows) user, then you would get a warning screen about the installation actions of WebSphere that cannot run in the Non-Root/Non-Administrator mode.

You may accept this message and click Next to continue.

5. Select any optional features you want to install.

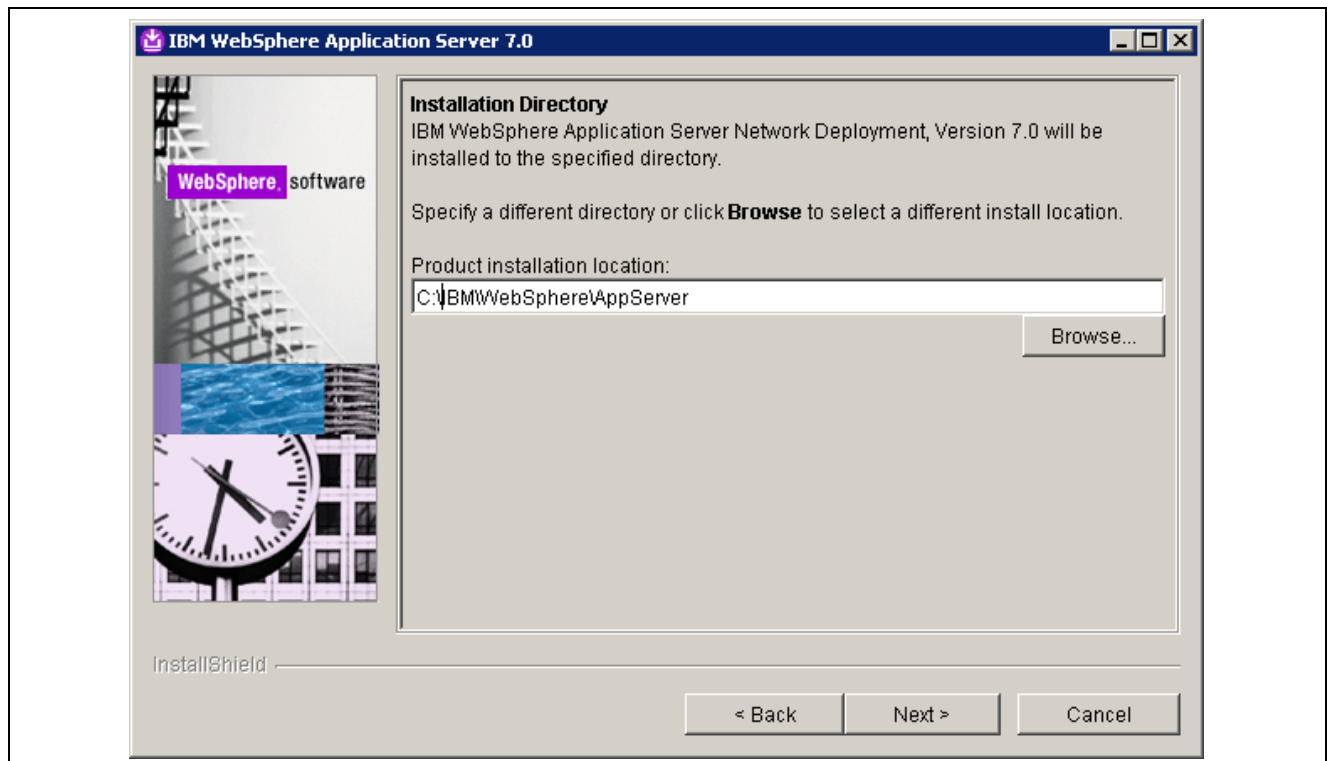
Note. Features such as non-English language packs for administrative console are needed only for machines whose default locale is not in English language.



WebSphere Application Server Optional Features Installation window

6. Enter the location where you want to install WebSphere ND.

The installation location is referred to in this documentation as *WAS_HOME*.

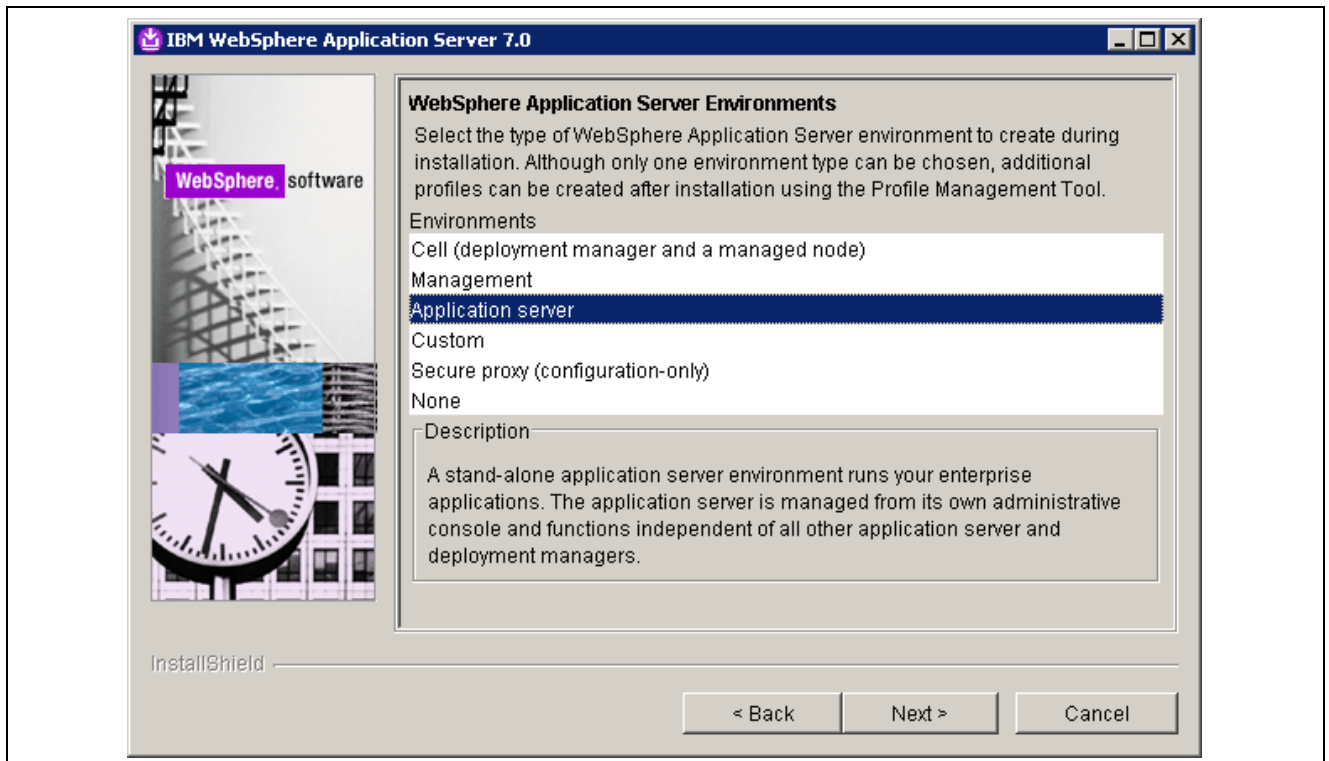


WebSphere Application Server Installation Directory window

7. Select *Application Server* from the list of environments on the WebSphere Application Server Environment window and click Next.

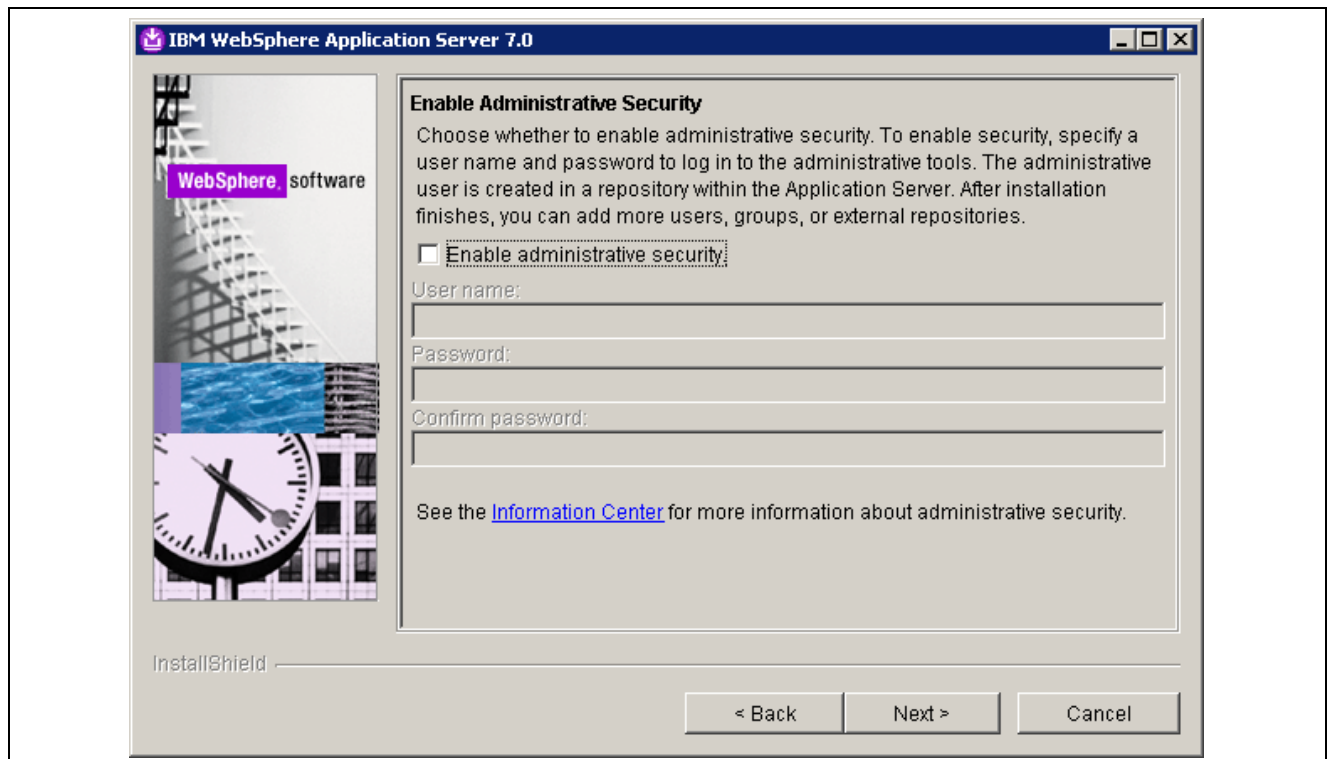
A default profile is required for a successful PIA installation with WebSphere ND 7.0. However, you can also create the profile after the WebSphere installation using the WebSphere Profile Management Tool.

See [Creating an Application Server Profile](#).



WebSphere Application Server Environments window

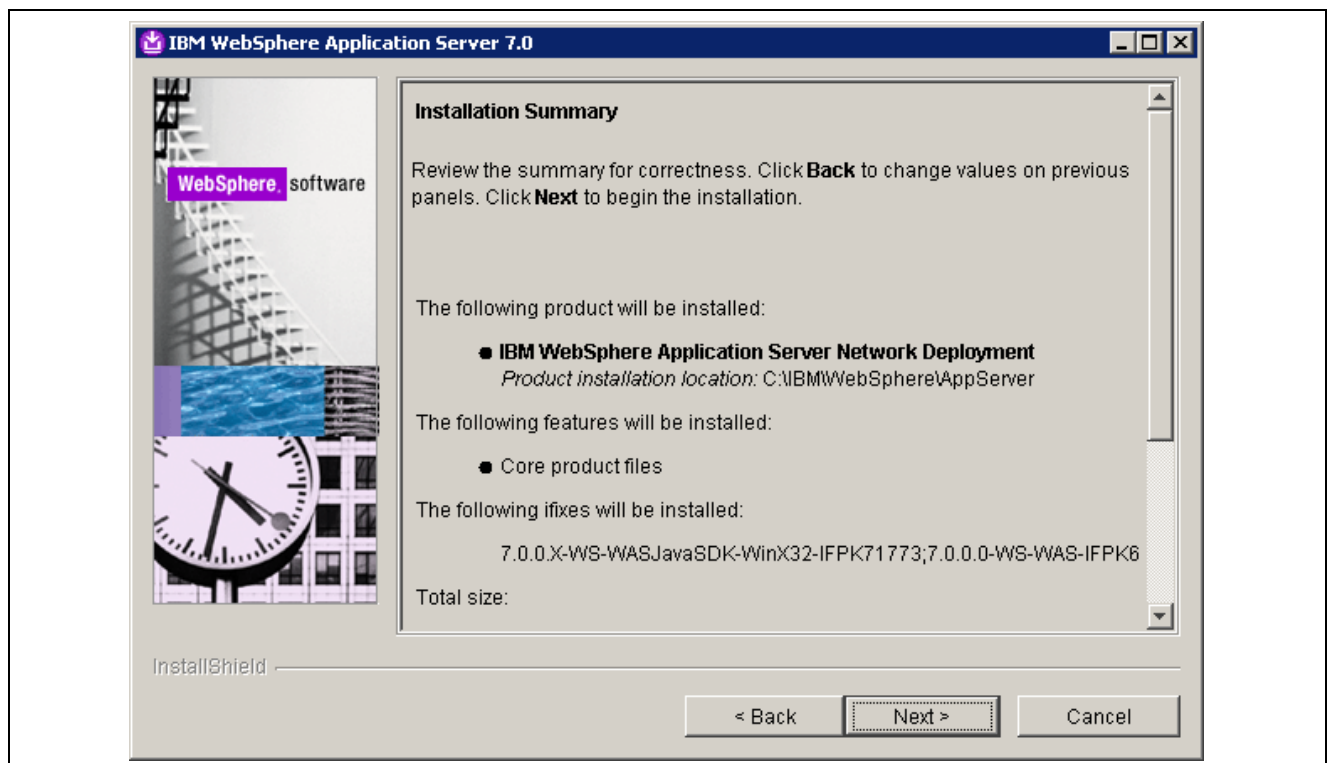
8. Clear the option to enable administrative security and click Next.



WebSphere Application Server Enable Administrative Security window

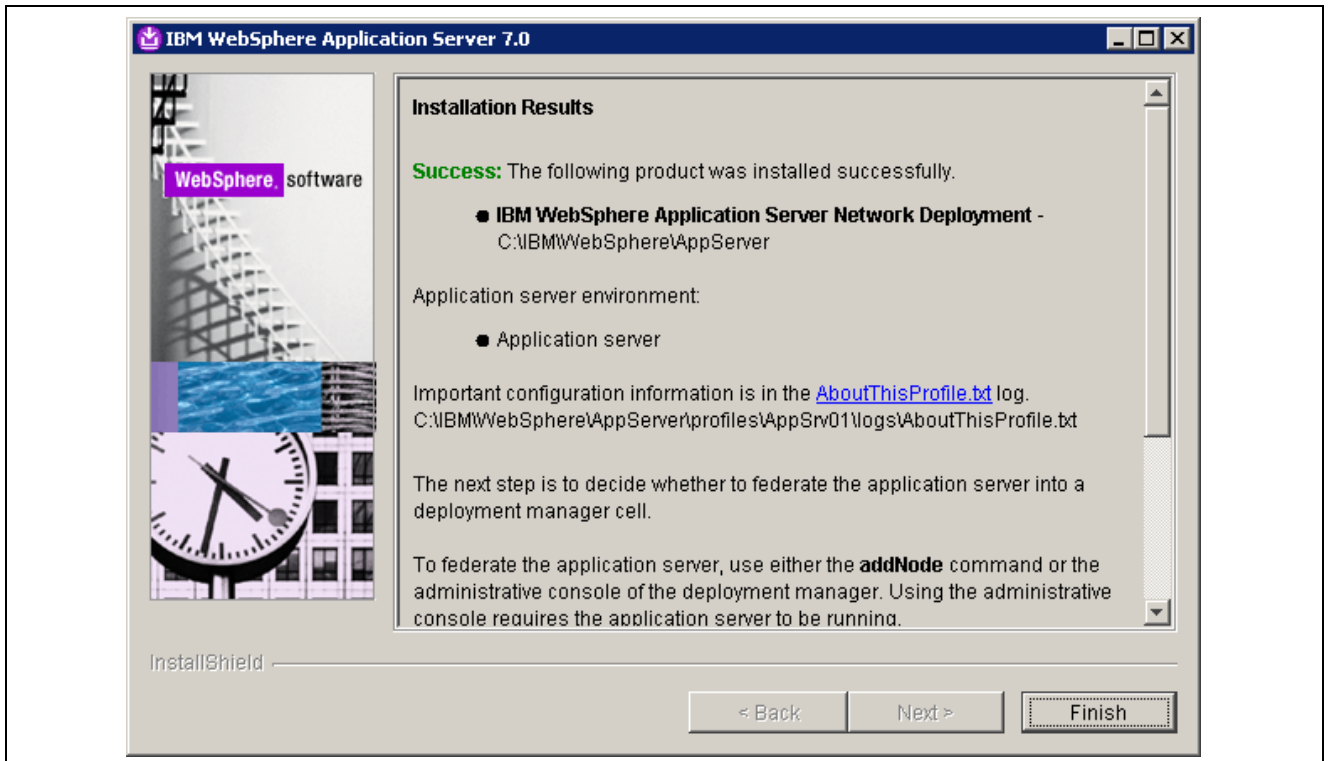
9. Review the summary information and click Next to proceed with the installation.

If you need to make any changes, click Back.



WebSphere Application Server Installation Summary window

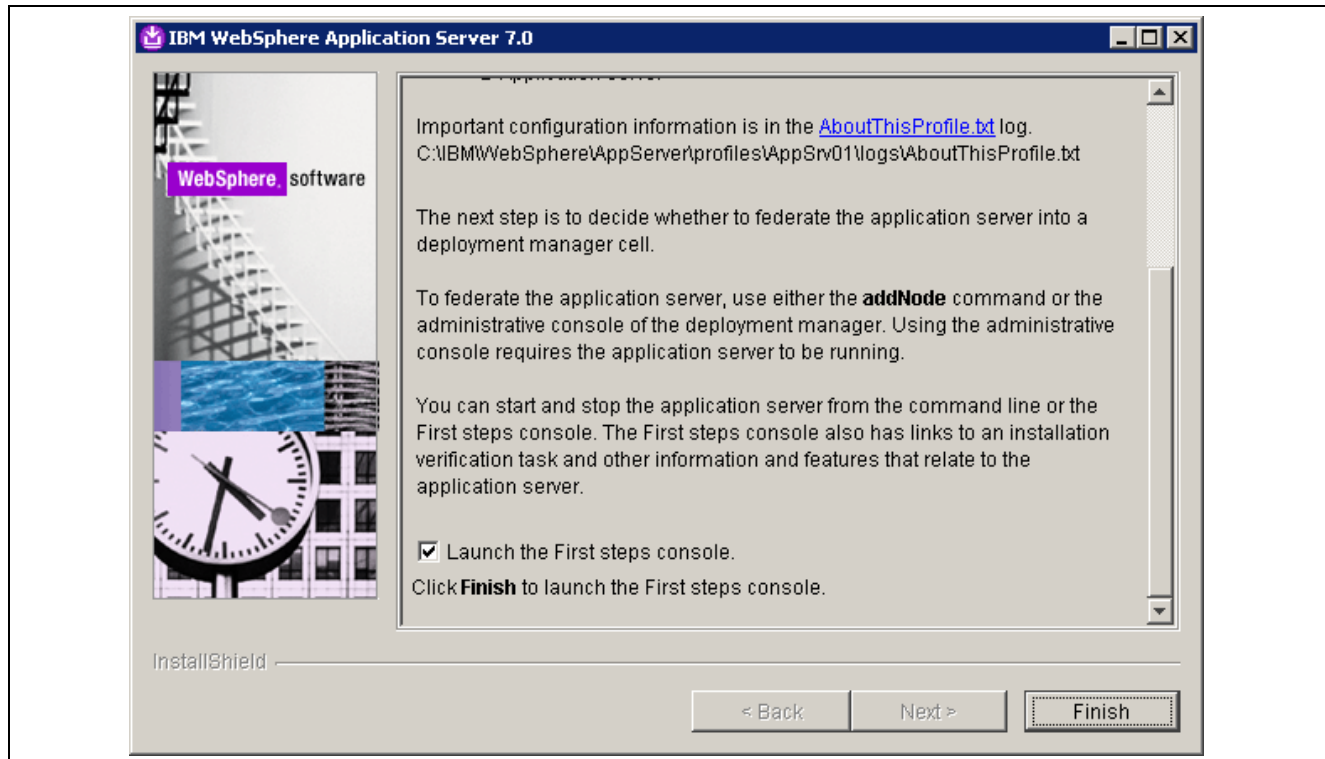
10. After the installation has been completed, an Installation Results window will appear. Click Finish.



WebSphere Application Server Installation Results window

11. Scroll to the bottom of the page to see the option Launch the First steps console.

If you need to create an Application Server profile, as described in the next section, select the Launch the First steps console option and click Finish. If you do not need to create an Application Server profile, clear the option and click Finish.



Viewing the option to Launch the First steps console on the Installation Results window

After the installation completes, the UpdateInstaller begins an upgrade to IBM JRE version 1.6 SR3.

1. If the First Steps Console is open, close it, and press ENTER.

```
***** Installing WebSphere 7.0 ... *****
***** Completed installing WebSphere 7.0 *****
***** Upgrading the JRE in WebSphere 7.0 installation to IBM JRE 1.6 SR3...=>
*****
```

NOTE: Please close WebSphere 7.0 First Steps Console screen if it is open.
Otherwise the JRE Upgrade may fail.

Press any key to continue

2. Enter the path where you installed WebSphere 7.0, referred to as *WAS_HOME*. In this example, *WAS_HOME* is C:\IBM\WebSphere\AppServer:

Please enter the path where you have installed WebSphere 7.0: C:\IBM\WebSphere=>
\AppServer

3. Enter the path where you want to install the JRE upgrade:

Please enter the path where you want to install the Update Installer: C:\IBM=>
\WebSphere\Java6Upg

4. When the upgrade is complete, press ENTER to exit.

```
WAS_INSTALL_HOME=C:\IBM\WebSphere\AppServer
UPD_INSTALL_HOME=C:\IBM\WebSphere\Java6Upg
InstallDir=D:\PS850\temp\CD-WIN\CD1\
```

```

CurrentDir=D:\PS850\temp\CD-WIN\CD1
***** Starting the JRE Upgrade in silent installation mode. This may take a few
minutes to complete... *****
    1 file(s) copied.
***** Installing the Update Installer in silent mode *****
***** Installing the Update Installer in silent mode *****
D:\PS850\temp\CD-WIN\CD1\JavaSDKFix\7.0.0-WS-WASSDK-WinX32-FP0000001.pak
    1 file(s) copied.
D:\PS850\temp\CD-WIN\CD1\InterimFix\7.0.0-7.0.0.1-WS-WAS-IFPK81387.pak
    1 file(s) copied.
    1 file(s) copied.
***** Running the Update Installer tool to install the JRE Upgrade fix to WebSphere *****
java.exe -Dswing.defaultlaf=com.sun.java.swing.plaf.windows.WindowsLookAndFeel
-cp "C:\IBM\WebSphere\Java6Upg\update.jar" -Xms128m -Xmx512m run -options D
:\PS850\temp\CD-WIN\CD1\responsefiles\responsefile.updi.updatefixes_one.txt ->
silent
***** Completed upgrading the JRE in Websphere 7.0 to IBM JRE 1.6 SR3 *****
WVER0010I: Copyright (c) IBM Corporation 2002, 2005, 2008; All rights reserved.
WVER0012I: VersionInfo reporter version 1.15.1.26, dated 8/9/08

```

IBM WebSphere Application Server Product Installation Status Report

Report at date and time May 20, 2009 2:00:50 AM PDT

Installation

Product Directory	C:\IBM\WebSphere\AppServer
Version Directory	C:\IBM\WebSphere\AppServer\properties\version
DTD Directory	C:\IBM\WebSphere\AppServer\properties\version\dttd
Log Directory	C:\IBM\WebSphere\AppServer\logs
Backup Directory	C:\IBM\WebSphere\AppServer\properties\version\nif\back
up	
TMP Directory	D:\temp

Product List

ND	installed

Installed Product

Name	IBM WebSphere Application Server - ND
Version	7.0.0.0
ID	ND
Build Level	r0835.03
Build Date	8/31/08

End Installation Status Report

```
-----  
java version "1.6.0"  
Java(TM) SE Runtime Environment (build pwi3260sr3-20081106_07(SR3))  
IBM J9 VM (build 2.4, J2RE 1.6.0 IBM J9 2.4 Windows XP x86-32 jvmwi3260-20081105  
_25433 (JIT enabled, AOT enabled)  
J9VM - 20081105_025433_lHdSMr  
JIT - r9_20081031_1330  
GC - 20081027_AB)  
JCL - 20081106_01  
Press any key to exit
```

Task 2-2-3: Creating an Application Server Profile

If you did not choose to create an Application Server profile in the previous procedure, then you can create an Application server profile using the WebSphere Profile Management Tool. It is mandatory for a default profile to exist, before running the PeopleSoft Pure Internet Architecture installation with WebSphere ND 7.0. PeopleSoft Pure Internet Architecture installation will fail if there is no default profile.

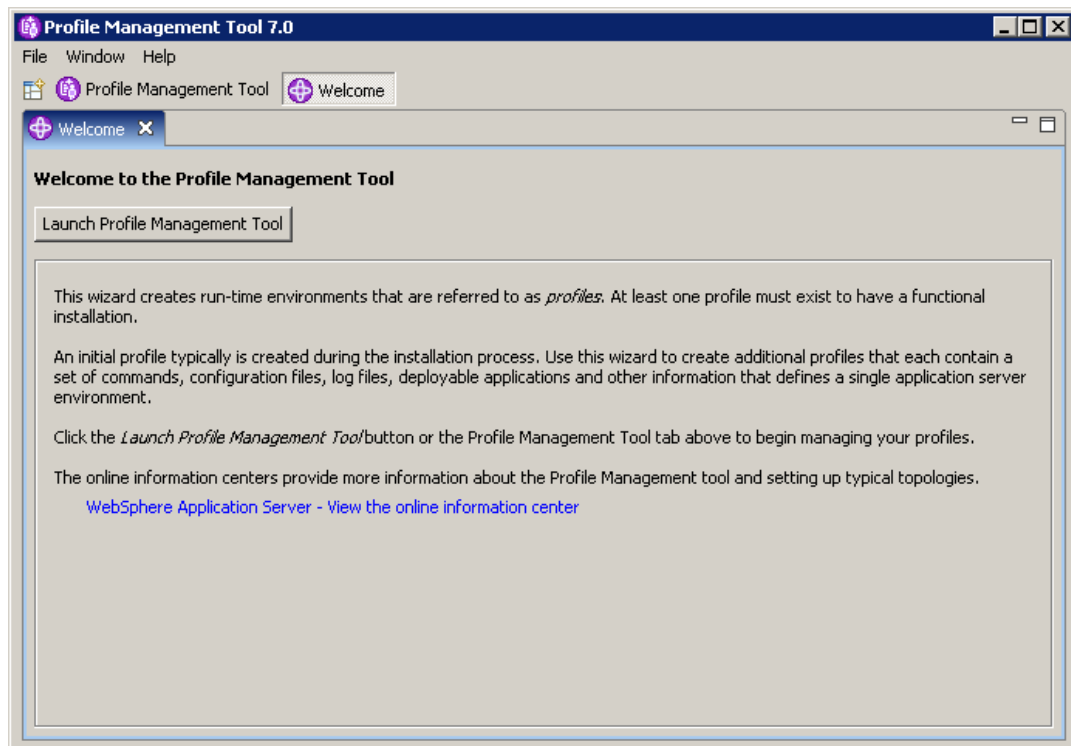
1. Launch the Profile Management Tool using one of these methods:
 - Select the option to Launch the First steps console on the last window of the WebSphere ND installation.
 - Run the `pmt.bat` script from the `WAS_HOME\bin\ProfileManagement` folder.
2. Select the Profile Management Tool link.



WebSphere Application Server First steps dialog box

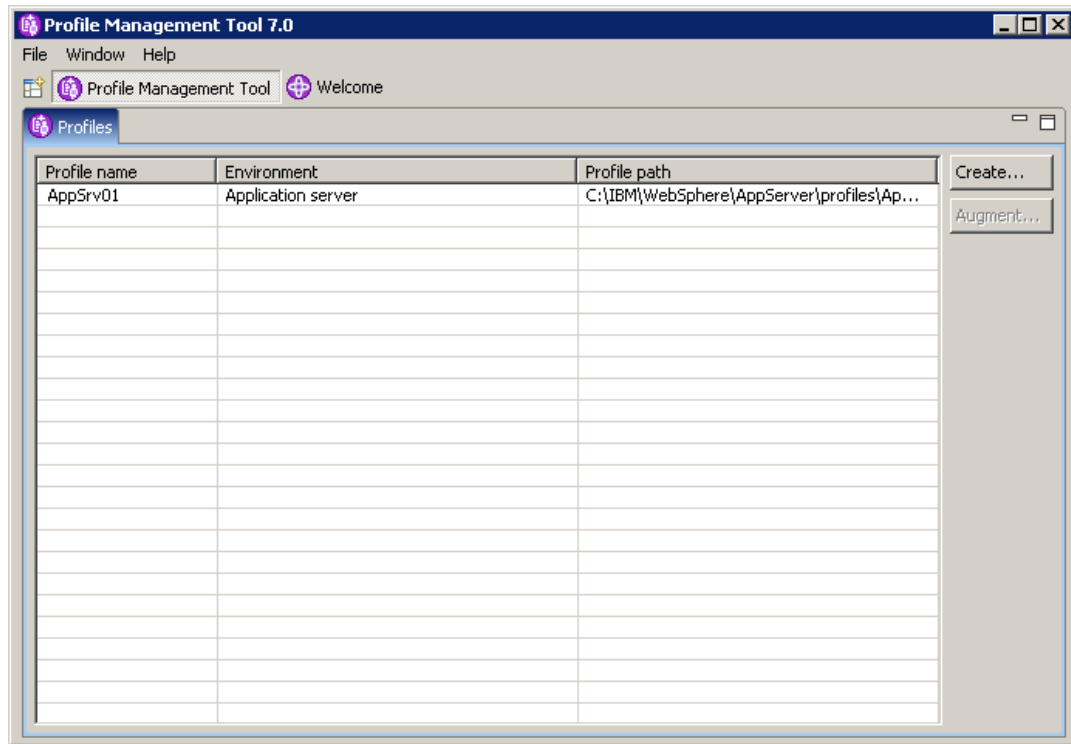
3. Click Launch Profile Management Tool.

A summary page appears showing all the profiles that exist so far under this installation of WebSphere ND.



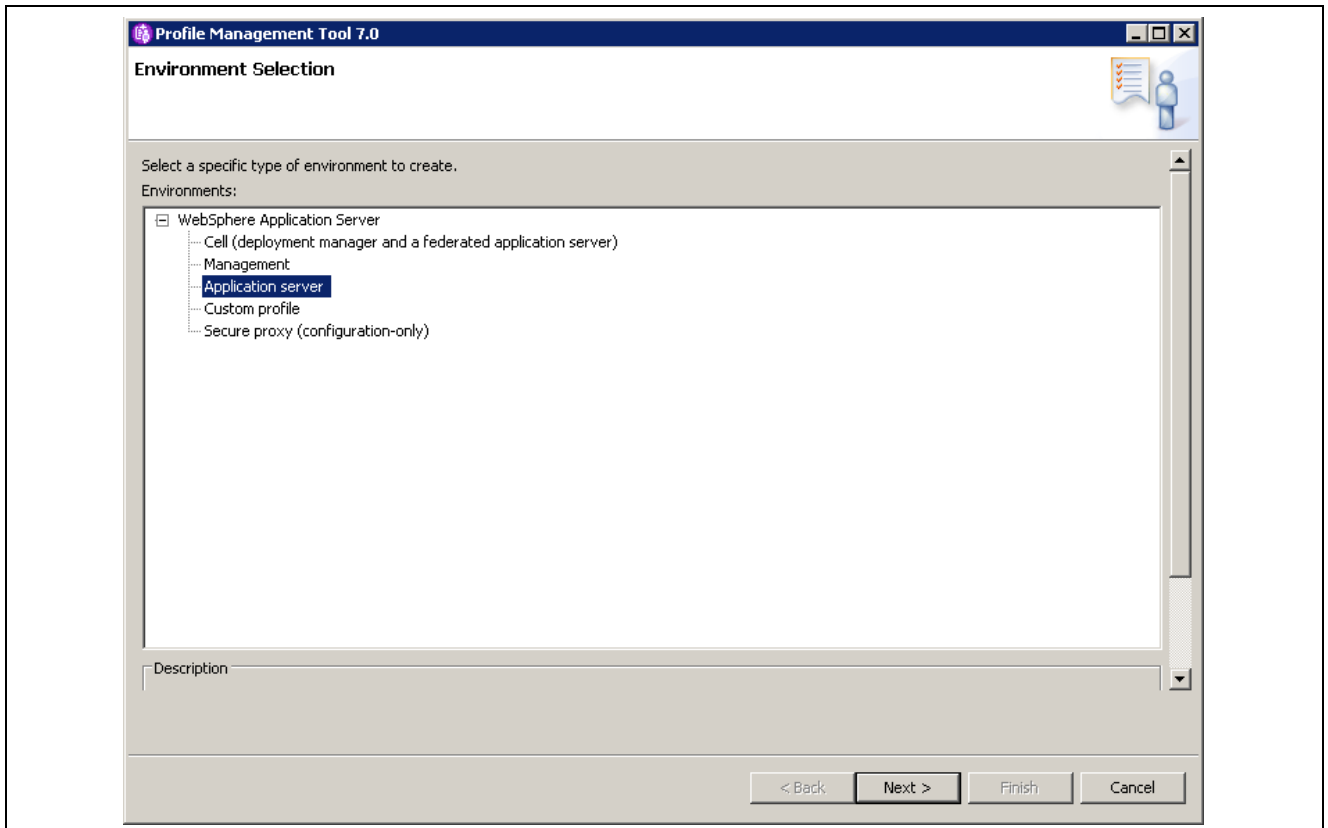
Profile Management Tool window

4. Click Create to start profile creation.



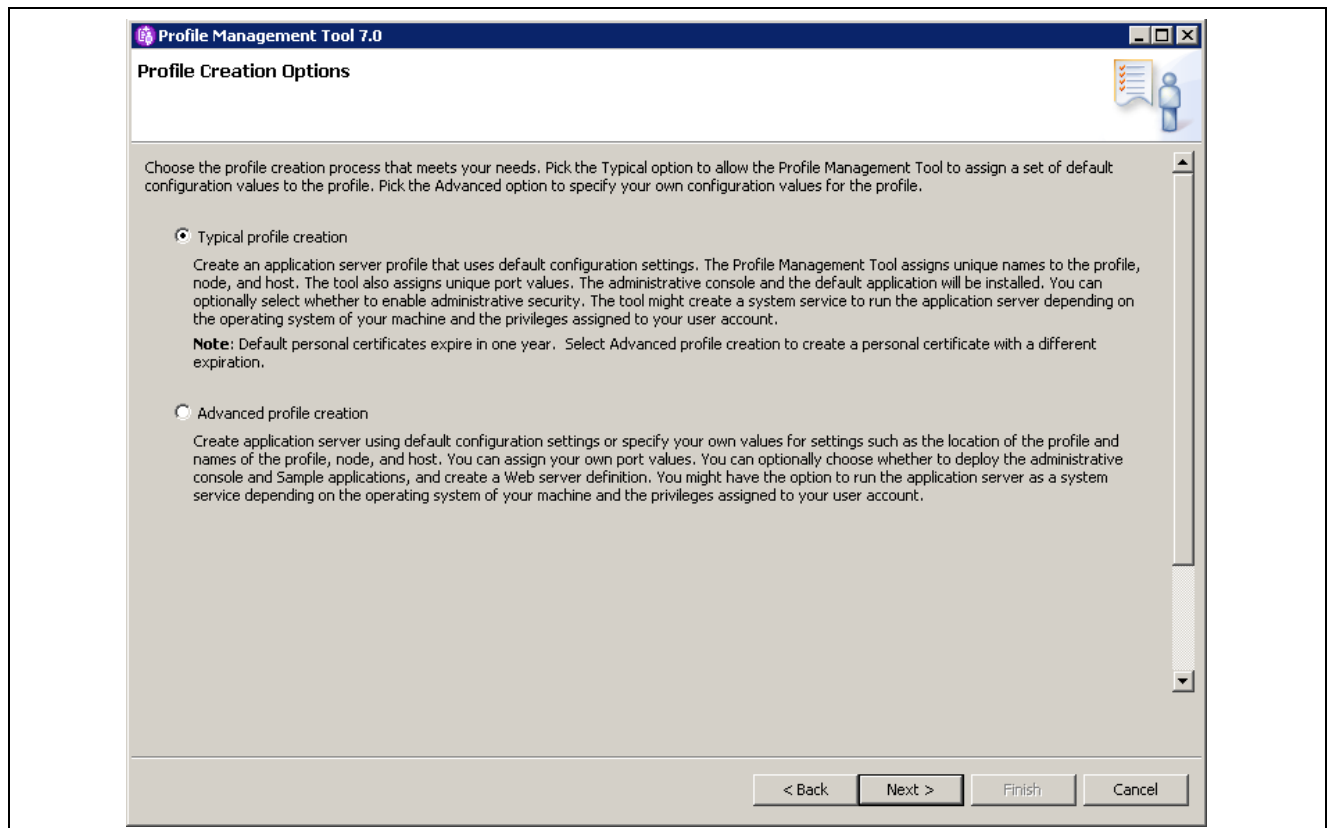
Profile Management Tool Profiles list

5. Select Application Server as the specific type of environment to create, and click Next.



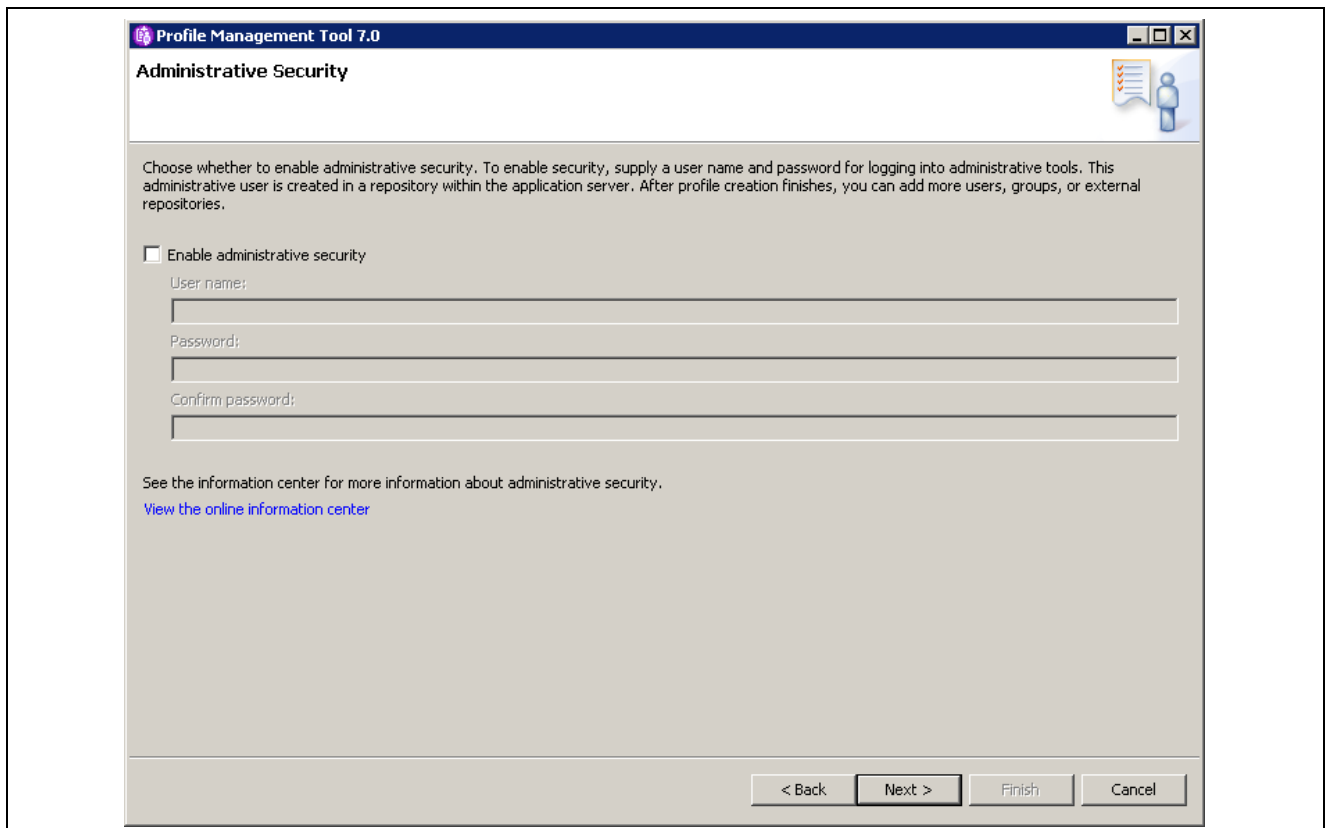
Profile Management Tool Environment Selection window

6. Select Typical Profile Creation on the Profile Creation Options window.
This is the recommended option, which uses default configuration settings.



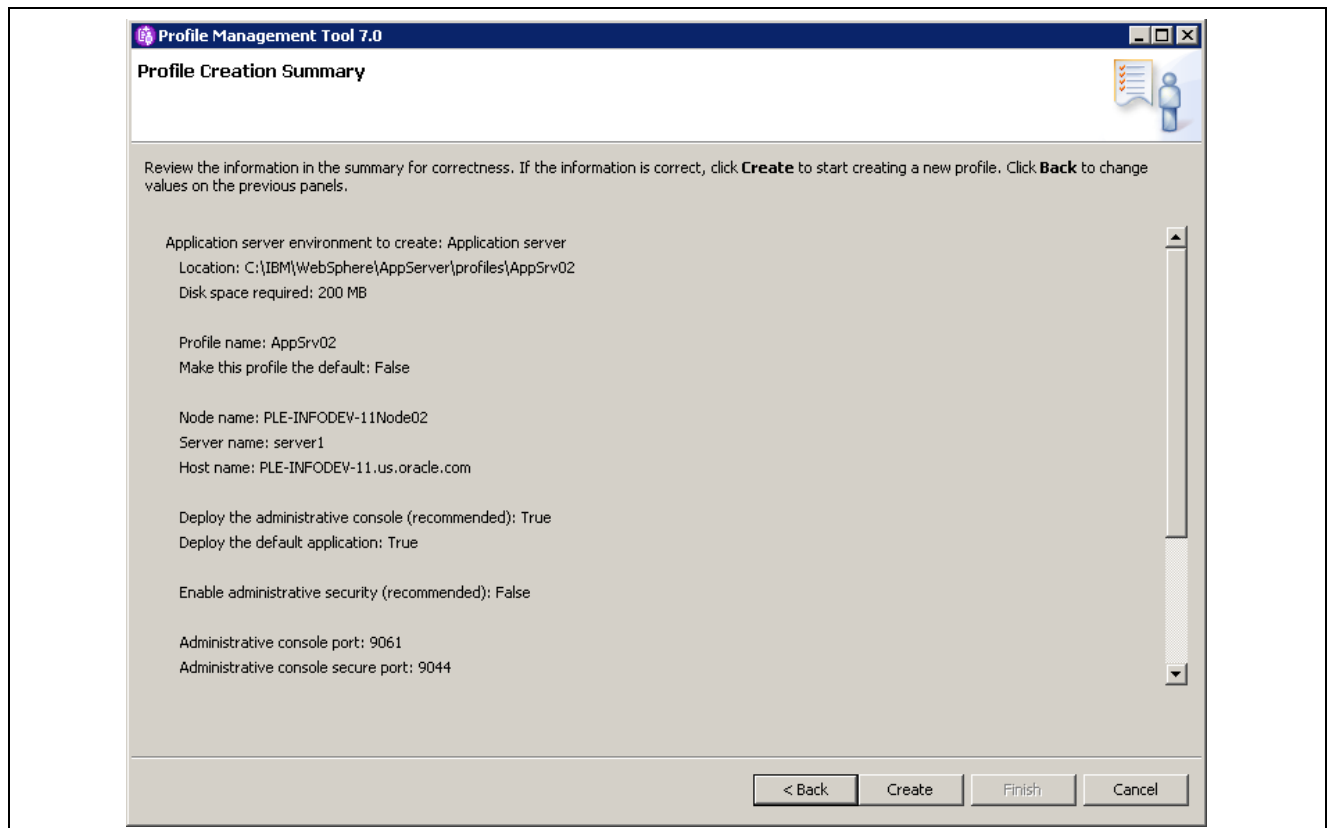
Profile Management Tool Profile Creation Options window

7. Clear the option to enable administrative security.



Profile Management Tool Administrative Security window

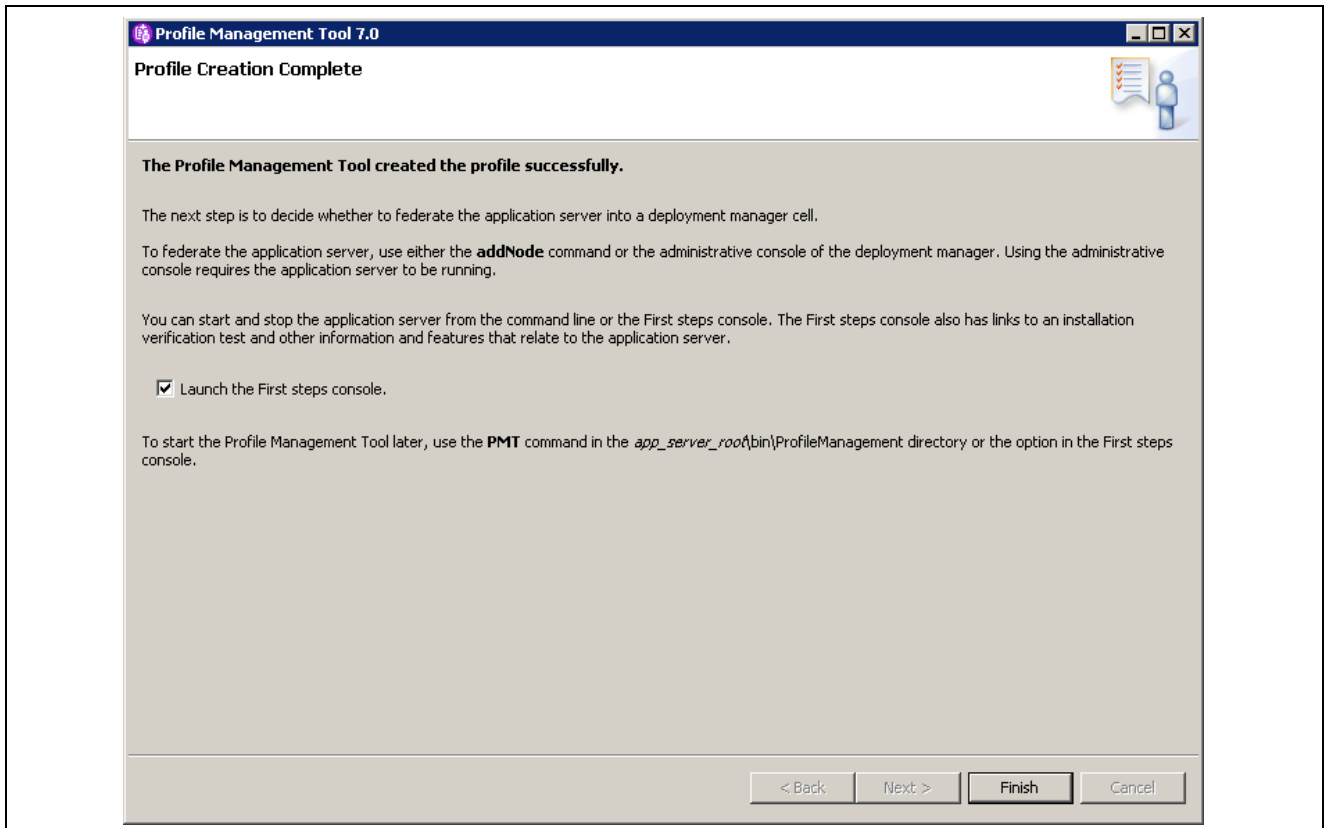
8. Review the summary of profile creation information and click Create.



Profile Management Tool Profile Creation Summary window

The profile creation completion screen appears if the profile was created successfully.

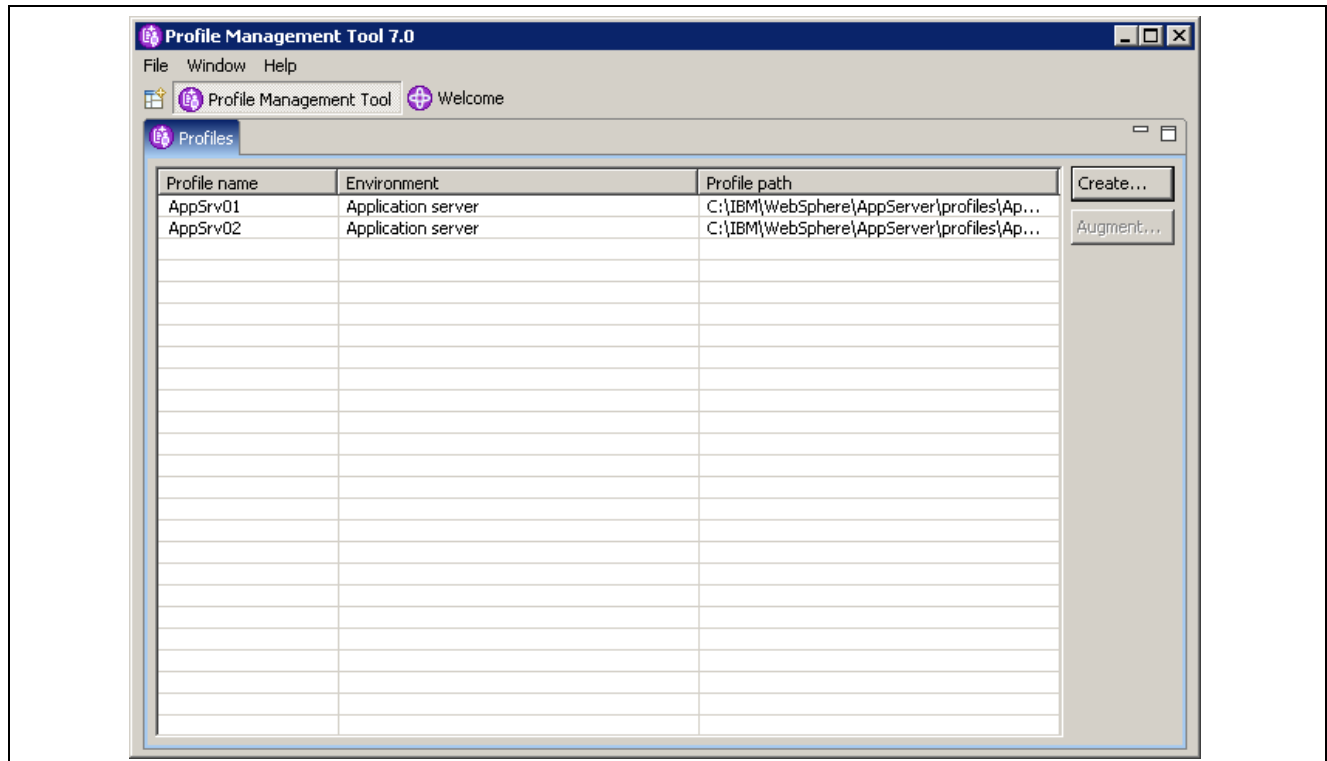
Clear the option to Launch the First steps console.



Profile Management Tool Profile Creation Complete window

9. Click Finish.

The Profile Management Tool summary page appears with the newly created profile.



Profile Management Tools Profiles list with newly created profile

Task 2-2-4: Installing WebSphere ND 7.0 in Silent Mode

Silent installation mode does not accept interactive installation options. To specify non-default options during a silent installation, you must use the response file. The WebSphere ND installation set for PeopleSoft PeopleTools 8.50 contains a sample response file, `responsefile.was.installation.txt`, which contains recommended installation options. Modify the file with the specifications for your installation environment before you use it to install WebSphere ND 7.0.

The installation scripts obtain the installation parameters from the response file `responsefile.was.installation.txt`. After installation the script will run the UpdateInstaller in silent mode to upgrade the JRE that comes by default with WebSphere ND 7.0 to IBM JRE 1.6 SR3.

To perform the silent installation:

1. If necessary, navigate to the directory `CD_INSTALL\CD1\responsefiles` and edit the `responsefile.was.installation.txt` file with your environment specifications.

Save and close the file.

2. Navigate to the directory `CD INSTALL\CD1` and run the following command:

On Windows

```
installWASSilent.bat
```

On UNIX and Linux

```
installWASSilent.sh
```

3. Enter the installation location when prompted by the script.

After the installation completes, the UpdateInstaller begins an upgrade to IBM JRE version 1.6 SR3.

1. If the First Steps Console is open, close it, and press ENTER.

```
***** Installing WebSphere 7.0 ... *****
***** Completed installing WebSphere 7.0 *****
***** Upgrading the JRE in WebSphere 7.0 installation to IBM JRE 1.6 SR3...=>
*****
```

NOTE: Please close WebSphere 7.0 First Steps Console screen if it is open.
Otherwise the JRE Upgrade may fail.

Press any key to continue

2. Enter the path where you installed WebSphere 7.0, referred to as *WAS_HOME*. In this example, *WAS_HOME* is C:\IBM\WebSphere\AppServer:

Please enter the path where you have installed WebSphere 7.0: C:\IBM\WebSphere=>
\AppServer

3. Enter the path where you want to install the JRE upgrade:

Please enter the path where you want to install the Update Installer: C:\IBM=>
\WebSphere\Java6Upg

4. When the upgrade is complete, press ENTER to exit.

```
WAS_INSTALL_HOME=C:\IBM\WebSphere\AppServer
UPD_INSTALL_HOME=C:\IBM\WebSphere\Java6Upg
InstallDir=D:\PS850\temp\CD-WIN\CD1\
CurrentDir=D:\PS850\temp\CD-WIN\CD1
***** Starting the JRE Upgrade in silent installation mode. This may take a few
minutes to complete... *****
      1 file(s) copied.
***** Installing the Update Installer in silent mode *****
***** Installing the Update Installer in silent mode *****
D:\PS850\temp\CD-WIN\CD1\JavaSDKFix\7.0.0-WS-WASSDK-WinX32-FP0000001.pak
      1 file(s) copied.
D:\PS850\temp\CD-WIN\CD1\InterimFix\7.0.0-7.0.0.1-WS-WAS-IFPK81387.pak
      1 file(s) copied.
      1 file(s) copied.
***** Running the Update Installer tool to install the JRE Upgrade fix to WebSphe
re *****
java.exe -Dswing.defaultlaf=com.sun.java.swing.plaf.windows.WindowsLookAndFeel
-cp "C:\IBM\WebSphere\Java6Upg\update.jar" -Xms128m -Xmx512m run -options D
:\PS850\temp\CD-WIN\CD1\responsefiles\responsefile.updi.updatefixes_one.txt =>
silent
***** Completed upgrading the JRE in Websphere 7.0 to IBM JRE 1.6 SR3 *****
WVER0010I: Copyright (c) IBM Corporation 2002, 2005, 2008; All rights reserved.
WVER0012I: VersionInfo reporter version 1.15.1.26, dated 8/9/08
```

```
-----
IBM WebSphere Application Server Product Installation Status Report
-----
```

Report at date and time May 20, 2009 2:00:50 AM PDT

Installation

```
-----
Product Directory      C:\IBM\WebSphere\AppServer
Version Directory      C:\IBM\WebSphere\AppServer\properties\version
DTD Directory          C:\IBM\WebSphere\AppServer\properties\version\dtd
Log Directory          C:\IBM\WebSphere\AppServer\logs
Backup Directory       C:\IBM\WebSphere\AppServer\properties\version\nif\back
kup
TMP Directory          D:\temp
```

Product List

```
-----
ND                      installed
```

Installed Product

```
-----
Name                    IBM WebSphere Application Server - ND
Version                 7.0.0.0
ID                      ND
Build Level             r0835.03
Build Date              8/31/08
-----
```

End Installation Status Report

```
-----
java version "1.6.0"
Java(TM) SE Runtime Environment (build pwi3260sr3-20081106_07(SR3))
IBM J9 VM (build 2.4, J2RE 1.6.0 IBM J9 2.4 Windows XP x86-32 jvmwi3260-20081105
_25433 (JIT enabled, AOT enabled)
J9VM - 20081105_025433_lHdSMr
JIT   - r9_20081031_1330
GC    - 20081027_AB)
JCL   - 20081106_01
Press any key to exit
```

Task 2-2-5: Reviewing Logs

After the installation is complete the following log file is generated:

WAS_HOME/logs/install/log.txt

If the error happens early in the installation, look for the log.txt file in the system temporary area (for example, C:\temp). The installation program copies the log from the temporary area to the logs directory at the end of the installation.

During installation, a single entry in the *WAS_HOME*/logs/install/log.txt file points to the temporary log file, either %TEMP%\log.txt on Microsoft Windows platforms, or /tmp/log.txt on UNIX or Linux platforms.

Task 2-2-6: Uninstalling WebSphere ND 7.0

To uninstall WebSphere ND 7.0 begin in the uninstall directory in the WebSphere installation directory.

Open a command prompt and run the following command:

For Windows:

```
WAS_HOME\uninstall\uninstall.exe
```

For UNIX and Linux:

```
WAS_HOME/uninstall/uninstall.sh
```

After the WebSphere installation is removed, you can find the log file in *WAS_HOME/logs/uninstall/log.txt*.

Task 2-2-7: Installing IBM HTTP Server 7.0 and Web Server Plug-ins

This section discusses:

- Understanding the IBM HTTP Server Installation
- Installing IBM HTTP Server
- Installing WebSphere ND 7.0 Plug-ins

Understanding the IBM HTTP Server Installation

WebSphere Application Server supports IBM HTTP server as one of the supported HTTP Reverse Proxy servers. The IBM HTTP Server (IHS) is basically a web server based on the Apache server, with some additional adjustments. The IBM HTTP Server comes as a compiled and tested version of the Apache server for specific platforms. To prevent any security breaches, the most important enhancement in the IBM HTTP Server over the Apache server is the addition of the Secure Sockets Layer (SSL) function.

IBM WebSphere alone cannot act as a proxy server for PeopleSoft PeopleTools REN Server. You must also install PeopleSoft Pure Internet Architecture, and use these instructions to install the IHS. Consult My Oracle Support for information on the versions of IHS certified for use with PeopleSoft PeopleTools.

See My Oracle Support (search for Reverse Proxy Servers).

You can find the prerequisites for IBM HTTP Server 7.0 on the IBM web site. The prerequisites for IBM HTTP Server and WebSphere Application Server 7.0 are the same.

See Reviewing Prerequisites for WebSphere Application Server Network Deployment.

Installing IBM HTTP Server

This section discusses the installation and initial setup for IHS 7.0. To install IHS:

1. Navigate to the directory *CD_INSTALL\CD1*, where *CD_INSTALL* is the directory where you extracted the WebSphere installation files, and run the following command:

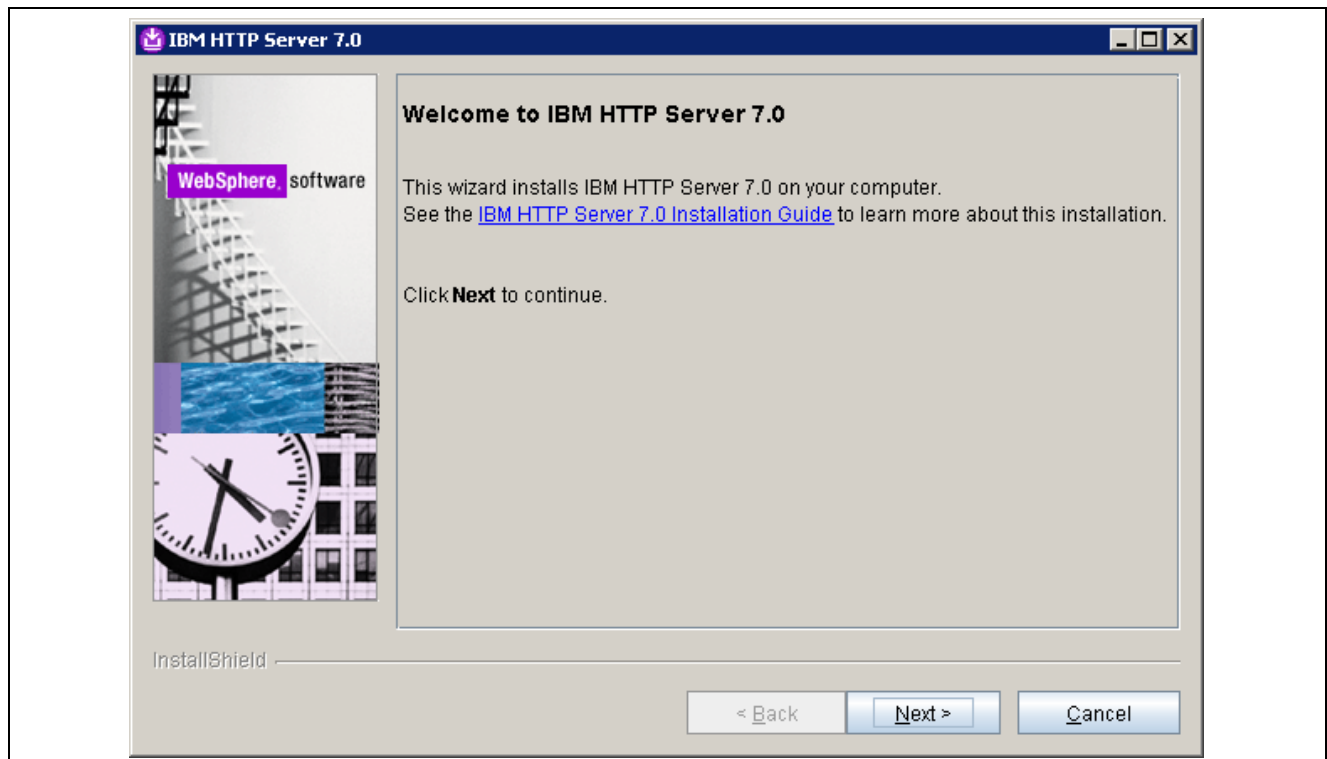
For Windows:

```
installIHS.bat
```

For UNIX or Linux:

```
installIHS.sh
```

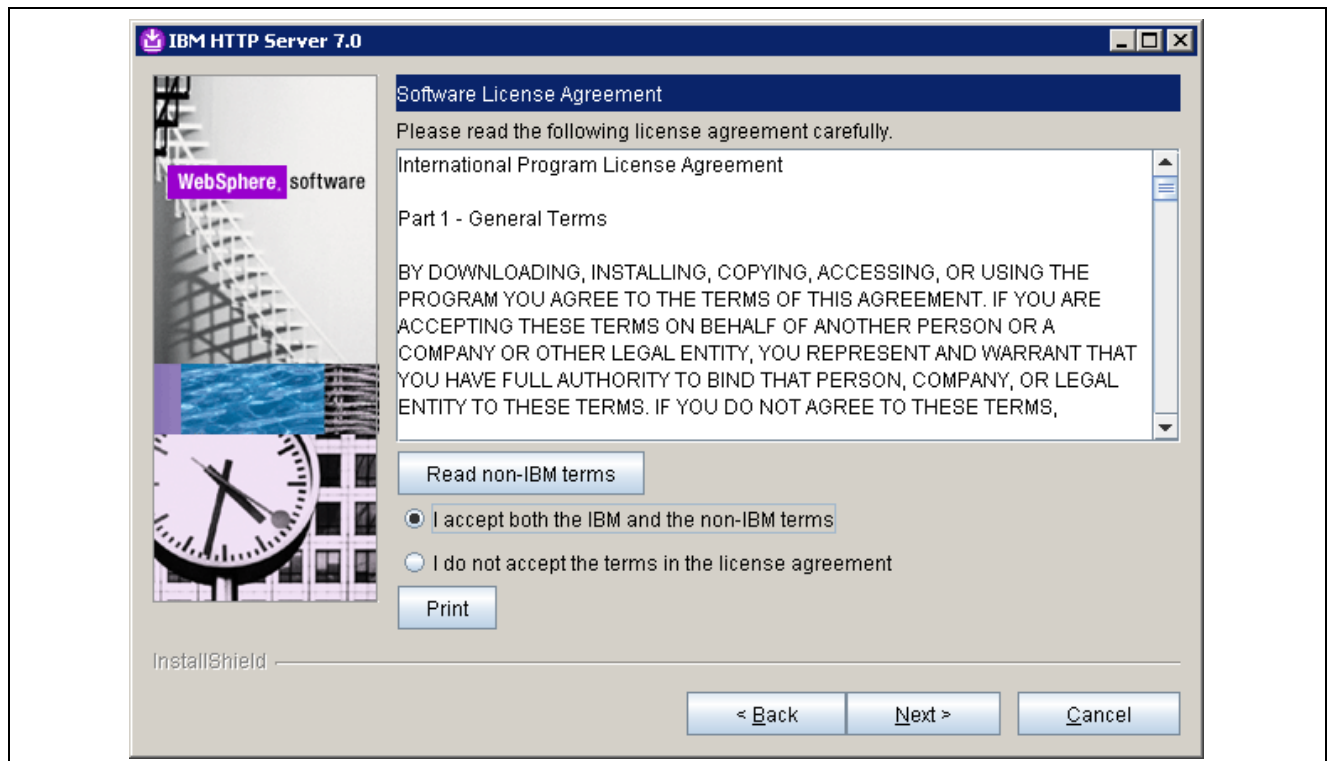
The Welcome window appears. Click Next to display the License agreement panel.



IBM HTTP Server Welcome window

2. Select the option to accept both IBM and non-IBM terms.

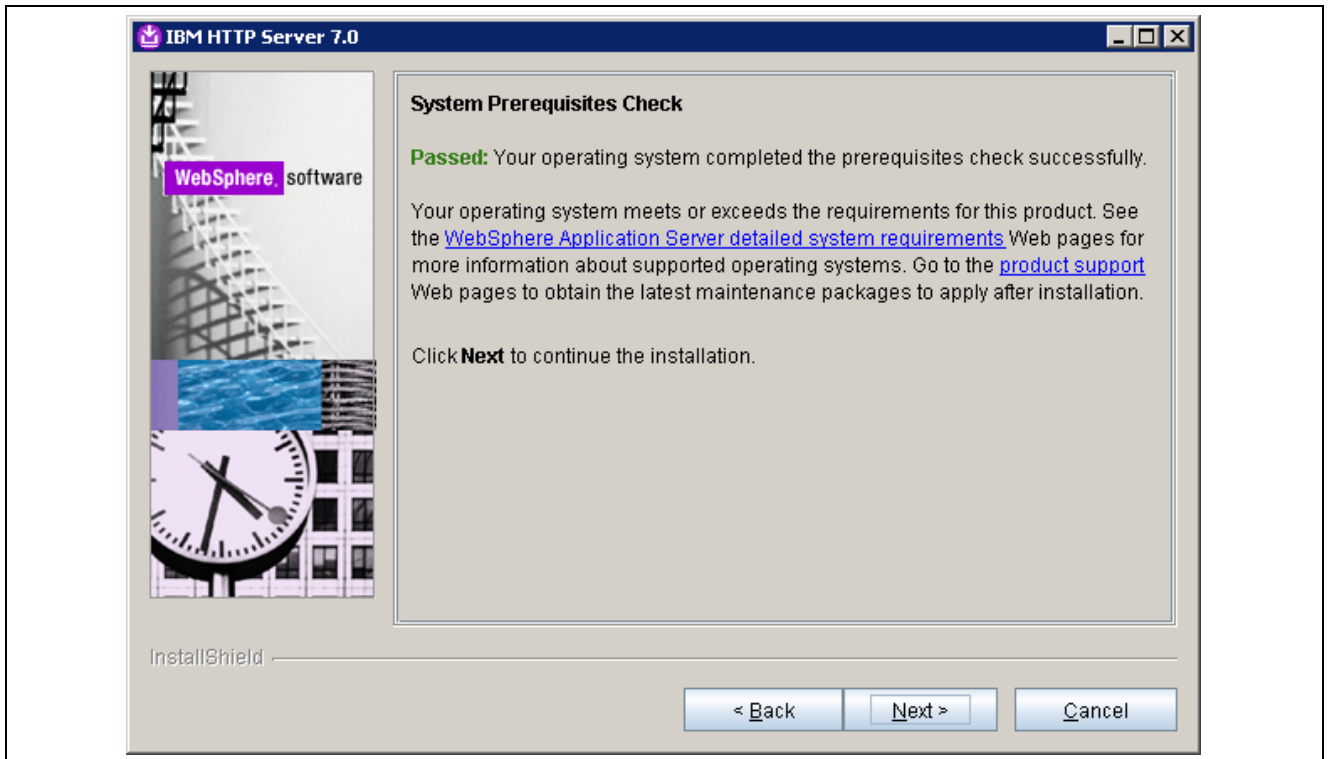
The installation wizard carries out a system prerequisites check. Click Next.



IBM HTTP Server Software License Agreement window

The installation wizard performs a system prerequisites check.

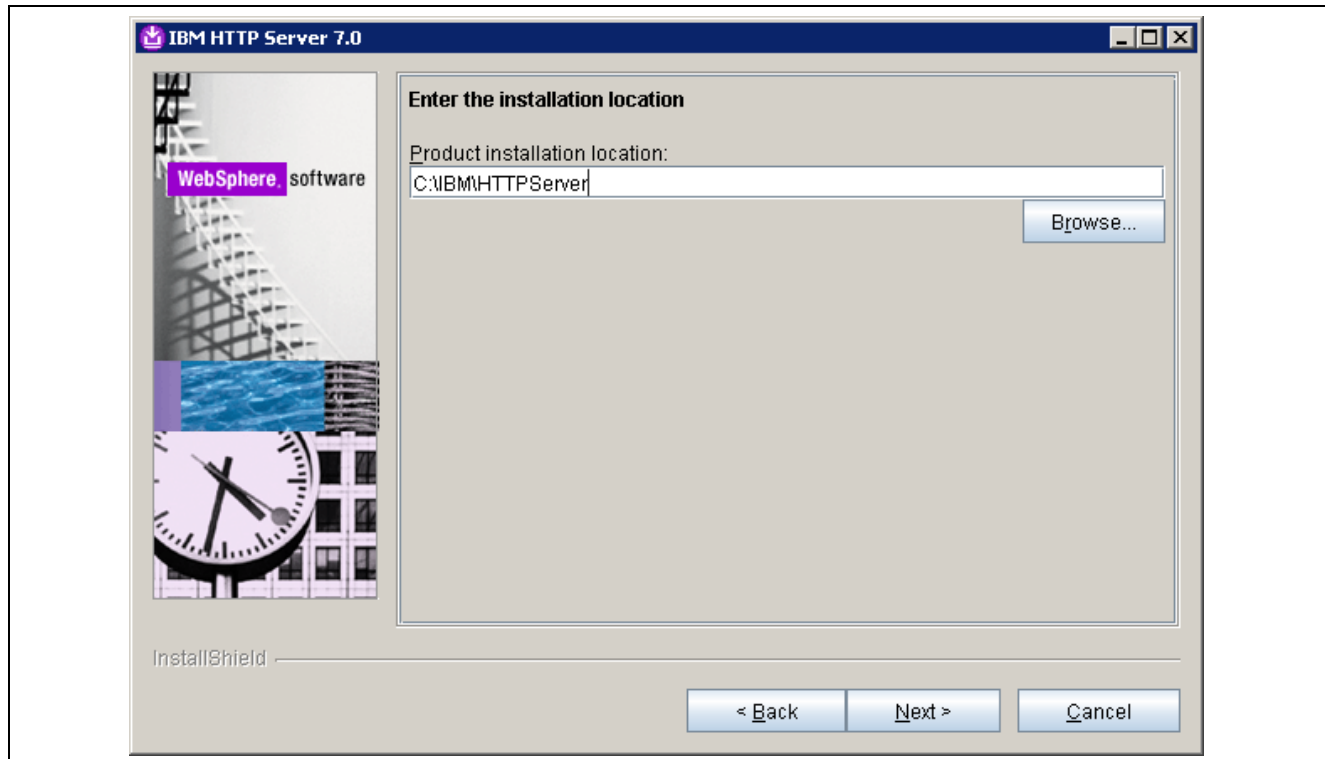
3. Click Next.



IBM HTTP Server System Prerequisites Check window

4. Enter the installation location for IHS.

This documentation refers to the installation directory as *IHS_HOME*. In the example below, *IHS_HOME* is C:\IBM\HTTPServer. Click Next.



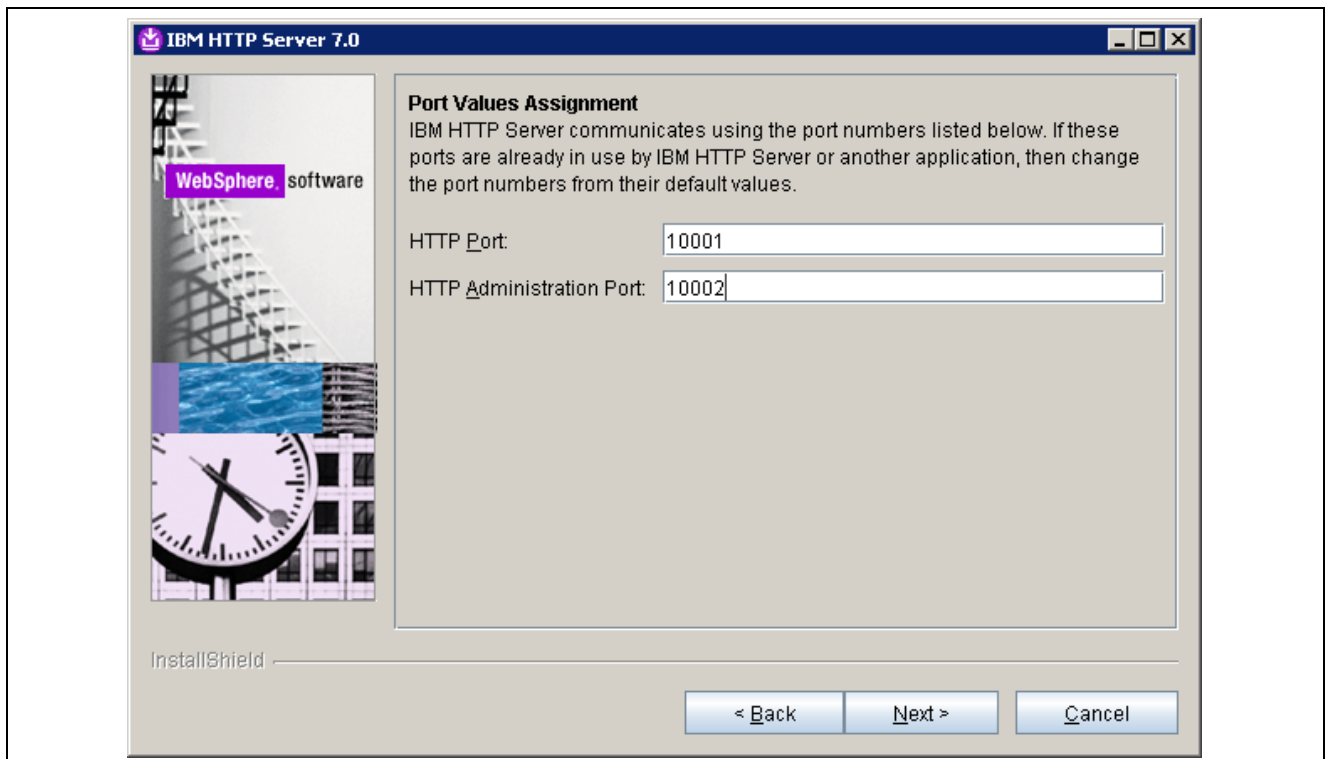
IBM HTTP Server installation location window

5. Specify the HTTP and HTTP Administration ports

The port specification panel enables you to modify the ports to use for IBM HTTP Server and the IBM HTTP Server administration server. The default port values are 80 for IBM HTTP Server and 8008 for the IBM HTTP administration module. Specify unique port values if the default ports are already in use by another application.

You can run `netstat -an` from the command prompt on Windows to display a list of active ports.

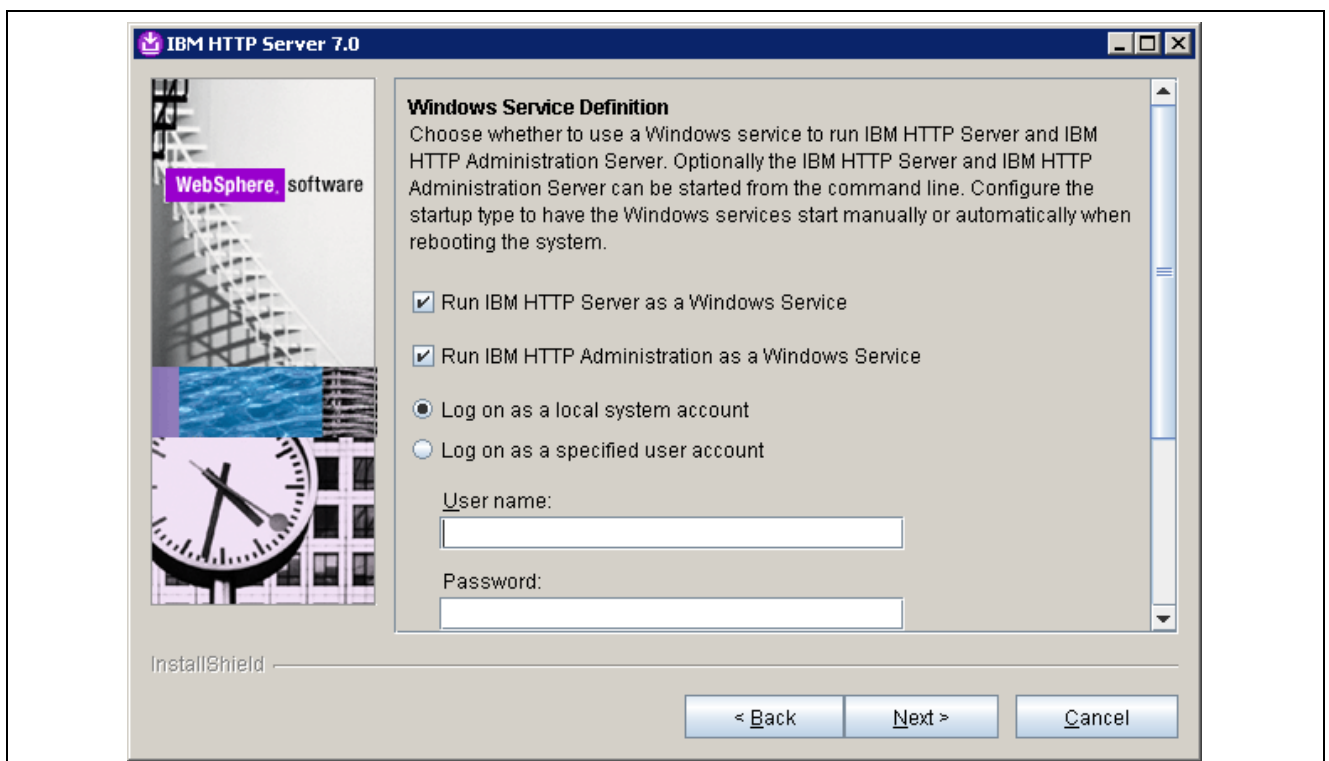
Note. On Windows, you can configure the services to run as a Local System account or a user ID that you specify.



IBM HTTP Server Port Values Assignment window

6. *Windows only:* Click Next to display the Windows Service Definition window.

You have the option to create a Windows service for IBM HTTP Server and the IBM HTTP Server administration server on this panel.



IBM HTTP Server Window Service Definition window

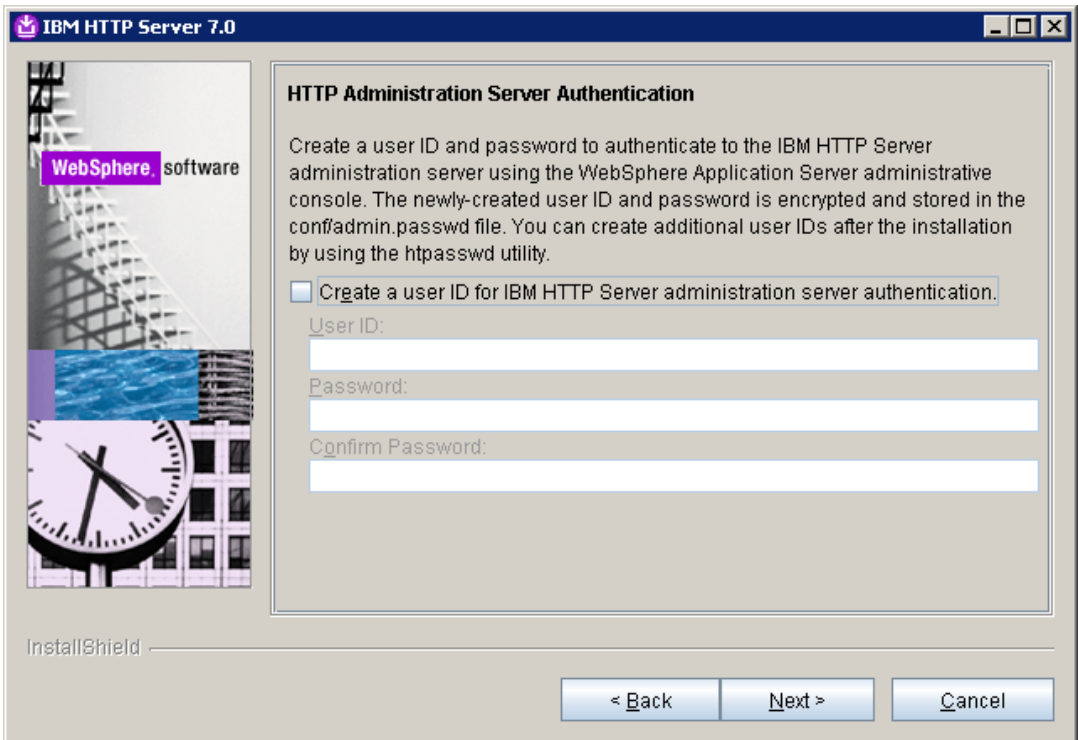
Keep the following points in mind while specifying the information on this window:

- The user account must be able to act as part of the operating system and log on as a service.
- If you are planning to administer IBM HTTP Server using the WebSphere Application Server administrative console, select the option Run IBM HTTP Administration as a Windows Service and the option Log on as a local system account. A user name and password is not required for this selection.
- If you will not administer IBM HTTP Server using the WebSphere Application Server administrative console, select the option Run IBM HTTP Server Administration as a Windows Service and the option Log on as a specified user account. Specify your user ID and password information.
- Scroll down to select Automatic or Manual from the Startup Type drop-down list.

7. Click Next to display the IBM HTTP Server Administration Server Authentication window.

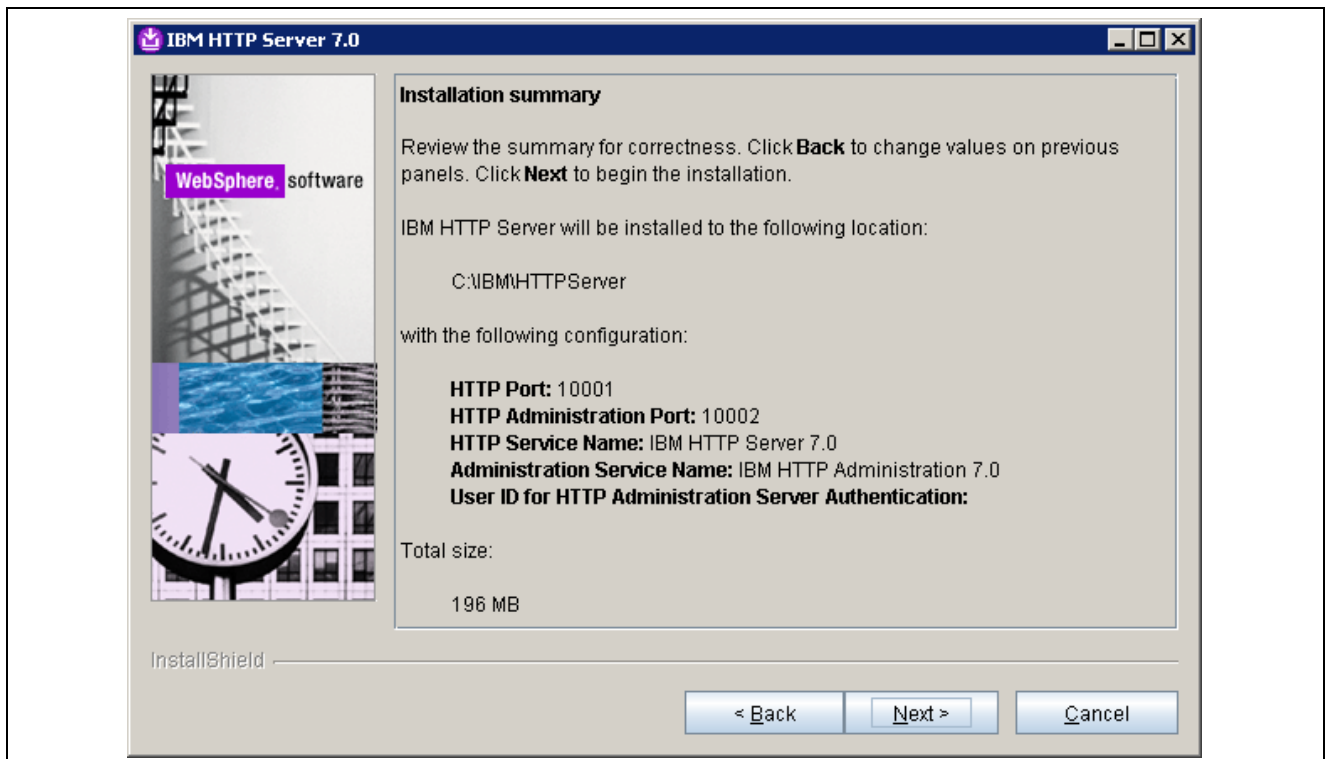
If selected, this option creates a user ID and password to authenticate to the IBM HTTP Server administration server using the WebSphere Application Server administrative console. This user ID and password can optionally be created after installation using the `htpasswd` utility.

Click Next to continue.



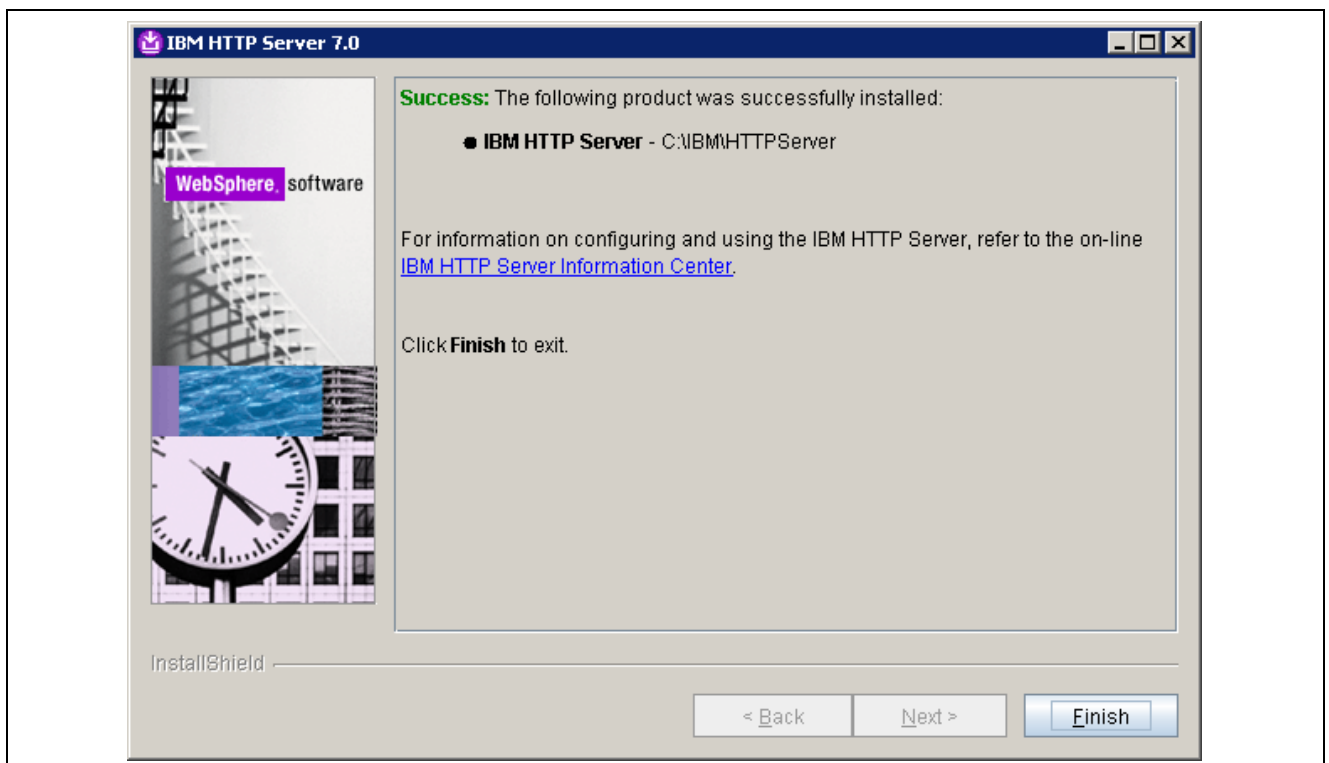
IBM HTTP Server HTTP Administration Server Authentication

8. Review the Installation summary to verify your selections. Click Back to change any of your specifications.



IBM HTTP Server Installation summary

9. Click Next to begin installing IBM HTTP Server.
10. When the installation status window appears, click Finish to exit.



IBM HTTP Server Success window

Installing WebSphere ND 7.0 Plug-ins

Before you begin this installation, stop any web servers and WebSphere Application Servers that are running.

The following steps are listed for installing IHS plug-in for WebSphere ND 7.0 and the same should be applied for all the other web servers.

Note. IBM HTTP Server can be configured to act as a Reverse Proxy Server (RPS) for PeopleSoft Pure Internet Architecture (PIA).

See *Enterprise PeopleTools 8.50 PeopleBook: System and Server Administration*, "Working with IBM WebSphere."

To install the plug-ins:

1. Navigate to the directory `CD_INSTALL\CD1`, where `CD_INSTALL` is the directory where you extracted the WebSphere installation files, and run the following command:

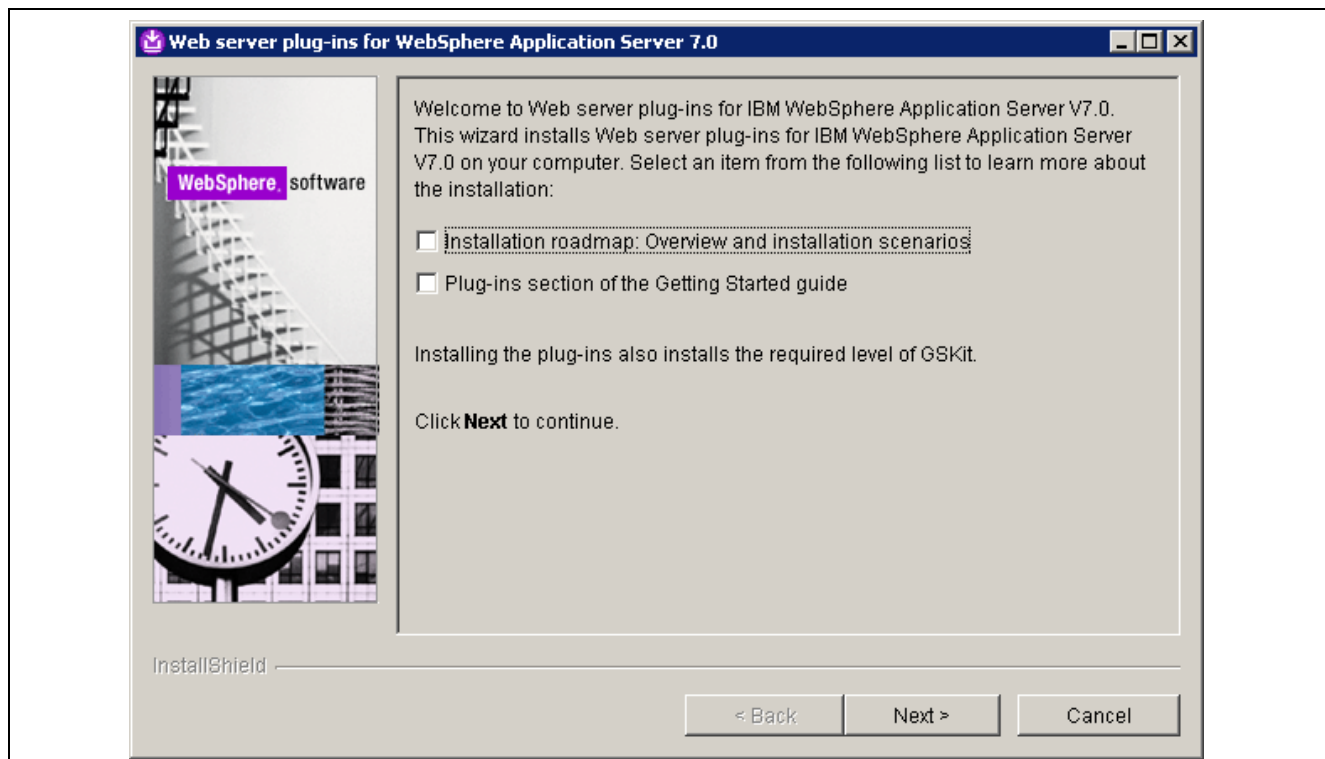
On Windows:

```
installNUpdatePlugin.bat
```

On UNIX or Linux:

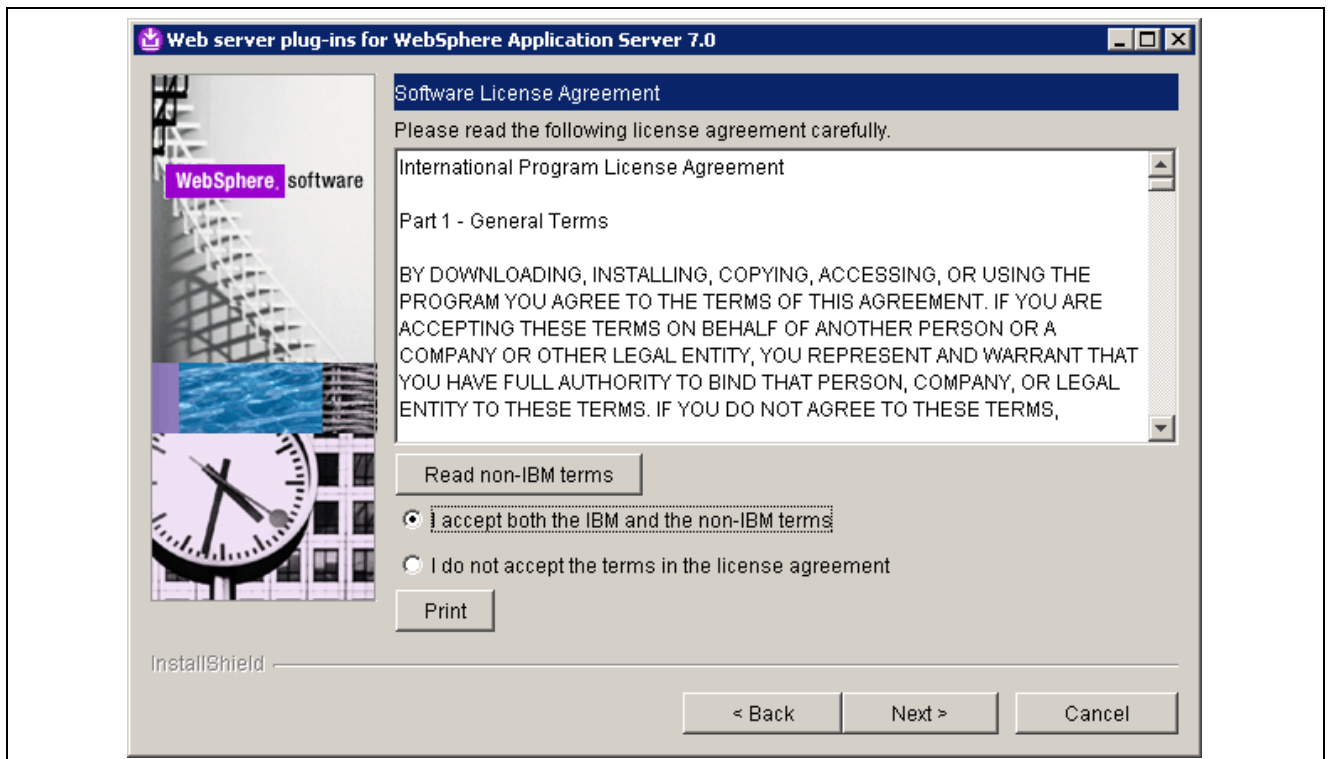
```
installPlugin.sh
```

2. On the Welcome window, clear the option Installation roadmap: Overview and installation scenarios and click Next.



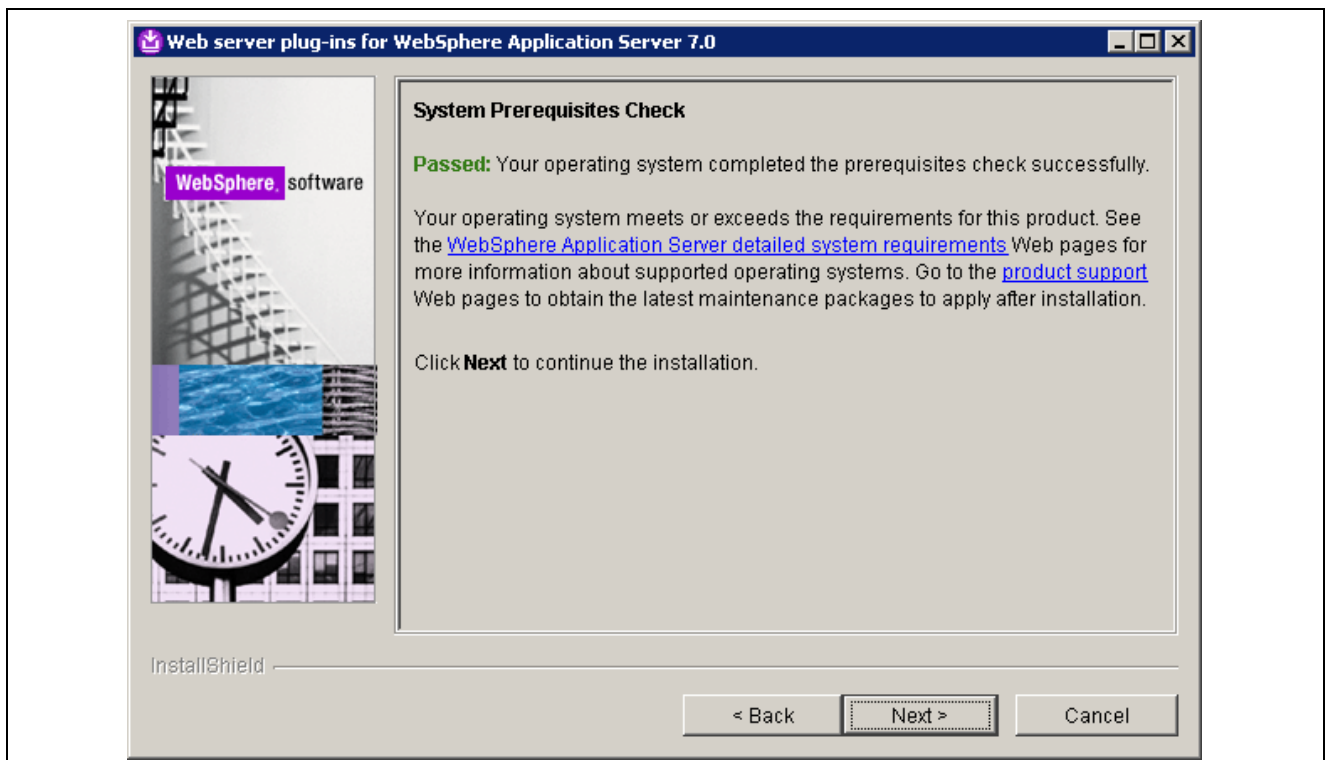
Web server plug-ins for WebSphere Application Server Welcome window

3. On the Software License Agreement panel, read the terms and select the option to agree to both IBM and non-IBM terms. Click Next to continue.



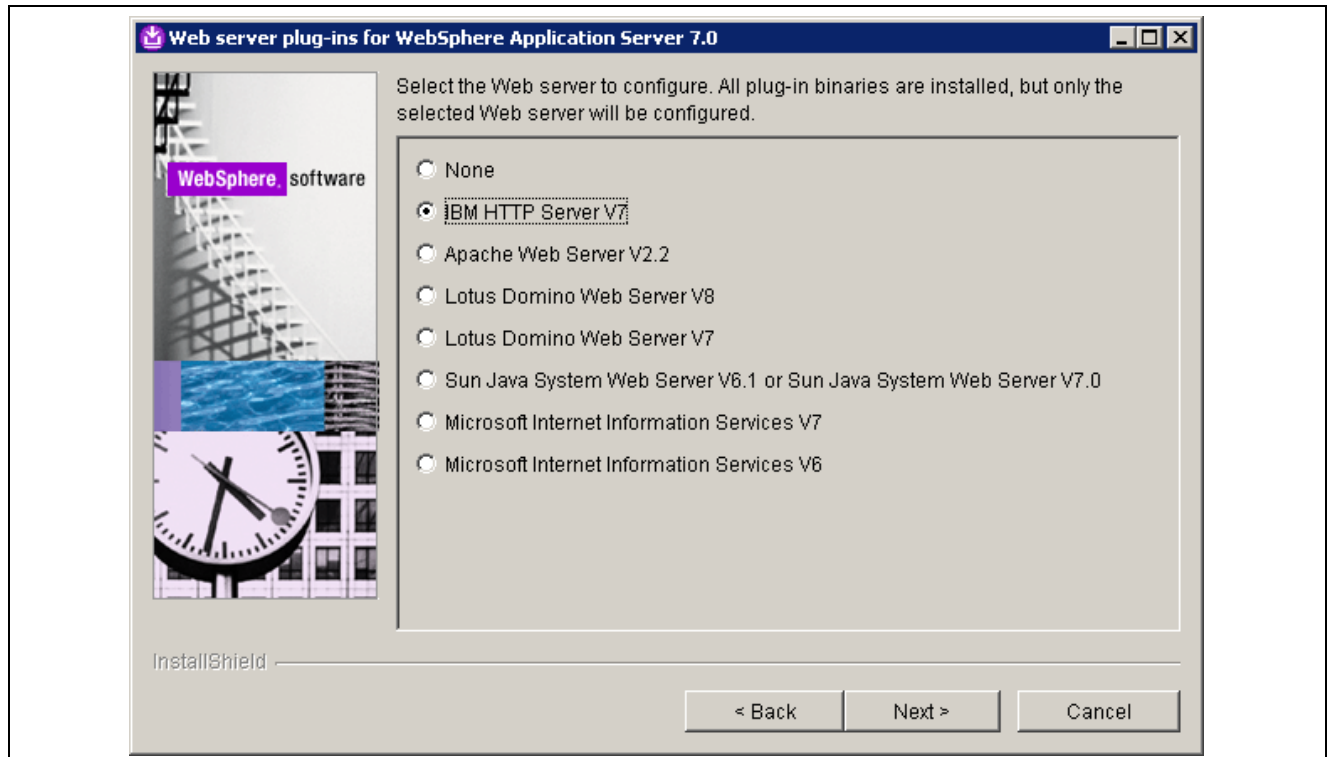
Web server plug-ins for WebSphere Application Server Software License Agreement window

4. Click Next on the System prerequisites check window.



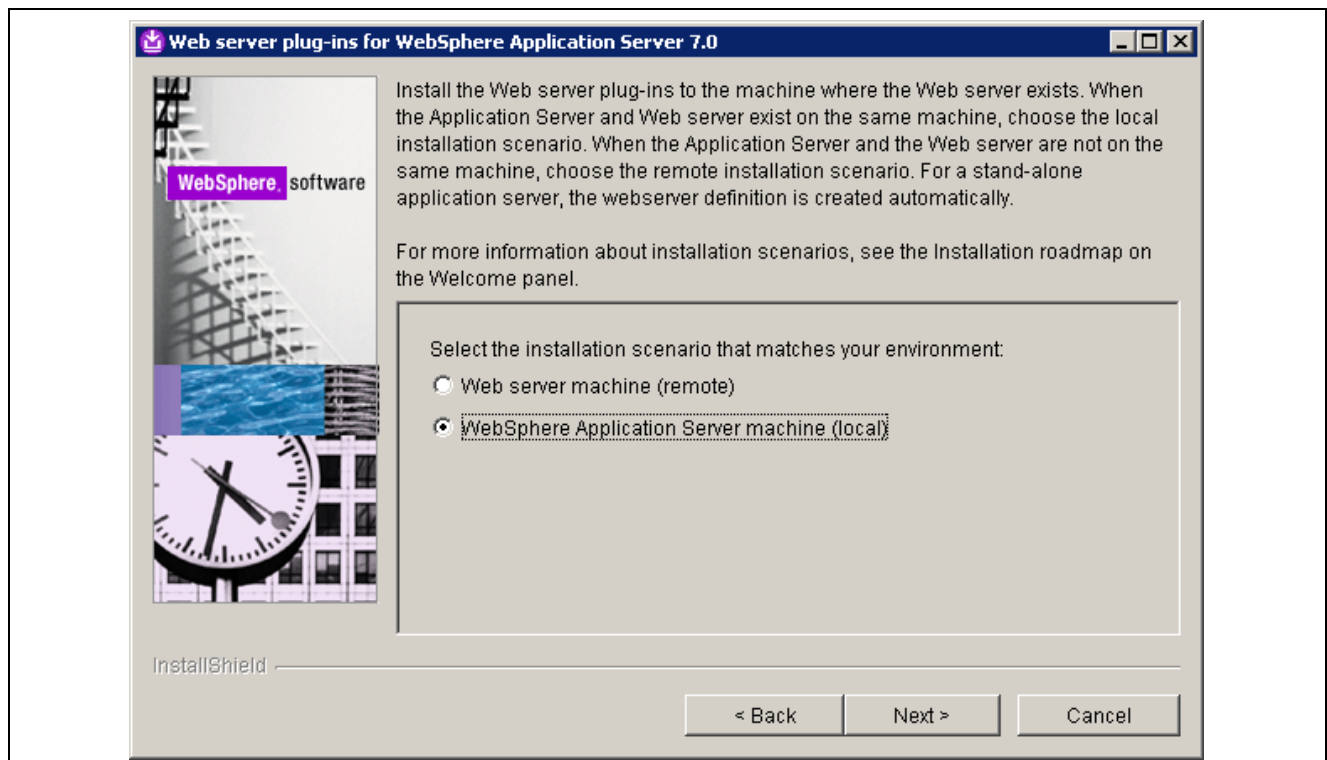
Web server plug-ins for WebSphere Application Server System Prerequisites Check window

5. Select the web server plug-in you want to install and click Next.



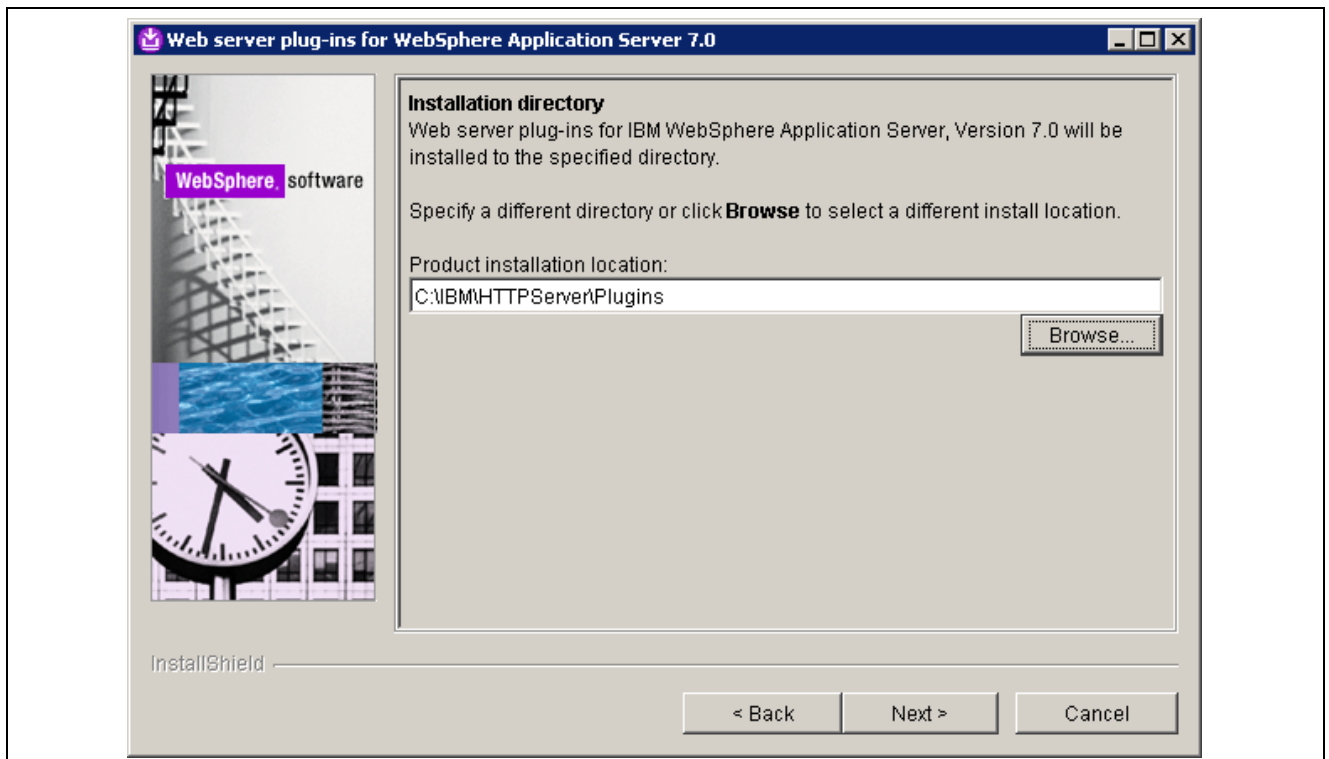
Web server plug-ins for WebSphere Application Server Web server selection window

6. Select the type of installation, either remote or local machine and click Next.



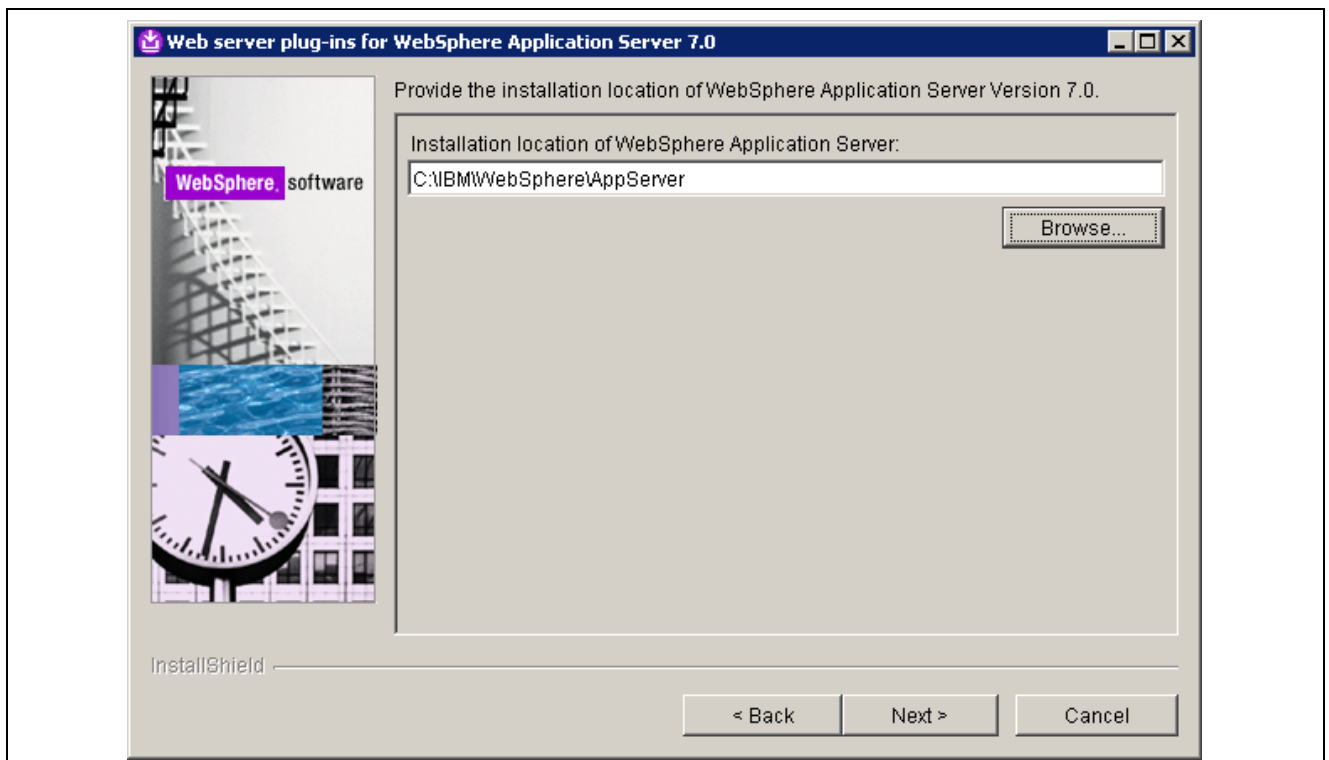
Web server plug-ins for WebSphere Application Server installation scenario selection

7. Specify the directories to which to install the plug-in and click Next.



Web server plug-ins for WebSphere Application Server Plugins Installation directory window

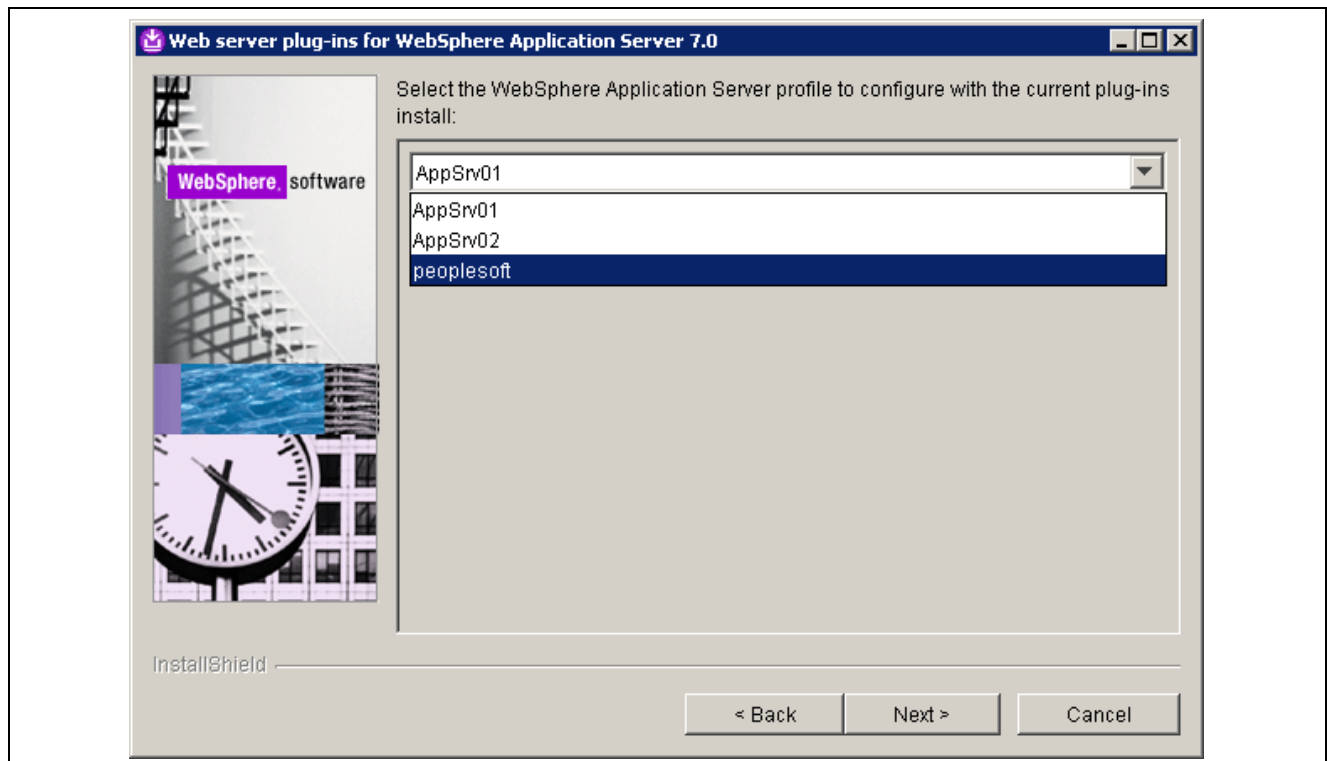
8. Specify the location of WebSphere ND installation (*WAS_HOME*) and click Next.



Specifying the WebSphere Application Server installation directory

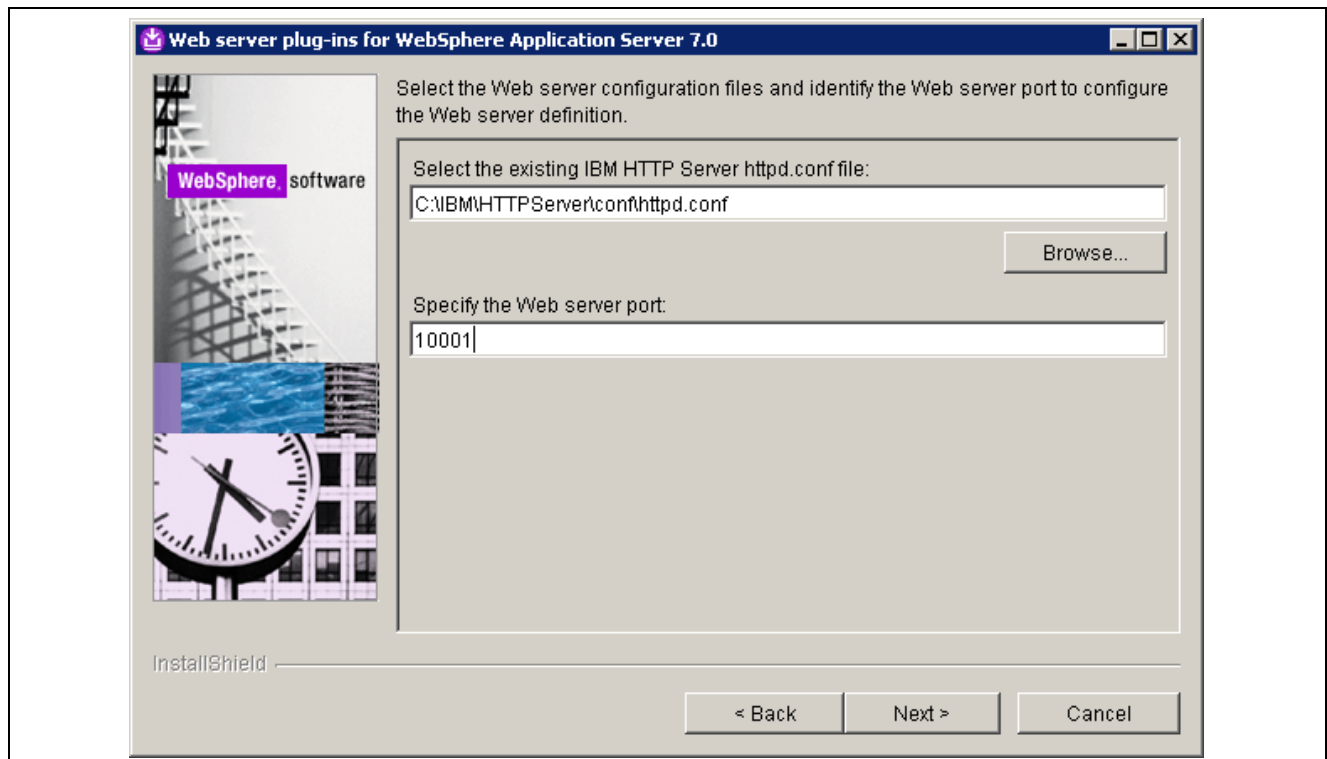
9. Select the WebSphere Application Server profile to configure the plug-ins.

Select the profile on which PIA is installed, in this case “peoplesoft”.



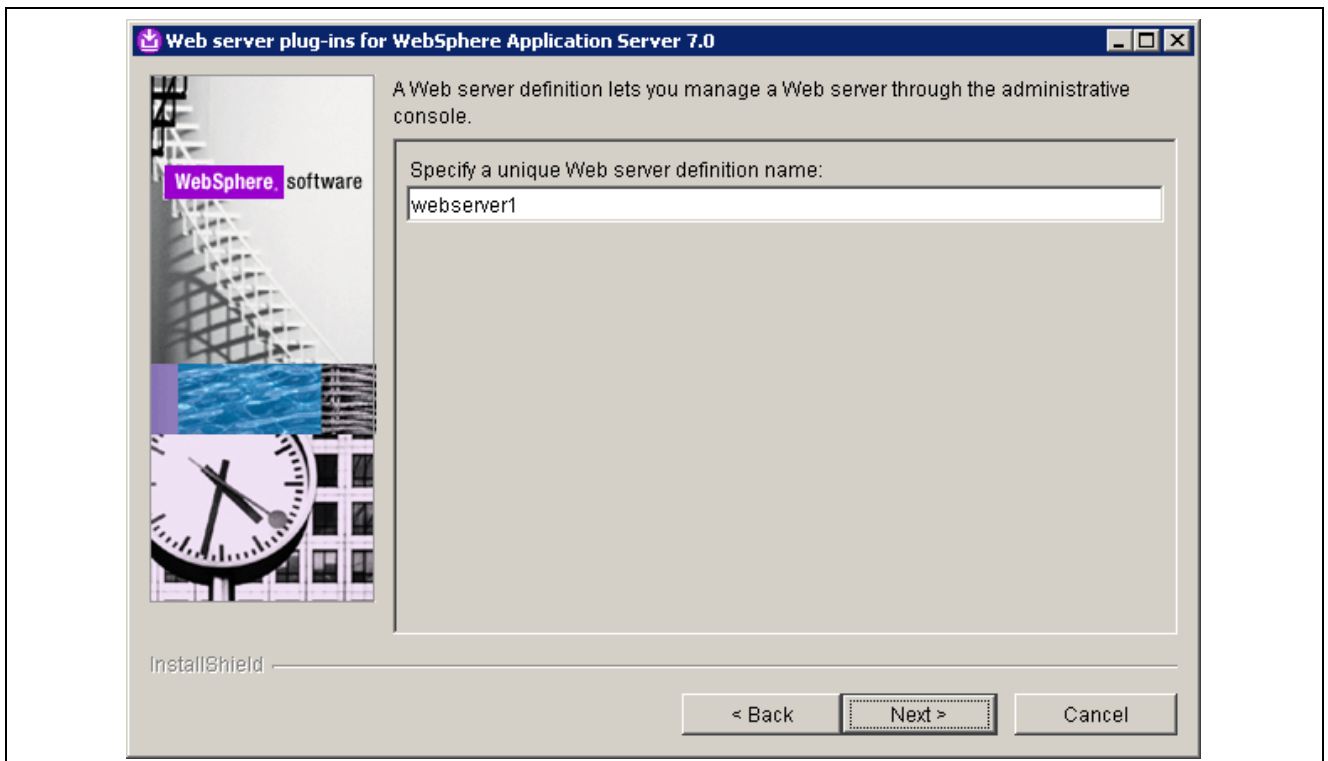
Selecting the WebSphere Application Server profile

10. Enter the IHS configuration file (httpd.conf) location and IHS port number and then click Next.



Specifying the Web Server configuration file and Web server port

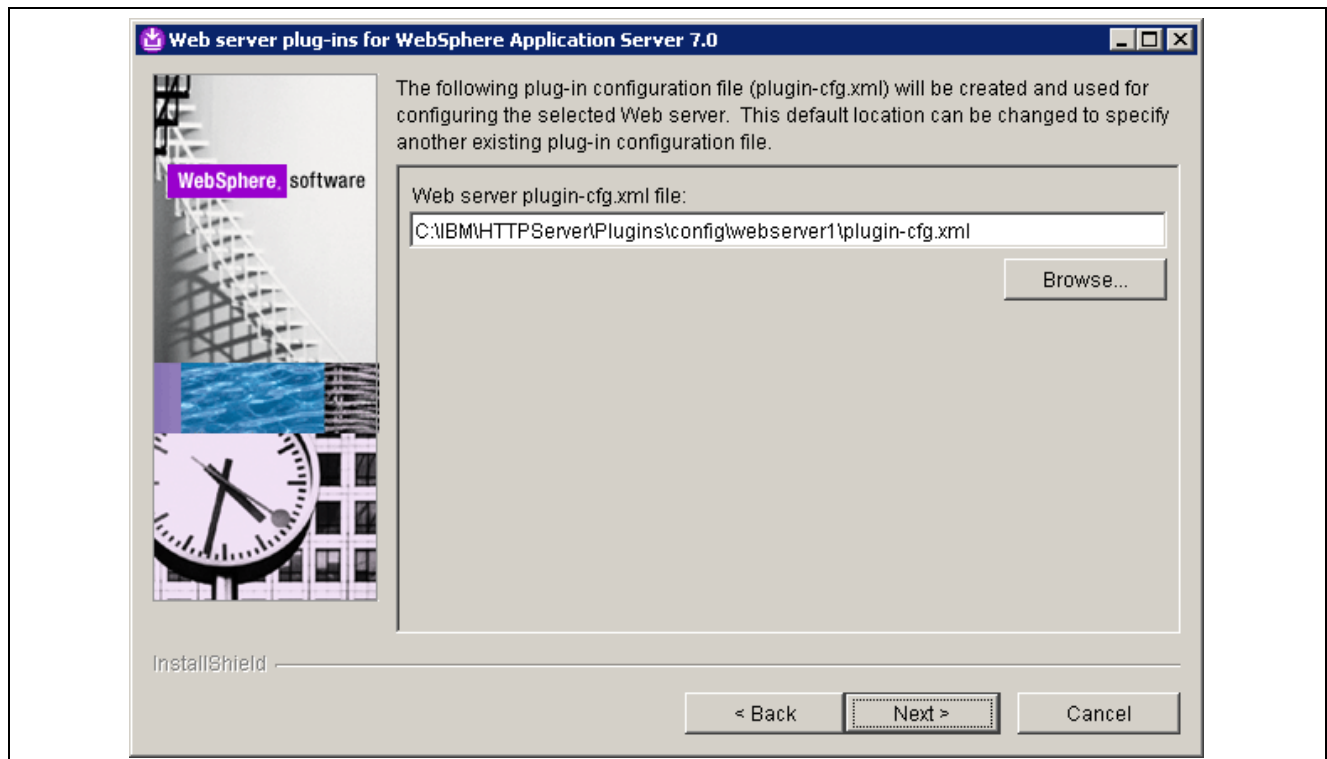
11. Enter a unique web server name.



Specifying Web server definition name

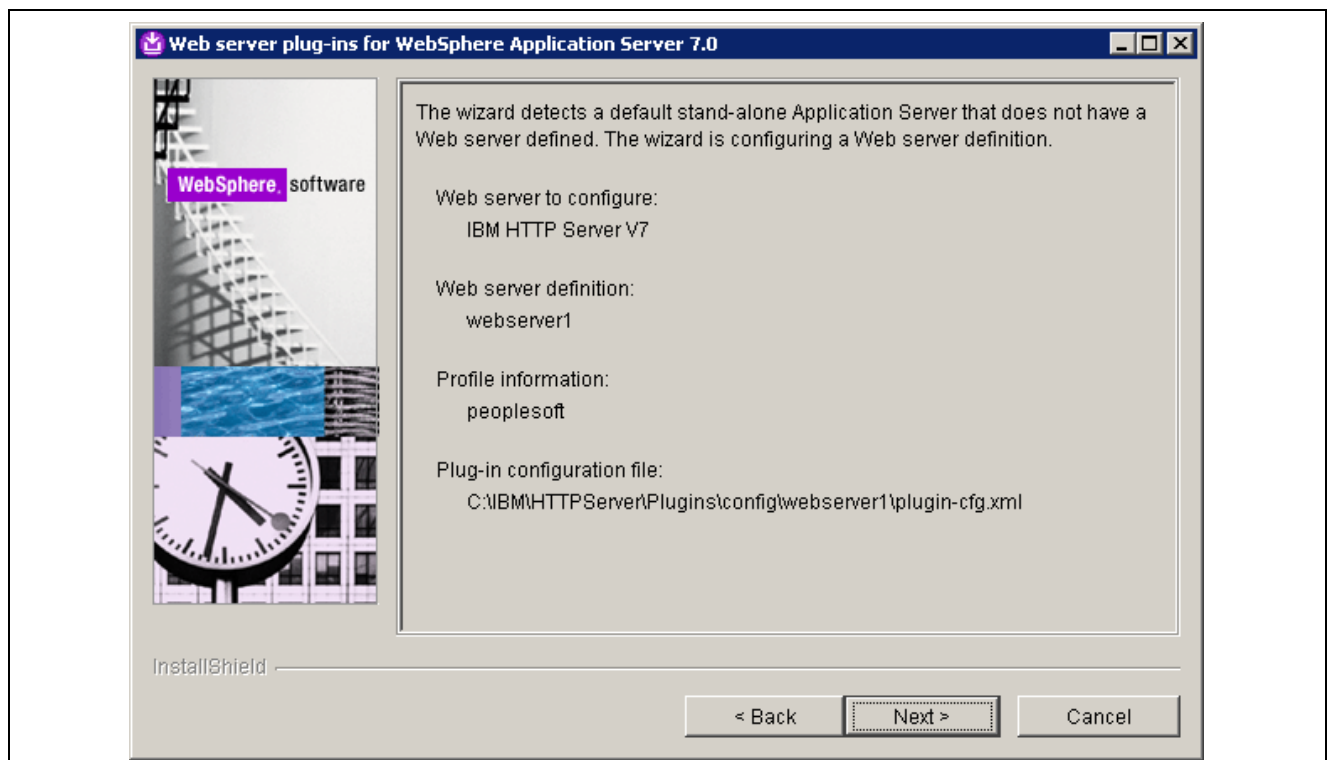
12. Specify the target directory for the plug-in configuration file, plugin-cfg.xml and click Next.

It's recommended that you accept the default value.



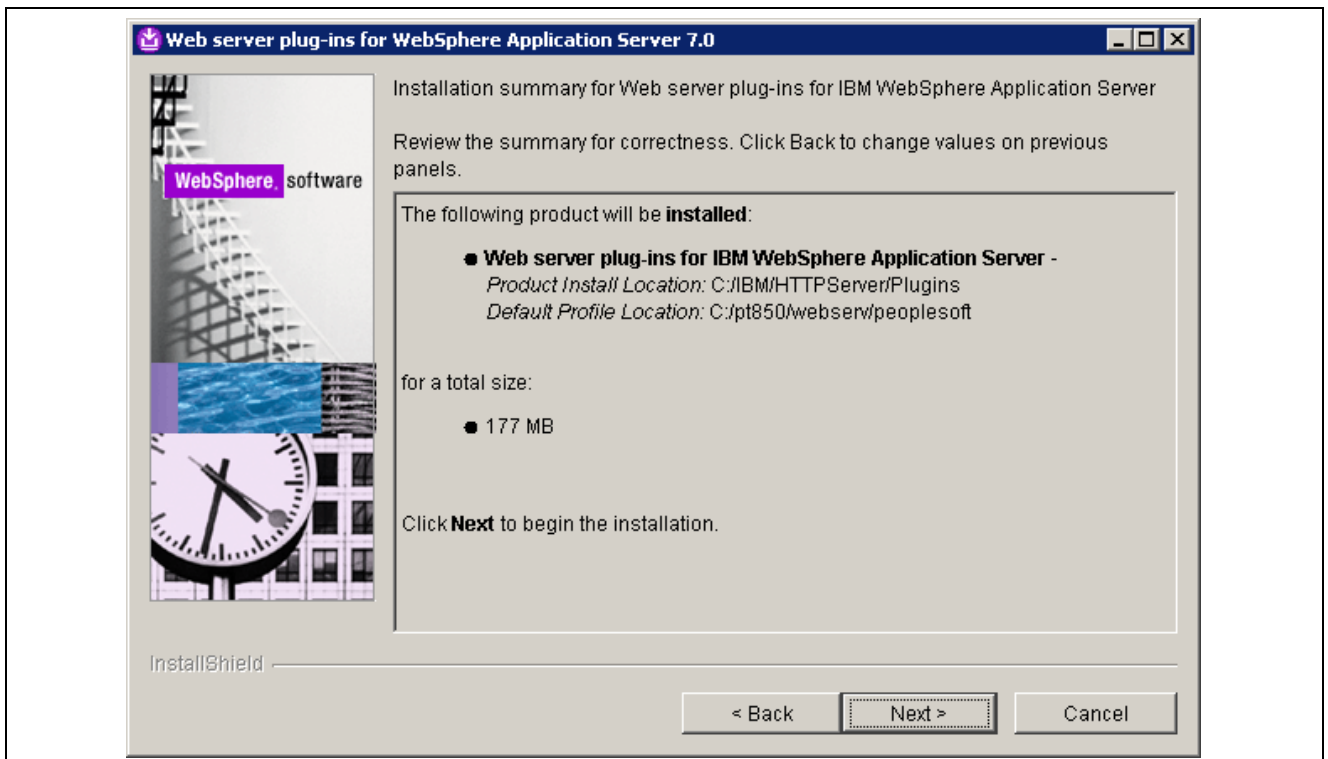
Specifying the plug-in configuration file

13. Click Next.



Information window

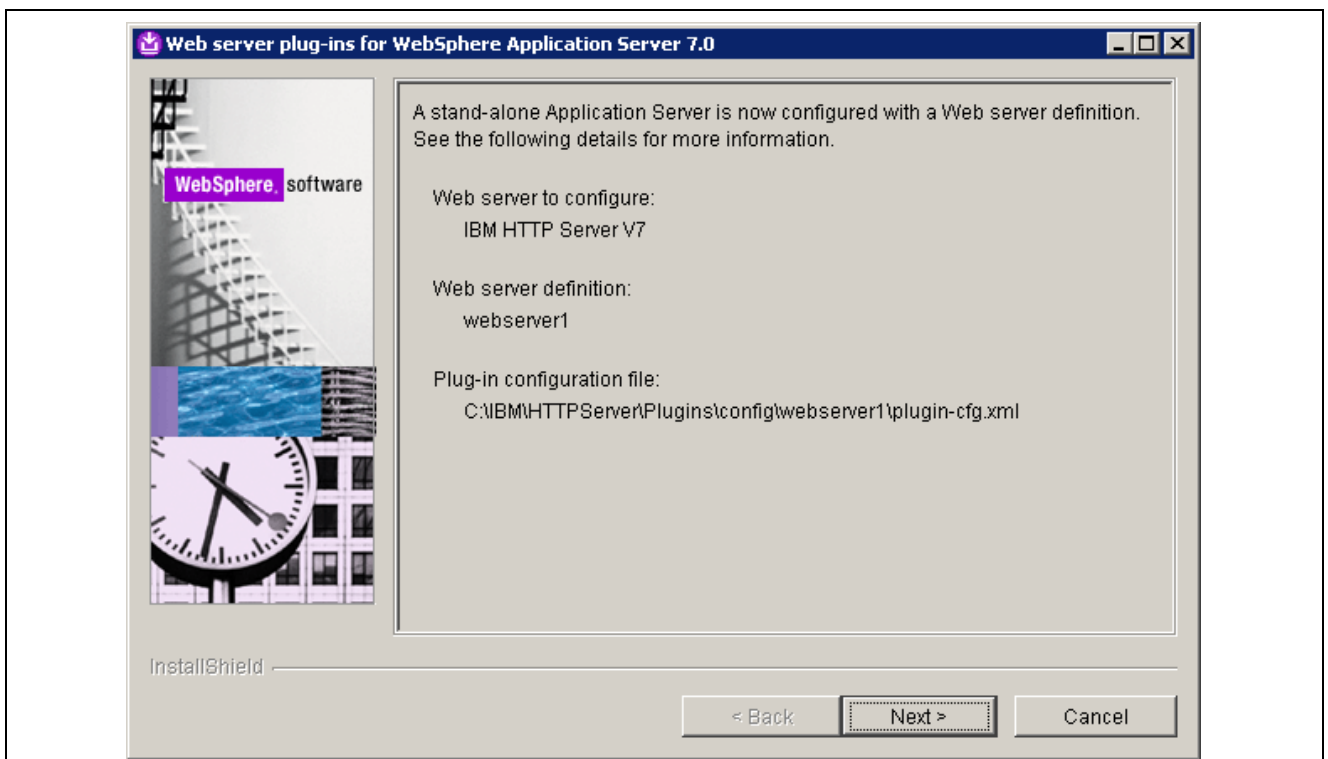
14. Review the information on the installation summary window, and then click Next to begin the installation.



Web server plug-ins for WebSphere Application Server Installation summary window

An information window appears.

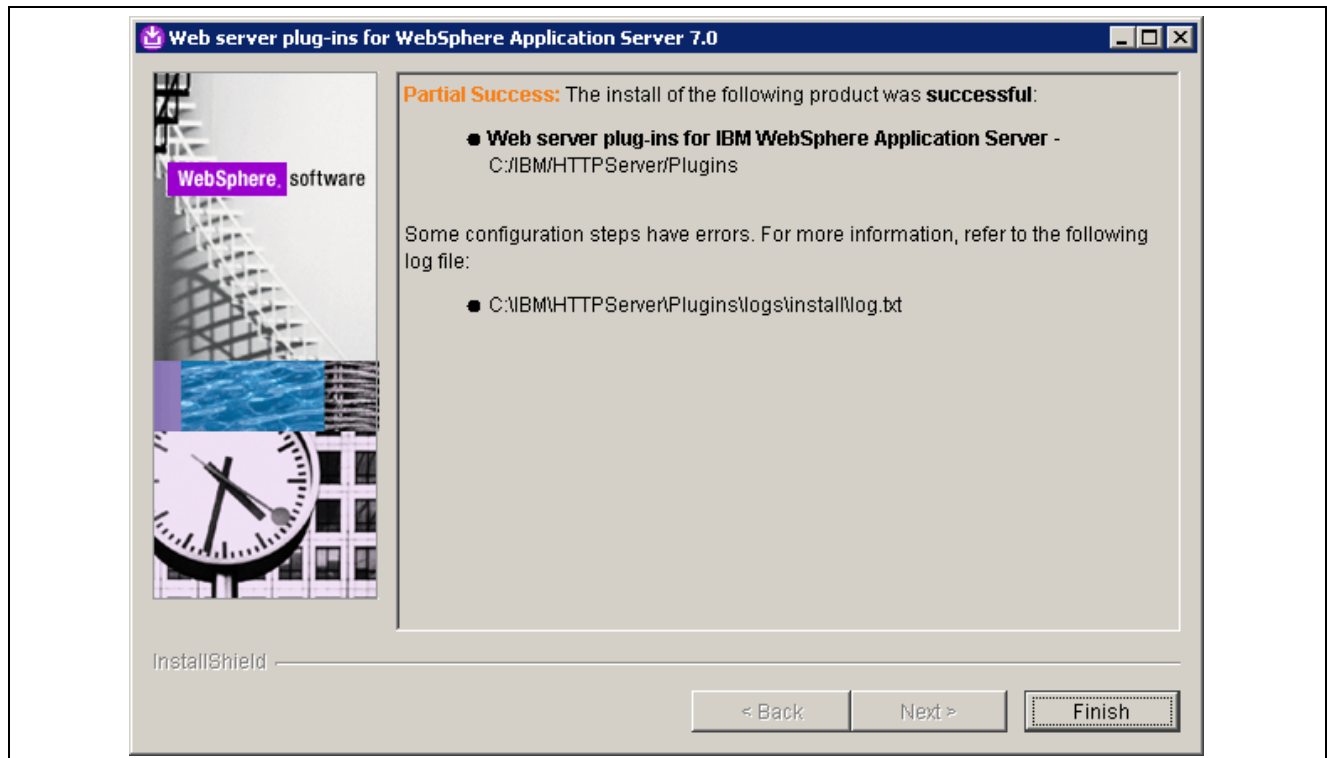
15. Click Next.



Stand-alone Application Server information window

16. After the plug-in installation is complete, a confirmation screen appears. The installation status might show as “Partial Success” because the WebSphere profile “peoplesoft” exists not under *WAS_HOME* directory, but outside it, under the *PS_HOME* directory where PeopleSoft PeopleTools is installed.

Click Finish to exit.



Web server plug-ins for WebSphere Application Server Partial Success window

Verify the success of the installer program by examining installation wizard messages and the logs/install/log.txt file in the plug-in installation directory for installation status.

CHAPTER 3

Installing Additional Components

This chapter discusses:

- Installing Oracle Tuxedo
- Installing Micro Focus Net Express for Windows
- Installing Micro Focus Server Express for UNIX and Linux

Task 3-1: Installing Oracle Tuxedo

This section discusses:

- Understanding Oracle Tuxedo
- Prerequisites
- Obtaining the Oracle Tuxedo Installation Files from E-Delivery
- Removing the Oracle Tuxedo Installation from Windows (Optional)
- Designating the Application Server Administrator on Windows
- Installing Oracle Tuxedo on Windows
- Checking the Windows Service Account
- Setting Up the Windows Services for Oracle Tuxedo
- Verifying the Server Installation on Windows
- Removing the Oracle Tuxedo Installation from UNIX (Optional)
- Completing the Preinstallation Checklist on UNIX
- Designating the Oracle Tuxedo Owner on UNIX
- Installing Oracle Tuxedo on UNIX
- Verifying the Server Installation on UNIX
- Ensuring that Oracle Tuxedo Coexists with Earlier Versions

Understanding Oracle Tuxedo

The PeopleSoft application server uses the Oracle® Fusion Middleware product, Oracle Tuxedo, to perform transaction management, messaging, and administration. This task guides you through the installation of Oracle Tuxedo on your server. It is essential that you install Oracle Tuxedo version 10gR3, which is available on Oracle E-Delivery. You need to install Oracle Tuxedo before you go any further in setting up your application server and your PeopleSoft Pure Internet Architecture. After you perform the installation described here, you will configure the application server environment to incorporate Oracle Tuxedo with the PeopleSoft components.

Note. Oracle supports Oracle Tuxedo 10gR3 with PeopleSoft PeopleTools 8.50. If you have a previous version of Oracle Tuxedo installed, you need to install the new version of Oracle Tuxedo, and re-create your application server domains. (You must create your domains using PSADMIN; you cannot migrate existing domains.) You can also use PSADMIN's domain import utility.

You can install Oracle Tuxedo once for each release on a machine, regardless of the number of PeopleSoft applications or databases the server supports. For example, if you are a PeopleSoft 9.1 customer and have Oracle Tuxedo 6.5 installed, you may install Oracle Tuxedo 6.5 and Oracle Tuxedo 10gR3 on the same machine in separate directories. For example:

On Windows, you may install into C:\oracle\tuxedo10gR3_VS2005 and C:\tux65.

On UNIX, you may install into /home/oracle/tuxedo10gR3 and /prod/tuxedo/6.5.

If more than one PeopleSoft application uses the same Oracle Tuxedo version (that is, the same patch level), then it is recommended that you have a single installation of Oracle Tuxedo to serve all the supported PeopleSoft applications. A single Oracle Tuxedo installation simplifies future maintenance (such as applying patches). However, if you choose to have more than one Oracle Tuxedo installations (this scenario is possible only on UNIX systems, as Oracle Tuxedo does not allow multiple installations of the same version of Oracle Tuxedo on Windows), you must install and maintain the same Oracle Tuxedo version more than once in different directories.

See Also

Enterprise PeopleTools 8.50 PeopleBook: PeopleTools Portal Technology

Enterprise PeopleTools 8.50 PeopleBook: System and Server Administration.

Required Operating System, RDBMS, and Additional Component Patches Required for Installation, My Oracle Support (search for your product or release)

"Clustering and High Availability for Enterprise Tools 8.4x," My Oracle Support (search for title)

Prerequisites

Before you begin to install Oracle Tuxedo, make sure that you have the following resources in place:

- TCP/IP connectivity (required for PeopleSoft PeopleTools 8.50 or higher) between the client machine and the application server
- Approximately 235 MB of free disk space on the application server
- For UNIX, you must have root access

Task 3-1-1: Obtaining the Oracle Tuxedo Installation Files from E-Delivery

You can obtain the files needed to install Oracle Tuxedo 10gR3 from the Oracle E-Delivery site. At this point you should have already downloaded the necessary files. This section includes additional information on finding and using the files for Oracle Tuxedo if necessary.

See <http://edelivery.oracle.com>.

See "Preparing for Installation," Using Oracle E-Delivery to Obtain Installation Files.

1. After logging in to Oracle E-Delivery, on the Media Search Pack page, select *PeopleSoft Enterprise* from the Select a Product Pack drop-down list.
Select the operating system you are running on from the Platform drop-down list, and click Go.
2. Select the radio button for the PeopleSoft Enterprise - PeopleTools 8.50 Media Pack for your platform, and click Continue.
3. Select Tuxedo 10gR3 for your operating system, and click Download.
Save the zip file to a temporary directory on your local system, referred to in this documentation as *TUX_INSTALL*.
4. After you download the installation files from Oracle E-Delivery, if it is necessary, transfer the files to a UNIX computer using FTP. Unzip the file and change the permissions of the unzipped file to make it an executable, for example using the `chmod +x` command.
5. Extract the files into *TUX_INSTALL*.

The Oracle Tuxedo installation files are platform-specific. The following table lists the installation files for the PeopleSoft-supported platforms:

Supported Platform	Oracle Tuxedo Installer Name
AIX	tuxedo10gR3_64_aix_53_ppc.bin
HP-UX Itanium	tuxedo10gR3_64_hpux_1123_ia.bin
HP-UX PA-RISC	tuxedo10gR3_64_hpux_1123_pa.bin
Linux	tuxedo10gR3_64_Linux_01_x86.bin
Microsoft Windows	tuxedo10gR3_32_win_2k3_x86_VS2005.exe
Solaris (SPARC)	tuxedo10gR3_64_sol_9_sp.bin

Task 3-1-2: Removing the Oracle Tuxedo Installation from Windows (Optional)

You may already have prior versions of Oracle Tuxedo installed on your system from an earlier version of PeopleSoft PeopleTools. If you are completely upgrading to PeopleSoft PeopleTools 8.50 from an earlier version of PeopleSoft PeopleTools, then, you may uninstall the existing version and patches.

Note. It is not mandatory to uninstall the existing version of PeopleSoft PeopleTools, as Oracle Tuxedo 10gR3 can coexist with prior versions on the same machine.

If you wish to use two versions of PeopleSoft PeopleTools that depend on different versions of Oracle Tuxedo, you should read the section "Ensuring that Oracle Tuxedo Coexists with Earlier Versions" before continuing.

You may have to uninstall Oracle Tuxedo for these reasons:

- You are having problems starting Oracle Tuxedo and decide to reinstall.
- You no longer need Oracle Tuxedo on a machine.

To uninstall Oracle Tuxedo from Windows:

1. Using PSADMIN, shut down any application server, Process Scheduler, and Search server domains that may be running on the machine.
2. Stop the processes for the Tuxedo Monitor and the Tuxedo Administrative Web Server (wlisten and tuxwsvr), if applicable.
 - a. Right-click on the task bar and select Task Manager.
 - b. Highlight wlisten, and click the End Task button.
 - c. Highlight tuxwsvr and click the End Task button.
 - d. Exit Task Manager.
3. Stop and set the TListen *<VERSION>* service to manual, if applicable.

Replace *<VERSION>* with the current version number. For example, this would be TListen 8.1 or TListen 9.1.

 - a. Select Start, Settings, Control Panel. Double-click Administrative Tools, and double-click the Services icon.
 - b. Select TListen *<VERSION>* and click the Stop button.
 - c. Choose the Startup Type and set to Manual.
4. Stop and set the BEA ProcMGR *<VERSION>* service to manual.
 - a. Select Start, Settings, Control Panel. Double-click Administrative Tools, and double-click the Services icon.
 - b. Select BEA ProcMGR *<VERSION>* and click the Stop button.
 - c. Choose the Startup Type and set to Manual.
5. Reboot your machine.
6. Uninstall Oracle Tuxedo in one of the following ways:
 - Using the Oracle Tuxedo *<VERSION>* installation CD provided by PeopleSoft, open a Command Window, navigate to the root of the CD, and enter `pstuxinstall rmall`. This will remove Oracle Tuxedo *<VERSION>* plus any delivered Oracle Tuxedo patches from your system.
 - Using the Add/Remove Programs dialog, in sequence remove: Oracle Tuxedo*<VERSION>* RP and then Oracle Tuxedo *<VERSION>*.
7. Go to the Control Panel, double-click on the System icon, and then perform the following:
 - a. Make sure `TUXDIR\bin` is deleted from PATH.
 - b. Delete the environment variable TUXDIR.
 - c. Make sure you click on Apply and OK to save your changes.
8. Using Explorer, delete the Tuxedo home directory, such as `C:\bea\tuxedo8.1`.

If you are unable to delete any files, reboot your machine and retry.

Task 3-1-3: Designating the Application Server Administrator on Windows

First you need to designate an existing user—or create a new user such as TUXADM or some other account—to be the Application Server Administrator. The Application Server Administrator, not the Windows Administrator, will install Oracle Tuxedo.

The designated user must be a local Microsoft Windows administrator and must have full system privileges. The PeopleSoft PeopleTools 8.50 program for the Oracle Tuxedo installation creates a new service for Microsoft Windows—called ORACLE ProcMGR V10gR3 with VS2005—for which you need administrator privileges. This service was developed to port Oracle Tuxedo from UNIX to Microsoft Windows. Administrator rights are required since system registry settings are updated. Once this new service is created, you must reboot to start it.

When you configure your application server domain in a read-only *PS_HOME* environment, the user ID designated to be the Application Server Administrator must have read-only access to *PS_HOME*, read and write access to *PS_CFG_HOME*, and read-only access to *TUXDIR*, (for example, C:\oracle\tuxedo10gR3_VS2005). Otherwise, in a scenario where *PS_CFG_HOME*=*PS_HOME*, the Application Server Administrator must have read and write access to *PS_HOME* and read-only access to *TUXDIR*.

See "Configuring the Application Server on Windows."

See "Preparing for Installation," Defining Server Domain Configurations.

To designate the Application Server Administrator:

1. To add the user, add the user ID by choosing Start, Settings, Control Panel, Administrative Tools, Computer Management, Local Users and Groups.
Keep in mind that you can also use an existing account if you don't care to create a new one. You can set this to the system account or an account that is a domain administrator (if there is a need to access files on the domain).
2. Expand Local Users and Groups.
3. If the user ID does not yet exist, highlight the Users folder, and select Action, New User.
4. On the New User dialog box, specify the information for the new account.
Make sure to deselect the User must change password at next logon check box.
5. Expand the Groups folder.
6. Right-click the Administrators group, and select All Tasks, Add to Group, Add.
7. Click Locations to select the local machine or the network domain in which you created the new user.
8. Enter the new user name you created in the object names box.
9. Click OK, and click Apply and OK again to accept the changes.

Task 3-1-4: Installing Oracle Tuxedo on Windows

The following procedure assumes that you saved the installation files from Oracle E-Delivery in the directory *TUX_INSTALL*. Installation in GUI mode is normally used for Microsoft Windows operating systems, so this procedure uses the installer for Microsoft Windows, *tuxedo10gR3_32_win_2k3_x86_VS2005.exe*.

Note. Oracle Tuxedo 10gR3 can coexist on a machine with other versions of Oracle Tuxedo.

To install Oracle Tuxedo on Microsoft Windows:

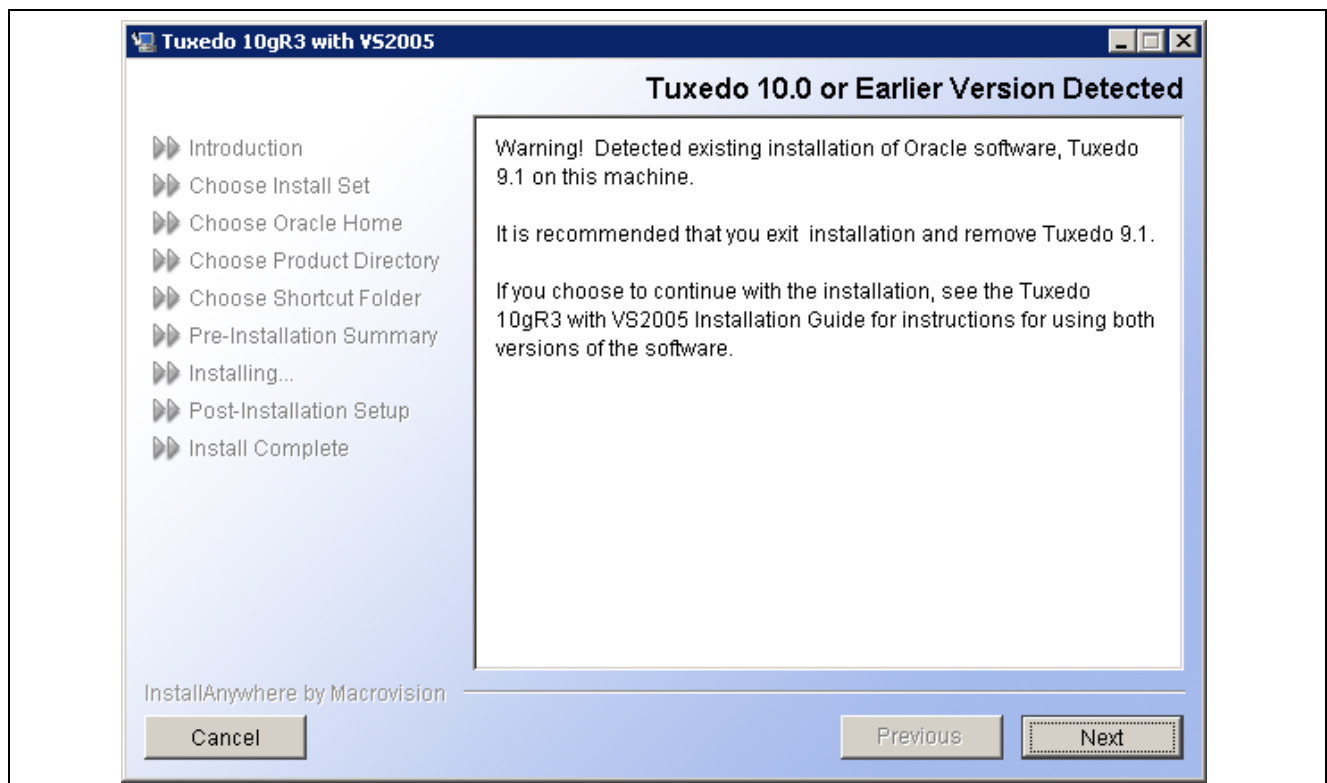
1. Double-click *TUX_INSTALL\tuxedo10gR3_32_win_2k3_x86_VS2005.exe* to begin the installation process.

Click OK on the initial window.



Oracle Tuxedo 10gR3 initial installation window

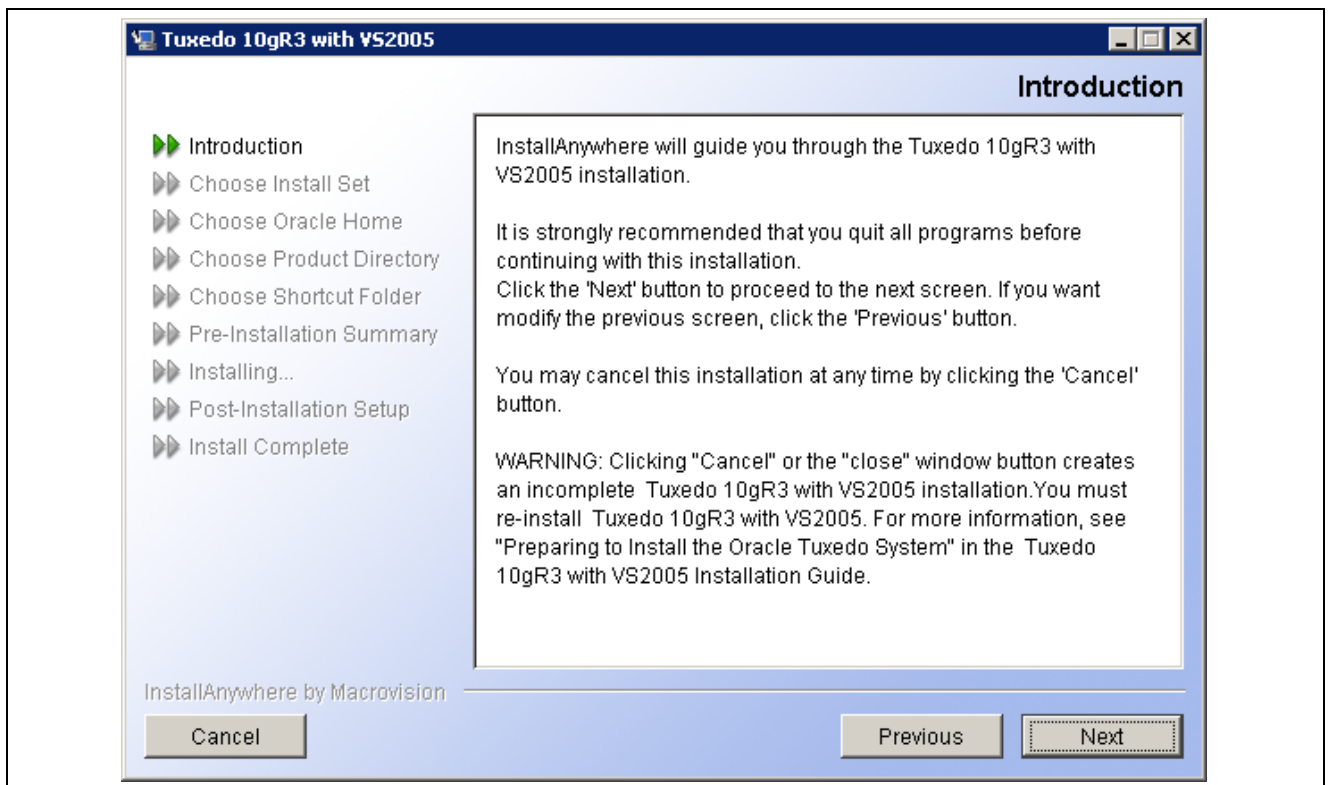
2. If you have other versions of Oracle Tuxedo on your system, you may get the following warning:



Tuxedo 10.0 or Earlier Version Detected window

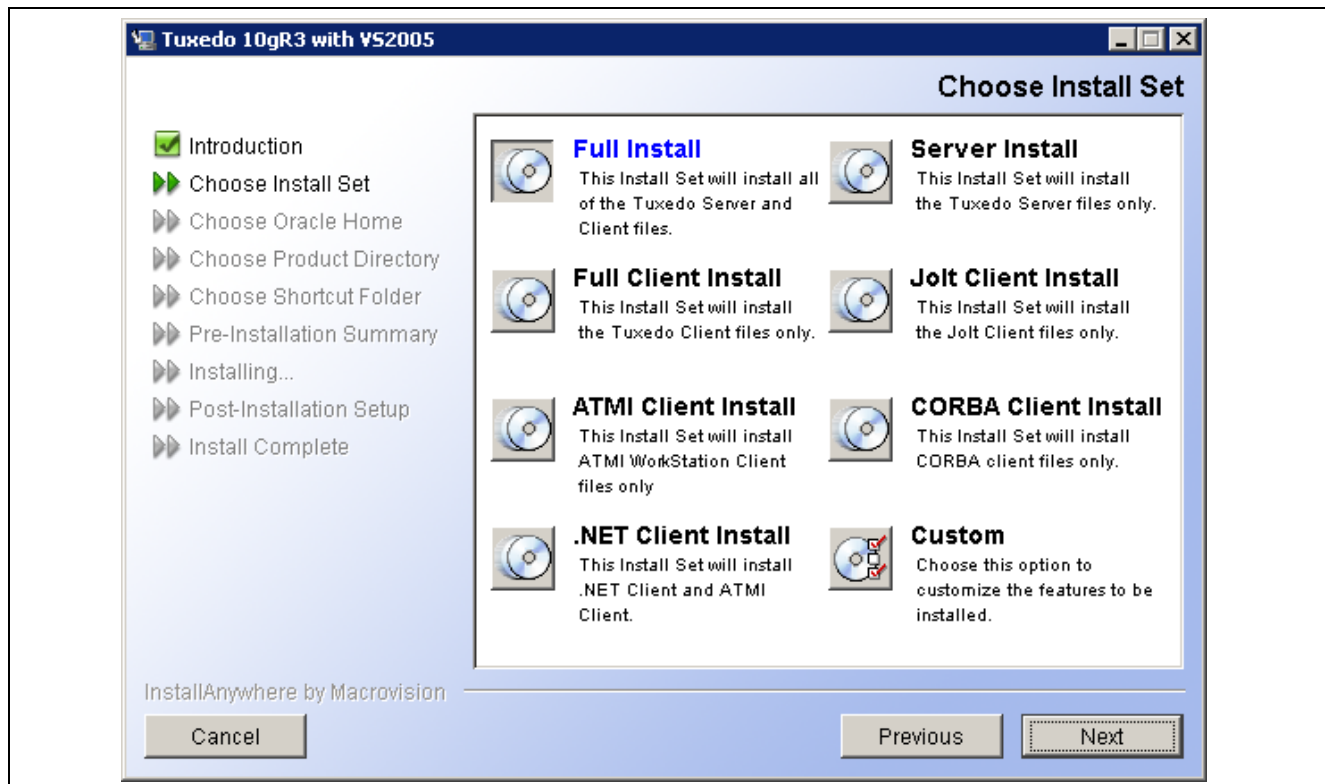
Click Next to continue.

3. Click Next.



Oracle Tuxedo Introduction window

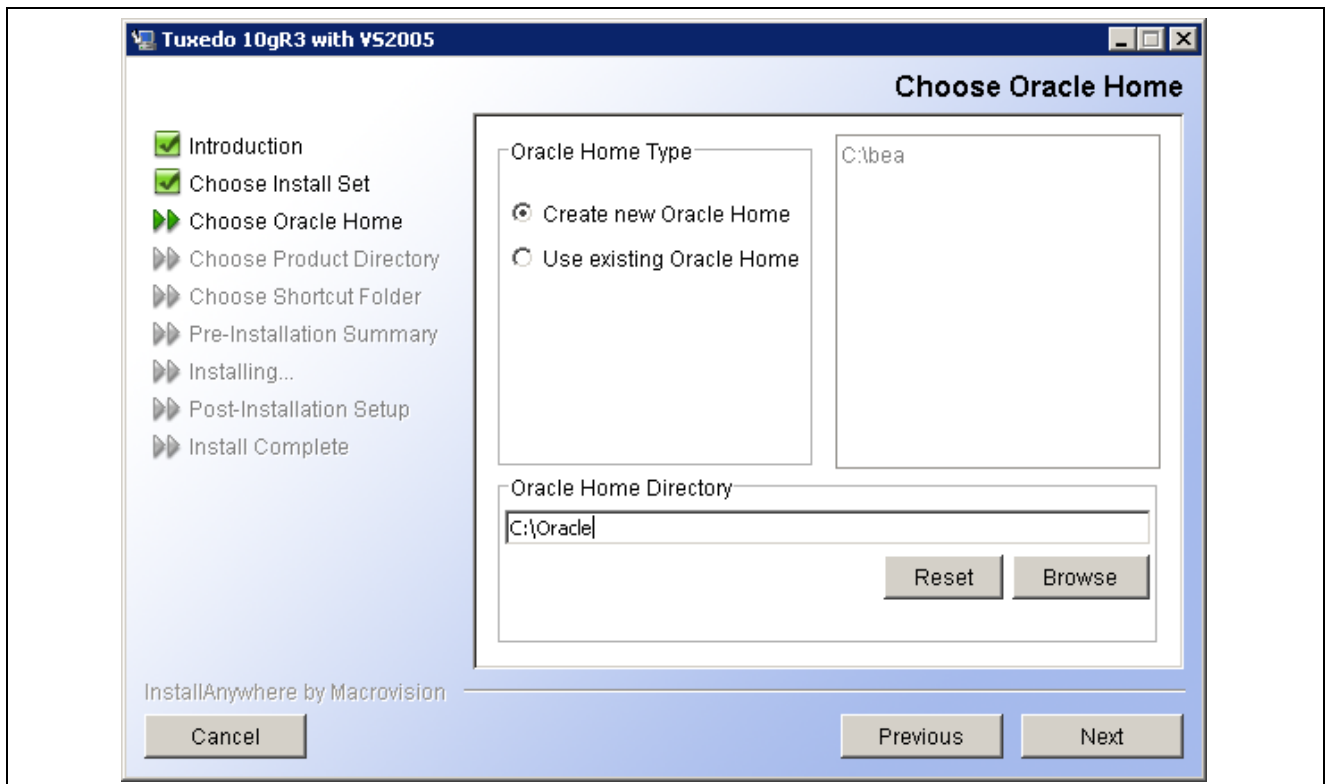
4. Accept the default installation set, Full Install and click Next.



Choose Install Set window

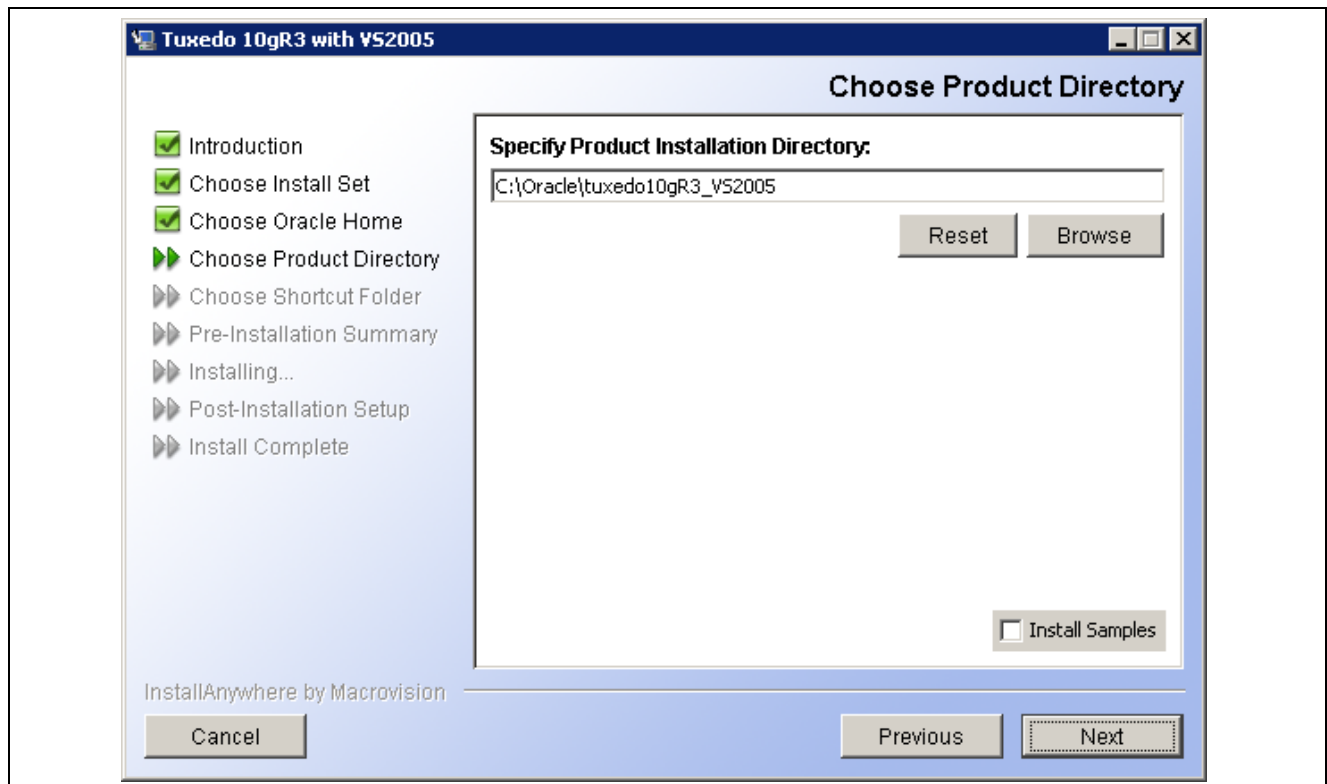
5. Specify an Oracle home directory, referred to here as *ORACLE_HOME*.

Note. In previous Oracle Tuxedo and PeopleSoft PeopleTools releases, the installation directory was referred to as *BEA_HOME*, and the default was C:\bea. You may see installation directories from previous releases displayed here, and if so, you can select one.



Choose Oracle Home window

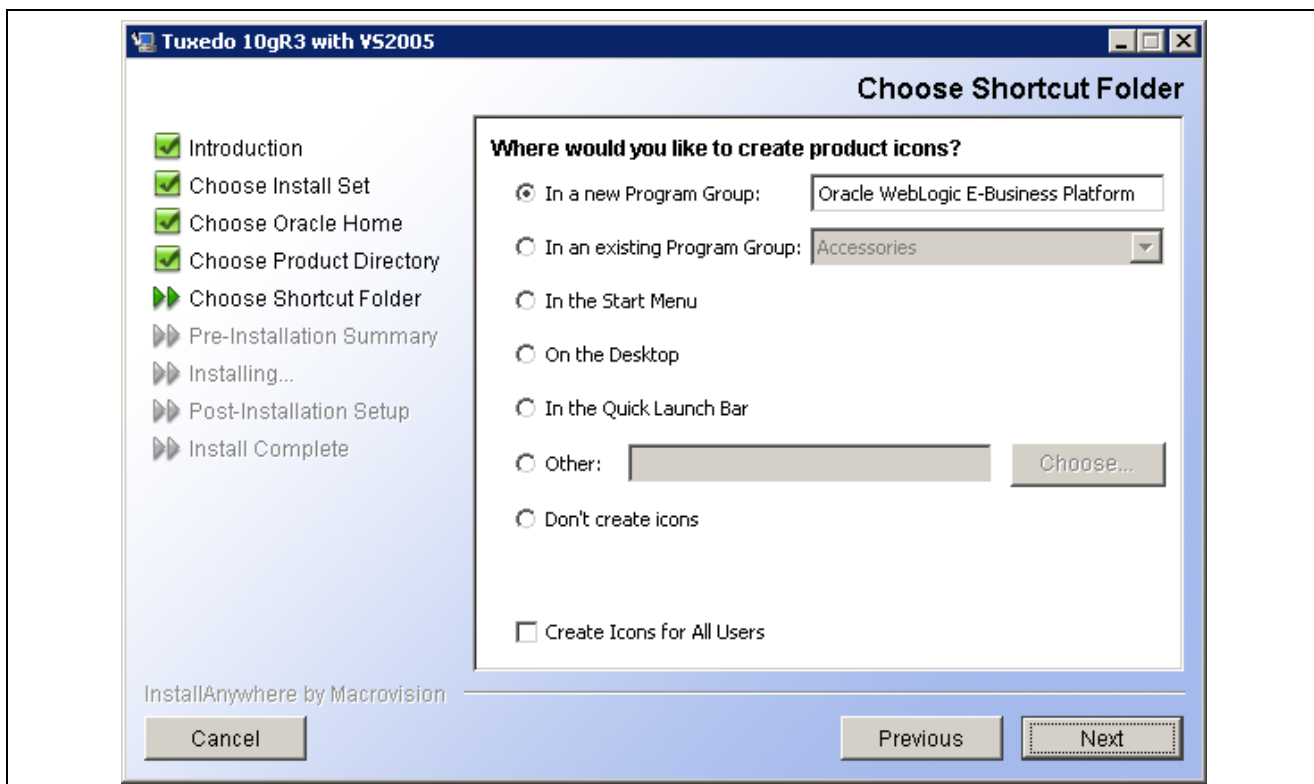
- If you want to use an existing *ORACLE_HOME*, select Use existing Oracle Home and choose one of the listed directories.
 - If you want to create a new *ORACLE_HOME*, select Create new Oracle Home, and enter a name in the Oracle Home Directory box.
6. Specify the Oracle Tuxedo installation directory, referred to here as *TUXDIR*.
The default is *ORACLE_HOME\tuxedo10rg3_vs2005*. Accept the default or specify a new location.



Choose Product Directory window

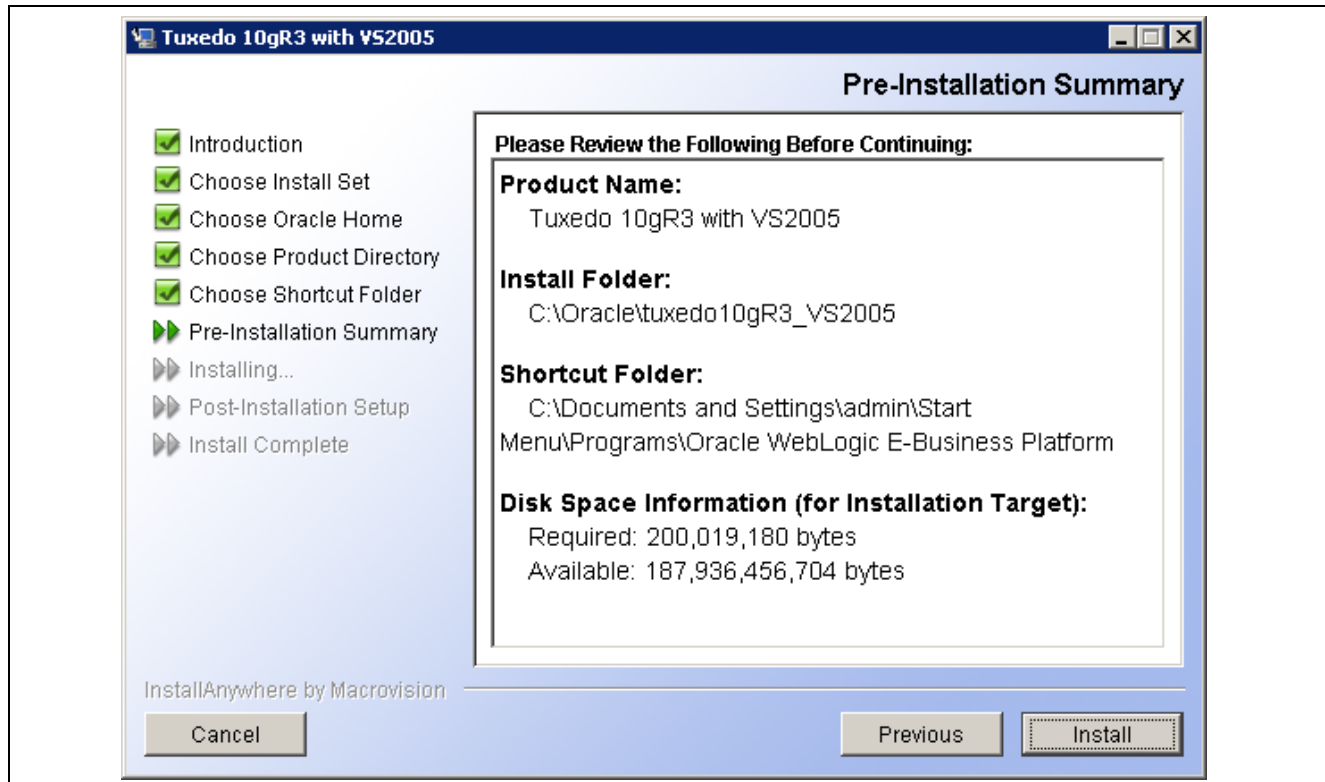
7. Specify the location for the shortcut folder.

The following example accepts the default, to create product icons in a new program group:

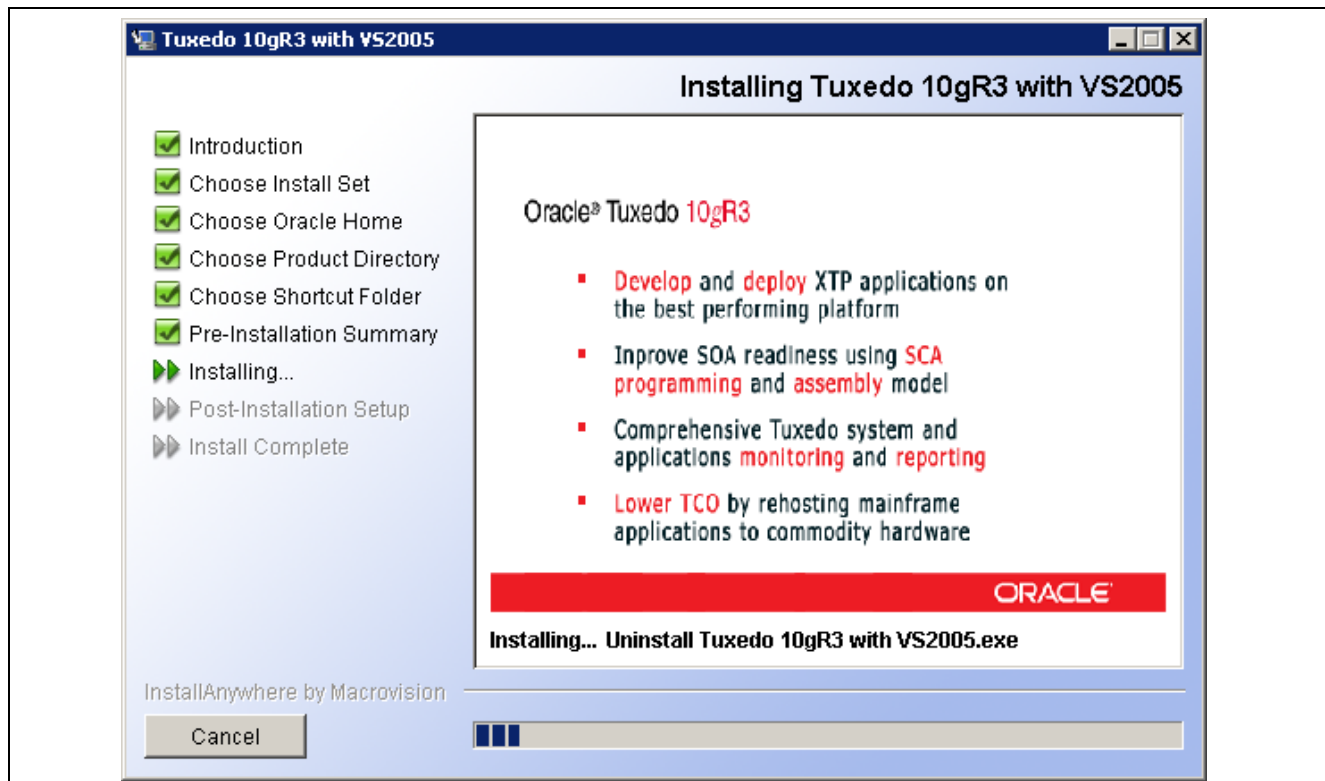


Choose Shortcut Folder window

8. Review the summary information, and click Install to continue.
If you want to change any of your choices, click Previous.

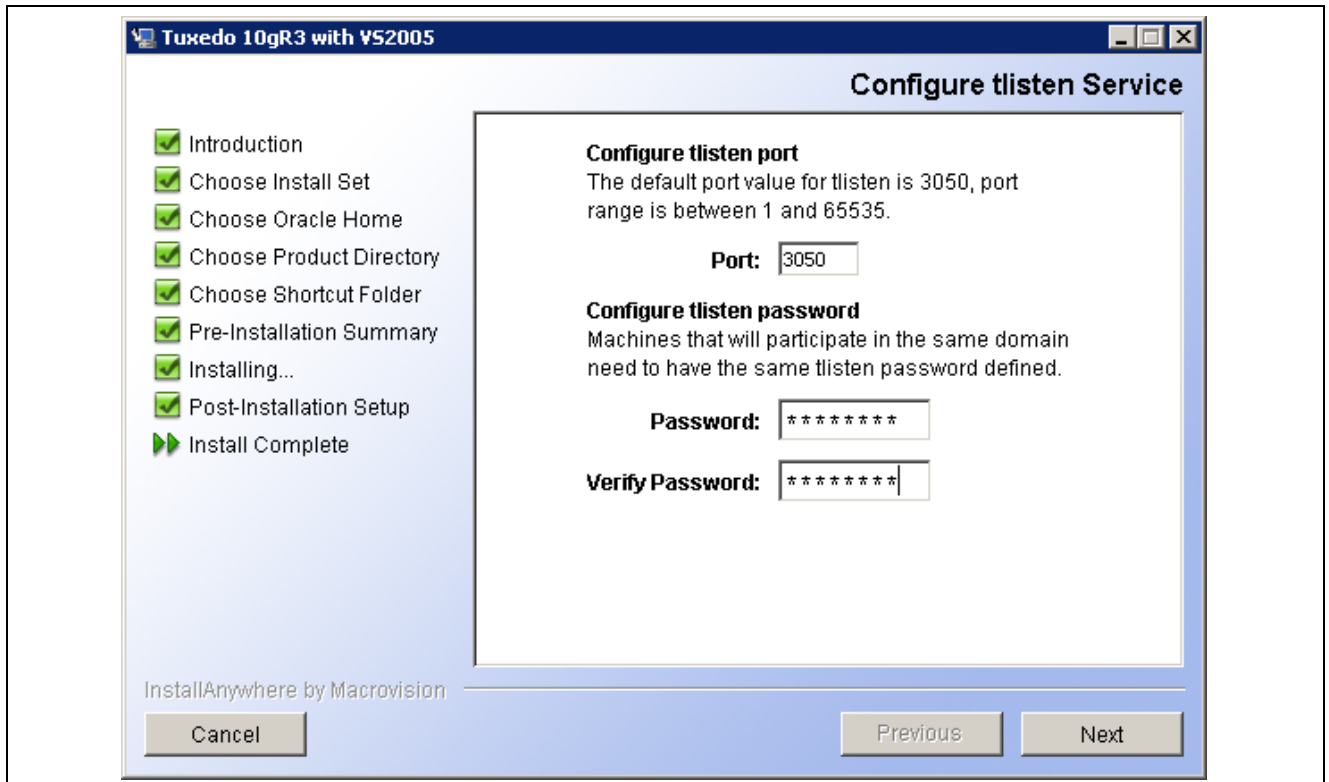


Pre-Installation Summary window



Oracle Tuxedo installation progress window

- Specify the tlisten port and tlisten password, using the following descriptions.
Click Next to continue after specifying these values.



Configure tlisten Service window

- *Configure tlisten port*

The Tlisten service is not used by PeopleSoft application servers so you can accept the default unless you intend to use the Tuxedo Web Monitor. Unless you use the Tuxedo Web Monitor, you should disable the TListen service following the installation.

If you intend to maintain multiple versions of Oracle Tuxedo on the same physical machine, it is wise to choose a port other than the default 3050 because the default port may clash with an existing TListen entry for an earlier version of Oracle Tuxedo.

See Ensuring that Oracle Tuxedo Coexists with Earlier Versions.

- *Configure tlisten password*

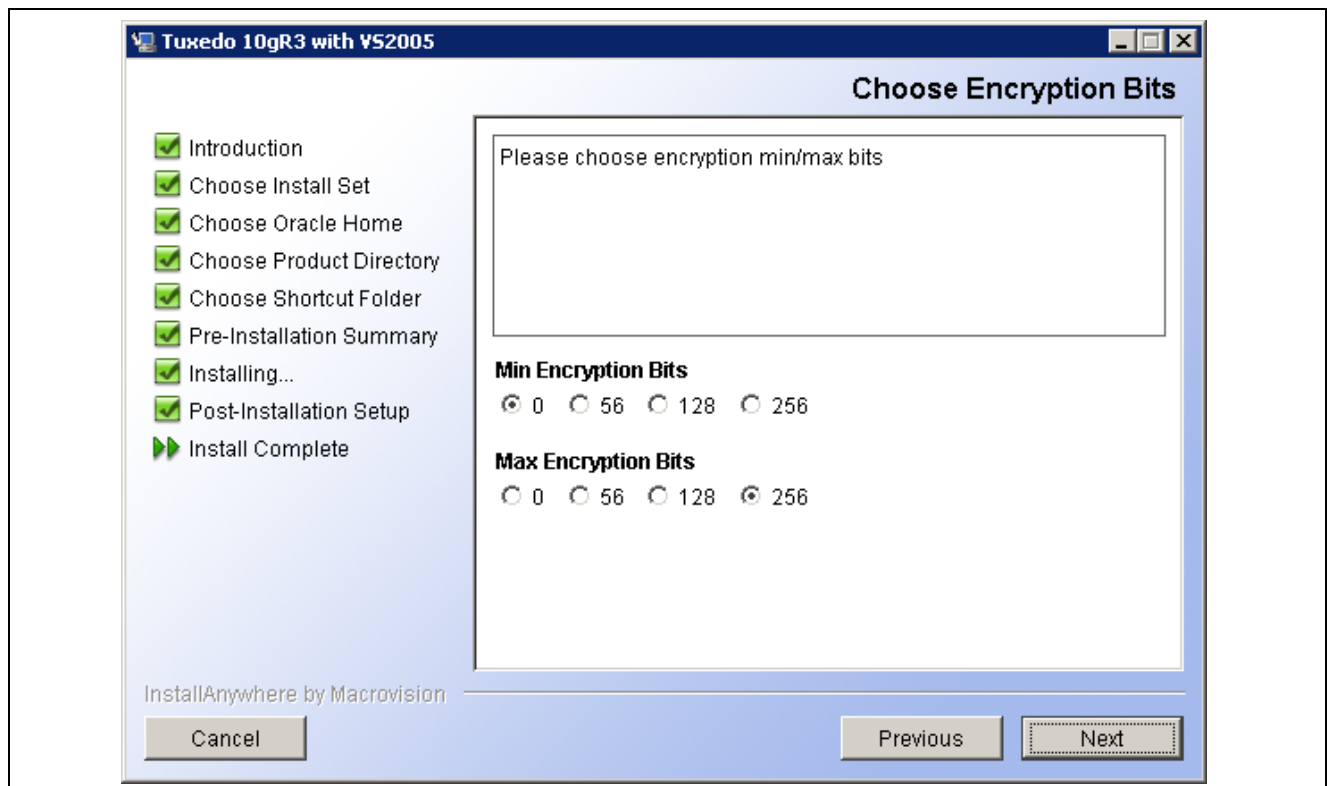
Enter the tlisten passwords.

10. Select the option LLE for the encryption method and click Next.



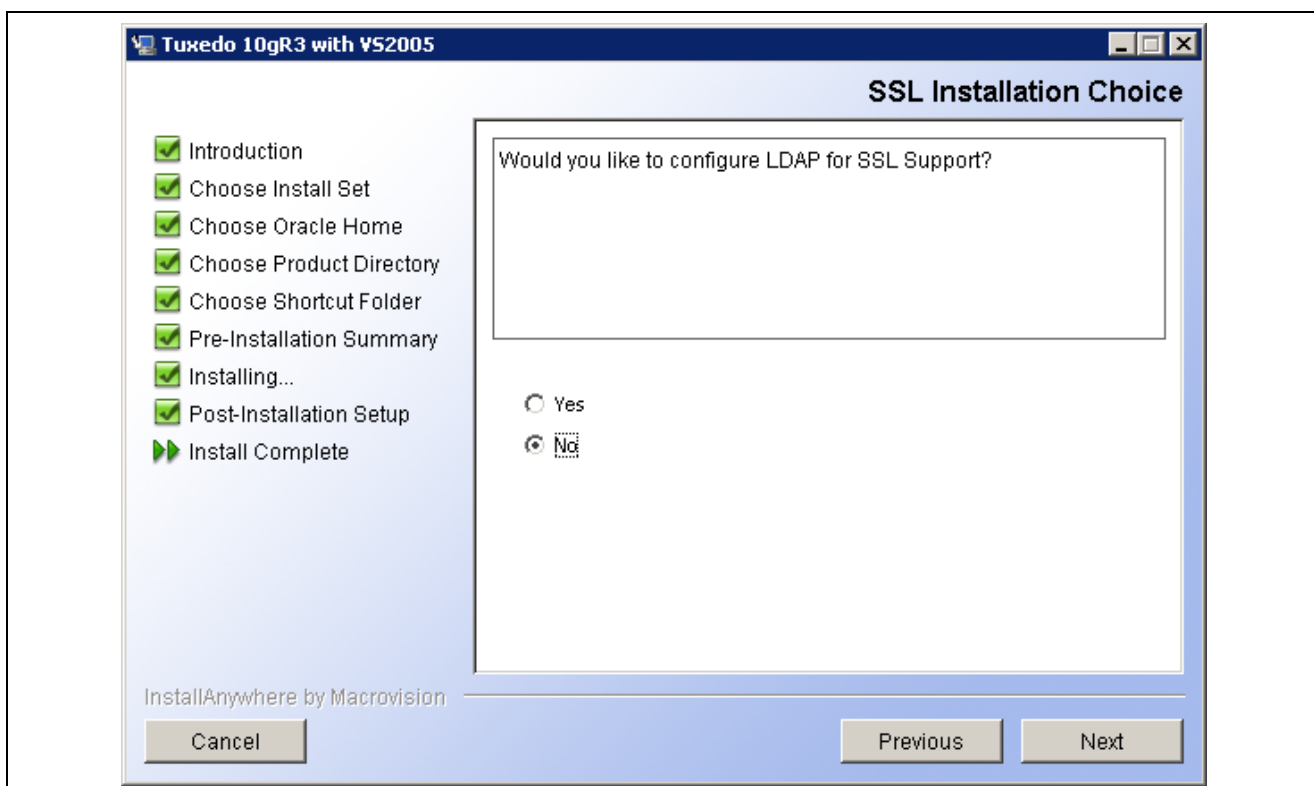
Tlistener Encryption Method window

11. Choose Min Encryption Bits as 0 and Max Encryption Bits as 256. Click Next to continue.



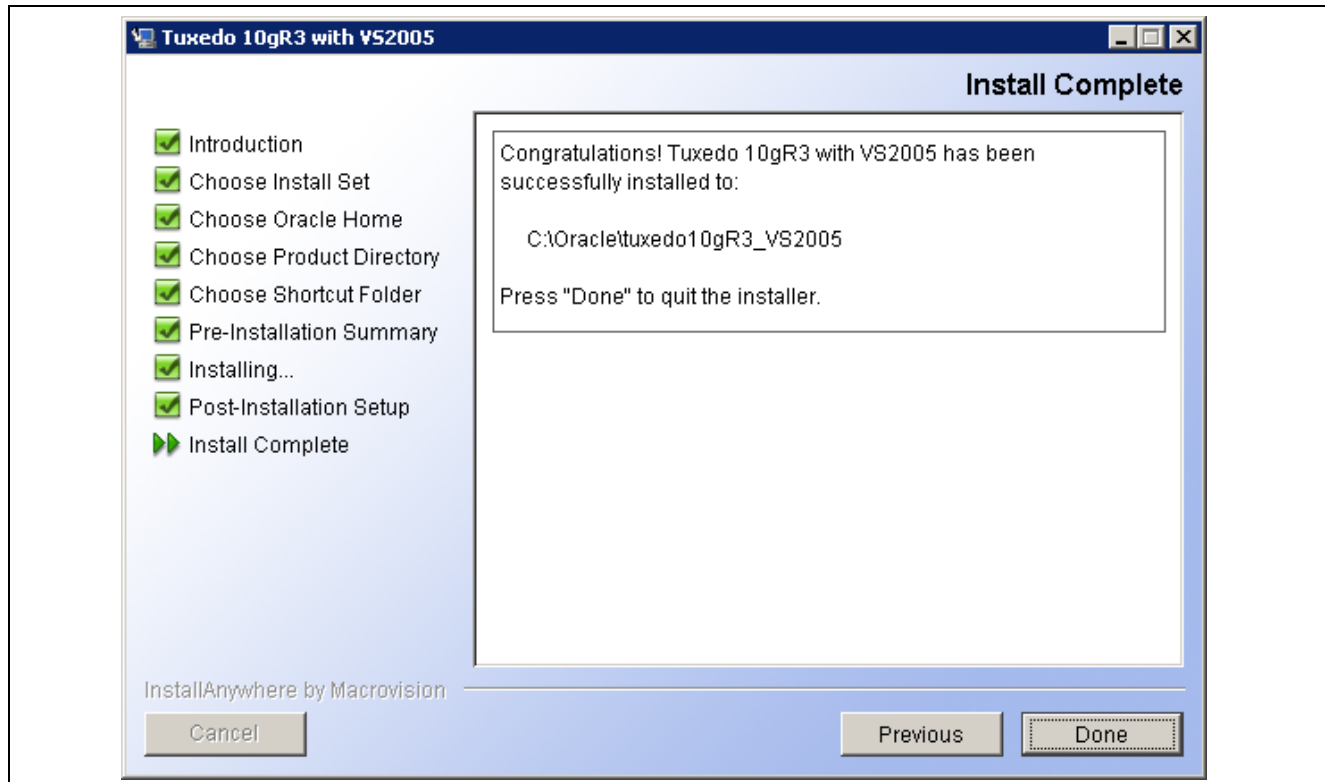
Choose Encryption Bits window

12. Select No for the option “Would you like to configure LDAP for SSL support?”



SSL Installation Choice window

13. Click on Done to complete the installation.



Install Complete window

Task 3-1-5: Checking the Windows Service Account

Use the information in this section to ensure that the Windows services are properly configured. Oracle recommends installing the application server binaries locally on your C drive, for best performance. The procedure to set up the ORACLE ProcMGR V10gR3 with VS2005 service in the next section includes options for the account type. Use the following guidelines to choose between the Local System account option and the This Account option. (For the option This Account you must specify a user ID and password.)

- If you plan to install the PeopleSoft application server binaries (as in, psappsrv.exe and so on) on a remote file server, you must select the This Account radio button.
- If the PeopleSoft application server binaries are *local*, that is, they exist on your local hard drive, you can use either the Local System account or This Account radio button.
- If you intend to use this Windows service to start Process Scheduler, you must *always* select the This Account radio button. Enter the name of your Domain/Windows user name—not the machine name—and your password.

Note. When using Oracle Tuxedo with Process Scheduler, you must use the Windows user name that starts the Process Scheduler server agent. This is necessary because the installation of the PeopleSoft ODBC driver sets up the registry settings to be accessible only by this user name. If you do not use the correct Windows user name, processes that require the ODBC registry information (such as Crystal Reports) will fail.

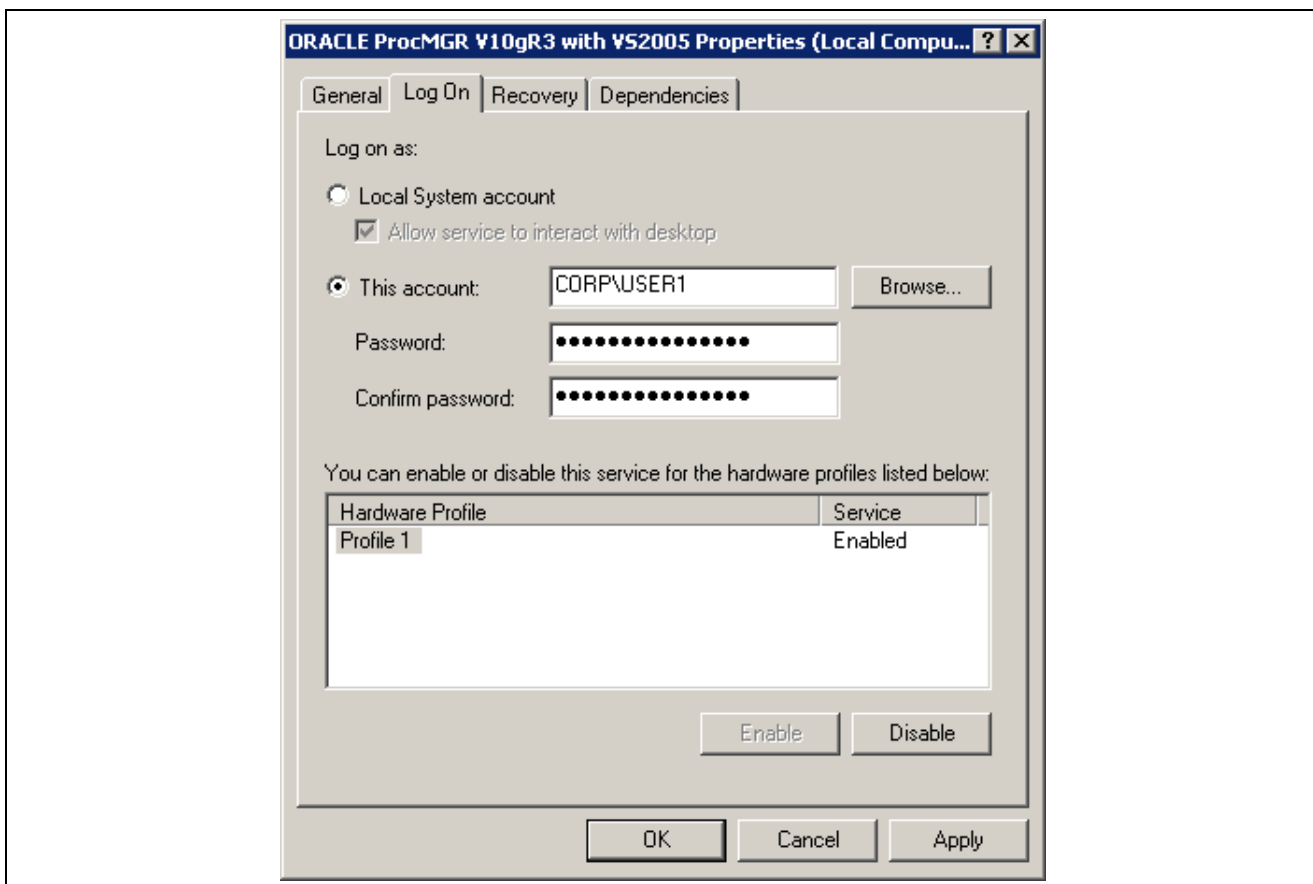
- If you are running on Windows and are configuring a search index that resides on a mapped network drive, you must ensure that the User ID of the ORACLE ProcMGR V10gR3 with VS2005 service has access to network drives accessed by the search engine. The search engine stores the search indexes at *PS_HOME/data/search*. However, this path can be changed in the application or the Process Scheduler's

configuration. If this path is changed in these configurations and it points to a network drive, you must ensure that the user ID that starts the ORACLE ProcMGR V10gR3 with VS2005 service has access to these network drives. The application server and the process scheduler are started by the ORACLE ProcMGR V10gR3 with VS2005 service and therefore inherit the same permissions as the ORACLE ProcMGR V10gR3 with VS2005 service.

Task 3-1-6: Setting Up the Windows Services for Oracle Tuxedo

To set up the Windows services for Oracle Tuxedo:

1. Log on again as the Application Server Administrator, TUXADM, or a designated user ID.
2. Open the Control Panel and double-click Administrative Tools.
3. Select Computer Management and expand Services and Applications.
4. Select Services and locate the service labeled *ORACLE ProcMGR V10gR3 with VS2005*.
Double-click ORACLE ProcMGR V10gR3 with VS2005 to open the properties dialog box.
5. On the General tab, if the Stop button is enabled, click on it to stop the current ORACLE ProcMGR V10gR3 with VS2005 process.
6. Select Log On.



Oracle ProcMGR V10gR3 with VS2005 Properties Dialog Box: Log on Tab

Note. The option used—Local System account or This account—must be consistent with your ODBC catalog definition, due to registry operations. For example, if you use the Local System Account option, you must also catalog your ODBC data source using System DSN.

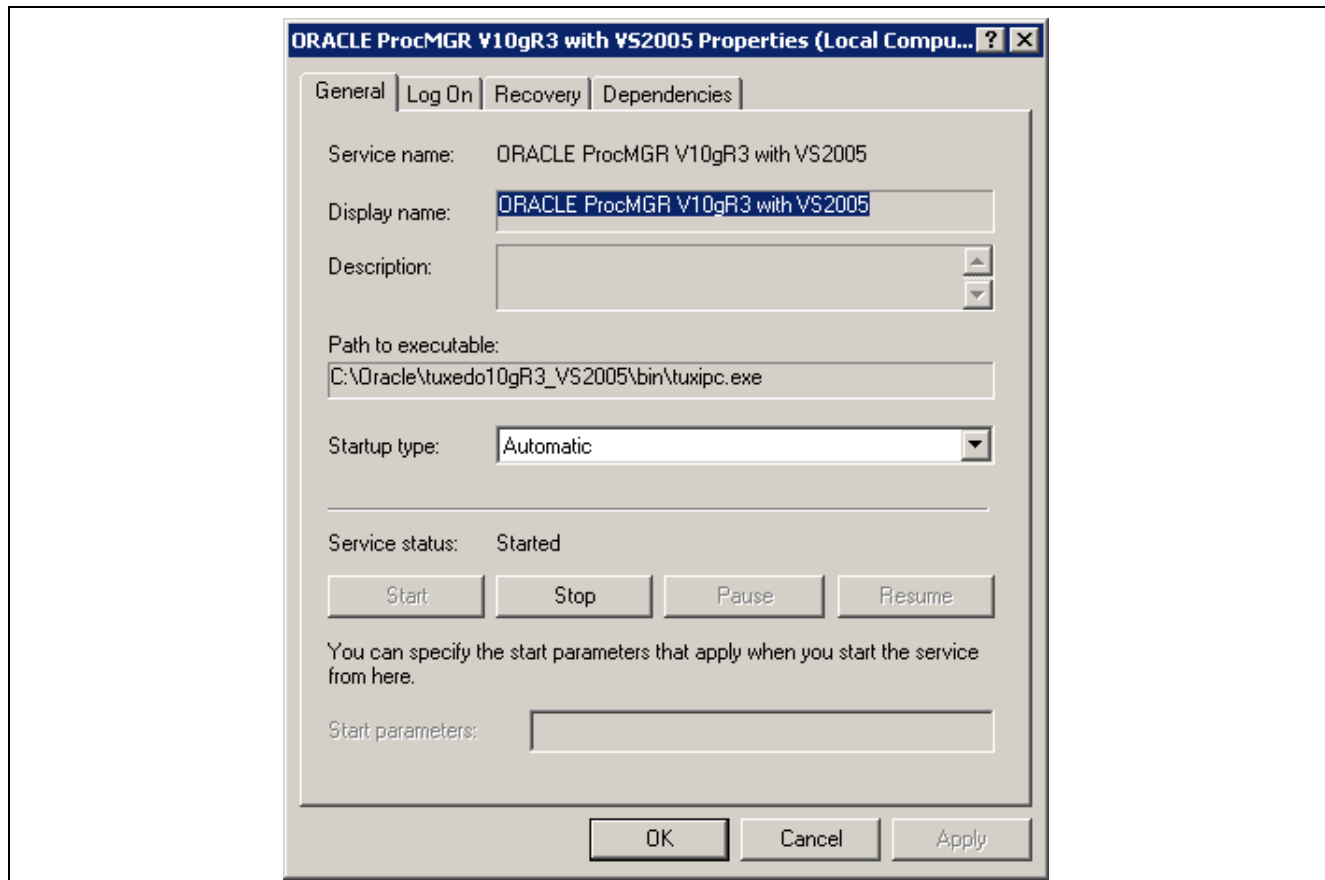
7. Choose either Local System account or This account.

If you select This account, be sure to specify a user with the appropriate permissions.

See Checking the Windows Service Account.

8. Select General.

Make sure that Startup Type is set to *Automatic*.



Oracle ProcMGR V10gR3 with VS2005 Properties Dialog Box: General Tab

9. Select Start.

A message in the Services dialog box will indicate the Started status. Close the dialog box to return to the Control Panel.

10. As mentioned, unless you intend to use the Tuxedo Web Monitor, you should disable the TListen 10gR3 VS2005 (Port: *PORT*) service, where *PORT* is the port number you entered during the installation. The default is 3050.

Task 3-1-7: Verifying the Server Installation on Windows

At this point, you should verify that the server installation was successful.

To verify the server installation, open a command window and run the following commands, where `tuxedo_installation_path` is the full path where you installed Oracle Tuxedo:

```
set TUXDIR=tuxedo_installation_path
tuxedo_installation_path\bin\tmadmin -v
```

You should see a message with the Oracle Tuxedo version number. For example:

```
set TUXDIR=C:\Oracle\tuxedo10gR3_VS2005
C:\Oracle\tuxedo10gR3_VS2005\bin\tmadmin -v
```

```
INFO: Oracle Tuxedo, Version 10.3.0.0 with VS2005, 32-bit, Patch Level (none)
```

If you do not see the desired output, review your steps and reinstall Oracle Tuxedo 10gR3.

Task 3-1-8: Removing the Oracle Tuxedo Installation from UNIX (Optional)

You may have older versions of Oracle Tuxedo installed on your system from an earlier version of PeopleSoft PeopleTools. If you are completely upgrading to PeopleSoft PeopleTools 8.50 from an earlier version of PeopleSoft PeopleTools and you do not require the older Oracle Tuxedo anymore, then, you may uninstall it

Note. It is not mandatory to uninstall older Oracle Tuxedo versions from the machine where you are installing Oracle Tuxedo 10gR3, as older Oracle Tuxedo versions and Oracle Tuxedo 10gR3 can exist on the same machine.

You may have to remove your Oracle Tuxedo installation on UNIX for the following reasons:

- You are having problems starting Oracle Tuxedo and decide to reinstall.
- You no longer need Oracle Tuxedo on a machine.

To remove Oracle Tuxedo from UNIX:

1. Using PSADMIN, shut down any application server, Process Scheduler, and Search server domains that may be running on the machine.
2. Use the UNIX `rm` command to directly remove the Oracle Tuxedo installation.
Be sure to remove the directory containing Oracle Tuxedo, commonly known as TUXDIR.
3. Remove the TUXDIR environment variable and any entries containing your platform-specific LIBRARY PATH and PATH environment variables.

Task 3-1-9: Completing the Preinstallation Checklist on UNIX

We recommend that you complete the following preinstallation checklist before you begin the Oracle Tuxedo installation. Specify your values in the Real Value column. Completing this information first should save you time during your installation.

Item	Description	Example Value	Real Value
ORACLE_HOME	The high level directory where you converge the installation for all Oracle products.	[/oracle]	
TUXDIR	The directory where Oracle Tuxedo system software will be installed.	[/oracle/tuxedo10gR3]	
Username	The UNIX user name of the Application Server Administrator (Oracle Tuxedo owner).	[tuxedo]	
Groupname	Specify the UNIX group name of the Oracle Tuxedo owner.	[tuxedo]	

Note. You can select any user name and group name you want; however, you might want to use the “tuxedo” convention for simplicity.

Task 3-1-10: Designating the Oracle Tuxedo Owner on UNIX

A new or existing user must be designated as the Oracle Tuxedo owner.

To designate the Oracle Tuxedo owner:

1. Log in as root.
2. Create the UNIX group and the user name of the individual who will be the owner of Oracle Tuxedo.
Using the values from the preinstallation checklist, create the group and specify the group name. Then create the user who will be the Oracle Tuxedo owner, specifying the user name, group name, and home directory, denoted by TUXDIR from the checklist.

Note. Depending on your operating system, the utility you use to create the user and group is different. For example, HP-UX uses the "sam" utility, AIX uses the "smit" utility, and so on. For the exact utility, refer to your operating system documentation.

Task 3-1-11: Installing Oracle Tuxedo on UNIX

The following procedure assumes that you saved the installation files from Oracle E-Delivery in the directory *TUX_INSTALL*. This procedure uses installation on Linux as an example.

To install Oracle Tuxedo on UNIX or Linux:

1. Make the installer an executable with the following command


```
chmod +x tuxedo10gR3_64_Linux_01_x86.bin
```
2. Start the installation in console mode with the following command:


```
./tuxedo10gR3_64_Linux_01_x86.bin -i console
```
3. Select English as the installation language:

```
Choose Locale...
-----
```

->1- English

CHOOSE LOCALE BY NUMBER: 1

4. Press ENTER after reading the introduction.
5. Select Full Install as the installation set:

Choose Install Set

Please choose the Install Set to be installed by this installer.

```
->1- Full Install
    2- Server Install
    3- Full Client Install
    4- Jolt Client Install
    5- ATMI Client Install
    6- CORBA Client Install

    7- Customize...
```

ENTER THE NUMBER FOR THE INSTALL SET, OR PRESS <ENTER> TO ACCEPT THE DEFAULT: 1

6. Enter a full path for the top-level installation directory.

The following example creates a new *ORACLE_HOME* directory. If you want to use an existing directory, enter 2 and select one of the existing directories.

Note. In previous Oracle Tuxedo and PeopleSoft PeopleTools releases, the installation directory was referred to as *BEA_HOME*. You may see installation directories from previous releases displayed at this prompt, and if so, you can select one.

Choose Oracle Home

```
->1- Create new Oracle Home
    2- Use existing Oracle Home
```

Enter a number: 1

Specify a new Oracle Home directory: **/home/user/Oracle**

7. Enter 2 to accept the default product directory, which is *ORACLE_HOME/tuxedo10gR3*, or enter 1 to specify another location. This directory is referred to as *TUXDIR*.

Choose Product Directory

```
->1- Modify Current Selection (/home/user/Oracle/tuxedo10gR3)
    2- Use Current Selection (/home/user/Oracle/tuxedo10gR3)
```

Enter a number: 2

8. Enter Y to continue:

Install Samples (Y/N): Y

9. Review the installation summary and press ENTER to continue.

Pre-Installation Summary

Please Review the Following Before Continuing:

Product Name:

Tuxedo 10gR3

Install Folder:

/home/user/Oracle/tuxedo10gR3

Link Folder:

/home/user

Disk Space Information (for Installation Target):

Required: 195,549,595 bytes

Available: 13,555,073,024 bytes

PRESS <ENTER> TO CONTINUE:

10. Press ENTER to begin the installation.

Ready To Install

InstallAnywhere is now ready to install Tuxedo 10gR3 onto your system at the⇒
following location:

/home/user/Oracle/tuxedo10gR3

PRESS <ENTER> TO INSTALL:

11. Enter and confirm a password for tlisten.

Configure tlisten Service

Password:

Verify Password:

Password accepted! Press "Enter" to continue.

12. Select 2 for No when asked whether to install SSL support.

SSL Installation Choice

Would you like to install SSL Support?

->1- Yes

2- No

ENTER THE NUMBER FOR YOUR CHOICE, OR PRESS <ENTER> TO ACCEPT THE DEFAULT:

2

13. Press ENTER to exit the installer.

Installation Complete

Congratulations. Tuxedo 10gR3 has been successfully installed to:

/home/user/Oracle/tuxedo10gR3

PRESS <ENTER> TO EXIT THE INSTALLER

Task 3-1-12: Verifying the Server Installation on UNIX

At this point, you should verify that the server installation was successful.

To verify the server installation, run the following commands, where `tuxedo_installation_path` is the full path where you installed Oracle Tuxedo:

```
export TUXDIR=tuxedo_installation_path
. $TUXDIR/tux.env
tuxedo_installation_path/bin/tmadmin -v
```

You should see a message with the Oracle Tuxedo version number. For example:

```
export TUXDIR=/home/user/Oracle/tuxedo10gR3
. $TUXDIR/tux.env
/home/user/oracle/tuxedo10gR3/bin/tmadmin -v
```

```
INFO: Oracle Tuxedo, Version 10.3.0.0 with VS2005, 64-bit, Patch Level (none)
```

If you do not see the desired output, review your steps and reinstall Oracle Tuxedo 10gR3.

Task 3-1-13: Ensuring that Oracle Tuxedo Coexists with Earlier Versions

This section discusses:

- Understanding the Use of Multiple Oracle Tuxedo Versions
- Checking Your Environment Variables
- Changing the TListen Port

Understanding the Use of Multiple Oracle Tuxedo Versions

PeopleSoft PeopleTools 8.49 uses Oracle Tuxedo 9.1; releases 8.44 to 8.48 use Oracle Tuxedo 8.1. Earlier versions of PeopleSoft PeopleTools rely on earlier versions of Oracle Tuxedo—for example, PeopleSoft PeopleTools 8.41 uses Oracle Tuxedo 6.5. If you are installing only PeopleSoft PeopleTools 8.50, you can safely skip this section. If you need to run application servers on PeopleSoft PeopleTools 8.50 and earlier PeopleSoft PeopleTools versions on the same machine, read this section to learn about coexistence issues. Although Oracle Tuxedo 10gR3 coexists with earlier Oracle Tuxedo versions on the same machine, you may need to take a number of manual steps to ensure that these products share the same environment gracefully.

Checking Your Environment Variables

Installing Oracle Tuxedo changes your *TUXDIR* and *PATH* environment variables. Although you do not need to change these environment variables to successfully run PeopleSoft PeopleTools 8.50 with Oracle Tuxedo 10gR3, earlier versions of PeopleSoft PeopleTools rely on these environment variables being set.

To change your environment variables:

1. Set your *TUXDIR* environment variable to reflect the installation directory of your earlier Oracle Tuxedo release.

For example, Oracle Tuxedo 8.1 may be installed to *C:\tux8.1*. This means that *TUXDIR=C:\tux8.1* is the correct setting. Oracle Tuxedo 6.5 may be installed to *C:\tux65*. This means that *TUXDIR=C:\tux65* is the correct setting.

2. Your *PATH* environment variable must contain *TUXDIR\bin* for the earlier Oracle Tuxedo version before any entries for Oracle Tuxedo 10gR3 *TUXDIR\bin*.

For example the setting *PATH=C:\winnt;C:\oracle\tuxedo10gR3_VS2005\bin;C:\tux65\bin* will cause your pre-8.50 domains to no longer work. You would need to change this to *PATH=C:\winnt;C:\tux65\bin;C:\oracle\tuxedo10gR3_VS2005\bin* to work with pre-PeopleSoft PeopleTools 8.44 domains.

Note. PeopleSoft PeopleTools 8.44 and later do not use environment variables to discover the installation location of Oracle Tuxedo 8.1 and later. The PSADMIN tool retrieves these values from the Microsoft Windows registry.

3. Your library path on UNIX (the environment variable *LD_LIBRARY_PATH*, *LIBPATH*, or *SHLIB_PATH*; whichever is appropriate for your platform) must contain *TUXDIR/lib* for the earlier Oracle Tuxedo version before any entries for Oracle Tuxedo 10gR3.

For example the setting *LD_LIBRARY_PATH=/lib:/usr/lib:/home/user/Oracle/tuxedo10gR3/lib:/prod/tuxedo/6.5/lib*, will cause your pre-8.50 domains to no longer work. You would need to change this to *LD_LIBRARY_PATH=/lib:/usr/lib:/prod/tuxedo/6.5/lib:/home/user/Oracle/tuxedo10gR3/lib* for your pre-8.50 domains to work.

Changing the TListen Port

Installing Oracle Tuxedo 10gR3 and earlier creates a new service known as TListen. In most cases, you can disable this service as it is not required to run PeopleSoft PeopleTools application server domains. However, if you intend to use the Tuxedo Web Monitor you may wish to ensure that there is no port clash with earlier versions. This port is determined at installation and should be changed to a port other than the default 3050 if you intend on using the TListen service for Oracle Tuxedo 10gR3 and earlier Oracle Tuxedo versions concurrently.

Task 3-2: Installing Micro Focus Net Express for Windows

This section discusses:

- Understanding the Micro Focus Net Express Installation
- Prerequisites
- Obtaining Installation Files for Micro Focus Net Express from E-Delivery
- Installing Micro Focus Net Express

Understanding the Micro Focus Net Express Installation

Micro Focus® Net Express™ 5.1 is the supported COBOL compiler on Microsoft Windows for PeopleSoft PeopleTools 8.50.

See Also

"COBOL: Installation, versions, fixpacks, etc PT 8.50," My Oracle Support (search for title)

Prerequisites

To install and use Net Express you must have Microsoft Internet Explorer 6.0 or later installed.

Task 3-2-1: Obtaining Installation Files for Micro Focus Net Express from E-Delivery

The Micro Focus Net Express installation files are available on Oracle E-Delivery. At this point you should have already downloaded the necessary files. This section includes additional information on finding and using the files for Micro Focus Net Express if necessary.

See "Preparing for Installation," Using Oracle E-Delivery to Obtain Installation Files.

To obtain the files for the Micro Focus Net Express installation:

1. After logging in to Oracle E-Delivery, on the Media Search Pack page, select *PeopleSoft Enterprise* from the Select a Product Pack drop-down list.
Select the operating system you are running on from the Platform drop-down list, and click Go.
2. Select the radio button for Third Party - Micro Focus 5.x for PeopleSoft Enterprise Media Pack and click Continue.
3. Download the software and documentation files for Micro Focus Net Express 5.0 Wrap Pack 4, and save the zip files to a temporary directory on your local system.

The directory where you save the zip file is referred to in this documentation as *NE_INSTALL*. You must extract (unzip) the file on the platform for which it is intended. For example, if you download the zip file for Solaris, you must unzip it on Solaris to avoid problems. If you unzip the file to a staging directory on a Microsoft Windows computer and copy the staging directory to a Solaris, the stage area files may be corrupt.

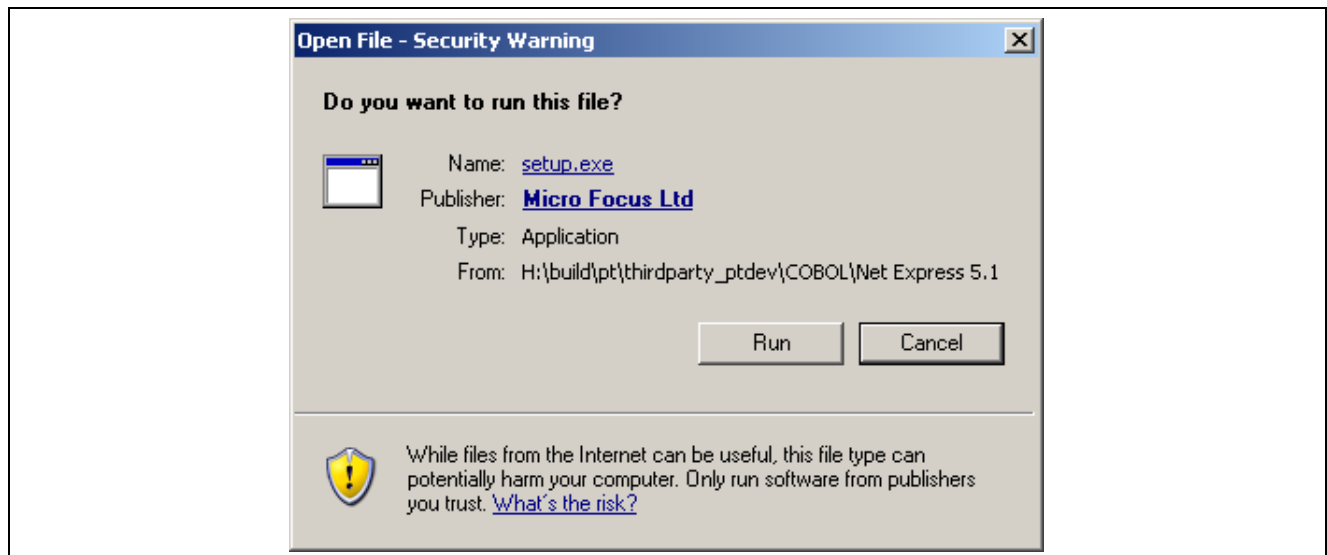
Task 3-2-2: Installing Micro Focus Net Express

The following procedure assumes that you saved the installation files from Oracle E-Delivery in the directory *NE_INSTALL*.

To install Micro Focus Net Express:

1. Double-click *NE_INSTALL/setup.exe*.

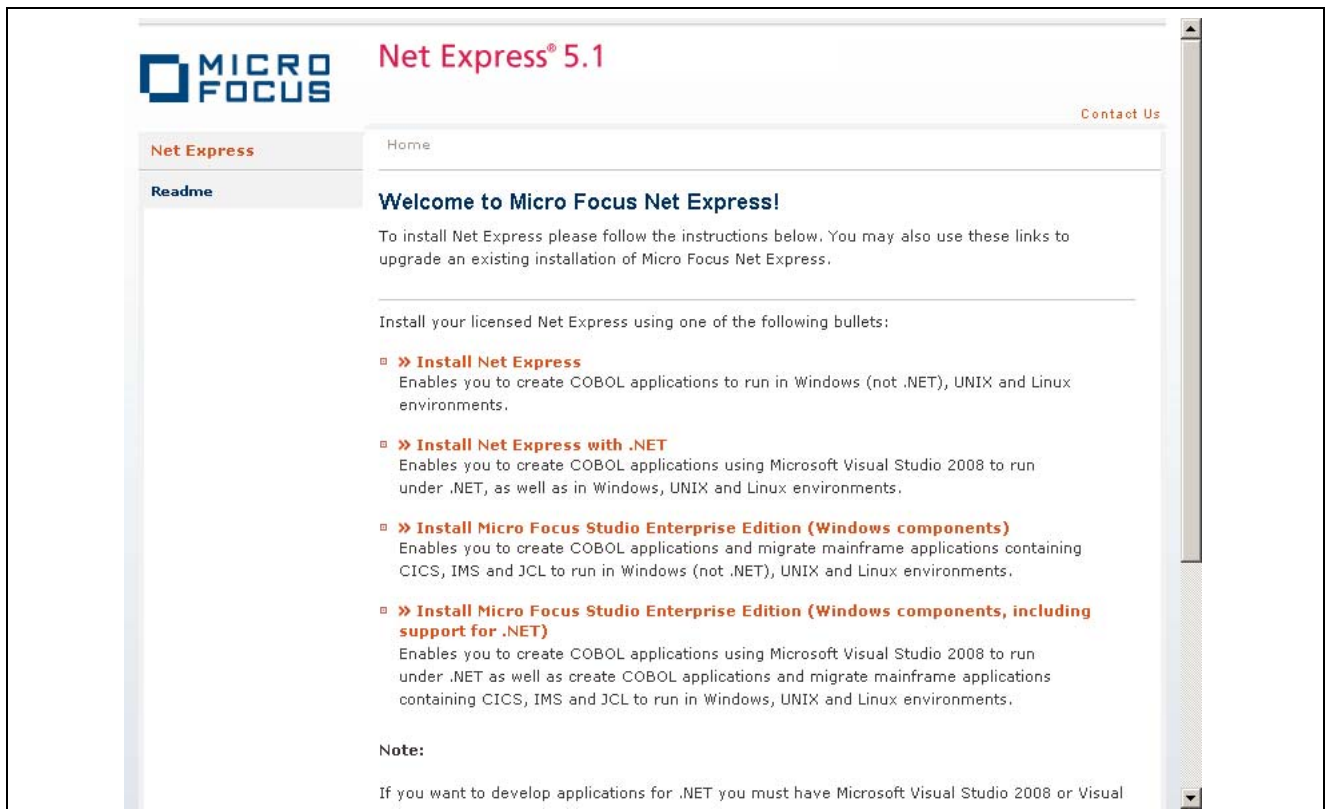
If a security screen appears, click Run to launch the installer.



Open File - Security Warning window

The installation opens a browser window.

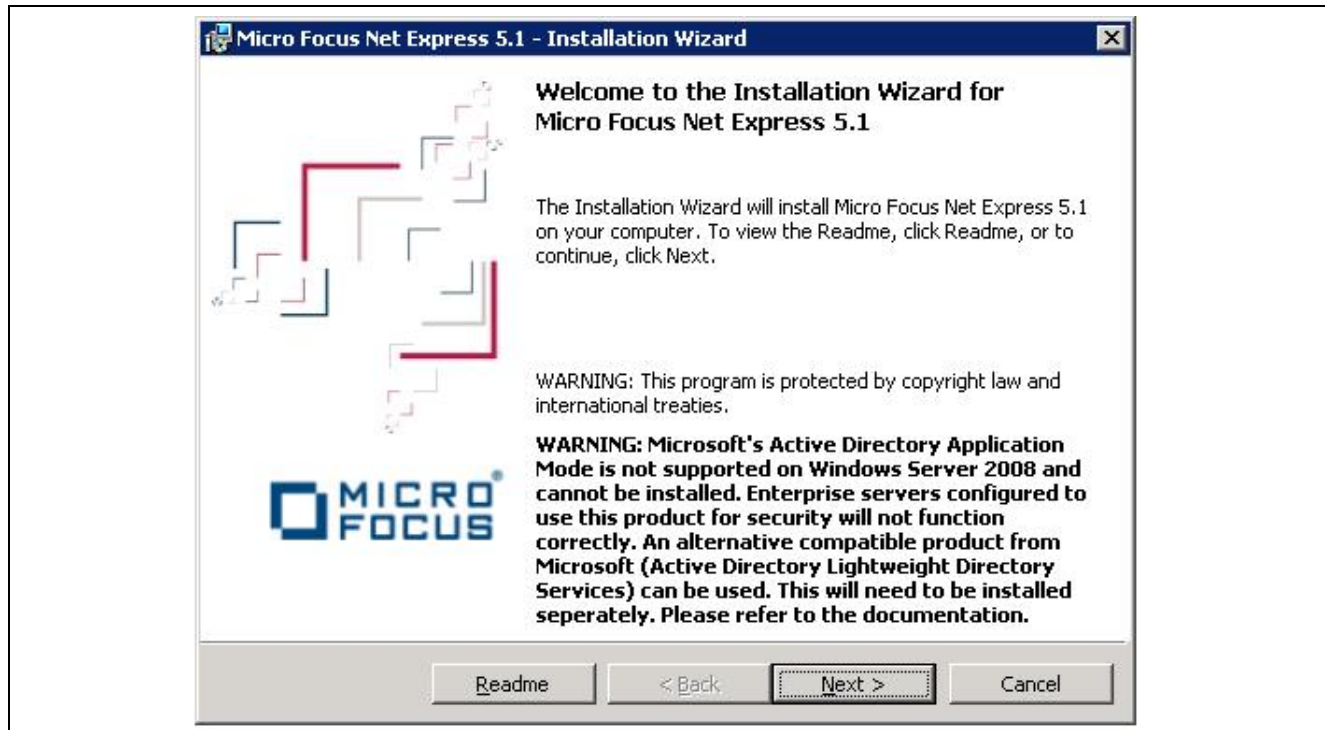
2. Select the Install Net Express link in the Net Express 5.1 window.



Micro Focus Net Express welcome window

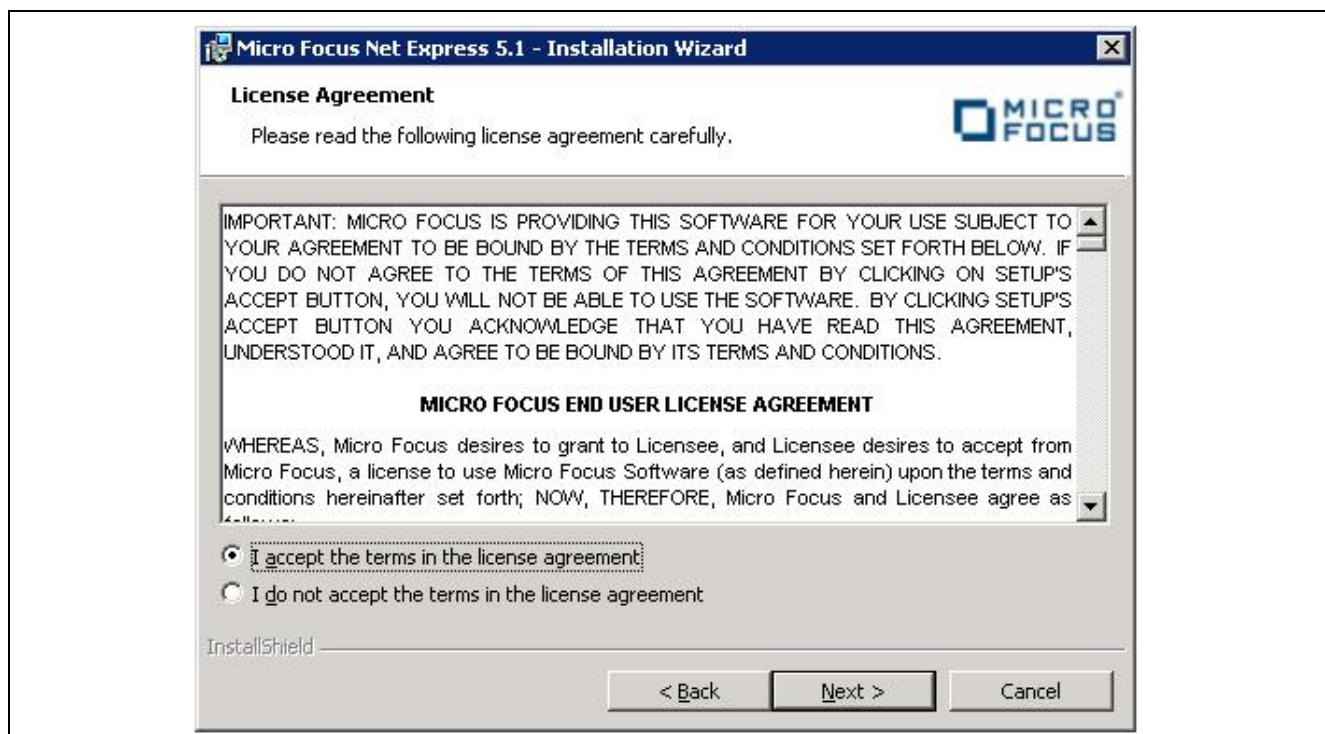
The Install Shield Wizard starts extracting files. This may take a few minutes until the files are extracted, and then the Installation Wizard dialog box appears.

3. Click Next.



Micro Focus Net Express Installation Wizard Welcome window

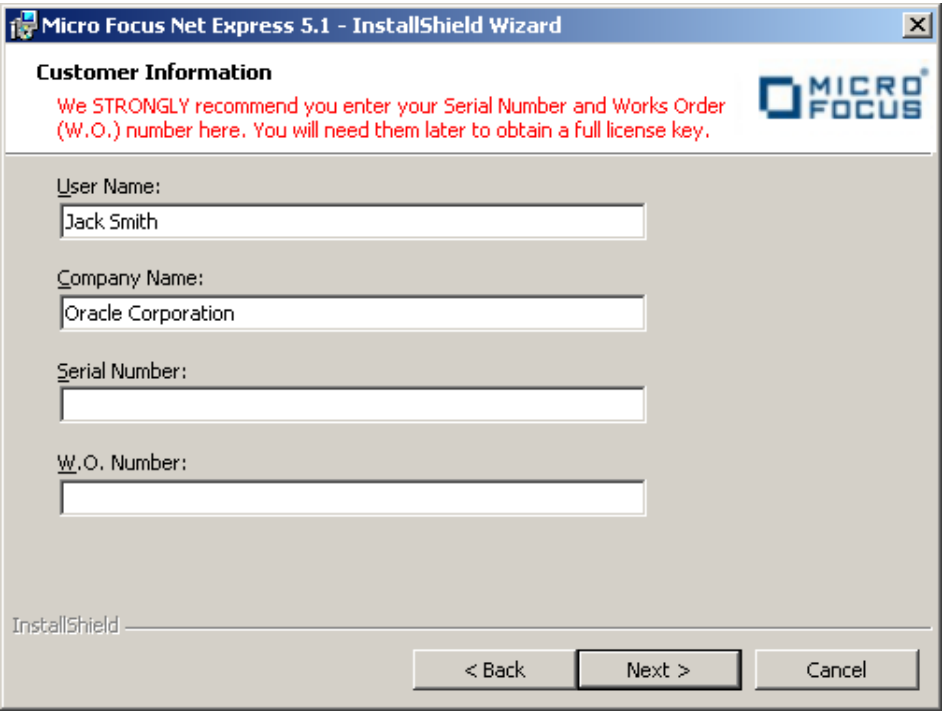
4. Read the terms of the License Agreement, select the option to accept the terms, and click Next.



License Agreement window

5. Complete the Customer Information window:
 - a. Enter your Name and Company Name.

- b. Leave the Serial Number and W.O. Number fields blank. Oracle does not provide these numbers to you and they are not required.
- c. Click Next.

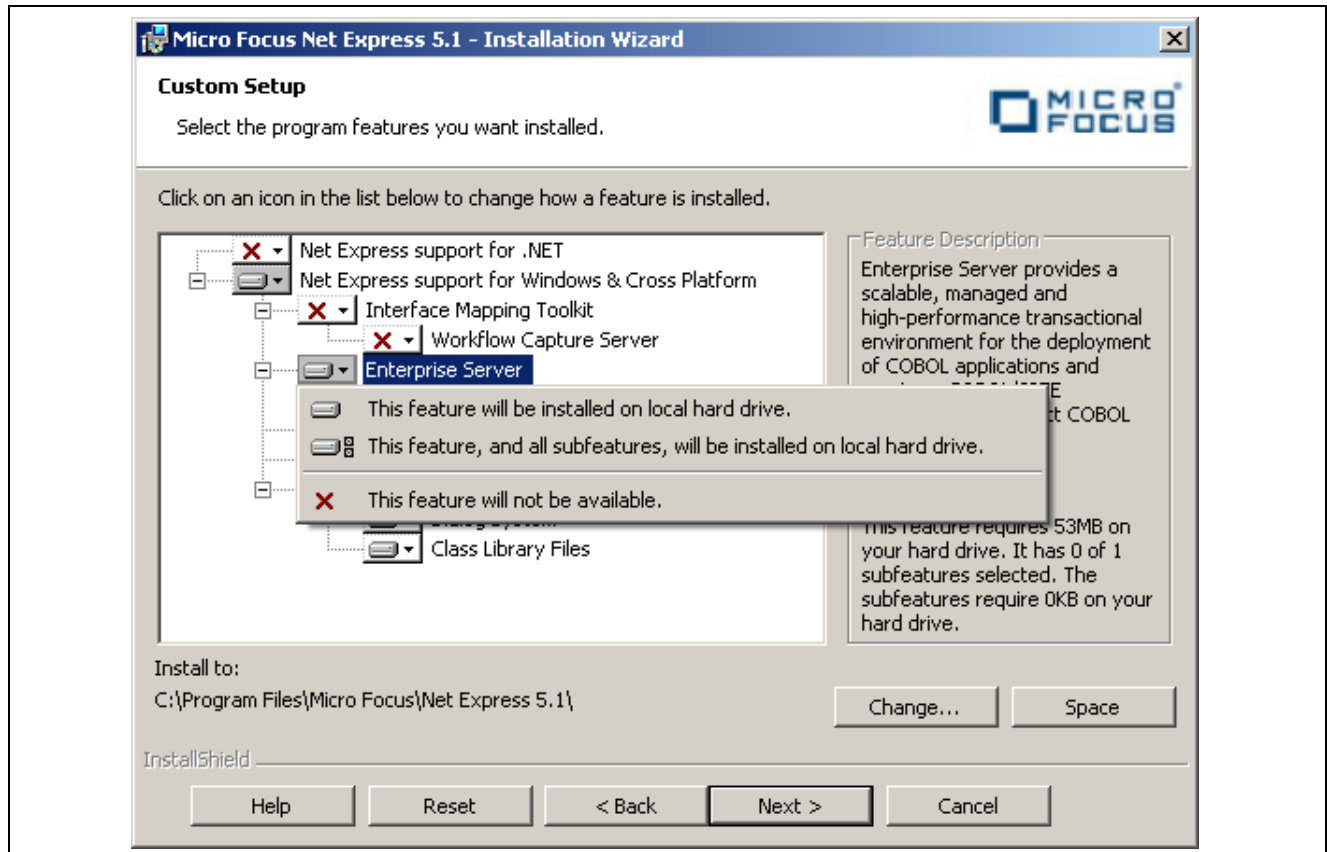


The screenshot shows a window titled "Micro Focus Net Express 5.1 - InstallShield Wizard". The window has a blue header bar with the title and a close button. Below the header, the text "Customer Information" is displayed. A red message states: "We STRONGLY recommend you enter your Serial Number and Works Order (W.O.) number here. You will need them later to obtain a full license key." The Micro Focus logo is in the top right corner. The main area contains four text input fields: "User Name:" with "Jack Smith", "Company Name:" with "Oracle Corporation", "Serial Number:" (empty), and "W.O. Number:" (empty). At the bottom left, the "InstallShield" logo is visible. At the bottom right, there are three buttons: "< Back", "Next >", and "Cancel".

Customer Information window

6. You must clear several features on the Custom Setup window before proceeding.

You can turn off a feature by clicking on the drop-down button beside the feature and selecting the option X This feature will not be available, as shown in this example:



Custom Setup window

The Traditional Graphical User Interfaces feature is the only feature required for the PeopleSoft installation. Clear the following features:

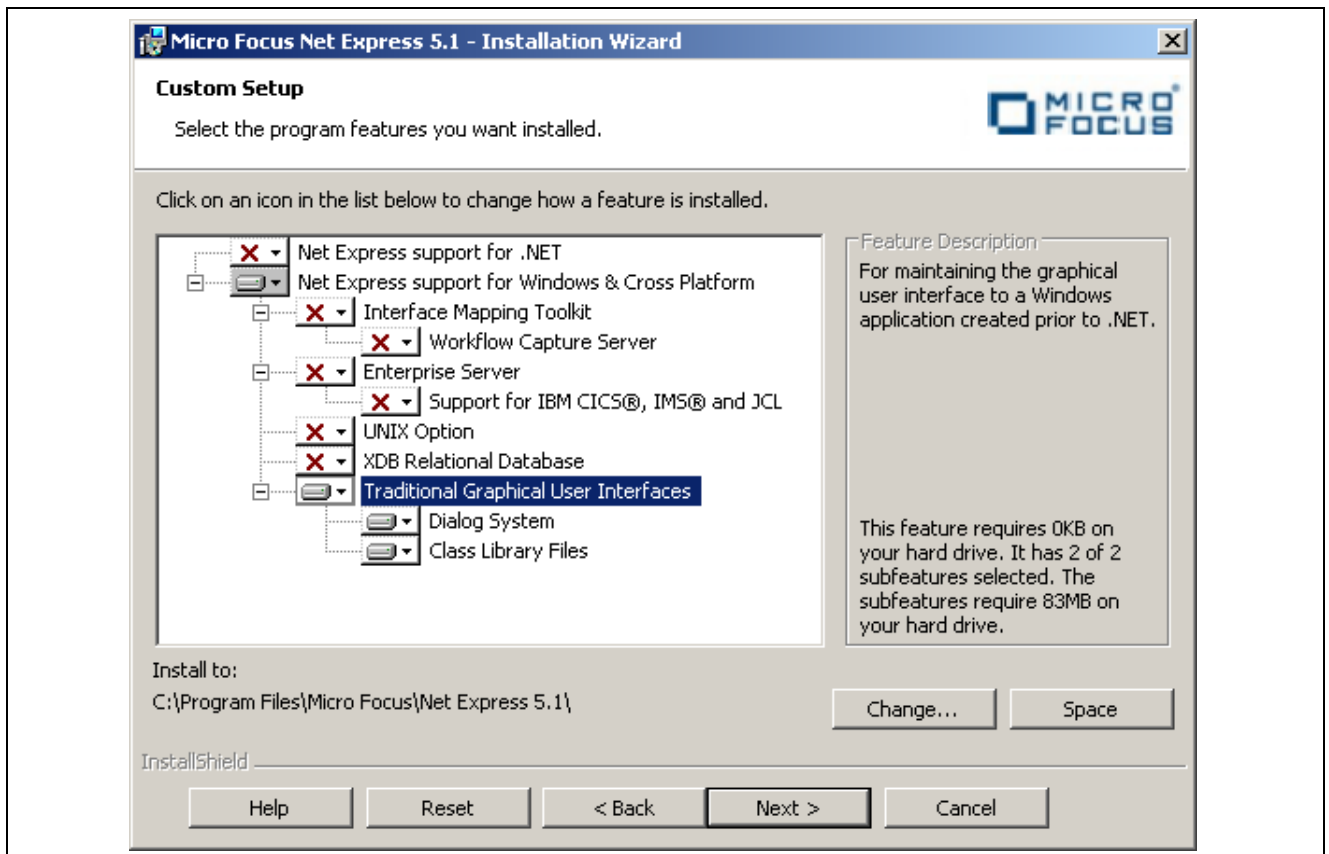
Note. Microsoft .NET framework is not required for compiling and running COBOL applications in PeopleSoft architecture. Neither is .NET required for successful installation of MicroFocus Net Express 5.1.

- Net Express support for .NET
- Interface Mapping Toolkit

When you clear this feature, the Workflow Capture Server option is automatically cleared also.

- Enterprise Server
- UNIX Option
- XDB Relational Database

7. Verify that your final selection matches this example:



Custom Setup window with options selected for PeopleSoft applications

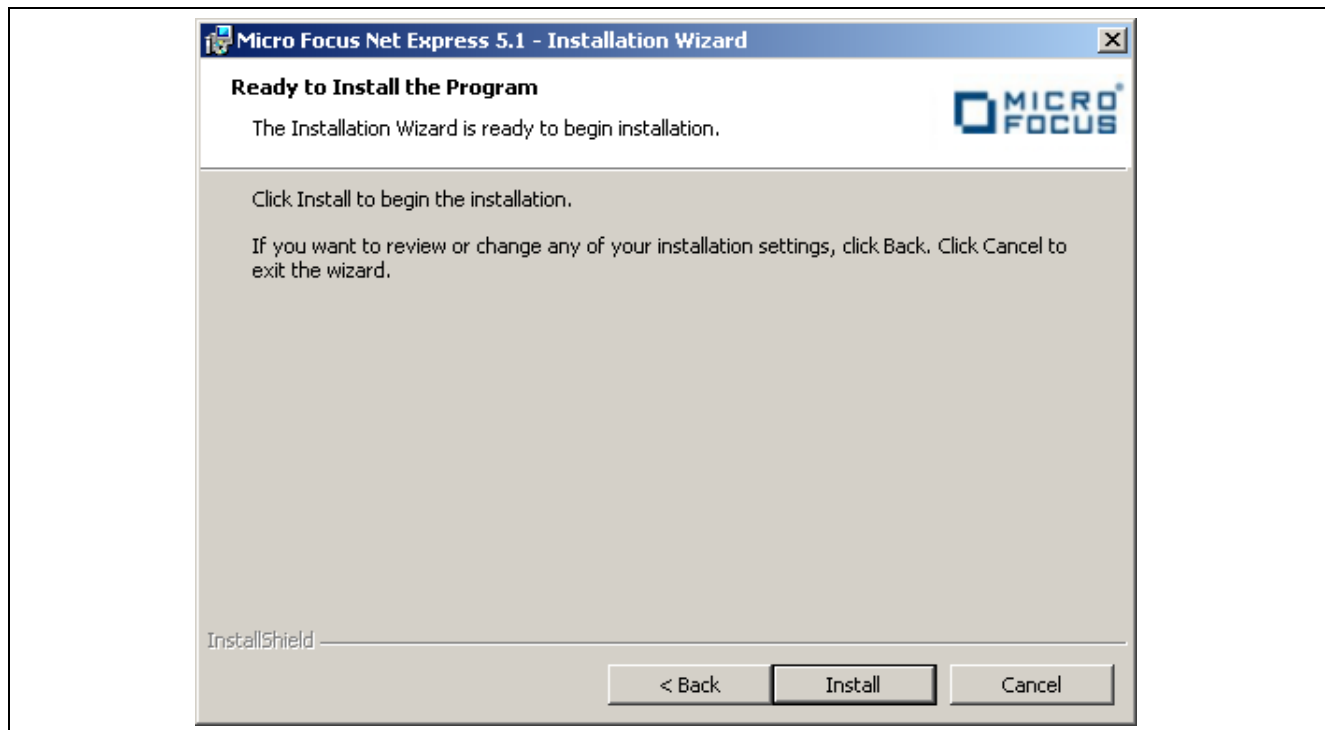
8. Highlight Traditional Graphical User Interfaces.

The default installation directory is displayed below the feature list. If you want to install to another location, click Change. If not, click Next.

The Micro Focus Net Express 5.1 default installation directory is:

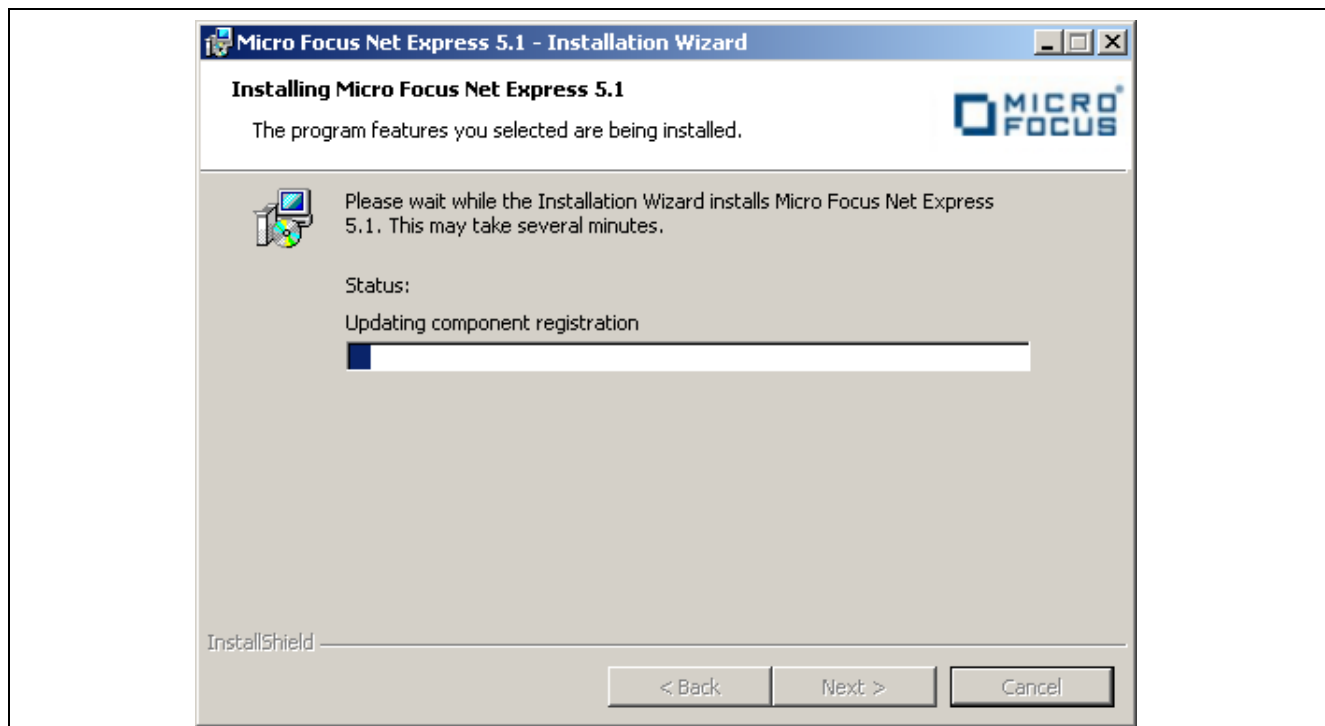
- For 32-bit systems:
C:\Program Files\Micro Focus\Net Express 5.1
- For 64-bit systems:
C:\Program Files (x86)\Micro Focus\Net Express 5.1

9. Click Install.



Ready to Install window

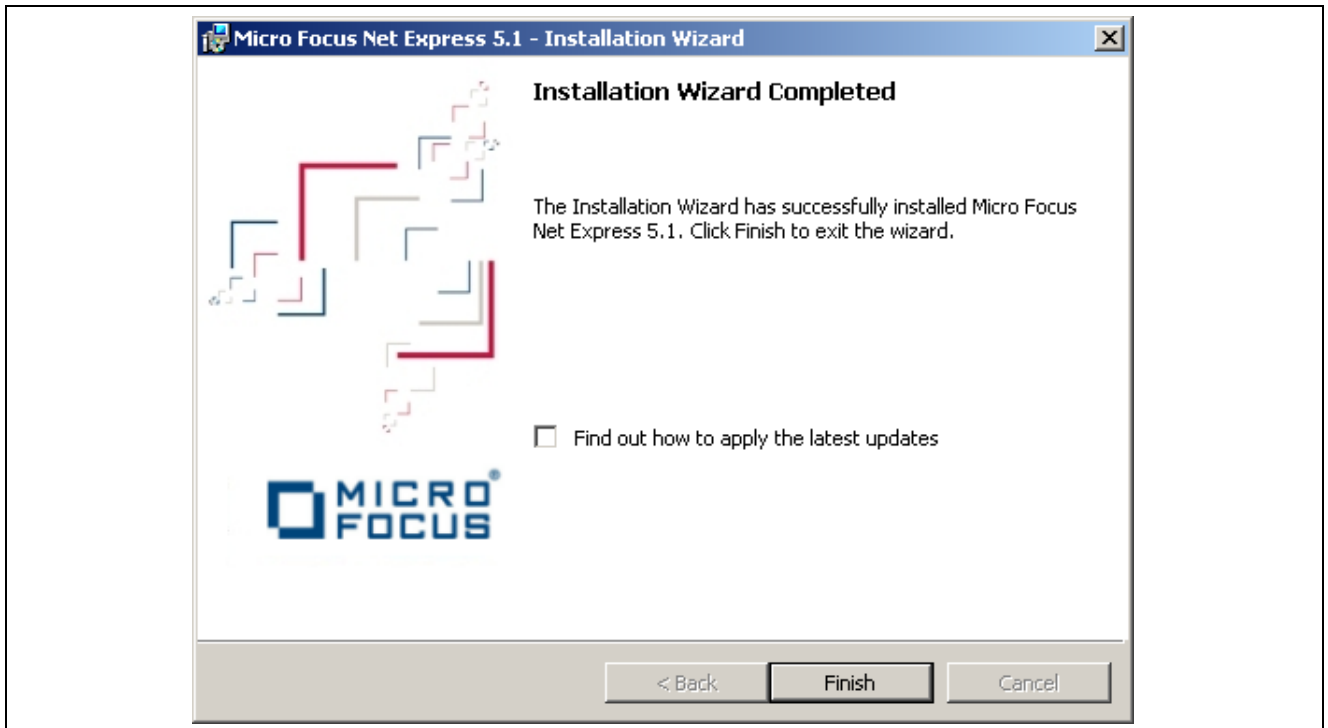
The installation status window appears tracking the installation progress.



Installation Status window

10. Click Finish.

Now you are ready to use Micro Focus Net Express 5.1 COBOL Compiler.



Installation Wizard Completed window

Task 3-3: Installing Micro Focus Server Express for UNIX and Linux

This section discusses:

- Understanding Micro Focus Server Express
- Prerequisites
- Obtaining the Installation Files for Micro Focus Server Express from E-Delivery
- Installing Micro Focus Server Express

Understanding Micro Focus Server Express

This section provides installation instructions for Micro Focus® Server Express™ 5.0 Wrap Pack 4 COBOL compiler and the License Management Facility used to manage product licenses. These instructions are specifically for installing the Server Express COBOL compiler to use with PeopleSoft software. For more general installation instructions or other supporting documentation concerning Server Express, consult the documentation that comes with the installation software.

See Also

Micro Focus web site: <http://supportline.microfocus.com/>

Server Express Documentation

"COBOL: Installation, versions, fixpacks, etc PT 8.50," My Oracle Support (search for title)

Prerequisites

Each application created using a Server Express product that will be deployed in a UNIX environment must include a Micro Focus Application Server for Server Express license from Micro Focus or from your Micro Focus licensed supplier. Application Server must be installed on the machine on which the application is to run. Contact your Micro Focus Account Representative or your Micro Focus licensed supplier for details on purchasing Application Server licenses.

If you have a previous Micro Focus COBOL product installed we recommend that you make a backup of any COBOL systems files that you have changed. Examples include cobkeymp, ADISCTRL, cobopt and cobconfig. After you have installed Server Express you might want to apply to the new COBOL product the changes previously applied to these files.

If you are installing a COBOL system over an existing COBOL system, you must first delete the existing system. Alternatively, you might prefer to move your existing COBOL system to another directory until you have verified the new installation.

If you have installed, or plan to install, Application Server or any other Micro Focus product on the same machine as this product, you must install them in different directories.

This Micro Focus product is managed by a License Management Facility (LMF). This facility helps you keep track of the number of licenses you have for the product. In order to use this product it is necessary for you to install the License Management Facility (which is provided with the Server Express software). This software should not be installed in the same directory as Server Express. The default directory depends upon the operating system; for example:

- /opt/lib/mflmf for HP-UX
- /usr/lib/mflmf for RS/6000 and PowerPC systems running AIX
- /opt/lib/mflmf on other systems

If /opt/lib does not exist, use /usr/lib/mflmf instead.

Task 3-3-1: Obtaining the Installation Files for Micro Focus Server Express from E-Delivery

The Micro Focus Server Express installation files are available on Oracle E-Delivery. At this point you should have already downloaded the necessary files. This section includes additional information on finding and using the files for Micro Focus Server Express if necessary.

See "Preparing for Installation," Using Oracle E-Delivery to Obtain Installation Files.

To obtain the files for the Micro Focus Server Express installation:

1. After logging in to Oracle E-Delivery, on the Media Search Pack page, select *PeopleSoft Enterprise* from the Select a Product Pack drop-down list.
Select the operating system you are running on from the Platform drop-down list, and click Go.
2. Select the radio button for Third Party - Micro Focus 5.x for PeopleSoft Enterprise Media Pack and click Continue.
3. Download the software and documentation files for Micro Focus Server Express 5.0 Wrap Pack 4, and save the zip files to a temporary directory on your local system.

You must extract (unzip) the file on the platform for which it is intended. For example, if you download the zip file for Solaris, you must unzip it on Solaris to avoid problems. If you unzip the file to a staging directory on a Microsoft Windows computer and copy the staging directory to a Solaris, the stage area files may be corrupt.

Task 3-3-2: Installing Micro Focus Server Express

The following section is provided as an example installation and illustrates a typical Micro Focus Server Express 5.0 Wrap Pack 4 (WP4) installation for PeopleSoft application, as outlined in the overview section above.

The answers to the prompts provided in the following example are recommended by Oracle for PeopleSoft installations, with the exception of the installation directory named in step 12 below. For step 12, you can use the default directory names or choose directory names based on your site's naming conventions.

It is recommended by Micro Focus and Oracle to install LMF in its own directory, instead of in a sub-directory of the Server Express install.

Important! Make sure to select the *correct* bit mode for your UNIX platform:

With PeopleSoft PeopleTools 8.50, enter *64* for all UNIX platforms.

The following example was done on a HP-UX Itanium operating system platform. Installation prompts will vary slightly with respect to specifics of the different UNIX platforms.

1. Log in as root.
2. Create a directory (if it does not exist) where you want to install the MicroFocus Server Express 5.0 WP4. For example:


```
$ mkdir /products/mf/svrexpress-50_wp4-64bit
```
3. Change directory to the newly-created directory.


```
$ cd /products/mf/svrexpress-50_wp4-64bit
```
4. Copy or ftp the MicroFocus Server Express 5.0 WP4 tar file that you obtained from Oracle E-Delivery to this directory.

In this example, the file name is SX50_WP4_hp_itanium_dev.tar.

Note. This tar file can be obtained from <http://edelivery.oracle.com>

5. List the items in the directory with the following commands:


```
$ ls -l /products/mf/svrexpress-50_wp4-64bit
total 395360
-rwxr-xr-x  1 ldixit ccpt 404049920 Oct 10 21:13 SX50_WP4_hp_itanium_dev.tar
```
6. Extract the tar file:


```
$ tar xf SX50_WP4_hp_itanium_dev.tar
```
7. List the items in the directory with the following commands:


```
$ ls
ADISCTRL                                cpylib  docs          eslmf-mess  lang  terminfo
```

SX50_WP4_ hp_itanium_dev.tar	demo	dynload	etc	lib	xdb
aslmf	deploy	dynload64	include	lmf	
bin	dialog	es	install	src	

8. To begin the installation, type:

```
$ ./install
```

This script will install Micro Focus Server Express 5.0 on this computer. The⇒
readme.txt file included in this delivery contains details of new features,⇒
enhancements, and any restrictions of which you should be aware. This file is⇒
located in:

```
/products/mf/svrexpress-5.0_wp4-64bit/docs
```

We strongly recommend that you read this file once the installation is⇒
complete.

Do you want to continue (y/n): **y**

9. Read and type **y** to accept the license agreement:

Before installing and using this software product, you must agree to be bound⇒
by the terms and conditions of the end user license agreement ("License⇒
Agreement") that accompanies this product. Please take this time to read the⇒
License Agreement. If you are not in agreement with the terms and conditions⇒
of the License Agreement, please return the product to your Account⇒
Representative and your money will be refunded. If you require a replacement⇒
copy of the License Agreement, please contact your Account Representative⇒
before proceeding with the install process.

Do you agree to the terms of the License Agreement? (y/n): **y**

When you press return, you will be shown details of the reference environment (and any compatibility environments).

10. Press return when you are ready, and then type **y** to continue:

This product is certified on the following reference environment. The command⇒
(s) used to gather the information is given following each entry:

Operating System

```
-----
```

```
HP-UX B.11.23
```

```
uname -s
```

```
uname -r
```

Operating System Patches

```
-----
```

```
PHKL_31500
```

```
PHKL_31502
```

```
PHKL_31503
```

```
PHKL_31504
```

```
PHKL_31507
```

```
PHKL_31508
```

```
PHKL_31510
```

```
PHKL_31511
PHKL_31512
PHKL_31517
PHKL_32212
```

Please confirm your understanding of the above reference environment details ⇒
(y/n): **y**

11. Answer *n* (no) to the following prompt:

```
Do you want to make use of COBOL and Java working together? (y/n): n
Skipping Java setup
Should you want to use Java with COBOL later on as a super user, run the⇒
command /products/mf/svexp-5.0_wp4-64bit/bin/java_setup to select the version⇒
of Java you want to use.
```

12. Answer *y* (yes) to the following prompt concerning the License Management Facility:

```
This product is protected using the Micro Focus License Management Facility ⇒
(LMF). Please refer to the Development System Licensing Guide for information⇒
relating to the installation of the licensing system and licenses.
If you do not have LMF installed or want to upgrade to the latest version, we⇒
recommend that you install it now.
```

Would you like to install LMF now? (y/n): **y**

13. At the following prompt, enter the directory name where you wish to install License Manager.

Note. Micro Focus and Oracle recommend that you install LMF in its own directory, instead of a sub-directory of the Server Express install.

```
Enter the directory name where you wish to install License Manager.
(Press Enter for default directory /opt/microfocus/mflmf)
```

```
/products/mf/mflmf-svexp-50_wp4-64bit
```

```
/products/mf/mflmf-svexp-50_wp4-64bit does not exist
do you wish to create it ? (y/n) y
```

14. Enter *y* (yes) to restrict access to the License Admin System to the superuser account:

```
Empty database created ok. Do you want only superuser to be able to access the⇒
License Admin System? (y/n) y
```

15. Enter *y* (yes) to start license manager automatically at boot time:

```
It is recommended that you let license manager autostart at boot time. Do you⇒
want license manager to be automatically started at boot time? (y/n) y
LMF installation complete.
```

16. If you want to consult the documentation on how to install licenses, follow the instructions in this prompt:

```
Please consult the Development Licensing Guide for detailed information on how⇒
```

to install licenses.

This may be done by changing directory to where the LMF was installed, and⇒
typing:

```
./mflicense
```

```
-----
To run your applications, you need a deployment license installed using⇒
Apptack. See your Deployment Licensing Guide for details. Installing⇒
Apptack...
```

```
Access permissions on directory /var/mfaslmf have changed on this release.⇒
Write access permission has been removed except for superuser use.
Apptack installation complete.
```

17. Enter *64* for the system default mode:

This product can be used in either 32-bit or 64-bit modes.

Please enter either 32 or 64 to set the system default mode: **64**

System default COBMODE has been set to 64.

Important! Specify 64 for AIX, HP-UX PA-RISC, HP-UX Itanium, Sun/Solaris and SuSE on z/Linux.

Specify 64 for Redhat or SuSE Linux running in x86-64bit Intel Platforms

Important! With PeopleTools 8.50, enter *64*: for all UNIX platforms.

18. Enter *n* (no) to configure the Enterprise Server later:

Installing documentation. Please wait

Enterprise Server provides a scalable, managed, and high-performance⇒
transactional environment for the deployment of COBOL applications and⇒
services, COBOL/J2EE applications and direct COBOL Web Services.

Your Enterprise Server requires configuration. You can either do it now or⇒
later. To do it now, you need to know the alphanumeric user ID of the⇒
Enterprise Server System Administrator.

To do it later, enter the following commands while logged in as root:

```
/products/mf/svrex-50_wp4-64bit/bin/casperm
/products/mf/svrex-50_wp4-64bit/bin/eslminstall
```

Do you wish to configure Enterprise Server now? (y/n): **n**

19. Enter *n* (no) to the following prompt:

XDB is a fully-functional ANSI-compliant relational database management system,⇒
providing support for SQL data access for development purposes.

Do you want to install XDB? (y/n): **n**

Skipping XDB install. Should you want to install XDB later on, run the⇒
following command as the root user:

```
sh /products/mf/svrex-50_wp4-64bit/xdb/xdb_install
```

20. You must also set the COBDIR, LD_LIBRARY_PATH, and PATH environment variables:

Remember to set COBDIR to /products/mf/svrex-50_wp4-64bit, include /products⇒
/mf/svrex-50_wp4-64bit/lib in LD_LIBRARY_PATH, and include /products/mf/svrex-⇒
50_wp4-64bit/bin on your PATH.

Warning! Any executables (whether a Run-Time System or an application) must be relinked using this new release. Otherwise, the results of running the older executables with this new release are undefined.

Installation completed successfully.

The COBOL system is ready to use.

CHAPTER 4

Using the PeopleSoft Installer

This chapter discusses:

- Understanding the PeopleSoft Installer
- Prerequisites
- Verifying Necessary Files for Installation on Windows
- Obtaining the PeopleSoft Installation Files from E-Delivery
- Running the PeopleSoft Installer
- Installing the Verity Integration Kit
- Installing PeopleSoft Application Software
- Loading the Multilanguage Files

Understanding the PeopleSoft Installer

This section discusses:

- Defining the PeopleSoft Installer
- Understanding PeopleSoft Servers
- Defining Supported Server Combinations
- Obtaining License Codes

Defining the PeopleSoft Installer

The PeopleSoft Installer is a Java-based tool that delivers software to your servers.

Note. You must install the necessary web server products and any additional component software as described in the previous chapters before you run the PeopleSoft Installer.

You run the PeopleSoft installer to install the necessary products on the target machines. Which files are installed depends on which products you are licensed for, the operating system on the target machine, the database platform, and the selected server option. The PeopleSoft Installer installs files directly to Microsoft Windows, UNIX, and Linux machines. PeopleSoft PeopleTools and PeopleSoft Applications use the same PeopleSoft installation template. This chapter discusses the installation of PeopleSoft PeopleTools, followed by the installation of PeopleSoft application software and the application-specific Multilanguage files.

Note. During the installation you select the servers you want to install. Keep in mind that you can install multiple servers at the same time, but they will all be installed on the same machine. If you want to install servers on separate machines, you need to run the PeopleSoft installer on each server machine.

Note. If you need to set up the file server on a separate Microsoft Windows machine, you should install PeopleSoft PeopleTools, any PeopleSoft applications, and the Multilanguage files, as discussed in the next chapter.

See "Setting Up the File Server on Windows."

All licensed components of the PeopleSoft Architecture must be installed on each server. If you are not able to download and extract the PeopleSoft installation files directly on a UNIX machine, for example, you can download to the Windows file server and then FTP the files to your UNIX system

You can install multiple logical servers to the same machine. For example, you can have the application server and the batch server on the same machine. But, if you want to install different servers to different machines, you have to run the PeopleSoft Installer once for each server.

Understanding PeopleSoft Servers

You can install the whole range of PeopleSoft servers (file server, application server, and so on) with the PeopleSoft Installer. You can install PeopleSoft server software separately or together. Keep in mind which PeopleSoft PeopleTools functionality resides in each server:

- *File Server:* All Client executables (PSIDE...), Nvision, Change Assistant, files and directories necessary to perform upgrade, and Client SQR.
- *Application Server:* PSADMIN, COBOL for remote call, Verity.
- *Web Server:* Windows PeopleSoft Pure Internet Architecture (PIA) install, UNIX web files and shell scripts, Portal Search data files, and Verity.
- *Process Scheduler Server:* PSADMIN, COBOL, SQR, Verity.
- *Database Server:* Scripts and data directories, files necessary to run Data Mover.

Defining Supported Server Combinations

The following table lists the supported operating systems for the various PeopleSoft servers for your database platform. For more detailed information, consult the PeopleSoft Enterprise product certifications area of My Oracle Support.

Supported operating systems for database servers	Supported operating systems for application servers and batch servers	Supported operating systems for file servers	Supported operating systems for web servers
z/OS	• AIX • Linux • Microsoft Windows • Solaris • z/Linux (batch server only; no application server)	Microsoft Windows	• AIX • HP-UX • Linux • Microsoft Windows • Solaris

See Also

Enterprise PeopleTools 8.50 Hardware and Software Requirements.

My Oracle Support, Certifications

Obtaining License Codes

Refer to the following URL for license codes for Oracle's PeopleSoft Enterprise line of products:
http://licensecodes.oracle.com/ent_keys_by_prod.html.

See Also

My Oracle Support, (search for Licensing Notes for the current release)

"Setting Up the PeopleSoft Pure Internet Architecture (in GUI or Console Mode)," Completing Post-Installation Steps

Prerequisites

Verify that you fulfill the following requirements before beginning the installation:

- The PeopleSoft Installer requires Java Virtual Machine (JVM), which is bundled for all OS platforms. The PeopleSoft Installer searches for the JVMs in the directories in which users would typically install JVM. If the search fails, the bundled JVM will be used. For the PeopleSoft Installer to run successfully, you must have JRE/JDK version 1.6.0 or higher. See My Oracle Support for information on the correct JRE version for your system.

See My Oracle Support, Certifications.

- Before running the PeopleSoft installer, you must verify that you have the correct patches for your JVM level.

Check My Oracle Support and your vendor for required patches.

See "Required Operating System, RDBMS, and Additional Component Patches Required for Installation," My Oracle Support, (search for article title).

- Make sure you have at least 4.5 GB of free space to perform your installation.

See Running the PeopleSoft Installer.

- The installation process also requires at least 2.0 GB of free temporary disk space, which is needed only for the duration of the process. The process uses the directory defined by the TEMP environment variable on your installation computer or the directory specified by the -tempdir option when using setup.sh to install.

Oracle strongly recommends that you use the -tempdir option to install, using the following guidelines:

- Do not use /tmp as the temporary directory.
- Do not specify /tmp as the explicit temporary directory for the -tempdir option.
- Do not specify a directory that is on a shared drive.
- Do not specify a directory that is inside the location where PeopleSoft PeopleTools is being installed; for example, *PS_HOME*/temp.
- The user who installs PeopleSoft PeopleTools must be root or the owner of *PS_HOME*.

PS_HOME is used throughout this installation guide to refer to the high-level directory where your PeopleSoft PeopleTools and application software are installed. The documentation may also use the notation \$PS_HOME or %PS_HOME% to refer to the PS_HOME environment variable in a code sample.

- You must have admin privileges to install the PeopleSoft web server.
- You can install the PeopleSoft web server to *PS_HOME*, or to another directory outside *PS_HOME*. This documentation refers to the directory where you install the PeopleSoft web server as *PIA_HOME*.

See "Preparing for Installation," Defining Installation Locations.

- If your installation requires any PeopleSoft PeopleTools patches, you can apply the code (that is, the contents of the zip file you downloaded from My Oracle Support) after running the PeopleSoft Installer. Do not apply the database instructions at this time; the database objects will be applied later during the install. Be sure to read and follow the instructions provided with the PeopleSoft PeopleTools patches.

See Also

Enterprise PeopleTools 8.50 Hardware and Software Requirements, Server Requirements, Describing JRE Requirements

My Oracle Support, Certifications

Task 4-1: Verifying Necessary Files for Installation on Windows

PeopleSoft PeopleTools 8.50 is developed using Microsoft Visual C++ 2005. Microsoft, as part of VC++ 2005, changed the way applications use and ship the required C Run Time (CRT) files (these files are installed as shared assemblies). PeopleSoft PeopleTools 8.50 programs require these files to be present or the programs will not run.

During your PeopleSoft PeopleTools installation, the install programs will automatically update the Microsoft Windows machine performing the installation.

The required CRT files are installed by all of the PeopleSoft installers, including:

- PeopleSoft PeopleTools
- Database

- PeopleSoft Pure Internet Architecture
- Change Assistant
- Change Impact Analyzer
- Webapp Deploy

In some cases it may be necessary for you to carry out a separate installation of the CRT files. For example:

- If the update does not take place during the installation program run, you may not be able to launch PeopleSoft PeopleTools client or server executables on that machine and may receive error messages.
- If you are accessing PeopleSoft PeopleTools executables from a machine on which the PeopleSoft installer did not run, the executables may not work and you may receive error messages.

If you encounter these errors, you can update the Microsoft Windows machine's CRT files by running `vcredist_x86.exe` manually.

1. Go to `PS_HOME\setup\vcredist`.
2. Run `vcredist_x86.exe`.

The installation is completed automatically.

Task 4-2: Obtaining the PeopleSoft Installation Files from E-Delivery

You obtain the PeopleSoft PeopleTools, PeopleSoft application, and multi-language software by downloading them as zip files from Oracle E-Delivery. At this point you should have already downloaded the necessary files. This section includes additional information on finding and using the installation files if necessary.

See "Preparing for Installation," Using E-Delivery.

To obtain the installation files for PeopleSoft PeopleTools from Oracle E-Delivery:

1. After logging in to Oracle E-Delivery, on the Media Search Pack page, select *PeopleSoft Enterprise* from the Select a Product Pack drop-down list on the Media Pack Search page.

Select the operating system you are running on from the Platform drop-down list, and click Go.

Note that you must unzip the media pack zip files on the platform for which they are intended. For example, if you download the file for the Solaris platform, you must unzip the file on a Solaris operating system. If you unzip the file on a Microsoft Windows machine into a staging directory, and then move the directory to a Solaris machine, the staging area files may be corrupted.

For installations on DB2 z/OS, download the Microsoft Windows version of the zip file. When you install, select the option DB2 UDB for OS/390 as the database platform, and then use the PeopleSoft Server Transfer to copy the files from the Microsoft Windows machine to your DB2 z/OS machine.

See "Setting Up the Batch Environment on z/OS," Using PeopleSoft Server Transfer.

2. Select the radio button for PeopleSoft Enterprise - PeopleTools 8.50 Media Pack, and click Continue.
3. Download the 3 zip files for the PeopleSoft PeopleTools 8.50 installation.

For the PeopleSoft application and multi-language installations, download the appropriate zip files.

4. For the PeopleSoft PeopleTools installation, when you unzip the files, extract them into a temporary directory, referred to here as *PS_INSTALL*. The extracted files are loaded into directories Disk1, Disk2, Disk3, and so on.

For the PeopleSoft application and multi-language files, extract the zip files into a convenient local directory.

For UNIX only:

After you download the installation files from Oracle E-Delivery, if it is necessary to transfer the files to a UNIX computer using FTP, you must change the permissions to make them executable, for example using the `chmod +x` command. Change the mode to executable for the following files:

- *PS_INSTALL*\Disk1\setup.sh
- Files in *PS_INSTALL*\Disk1\InstData:
 - setup.aix
 - setup.hp
 - setup.hp-ia64
 - setup.linux
 - setup.solaris
 - setup.zlinux

See Also

"Setting Up the PeopleSoft Pure Internet Architecture," Completing Post-Installation Steps

Application-specific installation instructions, My Oracle Support (search for the PeopleSoft application)

Obtaining License Codes

Task 4-3: Running the PeopleSoft Installer

This section discusses:

- Understanding the PeopleSoft Installer
- Starting the PeopleSoft Installer
- Installing PeopleSoft PeopleTools in GUI Mode
- Installing PeopleSoft PeopleTools in Console Mode

Understanding the PeopleSoft Installer

The PeopleSoft Installer guides you through the process of installing files to your various servers. You must run the PeopleSoft Installer on each machine that you use for one or more PeopleSoft server. The specific options that you see during the installation procedure depend upon the operating system platform, database platform and so on.

The files will be installed into a high-level PeopleSoft directory. This directory, which is referred to in this documentation as *PS_HOME*, is the location for PeopleSoft PeopleTools, PeopleSoft application, and multilanguage files. It is a good idea to use a directory name that indicates the application you are installing and the version number, such as HRMS910 for the 9.1 version of Human Resources Management System.

You can run the installer in GUI mode, on Microsoft Windows operating systems, or in console (text) mode, on UNIX or Linux.

Note. The machine that you use to perform your PeopleSoft PeopleTools installation must be running in *256-color mode* or higher when running the PeopleSoft PeopleTools, PeopleSoft application, multi-language, or PeopleSoft Pure Internet Architecture installation, and database configuration in Microsoft Windows. This is not necessary for UNIX or console mode.

The PeopleSoft Installer asks whether you want to install supporting features such as Unicode support or Environment Management Hub. Before you run the PeopleSoft Installer, you may want to consult supporting documentation to help you in choosing these options.

See Also

Enterprise PeopleTools 8.50 PeopleBook: Global Technology

Enterprise PeopleTools 8.50 PeopleBook: System and Server Administration

Enterprise PeopleTools 8.50 Hardware and Software Requirements, "Server Requirements"

Task 4-3-1: Starting the PeopleSoft Installer

After you download and extract the PeopleSoft PeopleTools installation files you can find the installer in *PS_INSTALL/disk1*.

To start the PeopleSoft Installer on Microsoft Windows, type:

```
PS_INSTALL\disk1\setup.bat [additional flags]
```

To start the PeopleSoft Installer on a supported UNIX or Linux operating system, type:

```
PS_INSTALL/disk1/setup.sh [additional flags]
```

Use setup.sh to start the PeopleSoft Installer on the following platforms:

- AIX
- HP-UX
- Linux
- Solaris
- zLinux

To run the PeopleSoft Installer on DB2 UDB z/OS, use *PS_INSTALL\disk1\setup.bat* to install on Microsoft Windows, and then use Server Transfer. This is the same procedure used in PeopleSoft PeopleTools 8.1x.

You can use these options with setup.sh:

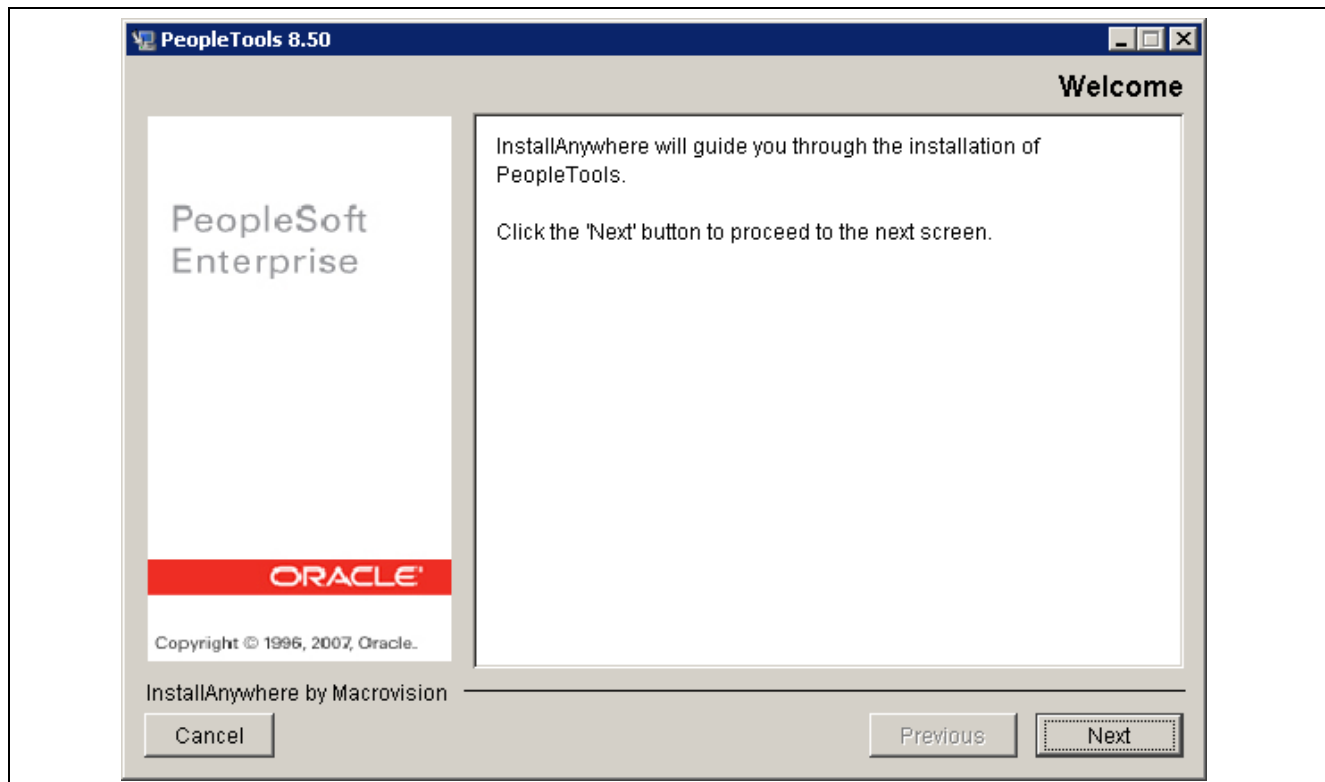
Command Line Option	Allowed Values	Description
-debug	NA	Use this flag to enable debugging mode.
-DDEBUG=true	NA	Use this variable for debugging.

Command Line Option	Allowed Values	Description
-javahome	Path to Java home directory. For example: <code>setup.sh -javahome /prod/jre</code>	Use this flag to specify where you installed the Java home directory, if your installation is different than the vendor-defined JRE Search Path.
-tempdir	Path to temporary directory	Use this flag to specify the temporary directory to extract temporary files. This is recommended if you have less than 2 GB of space in your temporary directory. See the Prerequisites section for information on specifying the temporary directory.

Task 4-3-2: Installing PeopleSoft PeopleTools in GUI Mode

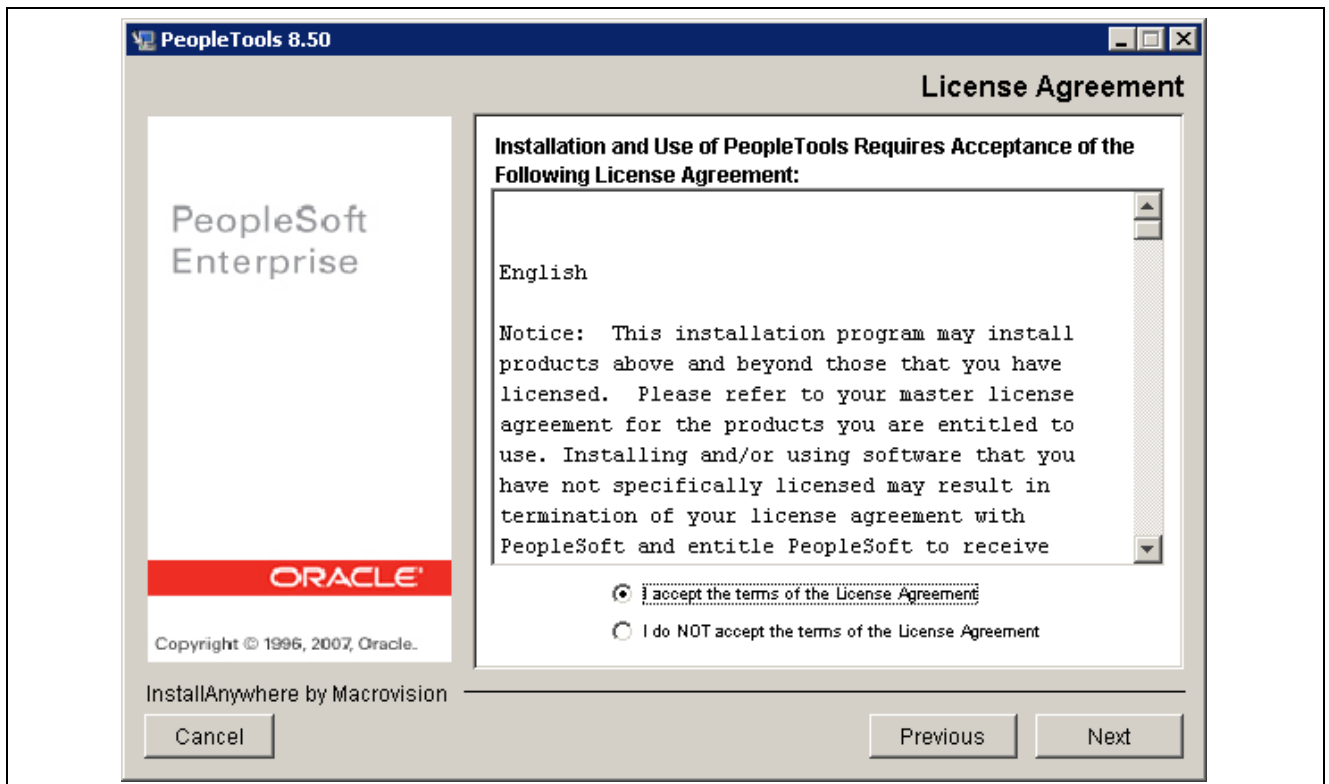
To install PeopleSoft PeopleTools with the PeopleSoft Installer in GUI mode:

1. Launch the installer. Click Next when you see the Welcome screen.



PeopleTools Welcome window

2. Click the radio button to accept the license agreement and click Next.



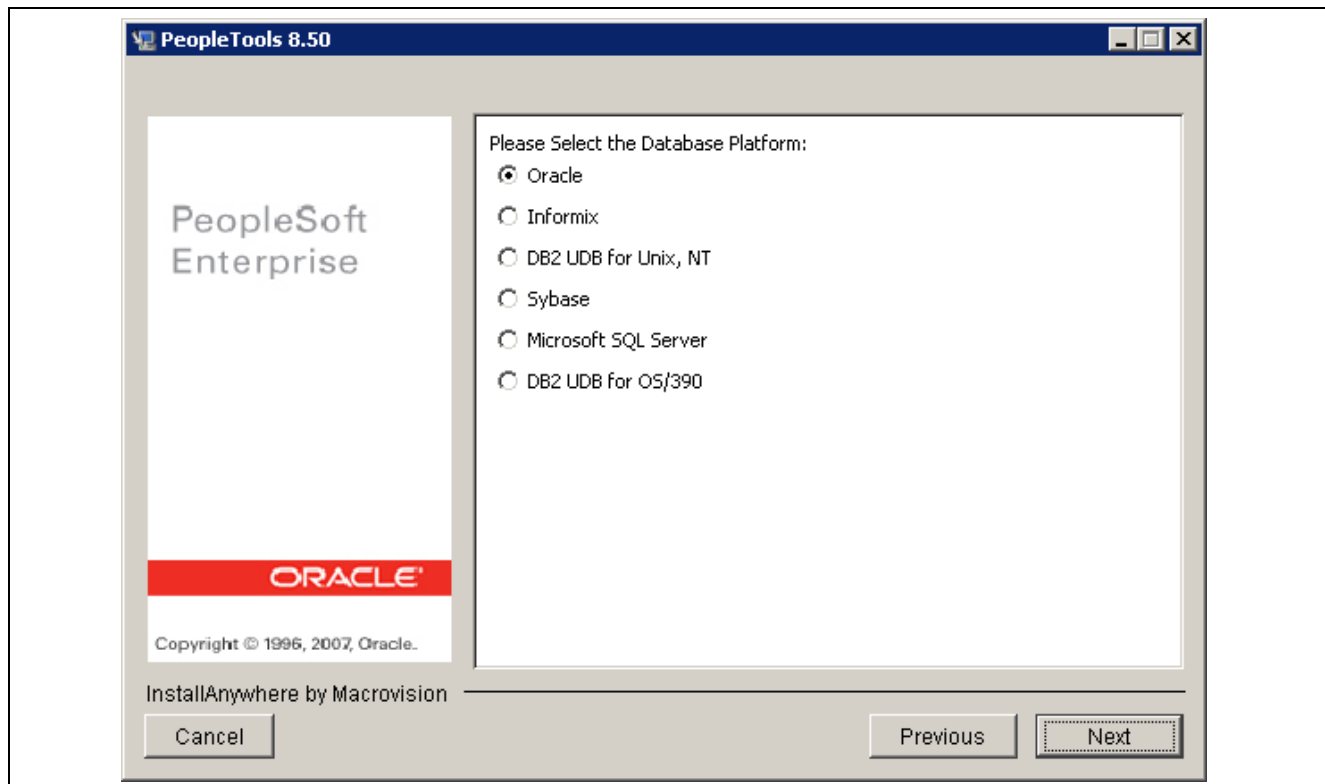
PeopleTools License Agreement window

3. Enter your license code and click Next.

See Understanding the PeopleSoft Installer, Obtaining License Codes.

4. Select the database platform you are installing on and click next.

In the following example, an Oracle database platform is selected. The other options are Informix, DB2/LUW, Sybase, Microsoft SQL Server, and DB2 z/OS.

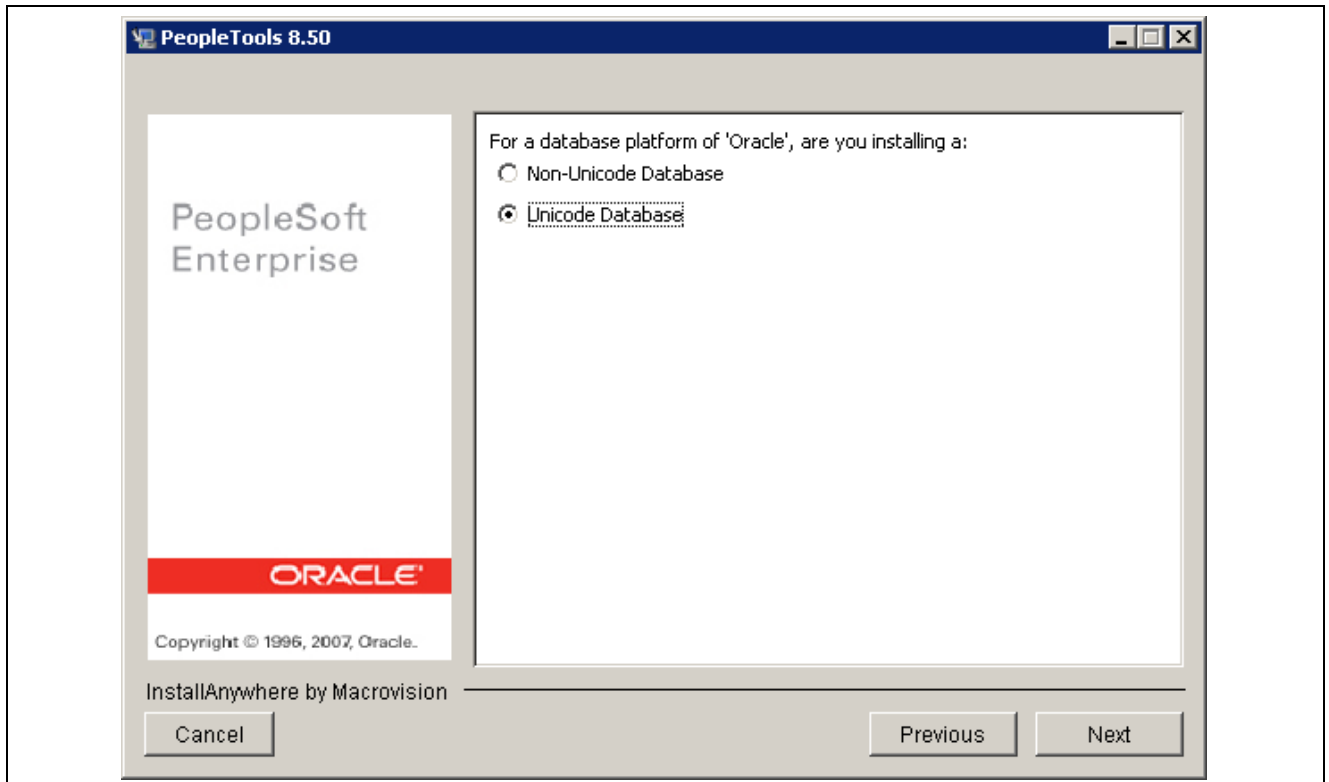


Selecting a database platform for the PeopleTools installation

5. Choose a Unicode or non-Unicode database and click Next.

Note. Unicode databases are beneficial if you intend to deploy your applications globally and would otherwise have to implement multiple databases to handle different languages. However, Unicode databases require much more disk space than non-Unicode databases.

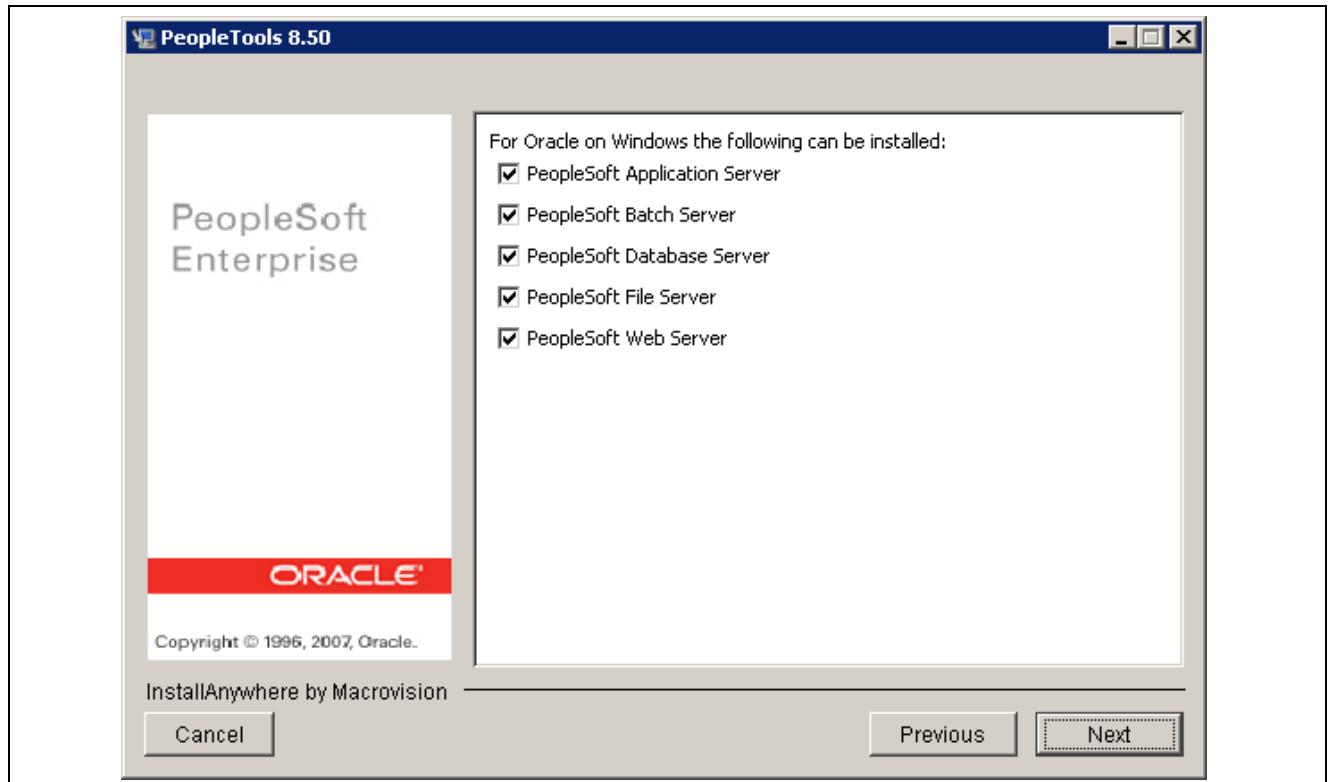
See *Enterprise PeopleTools 8.50 PeopleBook: Global Technology*.



Choosing Unicode or Non-Unicode database for the PeopleTools installation

6. Select the servers you want to install and click *Next*.

Warning! If you are installing for DB2 UDB for z/OS, you need to select *all* PeopleSoft Servers. This will ensure that all of the files needed by Server Transfer are installed to the PeopleSoft file server.



Selecting servers for the PeopleTools installation

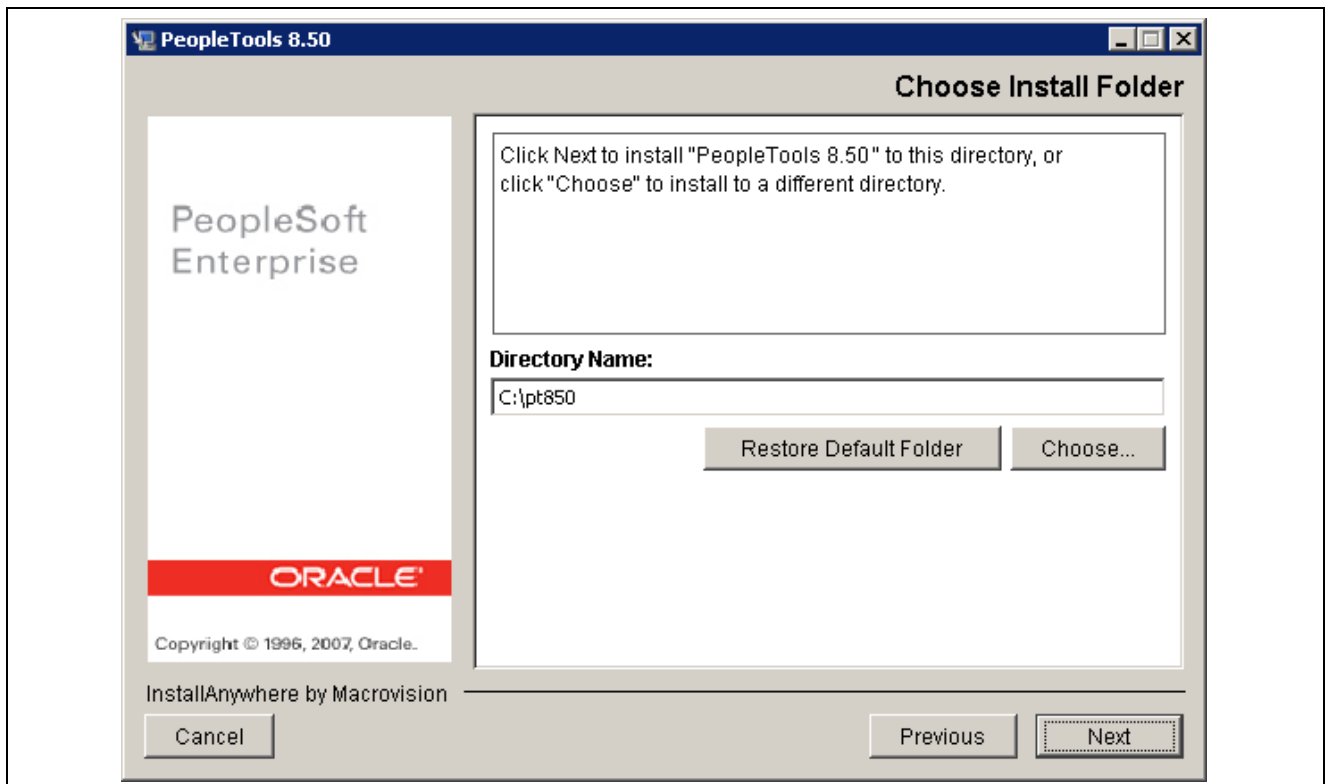
Use the following information to help you make your selection:

- You can install multiple servers at the same time, but they will all be installed on the same machine. If you want to install servers on separate machines, you need to run the PeopleSoft Installer on each server machine.
- If you do not have admin privileges, you will not be able to install PeopleSoft web server. You will have to either acquire admin privileges or deselect the Web Server option to continue.

7. Specify the directory where you want to install PeopleSoft PeopleTools and click *Next*.

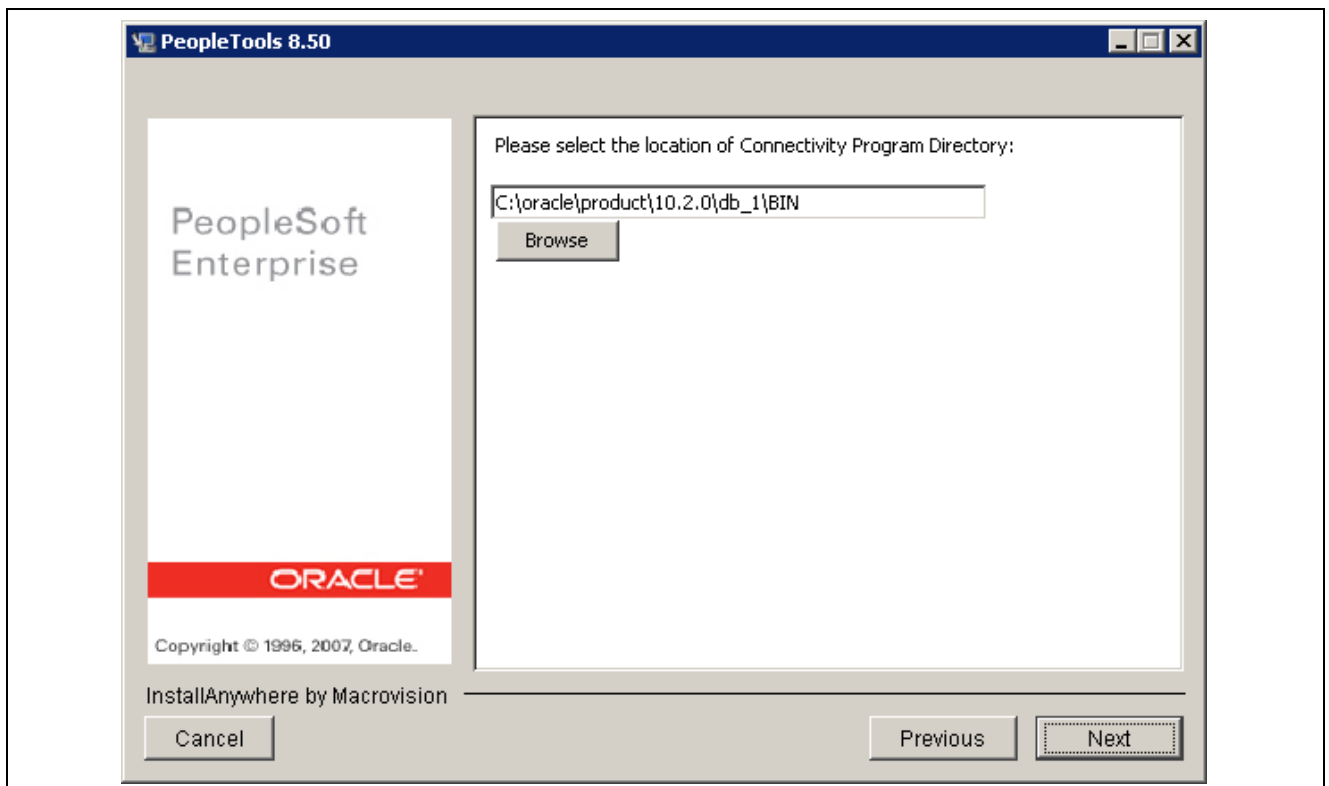
Note. Substitute your network drive and the directory name of your choice for the default selection. The installation directory name cannot contain a space. Note that directory names containing periods or non-US-ASCII characters may not work with some additional component software.

Note. If you are installing on UNIX, do not use Symbolic Links. Use the actual directory.



Specifying the installation folder for the PeopleTools installation

8. Specify the location of your Connectivity Program Directory and click *Next*.

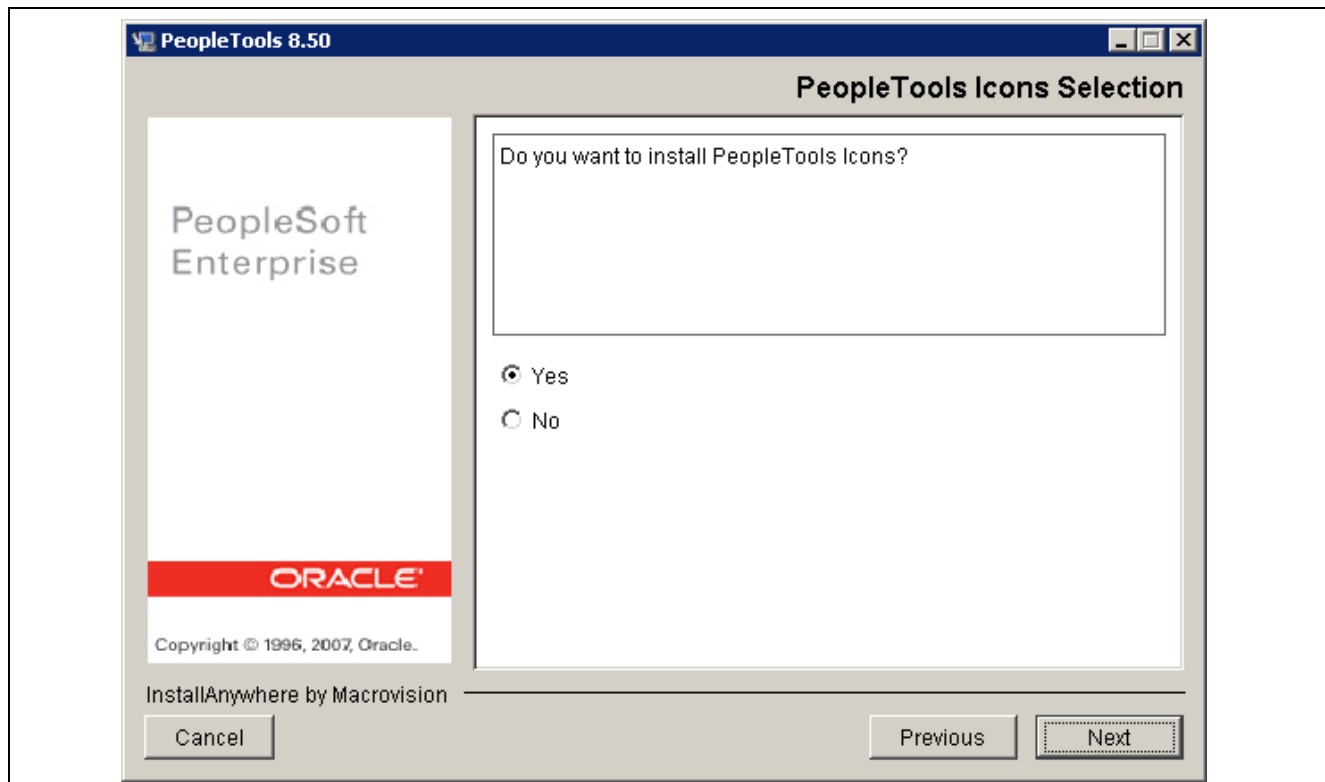


Specifying the Connectivity Program Directory for the PeopleTools installation

The default location for the connectivity software for your platform (as set by the vendor) is listed in the following table. If the database connectivity software was installed to a different directory, enter that path instead.

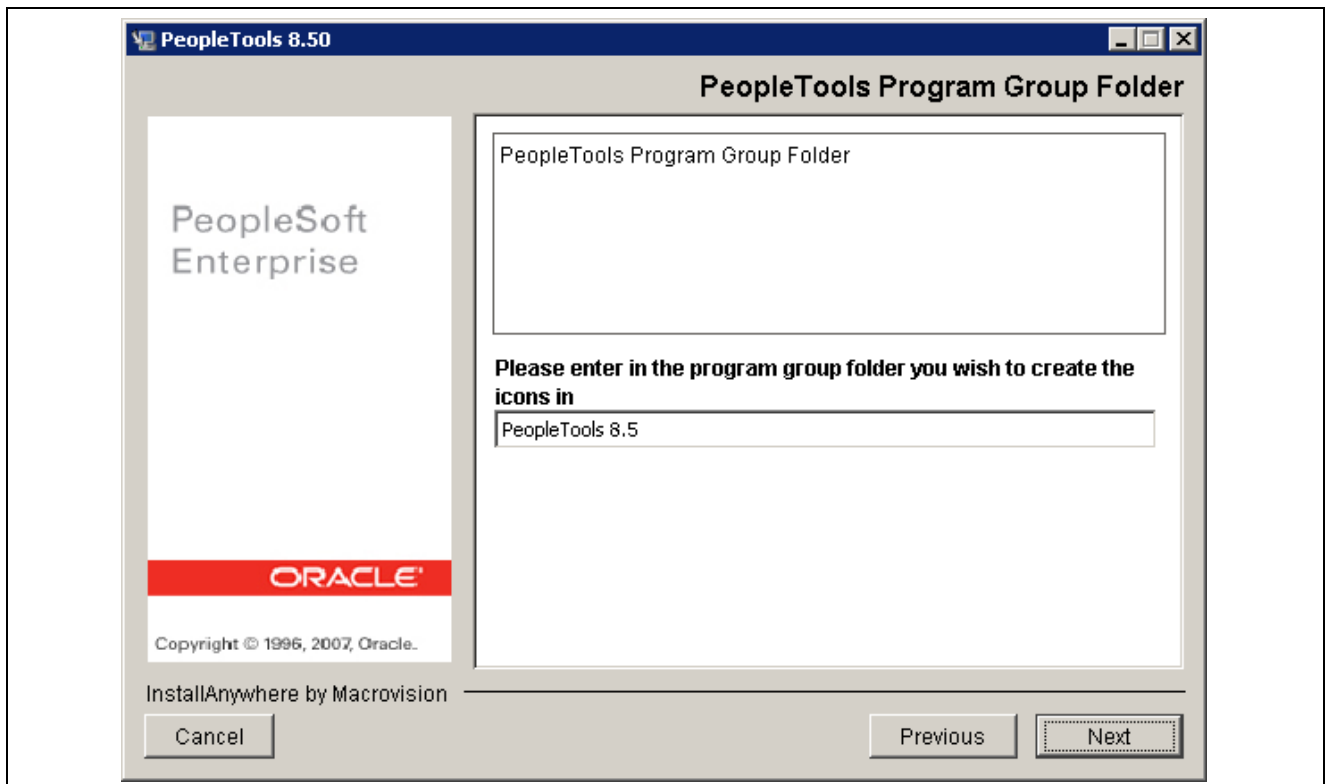
Platform Name	Default Location of Database Connectivity Libraries
DB2 for z/OS	C:\sqllib\bin

- Depending on the PeopleSoft servers you selected, choose whether to install the PeopleSoft PeopleTools icons and click Next.



PeopleTools Icons Selection window

- If you elected to install PeopleSoft PeopleTools icons, choose a valid group folder in which to create them and click Next.

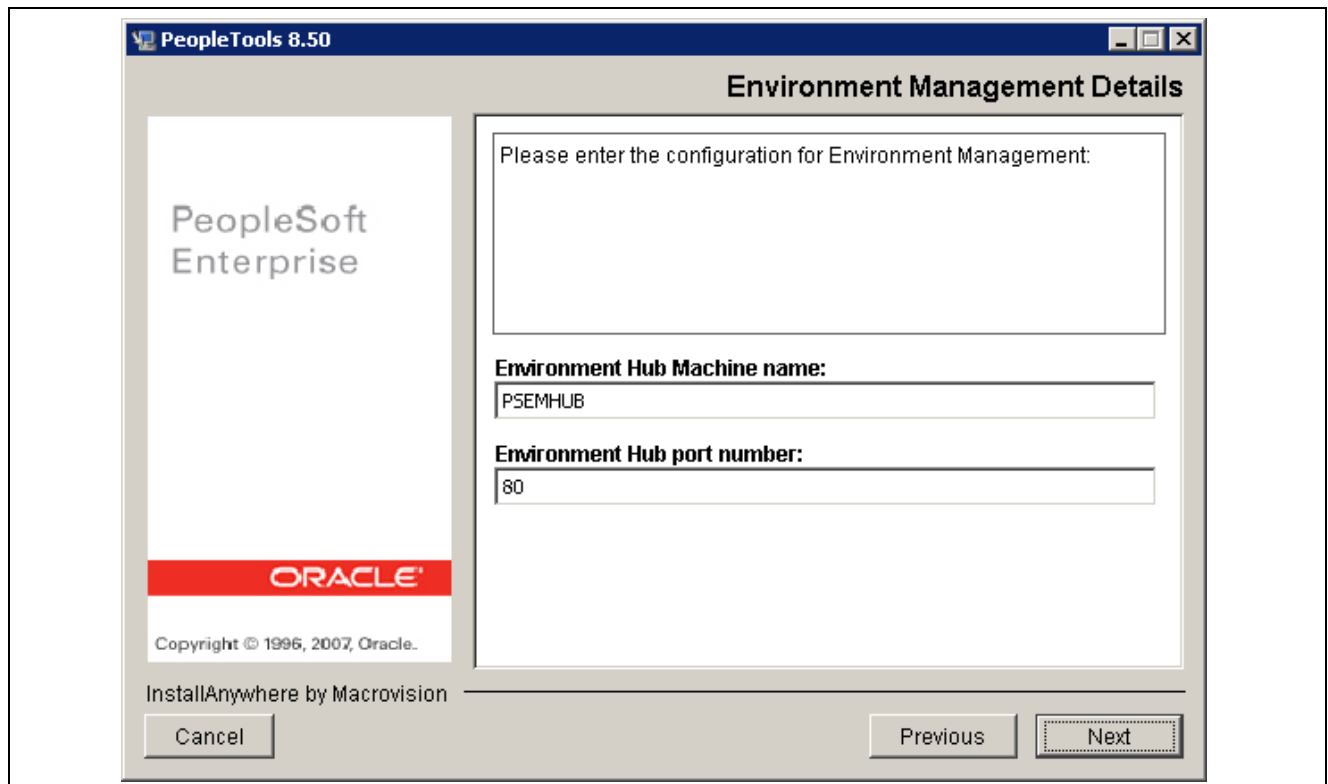


PeopleTools Program Group Folder window

11. Enter the configuration information for Environment Management.

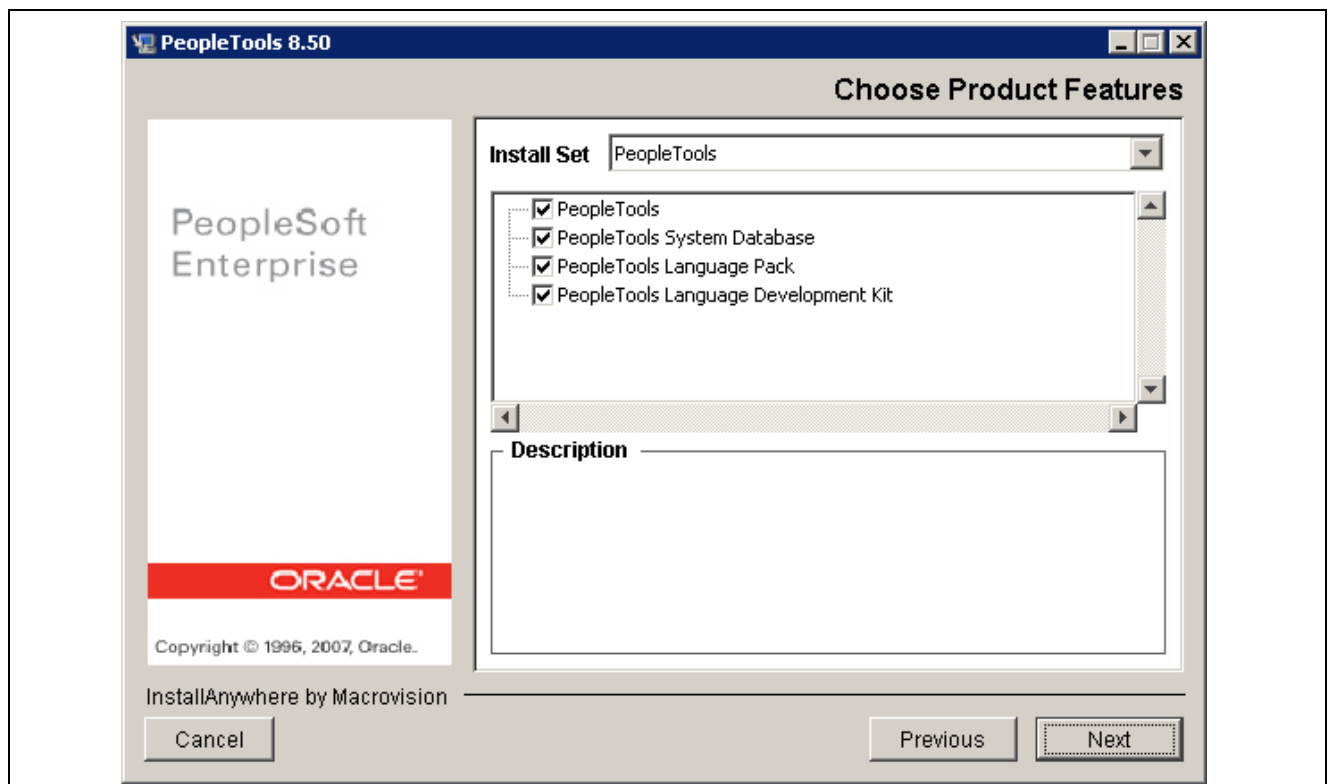
Select the machine name of the web server running the Environment Manager Hub. (This will very likely be the machine on which you run PIA). Select the hub port number (the default is 80). This needs to match the PIA port. If you change the port number for the PIA configuration, you must also change the web server listener port number for all the agents in the configuration.properties file.

See *Enterprise PeopleTools 8.50 PeopleBook: System and Server Administration*, "Using Environment Management Component."



PeopleTools Environment Management Details window

12. The next screen lists the PeopleSoft PeopleTools components (features) for which you are licensed. Accept the defaults for the PeopleSoft PeopleTools features and click Next.



PeopleTools Choose Product Feature windows

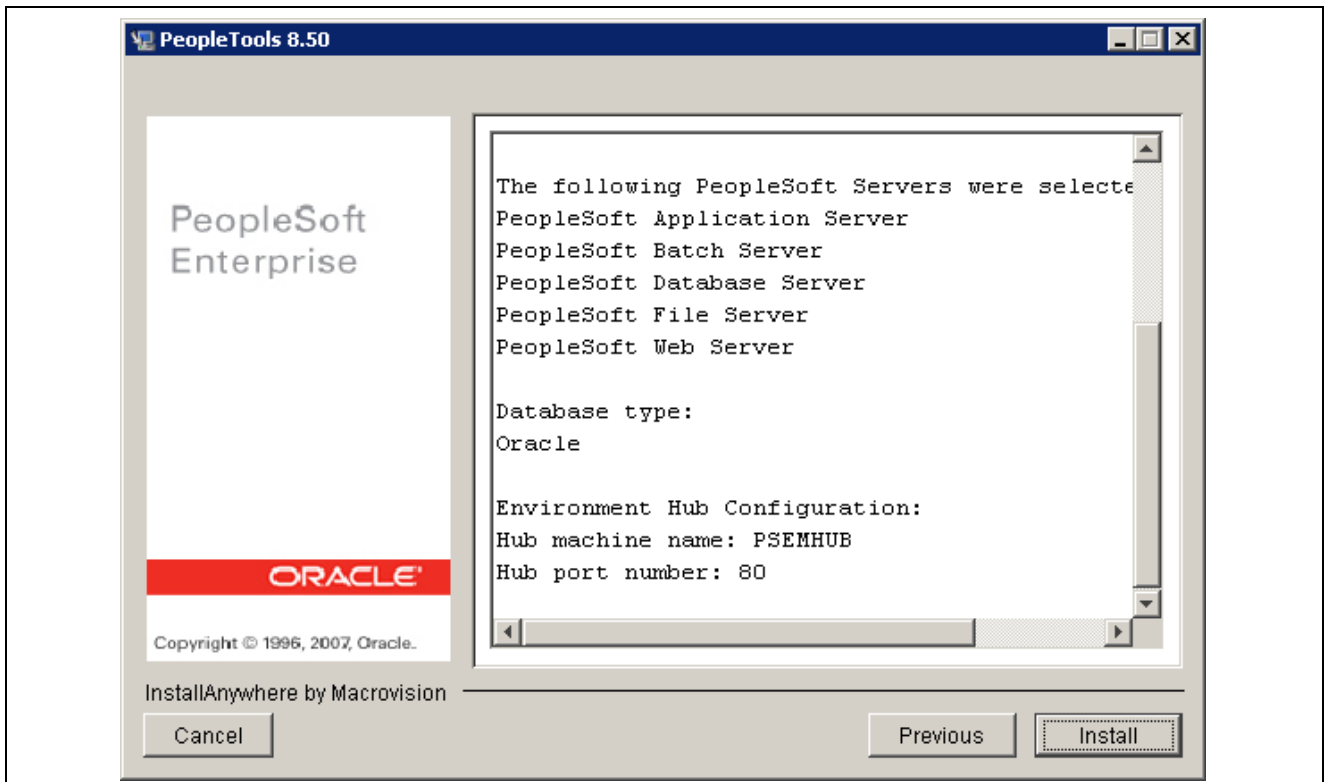
- Select *PeopleTools* to install PeopleSoft PeopleTools and the PeopleSoft Pure Internet Architecture. This component contains the core PeopleTools files and is required for the proper operation of the PeopleSoft system and the PeopleSoft Pure Internet Architecture.
- Select *PeopleTools System Database* to allow your developers to create custom PeopleSoft PeopleTools applications outside of the delivered PeopleSoft Application.
- The *PeopleTools Language Pack* and *PeopleTools Language Development Kit* contain the translated PeopleSoft PeopleTools DLLs and the resource files and headers needed to build them.

Note. These options are available only for installations on Windows.

Select *PeopleTools Language Pack* if you plan on running the Windows components of the installation in languages other than English. This component contains the compiled PeopleSoft translations for the Windows client. If you are not using multiple languages throughout your implementation, you do not need this component.

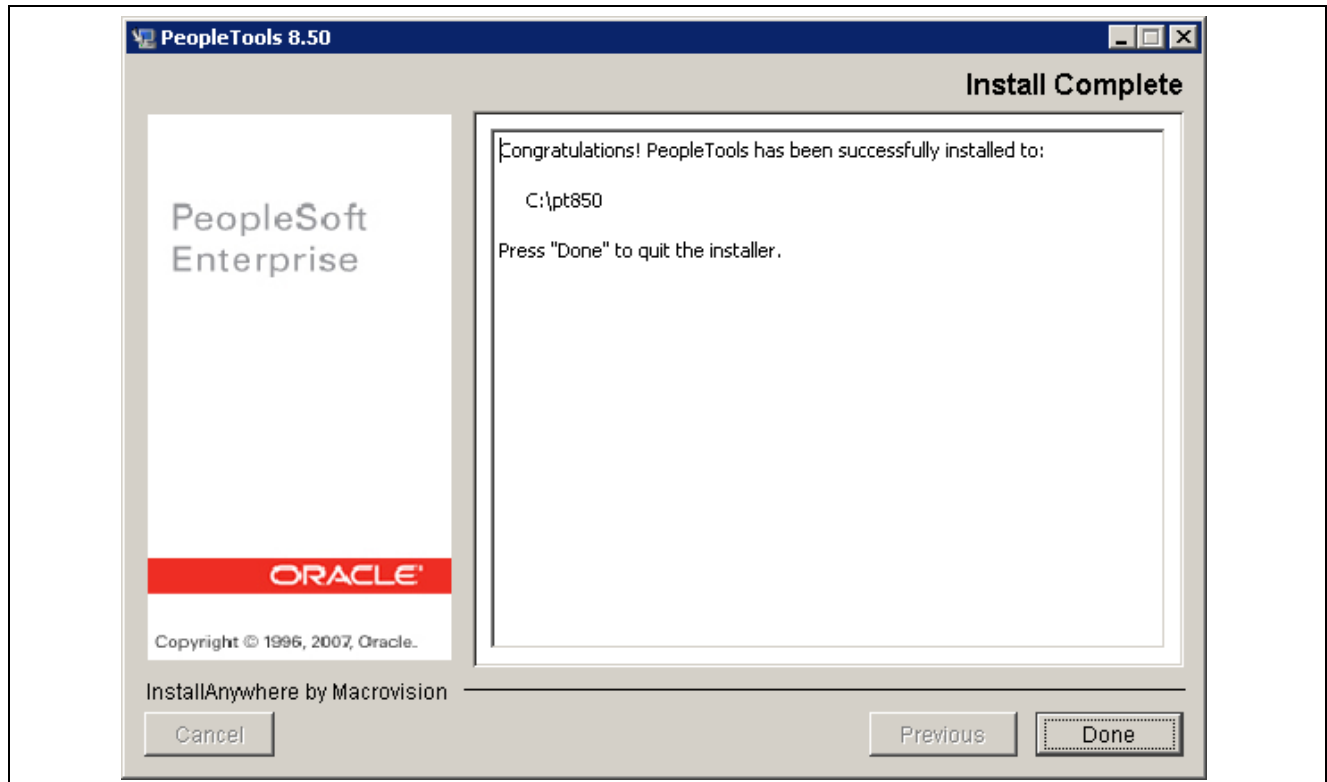
Select *PeopleTools Language Development Kit* if you plan on modifying or creating your own new translations for the PeopleSoft PeopleTools Windows client components. It contains the source and header files required to modify and compile new versions of these translations. Again, you do not need this component if you are not using multiple languages.

13. You will see an installation confirmation window. If the information is correct, choose Next. If you need to modify any of the information, choose the Back button and make your changes.



PeopleTools Summary information window

14. After the files have been installed, click *Finish* to complete the setup.



PeopleTools Install Complete window

Task 4-3-3: Installing PeopleSoft PeopleTools in Console Mode

To install PeopleSoft PeopleTools with the PeopleSoft Installer in console mode:

Note. The console mode installation is typically used on UNIX and Linux platforms.

1. Launch the PeopleSoft Installer in console mode. At the Welcome screen, press ENTER to continue.

See Starting the PeopleSoft Installer.

2. *Windows only:* Accept the license agreement by selecting 1. Select 0 when you are finished.
3. Enter your license code, and press ENTER to continue.

See Understanding the PeopleSoft Installer, Obtaining License Codes.

4. Select the PeopleSoft servers you want to install.

By default, all of the servers supported for your database platform are selected.

Note. If you are installing on UNIX, do not use Symbolic Links. Use the actual directory.

Note. DB2 z/OS customers need to select *all* servers when running the installer on Windows. This is because there are additional steps using Server Transfer to upload the files. Also, to install a Unicode database, DB2 z/OS customers must select the Unicode Database option.

After your selection, press ENTER; you will be prompted for the destination (for example, *PS_HOME*). Specify the directory and press ENTER to continue.

Note. In console mode, the browse option for specifying a different install directory is unavailable.

5. If you specify Proxy User Name, a prompt appears asking for a Proxy Password.
6. Enter NONE if you do not want to receive security updates through your My Oracle Support account.

If you want to remain uninformed of critical security issues in your⇒
configuration, enter NONE
Proxy specification (DEFAULT: NONE)

7. Enter the configuration for Environment Management. Select the machine name and port number.
Select the machine name of the web server running the Environment Manager Hub. (This will very likely be the machine on which you run PIA). Select the hub port number (the default is 80). This needs to match the PIA port. If you change the port number for the PIA configuration, you must also change the web server listener port number for all the agents in the configuration.properties file.

See *Enterprise PeopleTools 8.50 PeopleBook: PeopleSoft Change Assistant*, "Configuring and Running Environment Management Components."

8. *Windows only:* Specify the database connectivity directory.

The default location for the connectivity software for your platform (as set by the vendor) is listed in the following table. If the database connectivity software was installed to a different directory, enter that path instead.

Platform Name	Default Location of Database Connectivity Libraries
DB2 UDB for z/OS	C:\sqllib\bin

9. *Windows only:* Indicate whether you want icons to be created.
10. Choose the products that you wish to install:

To select/deselect a feature or to view its children, type its number

```
-> 1- PeopleTools
    2- PeopleTools System Database
```

11. At this point, you can toggle the install status of each product. Press 0 and then ENTER to continue and the PeopleSoft Installer will give you a summary of your selection. This summary will depend on your earlier selections.

PeopleTools 8.50 will be installed in the following location:
/home/PT850/ptest
with the following features:
PeopleTools
PeopleTools System Database

The following PeopleSoft Servers were selected by you:
PeopleSoft Application Server
PeopleSoft Batch Server
PeopleSoft Database Server
PeopleSoft File Server
PeopleSoft Web Server

Database Type:
<Database Name>

Environment Hub Configuration:
Hub machine name: PSEMHUB
Hub port number: 80

Press 1 for Next, 2 for Previous, 3 to Cancel, or 5 to Redisplay [1]

12. Press ENTER to start the installation.
13. The PeopleSoft Installer will create a text-based progress bar to indicate the progress of the install.
14. Press ENTER to exit.

Note. For UNIX platforms, if you chose PeopleSoft servers that require a JRE, you see the “Unpacking JRE” message after the progress bar.

15. If you are installing on AIX, go to the *PS_HOME/jre* directory and ensure that the directory has executable permissions. If not, set the permission using a command such as `chmod +x`.

Task 4-4: Installing the Verity Integration Kit

This section discusses:

- Understanding the Verity Installation
- Installing the Verity Integration Kit in GUI Mode
- Installing the Verity Integration Kit in Console Mode

Understanding the Verity Installation

PeopleSoft PeopleTools and PeopleBooks use Verity software to carry out searches. You must install the Verity for PeopleSoft Enterprise Integration kit for PeopleSoft PeopleTools 8.50. Install Verity after you install PeopleSoft PeopleTools, and before you create the database. Install Verity on the machines on which you set up the application server, batch server, and the web server.

The installation files for Verity are part of the PeopleSoft PeopleTools installation files that you downloaded from Oracle E-Delivery. This section assumes that you have already downloaded and extracted the files into a directory referred to as *PS_INSTALL*.

See Also

Obtaining the PeopleSoft Installation Files in E-Delivery

Enterprise PeopleTools 8.50 PeopleBook: System and Server Administration, "Configuring Search and Building Search Indexes"

Enterprise PeopleTools 8.50 PeopleBook: PeopleBooks and the Online PeopleSoft Library

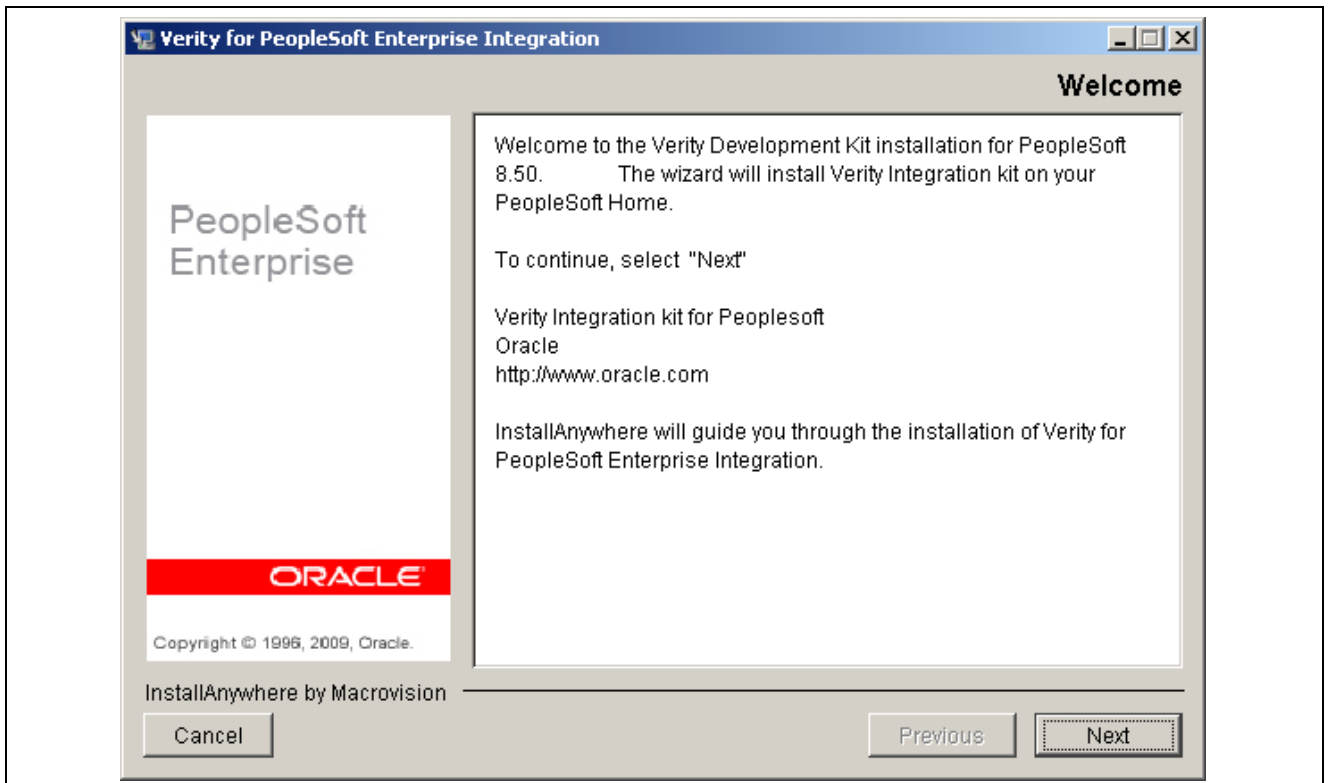
Task 4-4-1: Installing the Verity Integration Kit in GUI Mode

GUI mode is typically used for installation on Microsoft Windows.

To install the Verity Integration Kit in GUI mode:

1. Go to *PS_INSTALL\Verity\Disk1*.
2. Double-click *setup.bat*.

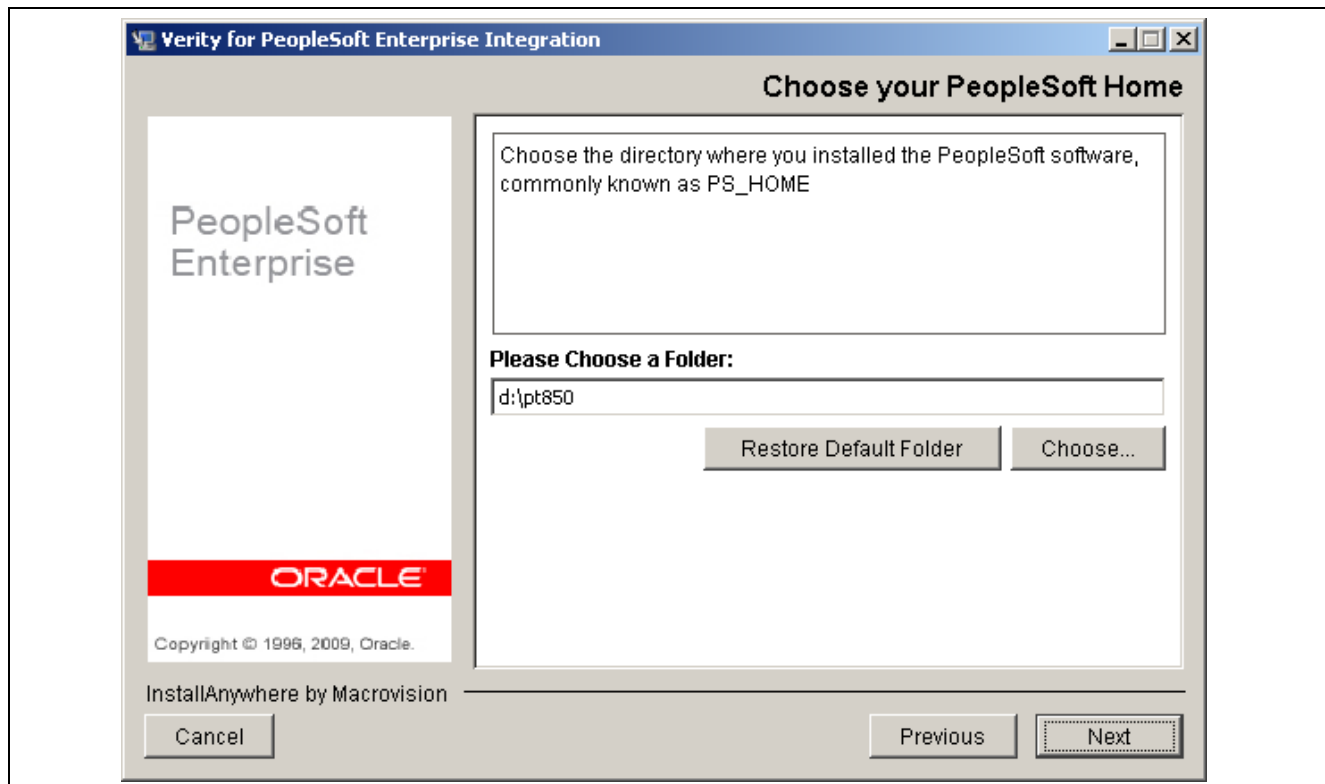
The Welcome window appears. Click Next.



Verity for PeopleSoft Enterprise Integration Welcome window

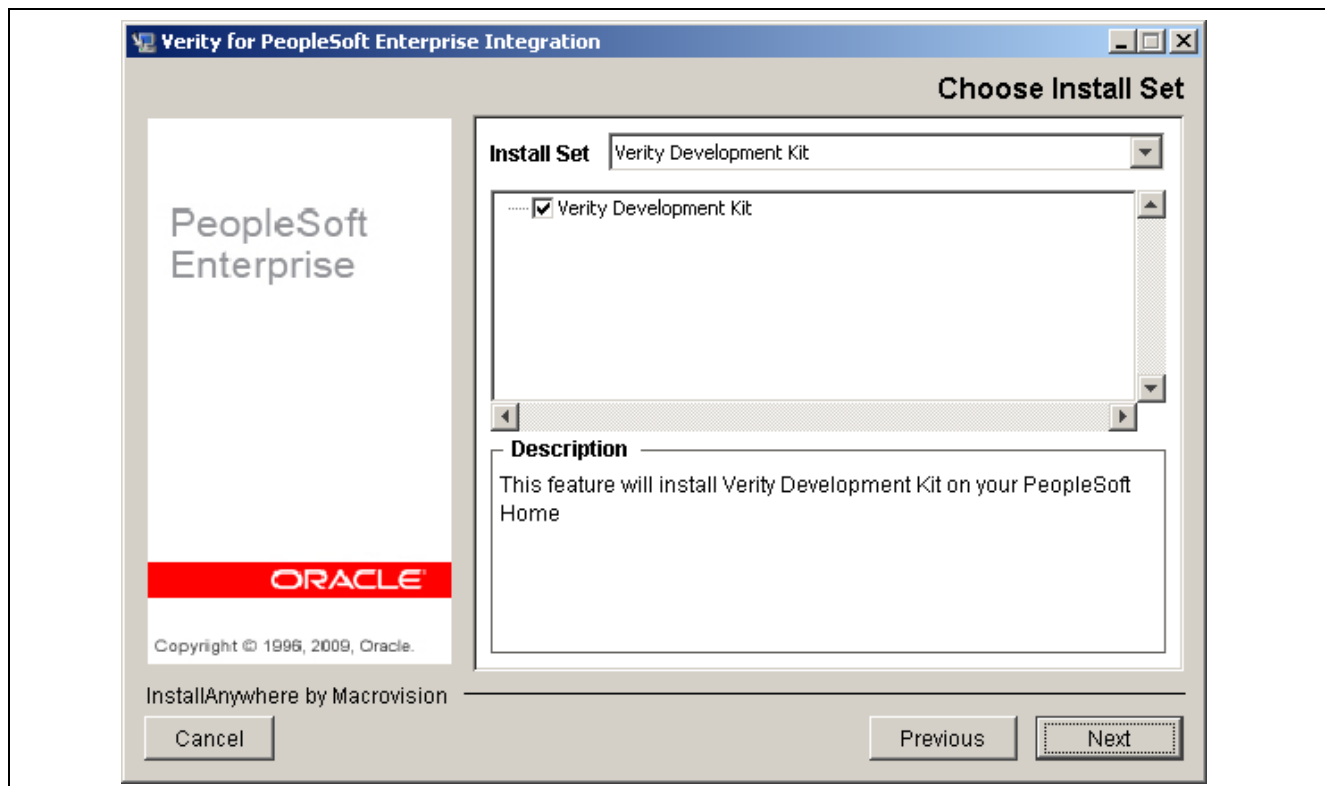
3. Specify the directory where you installed PeopleSoft PeopleTools, referred to as *PS_HOME*, and then click Next.

In the following example, *PS_HOME* is D:\pt850.



Choose your PeopleSoft Home window

4. Accept the default option to install the Verity Development Kit, and click Next.

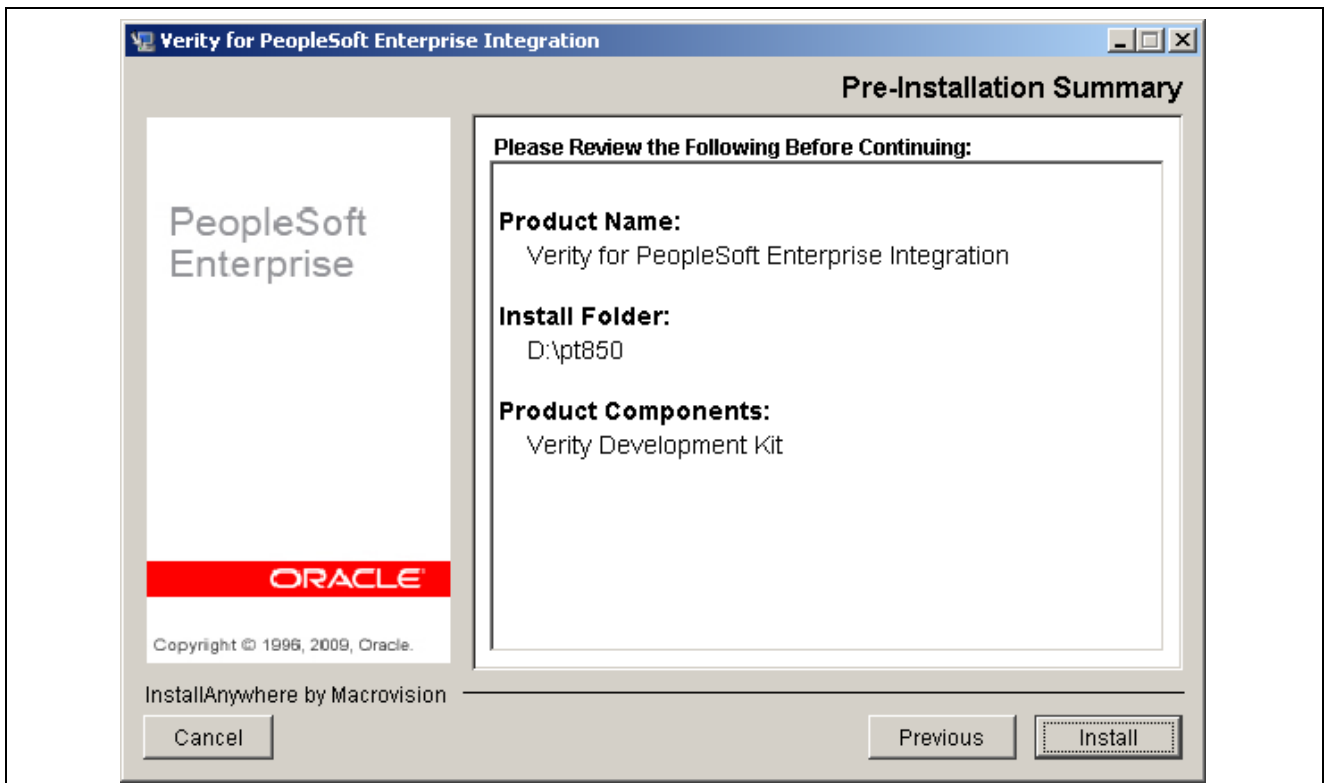


Choose Install Set window

5. Review the pre-installation summary and click Install.

If you want to change any options, click Previous to return to an earlier window.

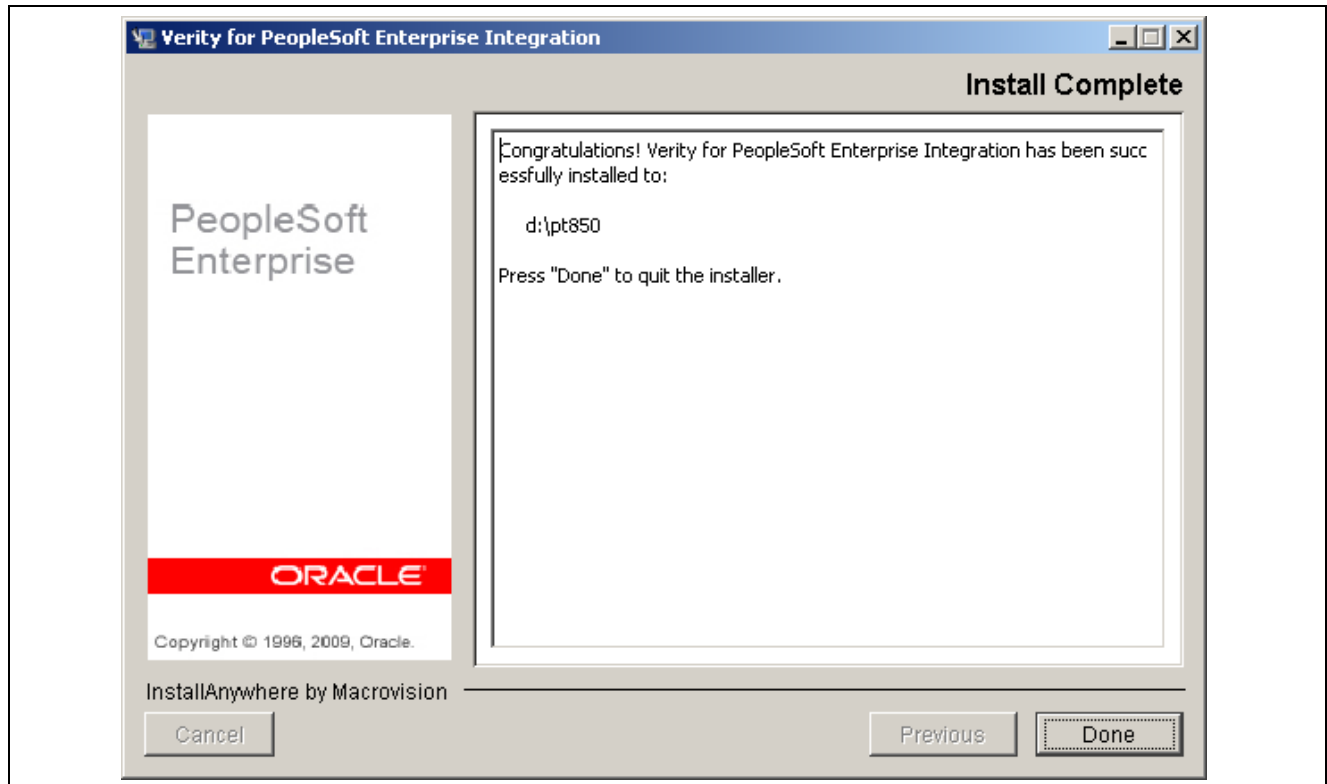
The installation requires a few minutes.



Pre-Installation Summary window

6. Click Done to exit the installer.

The installation is complete.



Install Complete window

Task 4-4-2: Installing the Verity Integration Kit in Console Mode

Console mode is typically used for installation on UNIX and Linux.

To install the Verity Integration Kit in console mode:

1. Go to *PS_HOME* and source *psconfig.sh*:

```
../psconfig.sh
```

2. Go to *PS_INSTALL/Verity/Disk1*.

3. Run *setup.sh* with the *tempdir* option:

```
./setup.sh -tempdir temporary_directory
```

4. Press ENTER after reading the welcome statement:

```
Preparing to install...
Extracting the installation resources from the installer archive...
Configuring the installer for this system's environment...
Launching installer...
Preparing CONSOLE Mode Installation...
=====
Verity for PeopleSoft Enterprise Integration(created with InstallAnywhere by⇒
Macrovision)
-----
=====⇒
```



```

=====
Welcome
-----
Welcome to the Verity Development Kit installation for PeopleSoft 8.50.
The wizard will install Verity Integration kit on your Peoplesoft Home.
Respond to each prompt to proceed to the next step in the installation.
Oracle (http://www.oracle.com)
PRESS <ENTER> TO CONTINUE:
=====

```

5. Specify the full path to the directory where you installed PeopleSoft PeopleTools, referred to as *PS_HOME*:

```

Select your PeopleSoft Home
Enter an absolute path, or press <ENTER> to accept the default (DEFAULT:
/home/user1/PT8.50):
Press 1 for Next, 2 for Previous, 3 to Cancel or 5 to Redisplay [1] :

```

6. Enter 0 (zero) to install the Verity Development Kit, and 1 for Next:

```

Select the verity features for PeopleTools 8.50 you would like to
install:
->1- Verity Development Kit
To select an item enter its number, or 0 when you are finished [0] :
Press 1 for Next, 2 for Previous, 3 to Cancel or 5 to Redisplay [1] :

```

7. Review the installation summary.

```

Enter 2 if you want to go back to a previous prompt to make changes:

PeopleTools Verity Installer 8.50 will be installed in the following
location:
/home/user1/PT8.50 with the following features:
Verity
Press 1 for Next, 2 for Previous, 3 to Cancel or 5 to Redisplay [1] :

```

8. Press ENTER to exit the installer:

```

Installation Complete
-----
Congratulations. Verity for PeopleSoft Enterprise Integration has been
successfully installed to:
/home/user1/PT8.50
PRESS <ENTER> TO EXIT THE INSTALLER:

```

Task 4-5: Installing PeopleSoft Application Software

After installing PeopleSoft PeopleTools, install the PeopleSoft application to the same *PS_HOME* directory. The screens may look slightly different depending upon which application you install. This procedure assumes that you unzipped the PeopleSoft application installation files from Oracle E-Delivery into a directory referred to as *APP_INSTALL*.

Note. If you are installing more than one application, it is a good idea to create an application-specific *PS_HOME* and carry out an installation of PeopleSoft PeopleTools for each application. This helps you to maintain your applications more efficiently, since you can easily match each application version to the correct version of PeopleSoft PeopleTools.

Note. To properly install a Demo database, you must select both the System Database and the Demo Database options during the installation of your PeopleSoft applications.

Note. The next chapter discusses the installation of the application database component to the database server.

To install the PeopleSoft application:

1. Launch the PeopleSoft installer from *APP_INSTALL/disk1*.

See Running the PeopleSoft Installer.

2. After reading the Welcome information, click Next.
3. Click Yes to agree to the Software License Agreement.
4. Enter the PeopleSoft license code and click Next.

See Understanding the PeopleSoft Installer, Obtaining License Codes.

5. Select the servers you want to install and click Next.
6. Specify the directory where you want to install the application.
You must specify the *PS_HOME* directory; that is, the directory where you installed PeopleSoft PeopleTools for a given server. Click Next.
7. A feature selection screen appears. (What you see depends on what product you are installing.) Select the features that you wish to install and click Next.
8. In the confirmation dialog box, click Next to begin the installation.
A message box appears that indicates the progress of the installation.
9. Click Finish to exit the PeopleSoft installation program.

Task 4-6: Loading the Multilanguage Files

If you have licensed and selected to install languages other than English, you need to load the application-specific PeopleSoft Multilanguage files. Each PeopleSoft application installation has a corresponding Multilanguage installation that contains all the non-English translations. This procedure assumes that you unzipped the PeopleSoft application installation files from Oracle E-Delivery into a directory referred to as *ML_INSTALL*.

Warning! The release numbers for the application media pack and the Multilanguage media pack must be in sync. For example, if you are installing HRMS 9.1, you can only use the Multilanguage HRMS 9.1 ML; you cannot use HRMS 8.8 SP1.

Note. Load the Multilanguage files after you install PeopleSoft PeopleTools and the PeopleSoft application software. Install the Multilanguage files to the same *PS_HOME* as you used for PeopleSoft PeopleTools and the PeopleSoft Application.

To load the Multilanguage files:

1. Launch the PeopleSoft installer from *ML_INSTALL/disk1*.
2. After reading the Welcome message, click Next.
3. Click Yes to agree to the Software License Agreement.
4. Enter the PeopleSoft license code and click Next.

See Understanding the PeopleSoft Installer, Obtaining License Codes.

5. You will be asked to select the components you want to install.

What you see depends upon what product you are installing. Select the applications you want to install and click Next.

6. From the confirmation dialog box, click Next to begin the installation.

A message box appears indicating the progress of the installation.

7. Click Finish to exit the PeopleSoft installation program.

CHAPTER 5

Setting Up the Windows File Server

This chapter discusses:

- Understanding the File Server
- Mapping a Drive on the Install Workstation
- Installing PeopleSoft PeopleTools on the File Server
- Installing PeopleSoft Application Software
- Loading the Multilanguage Files
- Binding Windows “SQR for PeopleSoft” DB2 Connect Packages

Understanding the File Server

The file server is the environment (or file) repository for the PeopleTools Development Environment, which is required for the Database Configuration Wizard to run. The file server is also used for the files necessary to perform an upgrade. This includes Change Assistant and all of the executables and scripts necessary to perform an upgrade. You will apply patches and updates from My Oracle Support to the file server and then copy the updated files to your other servers. In addition, the file server is a source repository for COBOL and SQR.

See "Preparing for Installation," Installing Supporting Applications.

Note. *The information in this chapter applies to installations on both UNIX and Microsoft Windows.* If you are doing an installation only for UNIX boxes, you need a Microsoft Windows file server. If you are working only on Microsoft Windows, and you set up your file server in the previous chapter, you can skip this chapter.

Note. For DB2 UDB for z/OS, the file server is used as a staging location to FTP files to the z/OS batch server only.

In some cases you may choose to set up local copies of the PeopleSoft executables on the PeopleTools Development Environment and Windows batch servers, rather than mapping to a shared directory on the file server. You can use the instructions in this chapter to perform such local installations.

Warning! The PeopleSoft Installer installs COBOL source code from the installation directory to your Windows file server and to all UNIX servers, but not to the rest of your Windows servers.

If you are running Windows and your application requires COBOL, we require that you maintain a central repository of your COBOL source code on the file server. If you apply a patch or make customizations, apply them to the file server first, and then disseminate them across your servers as described here. If you have Windows file, application, and batch servers, you should compile the COBOL on the file server and copy the cblbina, cblbinu, or cblbine directory (depending on whether you have an ASCII, Unicode or EBCDIC database) to all the application and batch servers. The COBOL compiler itself does not have to be on the file server—as long as the workstation on which it is installed has full access to the shared drives.

For every type of UNIX operating system, we recommend that you designate a single server (either application or batch) as the compile server, so that you can compile COBOL from a central location and then distribute the cblbin directory to the rest of your application and batch servers. If you use this approach, you need only copy patches or customizations from the file server to the compile server. In this case, you would install a COBOL compiler on the master (or compile) server and either the COBOL compiler or runtime on the rest. If you prefer, you can copy patches or customizations from the file server to all of your UNIX servers and compile the COBOL on each machine.

Note. If you want to copy compiled COBOL programs from one UNIX server to another, both servers must be on the same operating system.

For example, if you compile on Solaris for the application server and the Process Scheduler is on AIX, you cannot copy the compiled program (you will also need to compile on the AIX computer).

Note. The format of COBOL source file names of patches or customizations on the file server should always be UPPERCASE.cbl. to ensure compatibility with your UNIX servers.

Task 5-1: Mapping a Drive on the Install Workstation

If you need to install to the file server from a networked install workstation, map a drive letter to the top-level PeopleSoft directory (*PS_HOME*) from the install workstation. The *PS_HOME* directory must be shared, and you must have write permission from the install workstation to the file server. The *PS_HOME* directory was discussed in the previous chapter.

See “Using the PeopleSoft Installer.”

Note. If you install the CDs directly from the file server's CD-ROM drive, you can skip this task. Installing directly from the file server is preferable for installation because you do not need a drive to be mapped. It also provides faster performance, as there is no need for a network connection between the workstation and the server.

From the install workstation, create a logical drive that points to the *PS_HOME* directory.

On a Windows network, use Windows Explorer to map to the drive on the file server to which you are installing; or use the NET USE command, for example:

```
NET USE N: \\SERVER1\PS_HOME
```

On a Novell network, use the MAP command:

```
MAP ROOT N:=SERVER1/SYS:PS_HOME
```

In this example, *SERVER1* is the name of the file server.

Task 5-2: Installing PeopleSoft PeopleTools on the File Server

To install PeopleSoft PeopleTools on the file server:

1. Launch the PeopleSoft installer from *PS_INSTALL/disk1*.
A welcome screen appears.
2. Click Next.
The licensing agreement appears.
3. Click Yes and enter your 31-digit license code from the license code sheet.
4. Click Next and choose whether to use a Unicode or a non-Unicode database.

See "Preparing for Installation," Planning Multilingual Strategy.

Note. Unicode databases are beneficial to customers who intend to deploy their applications globally and would otherwise have to implement multiple databases to handle different languages. However, Unicode databases require much more disk space than non-Unicode databases.

See *Enterprise PeopleTools 8.50 PeopleBook: Global Technology*.

5. Select all of the servers for installation and click Next.

Warning! If you are installing for DB2 UDB for z/OS, you need to select *all* PeopleSoft Servers. This will ensure that all of the files needed by Server Transfer are installed to the PeopleSoft File Server.

6. Click the Browse button, choose the path of the *PS_HOME* directory on the file server, and click OK.
Click Next.
7. Select the location of your connectivity software.

The default location for your connectivity software (as set by the vendor) is listed in the following table. If the database connectivity software was installed to a different directory, enter that path instead.

Platform Name	Location of Database Connectivity Libraries
DB2 UDB for z/OS	C:\sqllib\bin

8. In the next dialog box, choose Yes to install an Installation icon group on the install workstation. Then click Next.
9. Then specify the desired program group folder (the default is PeopleTools 8.5 Installation) and click Next (a program folder name cannot contain any of the following characters: \ / : * ? " < > |). This step creates an icon group on the installing machine that supplies shortcuts to every program needed throughout the installation process.
10. Enter the configuration information for Environment Management.

Select the machine name of the web server running the Environment Manager Hub. (This will very likely be the machine on which you run PIA). Select the hub port number (the default is 80). This needs to match the PIA port. If you change the port number for the PIA configuration, you must also change the web server listener port number for all the agents in the configuration.properties file.

See *Enterprise PeopleTools 8.50 PeopleBook: PeopleSoft Change Assistant*, "Configuring and Running Environment Management Components."

11. A component selection window appears. This screen lists the PeopleSoft PeopleTools components for which you are licensed. Select the products to install from the Components list.

Note. The components PeopleTools Language Pack and PeopleTools Language Development Kit contain the translated PeopleSoft PeopleTools DLLs and the resource files and headers needed to build them. If you do not need translated files, you may choose to not install these two components. These options are available only for installations on Windows.

- Select *PeopleTools* to install PeopleTools Development Environment and the Upgrade Environment. This component contains the core PeopleSoft PeopleTools files and is required for the proper operation of your PeopleSoft Development and Upgrade environment.
- Select *PeopleTools Language Pack* if you plan on running the Windows components of your installation in languages other than English. This component contains the compiled PeopleSoft translations for the Windows client. If you are not using multiple languages throughout your implementation, you don't need this component.
- Select *PeopleTools Language Development Kit* if you plan on modifying or creating your own new translations for the PeopleSoft PeopleTools Windows client components. It contains the source and header files required to modify and compile new versions of these translations. Again, you do not need this component if you are not using multiple languages.
- Select *PeopleTools System Database* to allow your developers to create custom PeopleSoft PeopleTools applications outside of the delivered PeopleSoft Application.

12. Click Next.

You should see the Confirm Products dialog box.

13. Click Next to verify that you want to install to the specified directory.

You see a progress indicator so you can monitor the progress of your installation.

14. When the setup program successfully completes the installation of PeopleSoft PeopleTools, click Finish to exit the installation program.
15. If you are installing on AIX, go to the *PS_HOME/jre* directory and ensure that the directory has executable permissions. If not, set the permission using a command such as `chmod +x`.

Task 5-3: Installing PeopleSoft Application Software

After installing PeopleSoft PeopleTools, install the PeopleSoft application to the same *PS_HOME* directory. The screens may look slightly different depending upon which application you install. This procedure assumes that you unzipped the PeopleSoft application installation files from Oracle E-Delivery into a directory referred to as *APP_INSTALL*.

Note. If you are installing more than one application, it is a good idea to create an application-specific *PS_HOME* and carry out an installation of PeopleSoft PeopleTools for each application. This helps you to maintain your applications more efficiently, since you can easily match each application version to the correct version of PeopleSoft PeopleTools.

Note. To properly install a Demo database, you must select both the System Database and the Demo Database options during the installation of your PeopleSoft applications.

Note. The next chapter discusses the installation of the application database component to the database server.

To install the PeopleSoft application:

1. Launch the PeopleSoft installer from *APP_INSTALL/disk1*.

See Running the PeopleSoft Installer.

2. After reading the Welcome information, click Next.
3. Click Yes to agree to the Software License Agreement.
4. Enter the PeopleSoft license code and click Next.

See Understanding the PeopleSoft Installer, Obtaining License Codes.

5. Select the servers you want to install and click Next.
6. Specify the directory where you want to install the application.
You must specify the *PS_HOME* directory; that is, the directory where you installed PeopleSoft PeopleTools for a given server. Click Next.
7. A feature selection screen appears. (What you see depends on what product you are installing.) Select the features that you wish to install and click Next.
8. In the confirmation dialog box, click Next to begin the installation.
A message box appears that indicates the progress of the installation.
9. Click Finish to exit the PeopleSoft installation program.

Task 5-4: Loading the Multilanguage Files

If you have licensed and selected to install languages other than English, you need to load the application-specific PeopleSoft Multilanguage files. Each PeopleSoft application installation has a corresponding Multilanguage installation that contains all the non-English translations. This procedure assumes that you unzipped the PeopleSoft application installation files from Oracle E-Delivery into a directory referred to as *ML_INSTALL*.

Warning! The release numbers for the application media pack and the Multilanguage media pack must be in sync. For example, if you are installing HRMS 9.1, you can only use the Multilanguage HRMS 9.1 ML; you cannot use HRMS 8.8 SP1.

Note. Load the Multilanguage files after you install PeopleSoft PeopleTools and the PeopleSoft application software. Install the Multilanguage files to the same *PS_HOME* as you used for PeopleSoft PeopleTools and the PeopleSoft Application.

To load the Multilanguage files:

1. Launch the PeopleSoft installer from *ML_INSTALL/disk1*.
2. After reading the Welcome message, click Next.
3. Click Yes to agree to the Software License Agreement.
4. Enter the PeopleSoft license code and click Next.

See Understanding the PeopleSoft Installer, Obtaining License Codes.

5. You will be asked to select the components you want to install.

What you see depends upon what product you are installing. Select the applications you want to install and click Next.

6. From the confirmation dialog box, click Next to begin the installation.

A message box appears indicating the progress of the installation.

7. Click Finish to exit the PeopleSoft installation program.

Task 5-5: Binding Windows “SQR for PeopleSoft” DB2 Connect Packages

To bind Windows "SQR for PeopleSoft" DB2 Connect packages:

1. Using an ID with mainframe logon and BINDADD privileges, log on to DB2 Connect Command Line Processor:

```
db2 => CONNECT TO <database name> USER <mainframe User Id>
```

Note. Enter your current password for "mainframe User Id": <mainframe User Id password>.

Database Connection Information:

Database server = DB2 OS/390 8.1.5

SQL authorization ID = <mainframe User Id>

Local database alias = <database name>

2. The Windows SQR bind executable is located in the File or Report Server directory (for example, *PS_HOME\bin\sqr\db2\BINW\dbcalls.bnd*).

For an EBCDIC installation, issue the following bind command:

```
db2 => bind <ps_home>\bin\sqr\db2\BINW\dbcalls.bnd blocking all grant public=>
sqlerror continue
```

For a Unicode installation, issue the following command to bind the Windows SQR executable with encoding Unicode:

```
db2 -> bind <ps_home>\bin\sqr\db2\BINW\dbcalls.bnd encoding unicode blocking=>
      all grant public sqlerror continue
```

Collection id (COLLID) of SQR will be added to SYSPACKAGE catalog table and package execute authority to PUBLIC in SYSPACKAUTH catalog table.

Note. This bind needs to be executed for each new version of SQR for PeopleSoft on every DB2 subsystem or database.

CHAPTER 6

Setting Up the Install Workstation

This chapter discusses:

- Understanding the Install Workstation
- Prerequisites
- Starting Configuration Manager
- Setting Startup Options
- Editing the Default Profile
- Running Client Setup
- Installing PeopleSoft ODBC Driver and Crystal Runtime

Understanding the Install Workstation

This chapter describes how to set up a PeopleSoft Windows-based client for connecting to the database server in two-tier mode, specifically for the purpose of performing install-related tasks from the workstation. You must configure at least one two-tier Windows-based client for running the Server Transfer, Data Mover and SQR processes required for setting up the batch server and for creating the PeopleSoft database. For some installations you may wish to set up multiple install workstations, so that you can perform asynchronous tasks at the same time; for example, you could create and populate multiple databases simultaneously. You can quickly configure multiple workstations by exporting a configuration file from one workstation and importing it to another workstation.

See Also

Enterprise PeopleTools 8.50 PeopleBook: System and Server Administration

Prerequisites

The following tasks are prerequisites for setting up the install workstation:

- The workstation must have database connectivity software installed.
- You must have planned your database creation strategy. You should know the precise names of the databases that you intend to create.
- Make sure that you have created your connect strategy. You must use a Connect ID. You should know both the Connect ID and Connect password.

- The workstation must have a logical drive mapped to *PS_HOME* on the file server (or, if the file server and install workstation are one and the same, *PS_HOME* can be installed on a local drive).
- The person performing the installation must have read access to the *PS_HOME* directory.

If this is the same workstation on which the PeopleSoft PeopleTools installation was performed, it should have a PeopleTools 8.5 installation program group, which was created when you loaded the PeopleTools software. This isn't a requirement, but it does make it more convenient to run the PeopleTools install applications.

See Also

"Preparing for Installation"

"Setting Up the File Server"

Task 6-1: Starting Configuration Manager

Configuration Manager is a utility for configuring workstations being used as the PeopleTools Development Environment. These are its principal functions:

- Sets up and make changes to PeopleSoft configuration settings.
- Creates a program group containing Windows shortcuts to PeopleSoft applications.
- Installs local DLLs.

The first time you run Configuration Manager on the client, it will populate certain fields with default values specified in a configuration file stored on the file server, specifically: *PS_HOME\setup\pstools.cfg*. This configuration file was set up when you ran the installation. Once you set up and run Configuration Manager, it will populate fields using values that are stored in the Windows system registry.

To start Configuration Manager, do one of the following:

- Select *Start, Programs, PeopleTools 8.50, Configuration Manager*. (This program group will be available if you installed PeopleSoft PeopleTools on this workstation.)
- If the *PeopleTools 8.50* program group was not installed on this workstation, run *pscfg.exe* directly from the *PS_HOME\bin\client\winx86* directory on the file server.

Task 6-2: Setting Startup Options

The Startup tab of Configuration Manager sets the default options for the PeopleSoft sign-on screen that is used for connecting to a PeopleSoft database. It also contains a setting that specifies the local directory for storing cached PeopleSoft data.

To set Startup options:

1. Make sure you are viewing the Configuration Manager Startup tab (this tab is what you see if you started Configuration Manager as described in the previous task).

Set the following options:

- *Database type* — Verify the type of RDBMS. This should already be set to DB2 UDB for OS/390.

- *Application Server Name* — This option appears if you select a database type of Application Server. It is where you enter your application server name if you are setting up a three-tier connection.
- *Database name* — The name of the default database to connect to. Enter the name of one of the databases that you intend to create.
- *User ID* — The name of the default user that will appear in the sign-on screen. This can be any valid user name, although for installation setup it normally matches the name of one of the built-in PeopleSoft users (typically PS or VP1) that will be installed in the database.

If you have decided to modify the PeopleSoft database directly and use a user ID other than a user ID delivered by PeopleSoft, type your user ID into this field.

- *Connect ID and Connect Password* — Type your connect ID and password into these fields. Connect ID is required for PeopleSoft 8. The connect ID and password must match the z/OS ID that you set up in Chapter 1.

2. Select the Crystal/Bus. Interlink/JDeveloper tab and set the following options:

- *Crystal EXEs Path* — Set this to the location of your Crystal Reports executables.
- *Default Crystal Reports* — Set this to the path on the file server where the Crystal reports reside. Note that the specified path should not contain reports run in production. This option is used when running from PSQuery to Crystal.
- *Use trace during execution* — This option is used when running Crystal Reports from Process Scheduler on the client.
- *Business Interlink Directory* — You can leave this option blank. If you do so, the system uses its default directory `PS_HOME\bin\<client>|<server>\winx86\interfacedrivers`.
- *JDeveloper Home Directory* — See the appendix “Using the XSLT Mapper with Oracle BPEL Process Manager” for information on using this area.

Note. You can leave the options here blank. If you do so, a message appears indicating that the option is not set, but you can ignore this message and continue.

See Also

"Preparing for Installation," Using Connect ID

Task 6-3: Editing the Default Profile

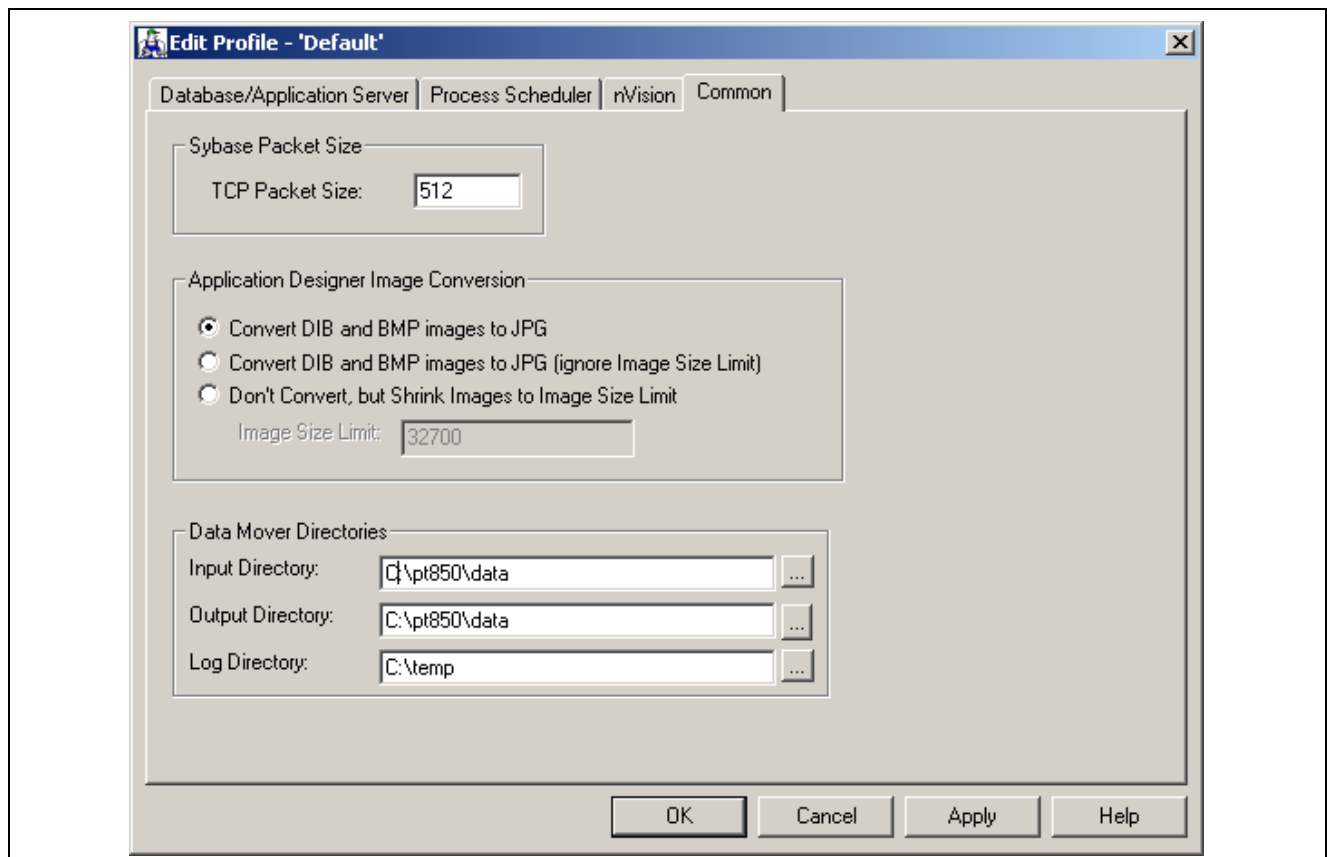
Begin by editing the default profile for the workstation. Among other things, this will verify that the paths to `PS_HOME` and its subdirectories are correctly set, which is required for subsequent tasks.

To edit the default profile:

1. Select the Profile tab in Configuration Manager.
Only one profile, the Default Profile, has been defined.
2. Select Edit to display the Edit Profile dialog box, and then select the Process Scheduler tab.
3. In the Process Scheduler tab, verify the following options; these should have been set correctly by the PeopleSoft installation program:

- Verify that the PeopleSoft Home Directory (PS_HOME) field is set to the path to *PS_HOME* on the file server.
- Set the Database Drivers (DBBIN) field to the location of the database connectivity files on the workstation; such as *c:\sqllib\bin*.
- Set the SQR Executables (SQRBIN) field to the file server directory where SQR for Windows was installed when you ran the PeopleSoft Installer.
- Set the SQR Flags (PSSQRFLAGS) field to *-ZIF<PS_HOME>\sqr\pssqr.ini*.
- Set the SQR Report Search 1 (PSSQR1) field to *PS_HOME\sqr*. The remaining SQR Report Search fields can be left blank, because no additional SQR report directories have been created yet.

4. Select the Common tab of the Edit Profile dialog box.



Edit Profile dialog box

The following fields are used to set Data Mover default input, output, and log directories.

- Verify that the Input Directory and Output Directory fields are set to *PS_HOME\data*. This directory will store the Data Mover scripts required to populate the PeopleSoft database.
- Set the Log Directory to a local workstation directory to store the Data Mover log files. The default is *C:\TEMP*.

5. Select OK to close the Edit Profile dialog box.

See Also

Enterprise PeopleTools 8.50 PeopleBook: System and Server Administration, "Using PeopleSoft Configuration Manager"

Task 6-4: Running Client Setup

The Client Setup tab does the following:

- Installs a PeopleSoft program group on the workstation.
- Installs system DLLs on the workstation.

These Client Setup functions are performed when you click OK or Apply from Configuration Manager only if the Install Workstation option on the Client Setup tab is selected.

Note. Any files installed by Client Setup on the workstation from the file server use the paths specified in the default profile.

To run Client Setup:

1. Select the Client Setup tab in Configuration Manager.
2. In the Group Title text box enter the name of the program group for the icons you want on the client workstation. (A program group name cannot contain any of the following characters: \ / : * ? " < > |)

You can call the program group anything you want, but this documentation uses the default name, *PeopleTools 8.50*.
3. If you do not have a PeopleTools 8.50 program group set up on the workstation, be sure to check the following two options for installing shortcuts to applications essential for installation:

Note. When you run Client Setup, it will uninstall any existing shortcuts in the PeopleTools 8.50 program group, and install shortcuts for the applications you have selected. If you subsequently want to install or uninstall shortcuts, you can always re-run Client Setup.

- *Data Mover*
- *Configuration Manager*

4. Select the option Install Workstation.

This check box determines whether Client Setup runs when you click Apply or OK in Configuration Manager. If this option is not selected, Client Setup will create or update settings in the registry, but it won't set up the PeopleTools 8.50 program group or install local DLLs.

5. Click OK to run Client Setup and close Configuration Manager.

Task 6-5: Installing PeopleSoft ODBC Driver and Crystal Runtime

The PeopleSoft ODBC driver and Crystal Runtime can be installed by running `psodbccrinst.exe`. This is required in order to successfully design and run Crystal Reports from the Crystal Reports 2008 application. This would also be required for any other client activities requiring access to the PeopleSoft OpenQuery API.

You must run `psodbccrinst.exe` directly from the `PS_HOME\bin\client\winx86` directory on the file server. The user who runs this installation must have administrative privileges.

The installation performs the following tasks:

- Installs PeopleSoft ODBC driver
- Creates PeopleSoft PeopleTools ODBC Data Source Name
- Installs Crystal Runtime (and prerequisite .net 2.0 Framework)

Note. The psodbccrinst.exe install script generates a log file named psodbccrinst.log under the user's TEMP directory. If the user environment variable TEMP is undefined, the log file is written under c:\temp directory by default.

See Also

Enterprise PeopleTools 8.50 PeopleBook: PeopleSoft Query

Enterprise PeopleTools 8.50 PeopleBook: Crystal Reports for PeopleSoft

CHAPTER 7

Setting Up the Batch Environment on z/OS

This chapter discusses:

- Understanding COBOL
- Setting Up Your Batch Environment
- Completing the Preinstallation Worksheet
- Allocating z/OS Partitioned Datasets
- Using PeopleSoft Server Transfer
- Setting up the USS Environment Variables and Granting Access to USS Files
- Installing SQR for z/OS
- Binding the SQR DB2 Plan
- Assembling PeopleTools Programs
- Compiling and Link-Editing DB2 COBOL
- Compiling and Link-Editing COBOL

Understanding COBOL

This chapter describes how to compile and link PeopleSoft ASSEMBLER and COBOL batch programs, if necessary. Note that COBOL is no longer needed for PeopleTools because the Process Scheduler is written in C++. In addition, COBOL is not required for applications that contain no COBOL programs.

Note. We require that you maintain a “central repository” of your COBOL source code on the file server. The multiplatform installer will place all the needed COBOL source code on your Windows and UNIX servers during the initial install. However, if you download any COBOL patches or make any customizations, you should apply them to your file server. From there you can transfer the updated COBOL source code out to any relevant application or batch servers. This approach will help you keep your COBOL source code in sync, even if it resides on multiple machines. For Windows, COBOL stored SQL statements are only installed on the file server as well.

See Also

Enterprise PeopleTools 8.50 Hardware and Software Requirements

Enterprise PeopleTools 8.50 PeopleBook: Global Technology

My Oracle Support, Certifications

Setting Up Your Batch Environment

This chapter describes how to set up your batch environment on a z/OS database server. This process involves compiling and linking PeopleSoft COBOL batch programs that you will use for such PeopleSoft products as Payroll or General Ledger. The PeopleSoft Server Transfer program creates a script that your FTP program will use to transfer files from the file server to the database or batch server. It also creates scripts to configure the batch environment.

Note. Remember, COBOL is not required for applications that contain no COBOL programs.

The batch environment components reside in two locations: the z/OS server and UNIX System Services. COBOL, SQR and other installation-related components reside on the z/OS server; Process Scheduler and Application Engine components reside in UNIX System Services.

Note. The Server Transfer process must be executed using an ID that has the authority to access both the z/OS Server and UNIX System Services (USS). PDS and PDSE members will be created on the z/OS server, and directories and files will be created in UNIX System Services. UNIX System Services security requires that any IDs or USER values deployed in subsequent batch processes must belong to the same GROUP as the User ID that initially created the libraries and files on USS. During batch execution, both permanent and temporary files are written to UNIX Systems Services, and the ID creating these files must have the proper authority to create directories and files. Oracle recommends that this be administered at the UNIX security GROUP level.

After you compile your COBOL components in the following steps you will only need to re-compile COBOL in the following situations:

- Any COBOL programs change
- The supported COBOL compiler changes
- You change the version of your RDBMS
- You change your version of your operating system
- You apply a patch or a fix

See Also

Enterprise PeopleTools 8.50 Hardware and Software Requirements

My Oracle Support, Patches & Updates

Task 7-1: Completing the Preinstallation Worksheet

Use the preinstallation worksheet below to record site-specific information to expedite editing and transferring COBOL and SQR files to z/OS. Try to complete it before going on to the next step. Typically, z/OS and DB2 systems administrators should be able to supply the required information.

Parameter values will be blank the first time you run the PeopleSoft Server Transfer program. You must specify your own site-specific values. The sample values, where provided, are only suggestions. In subsequent executions of the Server Transfer program, the program will use the values stored in %TEMP%\PSXFR.CFG, built during the initial run. Note that %TEMP% is a system or environment variable.

Note. Reinstalling PeopleSoft PeopleTools overwrites your customized PSXFR.CFG file with a blank version.

Transfer Parameters	Site-Specific Value	Sample Value
<i>1. z/OS Dataset High Level Qualifier</i> The high-level qualifier used for PeopleSoft COBOL and SQR datasets. Suggested Default: HLQ.ppvvv where ppvvv is the PeopleSoft product and release (such as HR840).		PS.HR840
<i>2. PeopleSoft File Server High Level Directory</i> <i>PS_HOME</i>—the directory to which you installed the PeopleSoft software, such as N:\HR840.		N:\HR840
<i>3. Target Directory for Generated Files</i> The workstation directory that will contain a variety of files generated when you run the PeopleSoft Server Transfer program, including file transfers, COBOL compile JCL, and translated SQRs (for example [and] translated to \). Suggested Default: <i>PS_HOME</i> \STAGE		N:\HR840\STAGE
<i>4. File Transfer Method</i> Indicates which file transfer protocol will be used. Supported protocols include: 3270/Send Microsoft FTP Suggested Default: Microsoft FTP		Microsoft File Transfer Protocol (FTP)
<i>5. Database Server Host/Node Name</i> FTP Only: Symbolic IP Name For z/OS System Suggested Default: IP Name of Server If you do not use FTP, specify any alphanumeric character in this field.		

Transfer Parameters	Site-Specific Value	Sample Value
6. Database Server Login ID FTP Only: z/OS user ID used to connect to z/OS server and create files and directories on USS. <i>Note:</i> This ID MUST be in the same UNIX GROUP as any IDs under which subsequent batch processing will be executed. Suggested Default: LOGONID If you do not use FTP, specify any alphanumeric character in this field.		USER1
7. Job Card Line 1 This is the first line of a job card that will be inserted into JCL files by the PeopleSoft Server Transfer program. Enter // in first two positions followed by job card information such as job name, keyword JOB, account information, and so on. If the job card extends to two lines, end the first line with a comma and complete Job Card Line 2. <i>Note:</i> Any USER= parm coded MUST be in the same UNIX GROUP as the Database Server Logon ID noted in Parameter 6 above.		//PSHR840 JOB (PSOFT),J',CLASS= A,MSGCLASS=A
8. Job Card Line 2 This is the second line of a job card that will be inserted into JCL files by the PeopleSoft Server Transfer program. Enter // in first two positions followed by at least one space before continuing to add job card information. Suggested Default: /*		//REGION=OM,MSGLEVEL= (1,1),USER= BATCHID1,PASSWORD=BPSWD1
9. Job Card Line 3 This is the third line of a job card that will be inserted into JCL files by the PeopleSoft Server Transfer program. Enter // in first two positions followed by at least one space before continuing to add job card information. Suggested Default: /*		// NOTIFY=&SYSUID

Transfer Parameters	Site-Specific Value	Sample Value
<i>10. OS390z/OS/DB2 Operator ID</i> This parameter is for PeopleSoft internal use. Let it default to OPRID.		OPRID
<i>11. OS390z/OS/DB2 Table Owner ID</i> This is the PeopleSoft table owner ID—the high-level qualifier for DB2 tables. (also known as "CREATOR" in the IBM SYS Catalog tables). If you are using secondary authorization, this will be your secondary authorization ID, otherwise it will be your primary authorization ID. Suggested Default: PSOWNER		PS001
<i>12. DB2 Subsystem Name</i> This is the DB2 Subsystem used for the PeopleSoft application you are currently installing (DMO or SYS). Suggested Default: DDDD		DSNT
<i>13. DB2 System Dataset Containing DSN Member</i> This is the DB2 system dataset that contains member DSN. Suggested Default: SYS1.DB2.DDDD.DSNLOAD		DSN810.SDSNLOAD
<i>14. DB2 System Dataset Containing DSN3@ATH Member</i> This is the DB2 system dataset that contains member DSN3@ATH. DSN3@ATH is a sample authorization exit. By implementing the sample authorization exits you can provide group names as secondary authorization IDs. Suggested Default: SYS1.DB2.DDDD.EXIT		DSN810.SDSNEXIT
<i>15. DB2 System Dataset Containing DSNTDP2 Member</i> This is the DB2 runtime system dataset containing member DSNTDP2. Suggested Default: SYS1.DB2.DDDD.RUNLIB.LOAD		DSN810.RUNLIB.LOAD
<i>16. PeopleSoft Database Name</i> Suggested Default: DB		PSHR840

Transfer Parameters	Site-Specific Value	Sample Value
<i>17. Plan Name for PTPSQLRT via TSO Attach Facility</i> This is DB2 Plan used by PTPSQLRT (the COBOL/DB2 API used by COBOL batch and process scheduler jobs). Suggested Default: PTPSQLRT		PTPSQLRT
<i>18. Plan Name for PTPSQLRT via Call Attach facility (for USS)</i> Suggested Default: PTPSQLRA		PTPSQLRA
<i>19. Language Environment runtime library (that is, CEE.SCEERUN)</i> We recommend that you ensure the LE runtime libraries are present on the system: xxx.SCEERUN xxx.SCEERUN2 Suggested Default: CEE.SCEERUN		Check with System Administrator for installation LE library name. For example: SYS1.CEE.SCEERUN
<i>20. Language Environment linkedit library (that is, CEE.SCEELKED)</i> Note that in SQR in 8.44 uses PM Binder CEE.SCEEBIND Suggested Default: CEE.SCEELKED		CEE.SCEELKED
<i>21. COBOL System Dataset Name Containing IGY* Members</i> This is the COBOL load library containing modules used by COBOL compiler. Its members include IGYCASM1, IGYCINIT, and so on. Suggested Defaults: IGY.V4R1M0.SIGYCOMP or IGY.V4R1M0.SIGYCOMP for ANSI Database (EBCDIC) IGY.V4R1M0.SIGYCOMP for Unicode Database		Check with the System Administrator for the installation of IBM Enterprise COBOL V4R1. For example: IGY.V4R1M0.SIGYCOMP
<i>22. System Storage Name for Temporary Datasets</i> This is the storage device name used for temporary datasets—used in sorting, passing temporary datasets, and so forth—that are deleted after the job completes. Suggested Default: SYSTEMP		SYSTEMP

Transfer Parameters	Site-Specific Value	Sample Value
23. <i>System Storage Name for Permanent Datasets</i> This is the storage device name used for permanent datasets used in dataset allocation, such as those used to store COBOL and SQR files. Suggested Default: SYSPERM		SYSPERM
24. <i>Assembler System Dataset Containing STIMER</i>		SYS1.MACLIB
25. <i>Assembler Program Name</i>		ASMA90
26. <i>SQR High Level Qualifier</i> This is the high-level qualifier used for SQR datasets. Suggested Default: PS.HR840.SQR		PS.HR840.SQR
27. <i>SQR Program Name Found in SQR Load Library</i> This is the name of the SQR program contained in the SQR Load Library. Suggested Default: SQR		SQR
28. <i>SQR Plan Name</i> This is the DB2 Plan name assigned for SQR. Suggested Default: DBCALLS		SQR840
29. <i>Target Server Hardware Platform</i>		UNIX System Services (OS390z/OS)
30. <i>PeopleSoft Unix System Services Home Directory</i> Suggested Default: /u/data001/dbname		/u/data001/PSHR800
31. <i>Library for DB2 CLI Load Module (that is, DSNACLI)</i>		DSN810.SDSNLOAD
32. <i>Plan Name for CLI Packages (that is, DSNACLI)</i> Suggested Default: DSNACLI		DSNACLI
33. <i>Attachment Type for ODBC to Connect to DB2</i> Suggested Default: RRSF		RRSAF (Resource Recovery Services Attachment Facility)
34. <i>HFS path to top level of JDK product</i> This will provide the value for the JDK_HOME environment variable in the psconfig.sh file. Suggested Default: /usr/lpp/java/J1.6		/usr/lpp/java/J1.6

Task 7-2: Allocating z/OS Partitioned Datasets

Allocate a z/OS partitioned dataset as HLQ.PS_{vvv}.CNTL, where HLQ is any high-level dataset qualifier, PS is a constant, and _{vvv} is the current release of your PeopleSoft software (such as 840).

File attributes are: FB, LRECL=80,BLKSIZE=6160, Dir Blks 5, SPACE (Primary 15 Tracks, Secondary 5 Tracks). This dataset will be used to transfer allocation JCL.

To complete allocating the datasets:

1. Transfer *PS_HOME\SRC\CBL\MVS\PSLIBCBL.JCL* to HLQ.PS_{vvv}.CNTL(PSLIBCBL).
2. Transfer *PS_HOME\SRC\CBL\MVS\PSLIBSQR.JCL* to HLQ.PS_{vvv}.CNTL(PSLIBSQR).
3. Log on to z/OS and edit PSLIBCBL and PSLIBSQR to reflect the appropriate values for your site as follows:
 - a. Add a job card.
 - b. Change all occurrences of *\$PSHLQ\$* to the z/OS Dataset High Level Qualifier determined in the preinstallation worksheet.
 - c. Change all occurrences of *\$SYSPERM\$* to the System Storage Name for Permanent Datasets value determined in the preinstallation worksheet.
 - d. Change all occurrences of *\$SQRHLQ\$* to the z/OS Dataset High Level Qualifier determined in the preinstallation worksheet.

See Completing the Preinstallation Worksheet.

4. Submit (PSLIBCBL) and (PSLIBSQR) to allocate files.

Task 7-3: Using PeopleSoft Server Transfer

This section discusses:

- Understanding PeopleSoft Server Transfer
- Running the PeopleSoft Server Transfer Program
- Transferring Files to Host Manually
- Mapping PeopleSoft Installation Directories to z/OS

Understanding PeopleSoft Server Transfer

The PeopleSoft Server Transfer program simplifies editing and transferring COBOL and SQR files to z/OS. Pre-compile, Compile, Linkedit, binds, and Process Scheduler-initiated COBOL and SQR jobs are ready to submit following the file transfer, assuming the worksheet values you enter are correct.

Note. Remember, before you can run the Server Transfer program to set up a batch server on z/OS, you need to have run the PeopleSoft Installer, as described in the chapter “Using the PeopleSoft Installer.” Run it on a Windows machine, making sure to select *all* of the PeopleSoft servers. This Windows machine will then function as your file server, from which you can run Server Transfer.

The PeopleSoft Server Transfer program performs the following functions:

- Generates a file containing transfer commands to transfer files to z/OS and UNIX System Services (USS). This file is named PSFTXFR.BAT or PSFTXFR.TXT, depending on whether you transfer files to z/OS using 3270/Send or FTP, respectively.
- Generates COBOL compile JCL—program preparation JCL.
- Edits various JCL and PRC files to site-specific standards using values from the transfer parameters specified in the PeopleSoft Server Transfer program.
- Translates [and] characters to a \ (backslash) to correct an ASCII-to-EBCDIC translation problem that occurs during the transfer of SQR files.

Later in this chapter you will learn how workstation file directories relate to z/OS partitioned datasets.

See Mapping PeopleSoft Installation Directories to z/OS.

Before running the PeopleSoft Server Transfer program, ensure that a DOS environment variable (%TMP%) is set to a “temporary” directory to which you have write access. PeopleSoft recommends using C:\temp.

The transfer program writes the following two files to the %TMP% directory:

- PSXFR.LOG—a log file that summarizes the program’s execution.
- PSXFR.CFG—a configuration file that stores the parameters you selected.

Note. The PeopleSoft Server Transfer program writes the above files to the %TMP% directory, or to the %TEMP% directory if the %TMP% environment variable is undefined.

See "Using the PeopleSoft Installer."

Note. In PeopleTools 8.4 and above, the Server Transfer program is used only to transfer files to your batch server. On UNIX or Windows, to install files to your application server, file server, web server, and so on, you should use the PeopleSoft Installer.

Task 7-3-1: Running the PeopleSoft Server Transfer Program

To run the PeopleSoft Server Transfer program:

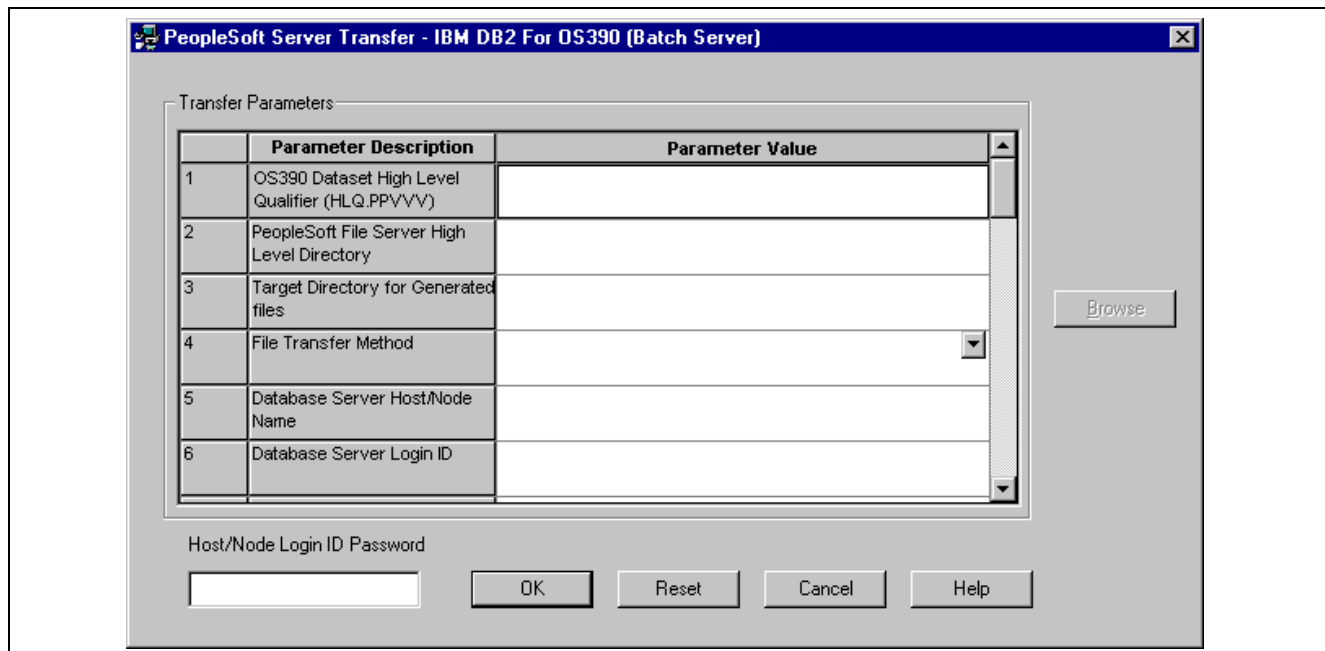
1. Start PeopleSoft Server Transfer.

Enter the following path into the Run dialog box:

`PS_HOME\BIN\CLIENT\WINX86\pstrans.exe`

Alternatively, select the Server Transfer shortcut, if you elected to create a Program Group during the PeopleSoft PeopleTools installation.

You see the PeopleSoft Server Transfer screen, which contains all of the parameters whose values you should have determined while filling out the preinstallation worksheet.



Entering transfer parameters in the PeopleSoft Server Transfer dialog box

2. Enter the appropriate value for each parameter.

Using the preinstallation worksheet you completed earlier, enter the parameters describing how you want to install the PeopleSoft batch environment on your database server. Some of the parameter values may already exist either as default values or as values from a previous execution of the Server Transfer program. To select an individual row, just click it. To enter or change a particular parameter value, either select from predefined values in a drop-down list or enter the values manually if there is no drop-down list.

Note. You must specify a value for each edit field. If you are not sure what value to use, type in the default suggested by Oracle for PeopleSoft software (see the preinstallation worksheet for a list of defaults) and edit the parameter value following the file transfer on z/OS.

For parameters that require a directory path, you may enter it directly. If you don't know the exact location, click Browse to select the directory from the Select Directory dialog box. The Browse button is available when you click in a field that requires a directory path.

3. Enter the appropriate value for Host/Node Login ID Password. This value should be the password for the Host/Node Name specified as parameter number 5 in the Server Transfer panel.

This password is mandatory regardless of your database platform or site specifications. Microsoft's FTP software requires a password.

4. Once you enter all the correct parameter values for your site, click OK. (If instead you want to clear all of your entries and start over, press Reset. To close this instance of the PeopleSoft Server Transfer, press Cancel.)

The PeopleSoft Server Transfer prepares the files for transfer, which can take from a few seconds to a few minutes, depending on the number of files and the type of processing required.

The PeopleSoft Server Transfer program will generate a number of files that will be located in the *Target Directory for Generated Files* that you specified previously.

5. In the PeopleSoft Server Transfer Output window, if you want to verify that the Transfer program created all the proper files, click the Display Log button.

The Display Log button calls the PSXFR.LOG in your %TMP% directory (or %TEMP% directory if %TMP% is undefined) and displays it in Microsoft Notepad. PSXFR.LOG provides summary information about the transfer program's execution that can be helpful for identifying potential errors and inconsistencies. It contains the following sections:

- *SELECTED PARAMETERS*: Shows the parameters you selected from the PeopleSoft Server Transfer main window.
- *SUMMARY OF SELECTED FILES*: Shows which files—and how many of them—will be transferred. It also shows which directory they were copied from and their new location.
- *FILE TRANSFER NOTES*: Shows important details regarding your transfer process, such as the command line option and where log files are located.

Note. Only click Close if you want to dismiss the PeopleSoft Server Transfer Output window and transfer the files manually from the command line.

6. Click the Transfer Now button to begin the transfer process. This button will launch the file transfer method that you selected on the server transfer main screen.

Note. The Transfer Now button assumes that the destination partitioned datasets exist. See “Allocating z/OS Partitioned Datasets.”

7. When the transfer has completed, the FTPOUT.LOG will display in Notepad. You should review this file for any errors that may have occurred during the transfer. The file is located in the Target Directory for Generated Files that you specified previously.
8. Close Notepad and press the CLOSE button on the PeopleSoft Server Transfer Output Panel.

Note. If your transfer is unsuccessful or you would rather transfer the files manually, read the following section.

The following table summarizes the files generated during the use of the PeopleSoft Server Transfer utility, in the order in which they are generated.

File Name	Location	Contents
PSXFR.CFG	%TMP%	Configuration file generated by the PeopleSoft Server Transfer Utility. It contains the parameters entered in a somewhat cryptic format
PSXFR.LOG	%TMP%	Summary file generated by the PeopleSoft Server Transfer Utility. It contains a summary of the parameters entered, the files that will be transferred, and instructions on how to manually transfer the files, if you choose to do so later.
PSFTXFR.TXT	The Target Directory for Generated Files that you specified previously.	A Microsoft FTP command file that contains the FTP statements to be executed to transfer the files. This file is only generated if you selected the Microsoft FTP file transfer protocol option.

File Name	Location	Contents
PSFTXFR.BAT	The Target Directory for Generated Files that you specified previously.	A 3270/TSO Send command file that contains 3270/TSO Send statements to transfer the files. This script is an alternative to PSFTXFR.TXT and is only generated if you selected the 3270/TSO Send file transfer protocol option.
FTPEXEC.BAT	The Target Directory for Generated Files that you specified previously.	The .bat file that calls either the Microsoft FTP command file or the 3270/TSO Send command file, from which the FTP process is initiated. The PeopleSoft Server Transfer Utility will initiate this batch file if you select the Transfer Now option.
FTPOUT.LOG	The Target Directory for Generated Files that you specified previously.	This is the FTP log file generated by the FTP utility that details the transfer results for each file processed.

Task 7-3-2: Transferring Files to Host Manually

From DOS, or a DOS shell in Windows, transfer application files to z/OS using the transfer/send file generated by the PeopleSoft Server Transfer program. If you are using a 3270/TSO Send file transfer protocol, the file containing transfer commands is in *PS_HOME*\STAGE and is entitled PSFTXFR.BAT. If you are using the Microsoft FTP file transfer protocol, the file containing transfer commands is in *PS_HOME*\STAGE and is called PSFTXFR.TXT.

You can initiate either Server Transfer by executing the FTPEXEC.BAT file in *PS_HOME*\STAGE. Allow at least 45 minutes to complete the file transfer. If the transfer fails:

- Make sure the z/OS datasets to which the files are transferred have been allocated.
- Check whether a z/OS dataset is underallocated or allocated on a volume with insufficient space.
- Verify that the Database Server Login Id specified in Parameter 6 has write access to z/OS and UNIX System Services.

Task 7-3-3: Mapping PeopleSoft Installation Directories to z/OS

The following table shows the mapping between workstation files and the suggested z/OS target datasets. The root directory is assumed to be PPVVV, which denotes the high-level PeopleSoft directory, such as \HR840.

Subdirectory	Subdirectory	FILES	z/OS DATASET	DESCRIPTION
CBL	BASE	??P*.CBL	HLQ.PSVVVV.SRCLIB	COBOL programs
		??C*.CBL	HLQ.PSVVVV.COPYLIB	COBOL copy members
	MVS	??P*.CBL	HLQ.PSVVVV.SRCLIB	z/OS specific programs
		??C*.CBL	HLQ.PSVVVV.COPYLIB	z/OS/COBOL copy members
		*.ASM	HLQ.PSVVVV.SRCLIB	Assembler programs
		*.JCL	HLQ.PSVVVV.JCLLIB	Compile, bind, Process Scheduler jobs
		*.PRC	HLQ.PSVVVV.PROCLIB	Procs for compile, bind, assemble
		*.JCT	/u/datax/psvvv/appserv/prcs /shelljcl	JCL Shells for COBOL and SQR Processes
SQR	n/a	*.SQR	HLQ.PSVVVV.SQRSRC	Application SQRs
		*.SQC	HLQ.PSVVVV.SQRINC	Application SQR include members
		SQRPARMS.PAR	HLQ.PSVVVV.PARMLIB	SQR parameter file
		SQRSAMP.JCL	HLQ.PSVVVV.JCLLIB	Sample SQR JCL
		SQRPROC.PRC	HLQ.PSVVVV.PROCLIB	SQR cataloged procedures
		??DDL.SQL ??DDL.U.SQL	HLQ.PSVVVV.DDLLIB	DDL script files used to build PeopleSoft database in the chapter Creating a Database
SCRIPTS	n/a			Script files for Unicode databases
APPSERV	PRCS	*.IN	/u/datax/psvvv/appserv	PSADMIN program utility files
SERVER	PS390 2 6	*.*	/u/datax/psvvv/bin	Process Scheduler executables for USS

Note. The \CBL\MVS directory contains files specifically for the DB2 UDB for z/OS platform. Certain files will appear in both the \CBL\BASE and \CBL\MVS directories. The *.CBL files in the \CBL\BASE directory will be transferred first, followed by the *.CBL files in the \CBL\MVS directory. As a result, the z/OS-specific files will overwrite the generic files. In other words, the order in which files are FTPed to the server does matter. The PeopleSoft Server Transfer program FTPs the files to the server in the correct order.

Task 7-4: Setting up the USS Environment Variables and Granting Access to USS Files

Before installing SQR for z/OS, you need to set up USS environment variables by executing the `psconfig.sh` shell script, and grant access to specific libraries in UNIX System Services by executing the `psmv.sh` shell script.

To execute the `psconfig.sh` and `psmv.sh` shell scripts:

1. Locate the files `psconfig.sh` and `psmv.sh` in USS Home directory `/u/datax/ppvvv`.
This is the same directory specified in the preinstallation worksheet, parameter 30. Make this directory your current working directory.
2. Grant execute authority to the file by entering the following at the prompt:

```
chmod 755 psmv.sh
```
3. Execute the scripts by entering `psconfig.sh` and `psmv.sh` at the prompt.

Task 7-5: Installing SQR for z/OS

To install SQR in the designated partitioned dataset, you need to run the `INSTALLSQR.SH` shell script. The shell script performs the following tasks:

- Copies all SQR installation binary files from the HFS directory `PS_HOME/bin/sqr` into the designated SQR sequential data sets.
- Submits `HLQ.PPVVV.JCLLIB (RECVSQR.JCL)` that will use IBM's `RECV` utility to migrate all the binaries from the sequential data set to the designated SQR partitioned dataset.

To execute the `installsqr.sh` shell script:

1. Change directory to the USS Home directory `/u/datax/ppvvv`. This is the same directory specified in the preinstallation worksheet (item 30).
2. Enter `installsqr.sh` at the prompt.

When the shell script submits the JCL to unpack all the SQR binaries from the installation sequential data set, review the status of the JCL from TSO to verify that all steps using the `RECV` utility have successfully completed with return code of 0.

Task 7-6: Binding the SQR DB2 Plan

Once SQR is installed, you have to run the DSN subcommand BIND to build an application plan for SQR. All DB2 programs require an application plan to allocate resources and to support SQL requests made during execution. The keywords and parameters you should use when exercising the DSN BIND commands follow. Refer to the IBM DB2 Command and Utility Reference Manual for further information on BIND.

To create the DB2 Plan for SQR, submit the following JCL job:

```
HLQ.PSVVV.JCLLIB(PSBNDSQR)
```

Note. To execute an XPLINK program, the SCEERUN2 as well as the SCEERUN data set must be in the z/OS program search order (see the {_PLIB_PREFIX} environment variable). The following data sets are also used: The data sets {_PLIB_PREFIX}.SCEERUN and {_PLIB_PREFIX}.SCEERUN2 contains the runtime library programs. These data sets are listed here for information only, to assist in identifying the correct data sets to be added to the z/OS program search order. The default value is "CEE".

Task 7-7: Assembling PeopleTools Programs

You need to assemble the PeopleSoft programs PTPSQLTM. PTPSQLTM, called by PTPSQLRT, collects time interval data to produce the statistics report.

In z/OS, submit the following job:

```
HLQ..PPVVV.JCLLIB (PSASM)
```

On job output, the expected return code is 0 or 4.

Note. In the catalogued procedure PSASM, the ASM step EXEC statement contains the assembler program specified during the PeopleSoft Server Transfer program. \$ASMLIB\$ is replaced by the “Assembler Program Name” transfer parameter. The expected assembler program name is ASMA90. However, IEV90 may also be used, but the SYSLIN DD statement in the ASM step must be commented first to be assembled successfully.

Task 7-8: Compiling and Link-Editing DB2 COBOL

Precompile, compile, and link-edit PTPSQLRT (PeopleSoft’s COBOL/DB2 API) as follows:

- Submit HLQ.PPVVV.JCLLIB(PSCOB*). Acceptable return codes are 0 and 4 for pre-compiles and compiles, and 0 for the link-edit step.
- PSCOBDA: for DB2 precompile, compile and linkedit of program PTPSQLRT for Native CAF for USS.
- PSCOBDE: for DB2 precompile, compile and linkedit of program PTPSQLRT for TSO CAF.
- PSCOBNET: for compile and linkedit COBOL program PTPNETRT for Native CAF for USS.

Common compile errors include:

- Users inadvertently introducing tab characters into source code while viewing it using workstation editors before file transfer. Check to see if you have X'05' (or other odd hex values) in the z/OS source.
- Failure to transfer all the BASE and z/OS copy members from the file server, or perhaps overwriting the z/OS versions with the BASE versions. Check PSFTXFR.TXT to see the order in which the files were transferred.

- Failure in LINKEDIT of PSCOBNET with error message “Attempt to get file status for an HFS file failed...” usually results when the User ID under which the PSCOBNET job is running does not have read access to the necessary USS file.

Note. Oracle delivers procedure library members PSCOBD, PSCOBDA, and PSCOBDE, which set the DB2 precompiler options DATE(ISO) and TIME(ISO). Do not change these settings, because PeopleSoft applications rely on the ISO format for date and time processing.

Task 7-9: Compiling and Link-Editing COBOL

Submit HLQ.PPVVV.JCLLIB(PSCOB*) to compile COBOL programs.

Note. Previous versions of PSCOB had to be manually divided into multiple jobs if they contained more than 125 COBOL programs to compile. This step is now done by the Server Transfer process, which will create the PSCOB* members.

Next, serialize compile jobs to avoid problems associated with concurrent PDS updating, and submit the PSCOB job(s). Acceptable return codes are 0 or 4 for pre-compiles and compiles, and 0 for the link-edit step.

Common compile errors include:

- Users inadvertently introducing tab characters to source code while viewing them using workstation editors before file transfer. Check to see if you have X'05' (or other odd hex values) in the z/OS source.
- Failure to transfer all the BASE and z/OS copy members from the file server, or perhaps overlaying the z/OS versions with the BASE versions. Check PSFTXFR.TXT to see the order in which the files were transferred.

CHAPTER 8

Creating a Database

This chapter discusses:

- Understanding Database Creation
- Planning Your Installation
- Transferring DDL Scripts to z/OS
- Creating PS.PSDBOWNER Table
- Granting Privileges on PS.PSDBOWNER
- Granting Privileges to Owner ID
- Creating DB2 Databases, Storage Groups, and Tablespaces
- Creating Tables
- Configuring the DB2 Connect Gateway
- Creating Data Mover Import Scripts
- Running Data Mover Import Scripts
- Creating Indexes
- Updating Database to Latest PeopleTools Release
- Running the DB2 RUNSTATS Utility
- Creating PeopleSoft Views
- Building Temporary Tables
- Creating PeopleSoft Triggers
- Running Additional Data Mover Scripts
- Installing a Multilingual PeopleTools System Database
- Running SQR Reports
- Updating PeopleSoft System Tables
- Binding DB2 Plans
- Running VERSION Application Engine Program
- Changing the Base Language
- Checking the Database
- Running Alter Audit
- Disabling %UpdateStats

Understanding Database Creation

This section describes the tasks required to create a PeopleSoft product database. During a standard PeopleSoft installation you will execute these tasks to create two distinct types of databases.

- *System*: The System database has no company specific data, and can be used to load your data and begin development of your production database.
- *Demo*: The Demo database contains data for a sample company, and can be used immediately for demonstration, for testing, and as a development reference.

The requirements for these databases vary, so not all of this section's tasks apply to each database. The instructions will note any distinctions between creating a Demo and a System database.

Remember, you need to have the PeopleTools Development Environment set up to create your database.

Important! Do not forget that application-specific installation steps are provided in a separate document specific to the application. For instance, if you are performing PeopleSoft CRM installation, you need both this PeopleSoft PeopleTools installation guide and any additional instructions provided by CRM. Search in My Oracle Support for the installation documentation specific to your application.

Note. DB2 UDB for z/OS is the official IBM name for the DBMS. For the sake of brevity, this documentation sometimes refers to DB2 UDB for z/OS as *DB2 z/OS*, and it sometimes refers to DB2 UDB for Linux, UNIX, and Windows as *DB2/LUW*.

Planning Your Installation

This section discusses:

- Using %UpdateStats
- Using Temporary Tables

Note. Two features that impact how you install your PeopleSoft database are the %UpdateStats MetaSQL function, and the Application Designer Object Type of “Temporary Table.”

Using %UpdateStats

%UpdateStats is an optional feature that lets you invoke the DB2 Utility RUNSTATS from within an Application Engine or COBOL process. Consider the following if you plan to use %UpdateStats:

- You can initiate RUNSTATS dynamically via the IBM stored procedure DSNUTILS. Before you can use %UpdateStats, the stored procedure DSNUTILS must be configured in the DB2 subsystem in which you run the PeopleSoft applications. If %UpdateStats is enabled but DSNUTILS is not in place, a processing error will result. Please refer to your IBM Systems documentation for instructions on enabling and configuring the DSNUTILS stored procedure.
- Using %UpdateStats with COBOL requires modifications to some delivered PeopleSoft code. These modifications are described in the Data Management PeopleBook.

See *Enterprise PeopleTools 8.50 PeopleBook: Data Management*

- %UpdateStats can be enabled or disabled based on the DBFLAGS Process Scheduler configuration parameter. Disabling %UpdateStats will cause the functionality to be bypassed, without causing any

processing errors. Note that the default setting for DBFLAGS for UNIX and Windows Process Schedulers is ON (DBFLAGS=0). The default setting for USS is DBFLAGS=0 (Enable Second DB Connection).

- The %UpdateStats MetaSql is specified in the code, per table, but on DB2 z/OS, the RUNSTATS utility processes at the tablespace level. This can present a performance issue with our standard database installation strategy, which combines multiple tables into a single tablespace. To alleviate this issue, and assist you in installing your database to optimally utilize the %UpdateStats feature, we provide two paths for building the database objects: The “traditional” path places all tables in shared tablespaces, for those customers who may not want to use the %UpdateStats feature; and the “enhanced” path segregates each table that is the object of the %UpdateStats MetaSql into its own unique tablespace.

You may install with either path. If you choose the enhanced path, you are not forced into enabling the %UpdateStats feature, but if you chose to enable it, or anticipate enabling it in the near future, we strongly recommend that you follow the enhanced path.

The installation steps are similar, but the scripts to be executed are different for each path. Also, the enhanced path requires one additional script.

Note. Beginning with PeopleSoft Enterprise 9.0 Applications, the PeopleSoft Tablespace DDL Automation Assistance Tool (PSTAAT) is required to complete the enhanced path installation. See the appendix “Using the PeopleSoft Tablespace DDL Automation Assistance Tool.”

PeopleSoft Enterprise Learning Solutions 9 is an exception. It was released on PeopleTools 8.47, and includes the scripts for the enhanced path. Customers installing this release who choose the enhanced path should use the delivered scripts. PeopleSoft Enterprise Learning Solutions 8.9 does not use %UpdateStats, so does not have scripts for the enhanced path.

The following tables show the scripts that are required for the traditional and enhanced paths.

Scripts Required for Traditional Paths, by Product Line							Comments
HRMS	FIN/SCM	EPM	PA	CRM	LM	IM	
HCDDL.sql	EPDDL.sql	PFDDL.sql	PADDL.sql	CRDDL.sql	LMDDL.sql	IMDDL.sql	Contains DDL to create stogroups, databases and tablespaces.
HCDDL.sql	EPDDL.sql	PFDDL.sql	PADDL.sql	CRDDL.sql	LMDDL.sql	n/a	Contains DDL to create stogroups, databases and tablespaces for Unicode databases.
TBDDL.sql	TBDDL.sql	TBDDL.sql	TBDDL.sql	TBDDL.sql	TBDDL.sql	TBDDL.sql	Contains DDL to create tables.
TBDDL.sql	TBDDL.sql	TBDDL.sql	TBDDL.sql	TBDDL.sql	TBDDL.sql	n/a	Contains DDL to create tables for Unicode databases.
n/a	n/a	n/a	n/a	n/a	n/a	n/a	Contains Update statements to 'reassign' tablespaces for Temp Table object types.

Note. Beginning with PeopleSoft Enterprise 9.0 Applications, these scripts will no longer appear on the installation CD. Use the PeopleSoft Tablespace DDL Automation Assistance Tool (PSTAAT) to complete the enhanced installation. See the appendix “Using the PeopleSoft Tablespace DDL Automation Assistance Tool” for more details.

Using Temporary Tables

Temporary tables are a new object type defined in Application Designer to support Application Engine concurrent processing. Within PeopleSoft 8 applications, we refer to these objects as temporary tables, but to the DB2 z/OS database they will be defined as “permanent” SQL tables. Each temporary table defines a base table from which additional instances or copies of the base table are scripted and physically created on your DB2 z/OS PeopleSoft database. Only the definition of the base table is stored in Application Designer. The actual number of instances is governed by a global value for Online concurrent processes, and a value defined either at a Global level (for EPM) or at the Application Engine Process Level for batch processes.

See *Enterprise PeopleTools 8.50 PeopleBook: PeopleSoft Application Engine*.

In an attempt to limit the number of potentially unused objects created on your database, we have reduced the number of temporary table instances to a minimum setting. Depending on the actual products you are installing, your processing characteristics and workloads, you may need to modify the number of temporary table instances to improve performance. This will become evident if you have a number of processes queuing to use a limited number of temporary table instances. The actual scripting and creation of the temporary tables are performed as a separate step in the installation process, so you may intervene during this process to increase the number of temporary table instances if you feel you have substantial batch processing workloads and/or a large volume of online transaction processing. Temporary tables can be regenerated at any time in the life of your database, so you don’t need to determine the exact number of instances that will be right for your environment at installation time.

When the number of instances of the temporary tables within the PeopleSoft application is changed, all temporary tables should be regenerated. The same values in the PeopleTools tables that are used to determine how many temporary tables instances should be created, are also used to determine how many should be available to an Application Engine process. The expectation is that the number of instances defined within the PeopleTools tables actually exists on the database. A later task in this chapter describes how to create the temporary tables.

Lastly, since each instance of a base temporary table is not defined within the PeopleTools tables, database and tablespace information is not stored for these instances. When the DDL is generated to create the base temporary table and its instances, each instance is put in the same database and tablespace as the base temporary table. To avoid concurrency issues and obtain optimal performance, each temporary table instance should also be assigned to its own unique tablespace, particularly when the temporary table is also the object of the %UpdateStats functionality, described earlier. Use the PeopleSoft Tablespace DDL Automation Assistance Tool (PSTAAT) to put the base temporary table and each of its instances in separate tablespaces. See the appendix “Using the PeopleSoft Tablespace DDL Automation Assistance Tool” for more details.

Task 8-1: Transferring DDL Scripts to z/OS

If you have set up your batch environment on the z/OS mainframe following the instructions in the chapter “Setting Up the Batch Environment on z/OS,” these files have already been transferred and you can skip this step.

All DDL script files to create the DB2 objects for the PeopleSoft database reside in the *PS_HOME\SCRIPTS* directory of your file server (where *PS_HOME* is the root directory where PeopleSoft software has been installed in your file server). This task requires that you manually transfer these files to z/OS. Each of these files must be customized with site-specific values and standards before you submit them either through SPUFI or DSNTEP2.

To transfer DDL scripts:

1. Allocate a partitioned dataset named HLQ.PSvvv.DDLLIB on z/OS, where HLQ is any high-level dataset qualifier, PS is a constant, and vvv is the current release of your PeopleSoft software (such as 800).

File attributes are: FB, LRECL=80, Dir Blks 10, SPACE (Primary 800 Tracks, Secondary 300 Tracks).
For example, DCB=(RECFM=FB,LRECL=80,BLKSIZE=6160) SPACE=(TRK,(800,300,10)).

2. Transfer the following files from the *PS_HOME\SCRIPTS* directory, as a member of the HLQ.PSvvv.DDLLIB PDS library using Microsoft File Transfer Protocol (FTP) or 3270/TSO SEND.

Files in the SCRIPTS subdirectory	Value of XX	Description
XXDDL.SQL	• Use "HC" for PeopleSoft HRMS. • Use "EP" for PeopleSoft Financials/Supply Chain Management. • Use "PF" for Enterprise Performance Management • Use "IM" for Incentive Management. • Use "PA" for Enterprise Portal Solutions. • Use "CR" for Customer Relationship Management. • Use "LM" for Enterprise Learning Management.	This script contains all the DDL statements to create database, storage groups, and table spaces

Files in the SCRIPTS subdirectory	Value of XX	Description
XXDDL.U.SQL	• Use "HC" for PeopleSoft HRMS. • Use "EP" for PeopleSoft Financials/Supply Chain Management. • Use "PF" for Enterprise Performance Management. • Use "IM" for Incentive Management. • Use "PA" for Enterprise Portal Solutions. • Use "CR" for Customer Relationship Management. • Use "LM" for Enterprise Learning Management.	This script contains all the DDL statements to create database, storage groups, and table spaces for an UNICODE database.
PSDDL.SQL		This script contains the DDL statements to create the PS.PSDBOWNER table.
TBDDL.SQL		This script contains all the CREATE TABLE statements for the product line.
IXDDL.SQL		This script contains all the CREATE INDEX statements for the product line.

Task 8-2: Creating PS.PSDBOWNER Table

You can skip this step if a PS.PSDBOWNER table already exists in the same DB2 subsystem as your new database. This would be the case if you already have an existing PeopleSoft database in the target DB2 subsystem. You will have one PS.PSDBOWNER table per subsystem.

Edit and execute HLQ.PSvvv.DDLLIB(PSDDL) using SPUIFI or DSNTEP2. The PS.PSDBOWNER must exist in each DB2 subsystem where PeopleSoft databases will be installed and it is the only table that Oracle provides for PeopleSoft software where an OWNERID cannot be customized. PeopleSoft PeopleTools applications select from this table to obtain the Owner ID and Database Name information during the PeopleSoft Sign-on process.

Note. For UNICODE databases, it is not necessary to use the CCSID=UNICODE option of the Create Database statement when creating the PSOWNRDB (this contains the PS.PSDBOWNER table). IBM supports the use of Unicode, EBCDIC, and ASCII tables in the same subsystem, and the ability to join data using any of these encoding schemes in DB2 for z/OS V8.1 New Function Mode. DB2 for z/OS v8.1 NFM is required for a Unicode installation.

Task 8-3: Granting Privileges on PS.PSDBOWNER

Grant the ALL authority to the table owner ID used for the PeopleSoft database:

```
GRANT ALL ON TABLE PS.PSDBOWNER TO <Owner_ID> WITH GRANT OPTION;
```

Task 8-4: Granting Privileges to Owner ID

Before creating your DB2 databases, make sure the owner ID has authorization to use the following DB2 resources:

Grant use of bufferpool to the Owner ID:

```
GRANT USE OF BUFFERPOOL BP1 TO <Owner_ID>;  
GRANT USE OF BUFFERPOOL BP2 TO <Owner_ID>;  
GRANT USE OF BUFFERPOOL BP3 TO <Owner_ID>;  
GRANT USE OF BUFFERPOOL BP32K TO <Owner_ID>;
```

Task 8-5: Creating DB2 Databases, Storage Groups, and Tablespaces

This section discusses:

- Understanding DB2 Databases, Storage Groups, and Tablespaces
- Customizing the Database Name
- Working with Tablespaces

Understanding DB2 Databases, Storage Groups, and Tablespaces

Oracle delivers a generic script to create the DB2 UDB for z/OS storage groups, database shells and tablespaces. Unless you are installing the System (SYS) or Demo (DMO) database using the generic defaults in the script, you need to edit various parameters to comply with the standard at the customer site. These parameters include:

- Storage group names and volumes (if you have already created stogroups, you may comment out the statements in the script to create them)
- Database names
- Tablespace names
- Bufferpool names
- Owner_ID

Note. There is a `SET CURRENT SQLID = 'OWNER#ID'` statement in the script. It is recommended that the Current SQLID be set to the ID that will be used to "own" all the database tables (even though no tables are being created in this step). This will either be the Secondary Authorization ID, if using Secondary Authorization ID processing, or the Primary Authorization ID, if not. (In the scripts to create the tables found in the next step, this value is referred to as OBJ#OWNER). The "CREATOR" field in the SYSIBM.SYSTABLESPACE catalog table will be the same value as the "CREATOR" field in the SYSIBM.SYSTABLES catalog table. Having these two fields being the same value will facilitate running the optional SQR SETDBNAM and creating the temporary tables, mentioned later in the chapter.

The following instructions detail where to make these edits as necessary.

Using SPUIFI, DSNTEP2, or an equivalent product, create your DB2 objects (that is, databases, storage groups, and tablespaces) using the `HLQ.PSVVV.DDLIB(XXDDL/XXDDLX)` file.

Use the XXDDL version is used for the non-Unicode installation, and the XXDDLX version for Unicode installation.

The following table shows a few examples of the product identifiers in `HLQ.PSVVV.DDLIB(XXDDL/XXDDLX)`:

Product	Identifier
HRMS	HC
Financials/Supply Chain Management	EP
Enterprise Performance Management	PF
Customer Relationship Management	CR

Task 8-5-1: Customizing the Database Name

This section discusses:

- Understanding Database Name Customization
- Editing the xxDDL Script

Understanding Database Name Customization

You can customize the database name found in the `CREATE DATABASE` statements to your organization standards. However, make note of the database names you change because you will have to make corresponding changes to the DDL scripts for creating the tables.

Note. Because of the large number of objects delivered in the database, and to facilitate performance, multiple physical databases are deployed to contain the single, logical PeopleSoft database. The objects in the physical databases are unified into one logical database by sharing the same Owner ID (the CREATOR field in SYSIBM.SYSTABLES). For consistency, and to facilitate editing, the physical database names all share a common root value of seven characters. A unique eighth character is appended to the root name, resulting in a distinct database name. As an example, the HRMS Product is delivered with a "root" value of PSHRDMO for the database name. The actual physical database names include PSHRDMO, PSHRDMOB, PSHRDMOH, PSHRDMOP, PSHRDMOT, PSHRDMO1 and PSHRDMO2. The PeopleSoft applications contain a substantial number of DB2 objects, and we do not recommend putting all these objects into a single database. Doing so will require an inordinately large EDM pool size, and will produce undesirable results in your DB2 system. Note also that the PTPRC tablespace is assigned to its own database PSxxDMOT. This tablespace contains all the tables used by Process Scheduler. Combining these tables in one of the other databases could potentially cause the lockout of other processes, such as DB2 utilities running concurrently with Process Scheduler. Finally, note that several tablespaces specify LOCKSIZE ROW. If any tables we deliver within these tablespaces are moved, they should only be moved to a tablespace that was defined with row level locking.

Note. Use the PeopleSoft Tablespace DDL Automation Assistance Tool (PSTAAT) to customize the physical database names that constitute your logical PeopleSoft database. See the appendix “Using the PeopleSoft Tablespace DDL Automation Assistance Tool” for more details.

Editing the xxDDL Script

To edit the xxDDL script, edit the CREATE STOGROUP statements to site-specific values. Storage group name defaults are PSSGTSxx and PSSGIXxx for tablespaces and index spaces, respectively, but you can change them to comply with your organization's standards. You may also comment out the CREATE STOGROUP statements if you have already established Stogroups on your DB2 subsystem, but you will still need to edit the CREATE TABLESPACE statements with your site-specific Stogroup value.

We highly recommend that you use standard PeopleSoft tablespace names when installing the demonstration database to simplify the installation process.

The script contains the GRANT DBADM commands for each DB2 database you plan to create for your PeopleSoft database. This is the easiest way to grant the required privileges to the owner ID. This enables the owner ID to perform other tasks, such as starting and stopping the PeopleSoft database, and running DB2 utilities such as RUNSTATS.

Note. References to *owner ID* in this document, and in the accompanying scripts, refer to the DB2 Secondary Authorization ID if using Secondary Authorization ID processing, or to the DB2 Primary Authorization ID, if not.

The options are to grant DBADM to the Owner ID or to issue individual grants for the following:

- Grant bind capability to the Owner ID:

```
GRANT BINDADD TO <Owner_ID>;
```

- Grant create tablespace capabilities to the Owner ID:

```
GRANT CREATETS ON DATABASE <database_name> TO <Owner_ID>;
```

- Grant create table capability to the Owner ID:

```
GRANT CREATETAB ON DATABASE <database_name> TO <Owner_ID>;
```

Note. You may use the PeopleSoft Tablespace DDL Automation Assistance Tool (PSTAAT) to customize tablespace DDL. See the appendix “Using the PeopleSoft Tablespace DDL Automation Assistance Tool” for more details.

Task 8-5-2: Working with Tablespaces

This section discusses:

- Using Tablespaces
- Following the Standard Tablespace Names Formats
- Naming Tablespace Defaults
- Parsing Tablespaces

Using Tablespaces

For tablespaces in your PeopleSoft installation, Oracle provides a strategy for Demo and System databases aimed at identifying high growth and frequently updated tables. This limits the number of tables the DBA must monitor and analyze, and simplifies capacity planning and database tuning activities. In addition, with Release 8, a new type of table is introduced referred to as a temporary table. A temporary table is permanently created in the database, but its usage, by Application Engine programs, is temporary. The tables are delivered empty, but because of the potential for a volatile increase and decrease in the number of rows populating the table during the execution of a process, the temporary tables are also segregated into their own tablespaces, buffer pool, and databases. This segregation seeks to facilitate administration of these tables and tablespaces separate from the tablespaces in which the core application tables reside.

For customers that elect to use the %UpdateStats functionality, the scripts are provided for pre-9.0 Application releases to facilitate placing each table that is the object of the %UpdateStats function to its own unique tablespace. Use the PeopleSoft Tablespace DDL Automation Assistance Tool (PSTAAT) to place each table that is the target of the %UpdateStats function in its own tablespace for Enterprise 9.0 Applications. See the appendix “Using the PeopleSoft Tablespace DDL Automation Assistance Tool” for more details.

Note. For multilingual installs, the PTTBL, PTTLRG and PSIMAGE tablespaces may need to be increased in size.

Following the Standard Tablespace Names Formats

The standard tablespace names that Oracle delivers categorize tables as follows:

- High growth and frequently updated tables for Applications are grouped together into tablespaces named XXLARGE, where XX is a PeopleSoft application identifier. Similarly, the PeopleTools tables identified as large tables or frequently updated tables are grouped in the PTTLRG tablespace. Depending on customer-specific requirements and environment, it may be advisable to move those tables containing the largest amount of data from this shared tablespace into their own segmented or partitioned tablespaces. This should be done for performance and concurrency reasons.
- Tables with static or relatively minimal growth are grouped into tablespaces named XXAPP, where XX is a PeopleSoft application identifier. These tablespaces are defined with a moderate free space specification.
- Tables that are classified by record type as Temporary tables are grouped into tablespaces named XXWORK, where XX is a PeopleSoft application identifier.
- Tables, which have rows exceeding 4K in length, are placed in the PSIMAGE tablespace, which is created using a 32K buffer pool.

- Tables that benefit from row level locking exist in the following tablespaces:
 - PTPRC — Tables used by the Process Scheduler
 - PTPRJWK — Tools Project Work Table
 - PTAUDIT — Table used by PeopleTools Audit functionality
 - PTAMSG — Tables used by Application Messaging
 - PTLOCK — PSLOCK and PSVERSION tables are stored in this tablespace. These tables consist of multiple rows and are used for concurrency and version control respectively.
 - PTRPTS — Tables used by Report Repository processes
 - PTCMSTAR — Tables generated by PeopleTools Cube Manager
 - PSIMGR — Tables that benefit from row level locking that also require use of a 32K bufferpool.
- Other tablespaces exist to group tables in PeopleTools by functionality (that is, PTTREE for tree tables, and PTAPPE for Application Engine tables).

Simple or partitioned tablespaces (one table per tablespace) are not supported for the initial installation, but may be implemented for demonstration and production databases using the PeopleTools Application Designer.

Naming Tablespace Defaults

The following tables lists common tablespaces and their defaults.

Tablespaces	Comments
PTAPP, PTTBL	Contain moderate sized PeopleTools tables with little expected growth.
PTTLRG	Contains larger PeopleTools tables that have the potential to grow large.
PTAUDIT	Contains table PSAUDIT used by PeopleTools audit functionality. Row level locking is specified for this tablespace.
PTCMSTAR	Tables dynamically created by Cube Manager will use this tablespace.
PSIMAGE	Contains all PeopleSoft tables requiring 32K bufferpool size.
PSIMGR	Contains tables requiring a 32K bufferpool size that also benefit from row level locking. Row level locking is specified for this tablespace.
PTAMSG	Tables used by Application Messaging. Row level locking is used for this tablespace.
PTAPPE	Tables used for Application Engine. Please note that other AE tables exist in PSIMAGE because they require 32KB bufferpool.
PTLOCK	Contains PSLOCK and PSVERSION. Row level locking is used for this tablespace.
PTTREE	Contains tables specific to PeopleTools trees.
PTPRC	All tables used by ProcessScheduler. Row level locking is used for this tablespace.
PTPRJWK	Contains table PSPROJECTWRK. Row level locking is used for this tablespace.

Tablespaces	Comments
PTRPTS	Contains tables associated with Report Repository functionality. Row level locking is used for this tablespace.
XXWORK	Contain PeopleTools and application “temporary”2. tables.
XXLRG	Application tablespaces containing tables identified as high growth and high update, where the xx corresponds to the two-character application identifier (FS, PC, AF, and so on).
XXAPP	Application tablespaces identified as static or with the potential for relatively minimal growth, where the xx corresponds to the two-character application identifier (FS, PC, AF, and so on).
XXIMAGE	Contain Application tables requiring 32K buffer pool size.

Parsing Tablespaces

In this multiple database strategy, the tablespaces are distributed to different databases based on the key application group within the product line. This parsing strategy serves as a good starting point to build a PeopleSoft database in your development environment. We recommend that you install the Demonstration database with the delivered strategy to expedite the database creation. You may consider tailoring the delivered DDL script files to implement your own strategy to build your System PeopleSoft database.

Below are some guidelines that were used in determining a parsing strategy:

- PeopleTools tablespaces are created in a "root" database, with one exception ("root" being the seven-character database name without addition of the eighth character).
- Tablespace PTPRC (also a PeopleTools tablespace) is placed in its own database, with an added eighth character of T, to avoid contention between Process Scheduler and any other processes that may be running.

Refer to the summary found in the specific XXDDL.SQL script, for the exact database or tablespace parsing strategy for the Product Line.

Note. You can further improve performance by remapping tables to additional tablespaces, and tablespaces to additional databases with the PeopleSoft Tablespace DDL Automation Assistance Tool (PSTAAT). Consult the appendix “Using the PeopleSoft Tablespace DDL Automation Assistance Tool” to help you plan a strategy for implementing production PeopleSoft databases.

See *Enterprise PeopleTools 8.50 PeopleBook: Data Management*.

Task 8-6: Creating Tables

The CREATE TABLE statements to build the tables for the application group are in Partitioned Data Set HLQ.PSvvv.DDLLIB. To create the tables, use TBDDL for non-Unicode databases, and TBDDL for Unicode databases. If any changes were made to the name of the databases or tablespaces in the HLQ.PSvvv.DDLLIB(XXDDL) or HLQ.PSvvv.DDLLIB script, you must make the same parameter changes to the file you will use to create the tables. The key values you need to modify are:

- *Owner#ID* — This value equates to the "CREATOR" field in the SYSIBM.SYSTABLES catalog table and is offered to facilitate Secondary Authorization ID processing.

- *OBJ#OWNER* — This value should equate to the CREATOR field in the SYSIBM.SYSTABLES catalog table.
- *Database names*
- *Tablespace names* — Only if you changed the default names specified in the HLQ.PSvvv.DDLLIB(XXDDL)

After reviewing all your changes, submit this file, preferably through DSNTEP2, since this task will take between one and two hours.

Note. You may use the PeopleSoft Tablespace DDL Automation Assistance Tool (PSTAAT) to optimize the default installation DDL scripts (xxDDL, TBDDL) for a production environment. See the appendix “Using the PeopleSoft Tablespace DDL Automation Assistance Tool” for more details.

Warning! By default DSNTEP2 allows 10 errors, failing on the 11th error. Allowing 10 errors before the script stops could leave your database in an inconsistent state. It is important that your script stop at the first error so you can assess the problem, fix it and resubmit the job. You may want to change the default for DSNTEP2 to fail on the first error or use SPUFI to submit the TBDDL.

Task 8-7: Configuring the DB2 Connect Gateway

Because subsequent installation tasks require connectivity to the remote database, you now need to configure the DB2 Connect Gateway, cataloging an alias for the PeopleSoft database. You also need to perform any additional tasks required for connectivity that you didn’t already complete during preparation. For instructions on performing these tasks, see the appendix “Installing and Configuring DB2 Connect.” For details on DB2 Connect configuration, refer to your IBM DB2 Connect documentation.

Task 8-8: Creating Data Mover Import Scripts

This section discusses:

- Understanding Data Mover Import Scripts
- Working with Multilingual Databases
- Running Database Setup to Create Data Mover Import Scripts

Understanding Data Mover Import Scripts

The Data Mover Import scripts are used to populate the PeopleSoft database with data. You use the Database Setup feature of the PeopleSoft Data Mover program to create the Data Mover Import scripts.

You need to perform this procedure for each type of database that you create (System and Demo databases). Also, if your database supports Unicode, you need to have decided whether to use a Unicode or ANSI database.

See *Enterprise PeopleTools 8.50 PeopleBook: Global Technology*

Task 8-8-1: Working with Multilingual Databases

All PeopleSoft releases are shipped with English as the database's base language. Therefore when selecting components for the Data Mover Import script, you must select the English components in addition to any other languages you have licensed. After the installation is complete, you can change the database's base language to the language that you plan to use most frequently.

Note. If you are creating a database and want to load Oracle-provided translations for non-English languages, you must load English (ENG) in addition to the foreign language components.

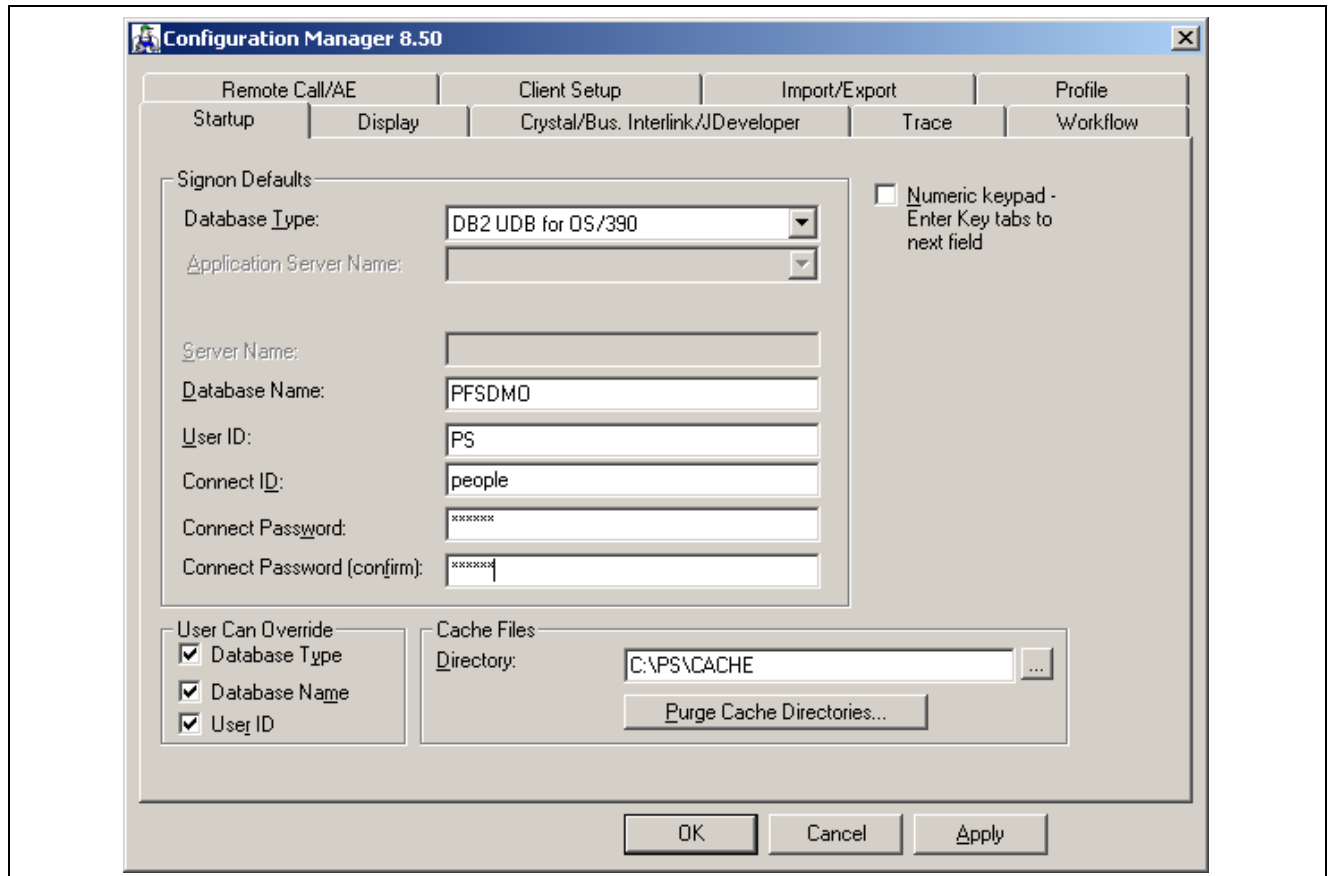
Note. If you haven't already done so, refer to Chapter 1 before determining whether to install multiple languages and whether to change your base language. See "Preparing for Installation," Planning Multilingual Strategy.

Task 8-8-2: Running Database Setup to Create Data Mover Import Scripts

The following procedure describes how to use the Database Setup feature to generate Data Mover import scripts.

To create Data Mover import scripts:

1. In Configuration Manager, verify in the Signon Defaults that the Database Type of DB2 UDB for OS/390 is selected. If not, you will be prompted for the application server name, instead of the required database name.



Configuration Manager dialog box

2. Log onto the database shell in *Bootstrap* mode with Data Mover.

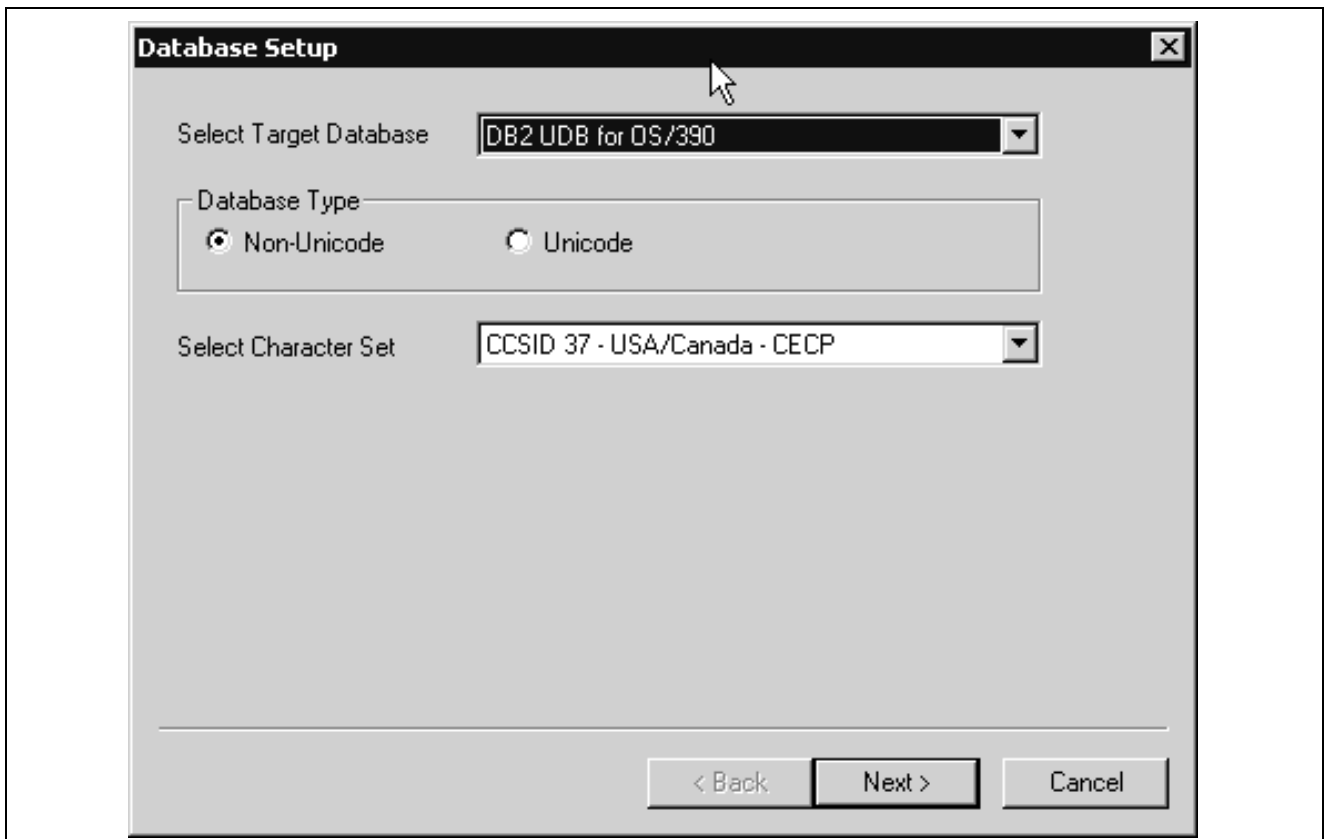
Bootstrap mode means starting Data Mover with the database Access ID and password, rather than with a PeopleSoft user ID. When you start Data Mover in bootstrap mode, the word “BootStrap” appears in the Data Mover status bar. (The opposite of Bootstrap mode is User mode. When in User mode, no actual mode displays on the status bar.)

Note. You must limit Access ID and the Access password to eight characters or less.

3. Select Start, Programs, PeopleTools 8.4, Data Mover (or go to *PS_HOME\bin\client\winx86* and run *psdmt.exe*). The PeopleSoft Logon window appears.
4. Log on using the Access ID and password you defined in your mainframe security software application; this will start Data Mover in bootstrap mode.

See "Preparing for Installation," Planning Database Creation.

5. Choose File, Database Setup. You see the Database Setup dialog:

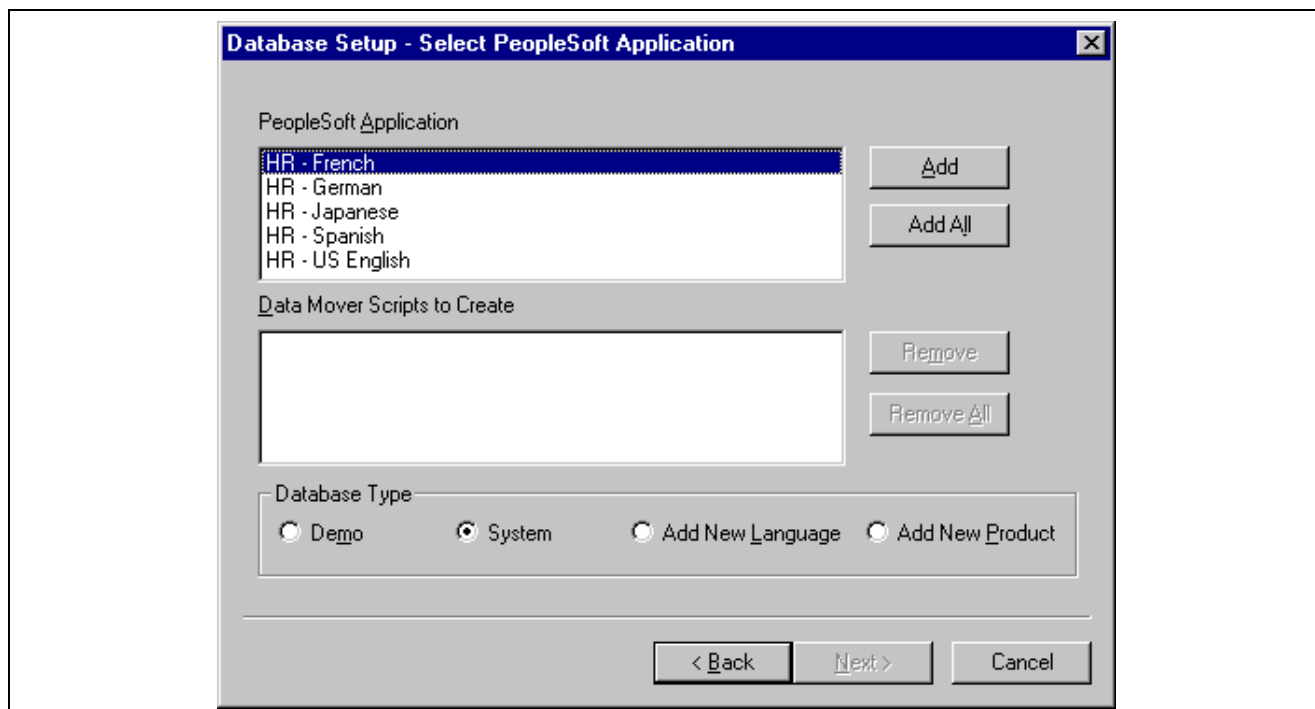


Database Setup dialog box

6. If necessary, change your Character Set, and click *Next*.

Note. DB Setup does not actually modify the encoding scheme of your database. That is accomplished during creation. DB Setup only creates customized scripts based on your selections.

7. Select the Demo or System radio button, depending on which type of PeopleSoft database you are installing.

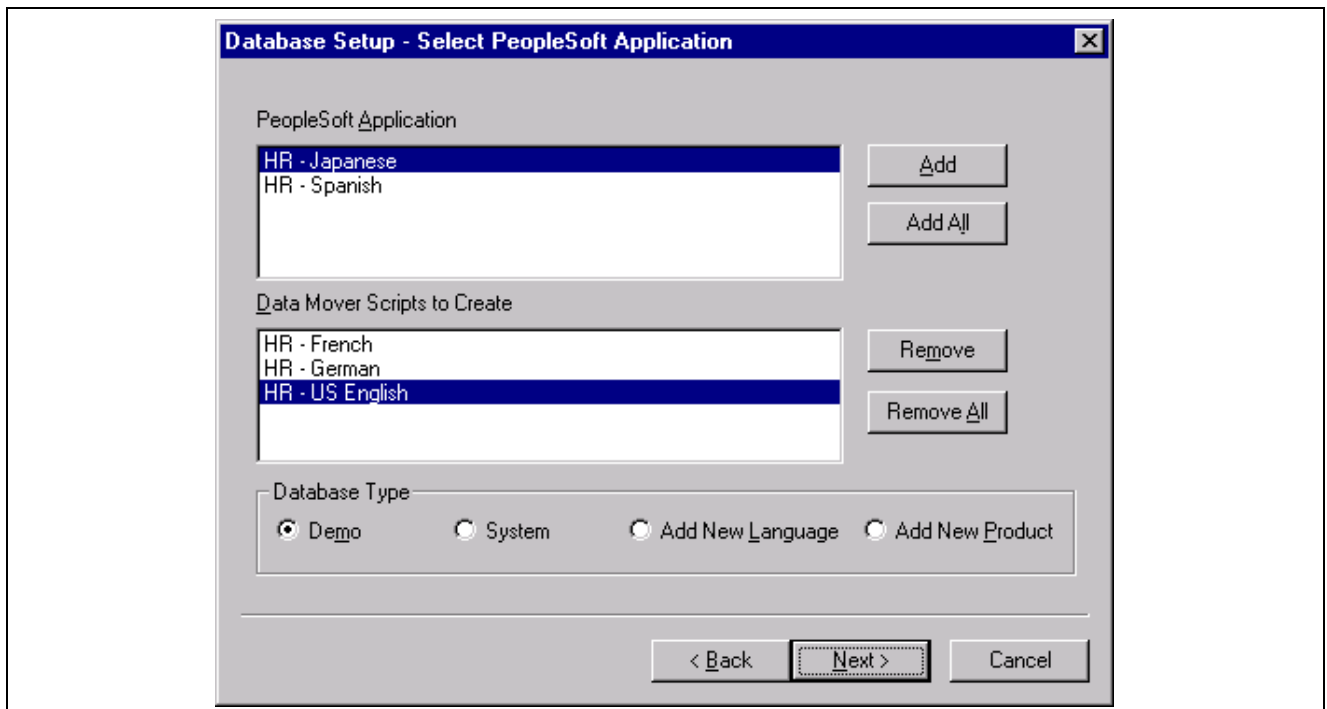


Choosing the PeopleSoft Database type in the Database Setup dialog box

8. Select the Product(s) for which you want to create a Data Mover script from the PeopleSoft Application list box. Only the Products and languages that you have licensed will be available. Move the item(s) you have selected into the Data Mover Scripts to Create list box by clicking on the Add or Add All button.

If you installed the Multilanguage CD, each application will be listed several times, once for each language. See the chapter on preparing for installation for a list of the Oracle-provided languages and abbreviations. If you are installing languages other than English, make sure to select the appropriate language data files for each application you select in English. This will load the translated database objects.

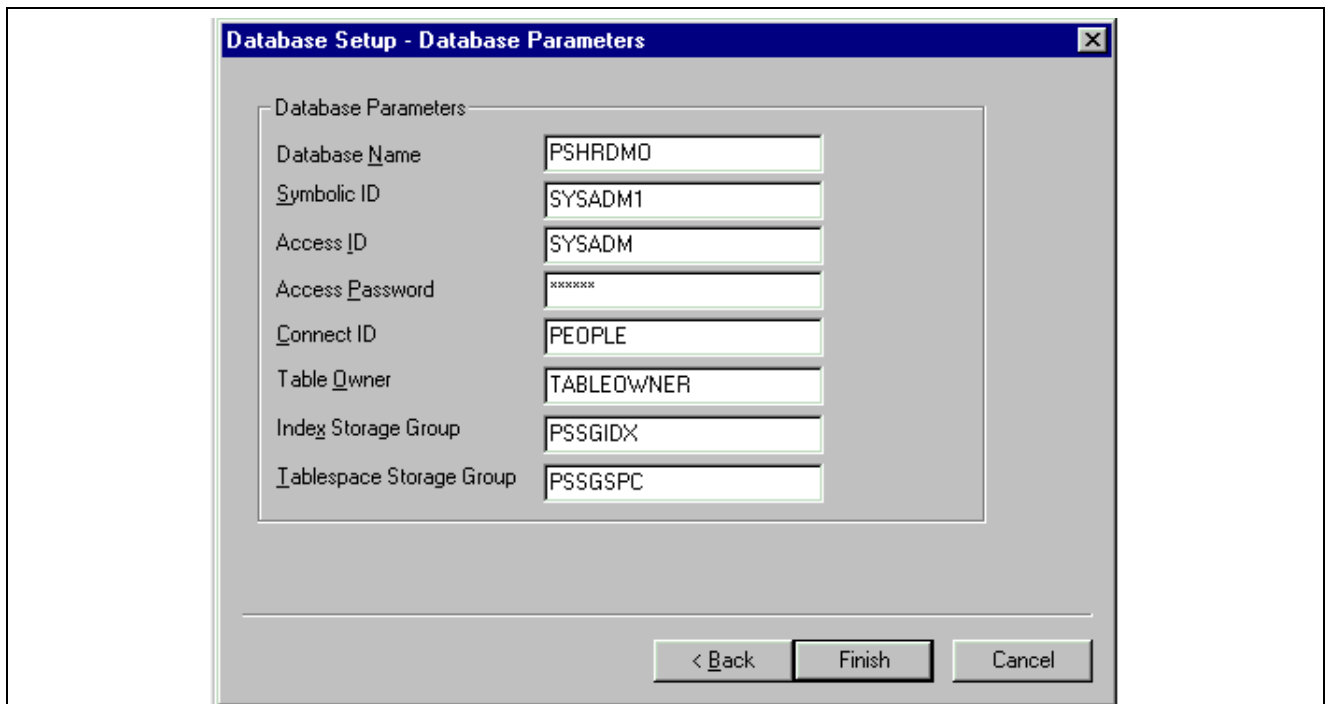
See "Preparing for Installation," Planning Multilingual Strategy.



Choosing applications in the Database Setup dialog box

If you are installing an application in any language other than English, you must also select the English component of the application. For example, if you select PeopleSoft Fin/SCM — French, you must also select PeopleSoft Fin/SCM Database — US English. This ensures that you install the necessary base-language components.

9. Once you have selected the languages for the Data Mover scripts to create, select Next. The Database Parameters dialog box appears.



Choosing the database parameters in the Database Setup dialog box

The various parameters are discussed below:

- *Database Name* — the logical DB2 database name determined in the chapter Preparing for Installation in the task “Planning Database Creation.”

The database name must also be defined as an alias in DB2 Connect to establish a successful connection to your PeopleSoft database, as described in the appendix “Installing and Configuring DB2 Connect.”

- *Symbolic ID* — the key to retrieve ACCESSID and ACCESSPSWD from PSACCESSPRFL. For initial installation set it equal to the Database Name. The Symbolic ID cannot be longer than eight characters.
- *Access ID* — the PeopleSoft Access ID defined in the chapter Preparing for Installation under “Planning Database Creation.” This is also the User ID value with which you should be currently logged on to Data Mover. This value is case sensitive.
- *Access Password* — the PeopleSoft Access Password defined in the chapter Preparing for Installation under “Planning Database Creation.” This is also the User password value with which you should be currently logged on to Data Mover.
- *Connect ID* — for DB2 UDB for z/OS, this is the Connect ID that can be used for the initial connection to DB2 z/OS. This ID is used for connecting to the database. The use of Connect ID is mandatory with PeopleTools 8.4.

Note. The Connect ID must be defined as a valid logon ID in the database security management software. The Connect ID only needs to be granted SELECT access on PS.PSDBOWNER, PSACCESSPRFL, PSOPERDEFN, and PSSTATUS. This ID should be granted no other database authorities.

- *Table Owner* — the name of the table owner ID determined in the chapter Preparing for Installation under “Planning Database Creation.” (This value will populate the CREATOR field in the system catalog table SYSIBM.SYSTABLES.) It is this value that identifies all the tables as belonging to the logical PeopleSoft database.
- *Index Storage Group* — the storage group where the index spaces will be created. Later you have to edit the delivered script IXDDL.SQL with this value.
- *Tablespace Storage Group* — the storage group for tablespaces. This value must be the same as that used in the XXDDL.SQL/XXDDL.U.SQL script described earlier when the Tablespaces were created.

10. Provide the parameter values, and click Finish.

A script <dbname>dbo.dms is created in the *PS_HOME*\scripts directory, and the script is displayed in the Data Mover input window. The log files will be written to the location you have specified for the Data Mover Log Directory in the Configuration Manager profile.

Note. If you selected a Database Type of *System* in the Database Setup dialog (above), you must use the Data Mover DBSPACE command to properly override the default database names in the generated Data Mover script (script <dbname>dbo.dms). The appendix “Extracting DDL for PTSYS Database” discusses a sample script that you can use to customize the database names for your location. Refer to this appendix for information on creating a PTSYS database.

See Also

Enterprise PeopleTools 8.50 PeopleBook: Data Management

"Extracting DDL for PTSYS Database"

Task 8-9: Running Data Mover Import Scripts

This section discusses:

- Understanding Data Mover Import Scripts
- Populating Tables in the PeopleSoft Database
- Validating Files
- Troubleshooting
- Improving Performance
- Improving Execution

Understanding Data Mover Import Scripts

Now you will run the Data Mover scripts (DMS) that you created in the preceding task to import the data for your PeopleSoft database. The Data Mover script creates either a system (SYS) or a demo (DMO) database.

When you initially logged onto Data Mover to create the DMS scripts, you logged in using bootstrap mode. *Bootstrap mode* means starting Data Mover with the database Access ID and password, rather than with a PeopleSoft user ID. You need to use bootstrap mode to run the Data Mover import script, because there are not yet any PeopleSoft security tables in the database.

Note. If you want to run Data Mover on the same machine as the application server or Process Scheduler, you need to start a new telnet session without running PSADMIN and make sure the PS_SERVER_CFG environment variable is not set. PS_SERVER_CFG is only set when you run PSADMIN, so if you have not run it before this should not be a concern. When running Data Mover, you do not need to run PSADMIN.

Note. You should already be signed on in Bootstrap mode from having completed the previous task.

Verify that the same Connect ID was used in the Database Setup, and Configuration Manager panel. If you accepted all defaults, the Connect ID/Password is: people/people (password has the number 1 instead of the letter “l”).

See *Enterprise PeopleTools 8.50 PeopleBook: Data Management*.

Warning! The Data Mover utility uses the INSERT SQL command to populate all the tables in PeopleSoft database. Notify your systems programmer and operations staff that this activity will generate more DB2 z/OS logging activity than usual.

Task 8-9-1: Populating Tables in the PeopleSoft Database

To populate tables in the PeopleSoft database:

1. The DMS import script for your application will contain hard-coded file names for log files and data files. Modify the DMS script if you have moved any files from the delivered directories or want to write log files to another location than that specified in the script.
2. If you have logged out of Data Mover after creating the DMS script, log back on again in *Bootstrap mode*; otherwise skip the next instruction.

3. Choose File, Open to open the DMS script you created earlier.

Browse the directory where the script was created: *PS_HOME\SCRIPTS*. Open the DMS script with the name *<dbname>DBO.dms*, where *<dbname>* is the name of the database you provided when creating the script.

4. One of the statements in the script grants select authority on PS.PSDBOWNER to the Connect ID.

```
GRANT SELECT ON PS.PSDBOWNER TO <Connect Id>;
```

5. If you have not granted the Access ID (the ID that you used to log on to Data Mover to execute the script) a level of authority that would permit it to execute this statement, the Data Mover script will fail and stop at the statement.

You can exercise three options to prevent this failure:

- Grant SELECT access on PS.PSDBOWNER to PUBLIC, and remove this GRANT statement from the script.
- Remove this GRANT statement from the script and perform it later with an ID that is authorized to issue grants on PS.PSDBOWNER.
- Grant authority to the Access ID to grant access on PS.PSDBOWNER to other User Ids.

6. Select File, Run to execute the script.

When you run the script, Data Mover typically does the following:

- **IMPORT ***
Create all the PeopleTools and application tables with their indexes.
- **ENCRYPT_PASSWORD ***
Encrypt security information for the database.

Task 8-9-2: Validating Files

Each script will produce .LOG files. The log files are located in the directory you specified in the Data Mover Script.

This is the same directory you specified for the Data Mover Log Directory in the Configuration Manager profile, unless you edited this location in the DMS script.

Task 8-9-3: Troubleshooting

If your script has stopped midway (this can happen for a number of reasons) you need to edit the script and start again.

To edit and restart the DMS script:

1. Determine the record that was being imported (that is, which IMPORT command was running) when the script stopped. (See the note below for additional information on determining where the script stopped.)

Note. When building a DMO database or a multilingual database, adding the SET START statement can be tricky because the Data Mover script used to load the database will include more than one IMPORT statement. The key is to view the LOG files and determine which IMPORT section of the script Data Mover failed on. If the failure occurred during the first IMPORT, add the SET START statement before the first IMPORT *; statement (no problem with this one). If the failure occurred during a subsequent IMPORT, comment out all preceding IMPORT *; statements and add the SET START statement before the IMPORT*; statement of the section in which the failure occurred. This is very important. If you see any 'unique index constraint' error messages in the 'Create Indexes' step (found later in the chapter), your IMPORT script failed during a subsequent IMPORT but the SET START statement was added to the first IMPORT. In this situation, you can run the Data Mover script in its originally generated form, with only one modification. In the first IMPORT section, change the statement IMPORT *; to REPLACE_DATA *;. This will delete all the data in the tables, and re-import it. This process will take some time to run, and you will need to separately create each of the indexes that failed.

2. Add the following line before the offending IMPORT command (the one being executed when the failure occurred):

```
Set start <RECORD NAME>;
```

where <RECORD NAME> is the name of the record that failed. Make sure to review the Data Mover log file to see where the script failed and locate the last record that imported successfully. The 'SET START' will begin the Data Mover import at the <RECORD NAME> specified.

<RECORD NAME> is the PeopleSoft record name as defined in PSRECDEFN, not necessarily the same as the DB2 table name. With the exception of the PeopleSoft PeopleTools tables, most PeopleSoft record names are appended with PS_ to create the DB2 table name.

Note. It is a good idea to change the name of the log file in the script before each attempt at running it. This ensures that you have a separate log file for each attempt, if you run the import more than once.

Example:

If the script stops and the table is partially inserted with a message similar to this one:

```
Importing PSPNLFIELD
Rows inserted into PSPNLFIELD
```

First delete the rows from the partially inserted table (for example, record) by using the DELETE FROM <table> command, and then restart Data Mover at the record that failed using the SET START command and continue the Data Mover import. With PeopleSoft PeopleTools 8.50 and higher, this can be done in a single pass.

Add the following lines before the offending IMPORT command (the one being executed when the failure occurred):

```
SET START <RECORD NAME>;

DELETE FROM <RECORD NAME>;
```

where <RECORD NAME> is the name of the record that failed. Make sure to review the Data Mover log file to see where the script failed and locate the last record that imported successfully. The SET START will begin the Data Mover import at the <RECORD NAME> specified. For example:

Before

```
REM - PeopleTools System Database - US English
```

```

/
SET LOG ptengs.log;
SET INPUT ptengs.db;

SET NO RECORD;

SET NO VIEW;
SET NO SPACE;
SET NO TRACE;
SET UNICODE OFF;
IMPORT *;

```

After

```

REM - PeopleTools System Database - US English
/
SET LOG ptengs.log;
SET INPUT ptengs.db;

SET NO RECORD;

SET NO VIEW;
SET NO SPACE;
SET NO TRACE;
SET UNICODE OFF;
SET START PSPNLFIELD;

DELETE FROM PSPNLFIELD;

IMPORT *;

```

For the DELETE Statement, for records with a recname without a leading PS, add PS_ to the beginning of the recname; otherwise the table will not be found.

Example:

PS_<RECNAME>

3. Re-start the script (File, Run Script).

Task 8-9-4: Improving Performance

The following tips can help you save time when running the Data Mover scripts:

- Run only a single instance of Data Mover, and do not have any other applications running during the import.
- In the PeopleSoft Configuration Manager, turn off all Trace options. Tracing during a DMS load will add considerable time to the process.

Task 8-9-5: Improving Execution

Data Mover, by default, commits at the end of each table. If you prefer, when running Data Mover, you can include a SET COMMIT command (such as SET COMMIT 5000) to force a commit after the specified number of rows have been inserted into the table. However, if you use this option, and Data Mover ends abnormally again, you must mass delete the rows contained in the current table.

If the script stops and the table is partially inserted with the message below:

```
Importing PSPNLFIELD
Rows inserted into PSPNLFIELD
5000, 10000, 15000
```

Bypass the record using the SET START AFTER command and complete the import. In a second pass, import the partially inserted table using this command:

```
Replace_data <record_name>;
```

Task 8-10: Creating Indexes

All DDL statements to create the indexes for your application are located in the HLQ.PSvvv.DDLLIB(IXDDL) file. Edit the IXDDL file to make changes to the delivered DDL to customize the OWNER#ID, OBJ#OWNER, DEFINE YES, DEFINE NO, and STOGROUP values to the specific values used at your site:

Note. You may then use the IXDDL script with the PeopleSoft Tablespace DDL Automation Assistance Tool (PSTAAT) to further optimize index DDL. See the appendix “Using the PeopleSoft Tablespace DDL Automation Assistance Tool” for more details.

- OWNER#ID: The statement SET CURRENT SQLID may be used, but is not required. All objects in the CREATE INDEX statements are fully qualified.
- OBJ#OWNER: This value should equate to the CREATOR field in the SYSIBM.SYSINDEXES catalog table.
- DEFINE YES or DEFINE NO: The default for the delivered index DDL is DEFINE NO.

If you do not want to defer creation of the underlying VSAM index datasets until rows are inserted into tables (DEFINE NO), edit the IXDDL file in ISPF as follows:

```
change all 'DEFINE NO' to 'DEFINE YES'
```

or

```
change all 'DEFINE NO' to ' '
```

If you want to permanently change the delivered default for index DDL to *DEFINE YES*, edit the Data Mover script *PS_HOME/scripts/DDLDDB2.DMS* by removing *DEFINE NO* from the end of the index model statement. Terminate the statement with a semi-colon and save the script. For example:

Original:

```
CREATE [UNIQUE] INDEX **OWNER**.[IDXNAME] ON **OWNER2**.[TBNAME] ([IDXCOLLIST])⇒
  USING STOGROUP **STOGROUP** PRIQTY **PRIQTY** SECQTY **SECQTY** [CLUSTER]⇒
  BUFFERPOOL **BUFFERPL** CLOSE NO DEFINE NO;
```

New:

```
CREATE [UNIQUE] INDEX **OWNER**.[IDXNAME] ON **OWNER2**.[TBNAME] ([IDXCOLLIST])⇒
```

```
USING STOGROUP **STOGROUP** PRIQTY **PRIQTY** SECQTY **SECQTY** [CLUSTER]⇒  
BUFFERPOOL **BUFFERPL** CLOSE NO;
```

After you edit the script, you must run the STOREDDL.DMS script to update the index model ddl definition.

See Updating PeopleTools System Data.

- STOGROUP

Save your changes and submit the DDL statements either through SPUFI or DSNTEP2. It is preferable to submit this in batch mode using DSNTEP2. This task can take several hours to complete, depending on the product line you are installing.

If you decide to submit this through SPUFI, verify that the designated output data set is allocated with sufficient tracks or cylinders to hold the result of processing all the CREATE INDEX statements. You should consider creating a SPUFI output dataset with file attributes: VB,Record Length =4092,Blk size=4096, SPACE (Primary 20 cylinders, Secondary 5 cylinders).

Important! Do not change the name of any index. All indexes in this script are cataloged in the PeopleSoft system tables. If you change an index name, the physical index will not match the index definition stored in PeopleTools. These index discrepancies will be reported as exceptions in the DDDAUDIT report.

Task 8-11: Updating Database to Latest PeopleTools Release

This section discusses:

- Understanding Database Updates
- Cleaning Up Data
- Updating PeopleTools System Tables
- Updating PeopleTools Database Objects
- Updating PeopleTools Multilingual Objects
- Deleting Obsolete PeopleTools Database Objects
- Applying Patched PeopleTools Database Objects
- Altering PeopleTools Tables
- Migrating Records to New Tablespaces
- Updating PeopleTools System Data
- Running PeopleTools Conversions
- Converting Integration Broker
- Running Additional PeopleTools Conversions
- Changing the User Interface

Understanding Database Updates

Your PeopleSoft application database may be on a PeopleSoft PeopleTools release prior to the version that you are currently running. For you to be able to sign on to your database after running the Data Mover script to load your database, the PeopleSoft PeopleTools versions for your database and your file server must match. The steps in this task ensure that your PeopleSoft database is in sync with the PeopleSoft PeopleTools version that you are running.

Note. You will use Application Designer for several steps in this portion of the installation. Consult the Application Designer documentation if you have questions.

See *Enterprise PeopleTools 8.50 PeopleBook: PeopleSoft Application Designer*

Note. If you are installing a PeopleSoft PeopleTools System Database or if your database is delivered on PeopleSoft PeopleTools 8.50, the delivered database already contains the updated PeopleSoft PeopleTools objects. Skip this task and continue with the install at the task Running the DB2 RUNSTATS Utility.

Here is a list of applications for which this task must be run because the version of the database that was shipped is different than the version of PeopleSoft PeopleTools that you are running. If your application release is earlier than the release listed in the table, you must run this task:

Application Release	Application Database Version	Requires Update to 8.50?
CRM 9.0	8.48	Yes
CRM 9.1	8.50	No
ELS 9.0	8.47	Yes
ELS 9.1	8.50	No
EPM 9.0	8.48	Yes
EPM 9.1	8.50	No
Fin/SCM 9.0	8.48	Yes
Fin/SCM 9.1	8.50	No
HRMS 9.0	8.48	Yes
HRMS 9.1	8.50	No
SIM 8.9	8.45	Yes

Verify your application and PeopleSoft PeopleTools release information on My Oracle Support. After logging in, select the Product Certifications tab, then the Product Roadmap link. Search for the product you are installing. In the release definition information, you can find the PeopleTools release in the Technology area. For information on earlier releases, select the link Product Roadmap (Pre-2006).

If the PeopleTools version is not 8.50, you must run this task. Otherwise, continue to the task Running Additional Data Mover Scripts.

Task 8-11-1: Cleaning Up Data

If your database is delivered on PeopleSoft PeopleTools 8.48 or higher, do *not* run this step, and instead, proceed to Updating PeopleTools System Tables. If your database is delivered on PeopleSoft PeopleTools 8.47 or earlier, perform this step to clean out obsolete message data.

Warning! Performing this task when updating from PeopleSoft PeopleTools 8.48 or later will wipe out current valid data that is needed for your system to function properly.

Message functionality and structure changed as of PeopleSoft PeopleTools 8.48 and the old data is obsolete. Edit *PS_HOME*\scripts\ptupgibdel.sql to delete data from the tables that only exist in the old PeopleSoft PeopleTools release. Open the script and make the following modifications, and then run the modified script using your SQL query tool:

1. Search for the string “--- End of PT8.<xx> ---” where <xx> represents the last two digits of the PeopleSoft PeopleTools release you are upgrading from.
2. Delete the entire portion of the script below this string.
3. Save the script as <PS_HOME>\scripts\ptupgibdel8<xx>.sql where <xx> represents the last two digits of the PeopleSoft PeopleTools release you are upgrading from, as determined in Step 1.

Note. Save the script using the naming convention shown above! This will preserve the original script for use in updating other databases at different PeopleSoft PeopleTools releases.

4. Using a SQL query tool, run the ptupgibdel8<xx>.sql script against your PeopleSoft database.

Task 8-11-2: Updating PeopleTools System Tables

Run SQL scripts to update your PeopleSoft PeopleTools system tables to the latest PeopleSoft PeopleTools release (currently 8.50).

Use a query tool, such as SPUFI, DB2 Command Center, to run SQL scripts while in the PeopleSoft database.

1. Run the appropriate SQL scripts for your application version.

The following scripts are found in the *PS_HOME*\scripts directory.

Use the scripts in the following table for non-Unicode databases:

Application Database Version	Required Scripts for Non-Unicode Databases
8.40	rel841, rel842, rel843, rel844, rel845, rel846, rel847, rel848, rel849, and rel850
8.41	rel842, rel843, rel844, rel845, rel846, rel847, rel848, rel849, and rel850
8.42	rel843, rel844, rel845, rel846, rel847, rel848, rel849, and rel850
8.43	rel844, rel845, rel846, rel847, rel848, rel849, and rel850
8.44	rel845, rel846, rel847, rel848, rel849, and rel850
8.45	rel846, rel847, rel848, rel849, and rel850
8.46	rel847, rel848, rel849, and rel850
8.47	rel848, rel849, and rel850

Application Database Version	Required Scripts for Non-Unicode Databases
8.48	rel849 and rel850
8.49	rel850
8.50	None

Use the scripts in the following table for Unicode databases:

Application Database Version	Required Scripts for Unicode Databases
8.40	rel841u, rel842u, rel843u, rel844u, rel845u, rel846u, rel847u, rel848u, rel849u, and rel850u
8.41	rel842u, rel843u, rel844u, rel845u, rel846u, rel847u, rel848u, rel849u, and rel850u
8.42	rel843u, rel844u, rel845u, rel846u, rel847u, rel848u, rel849u, and rel850u
8.43	rel844u, rel845u, rel846u, rel847u, rel848u, rel849u, and rel850u
8.44	rel845u, rel846u, rel847u, rel848u, rel849u, and rel850u
8.45	rel846u, rel847u, rel848u, rel849u and rel850u
8.46	rel847u, rel848u, rel849u, and rel850u
8.47	rel848u, rel849u, and rel850u
8.48	rel849u and rel850u
8.49	rel850u
8.50	None

- If the application database version you are installing is either 8.42 or 8.43, run the following SQL command:

```
DROP TABLE PS_PSMCFQUEUESLANG
```

Note. PS_PSMCFQUEUESLANG may not exist in some 8.43 application databases. Do *not* drop the table PSMCFQUEUESLANG.

- If the application database you are installing is 8.45 or lower, run the following SQL command:

```
DROP TABLE PSOPTSTATUS
```

- Edit and run the grant.sql script in the *PS_HOME*\scripts directory. This will grant permissions to the Connect ID.
- Invoke Data Mover by running *PS_HOME*\bin\client\winx86\psdmt.exe.
The PeopleSoft Logon window appears.
Log on using a valid PeopleSoft Operator ID, such as PS for HRMS or VP1 for FDM.
- Run the storeddl.dms Data Mover script in the *PS_HOME*\scripts directory.

Note. Comment the other platform-specific scripts according to your platform.

This will update your platform-specific DDL model statements.

Log out of Data Mover for the next step.

7. Invoke Data Mover by running *PS_HOME\bin\client\winx86\psdmt.exe*.

The PeopleSoft Logon window appears.

Log on using the access ID you specified when you created your Data Mover scripts with the Database Setup program.

This will start Data Mover in bootstrap mode.

8. Run the msgtlsupg.dms Data Mover script in the *PS_HOME\scripts* directory.

This will update the PeopleSoft PeopleTools messages in your database.

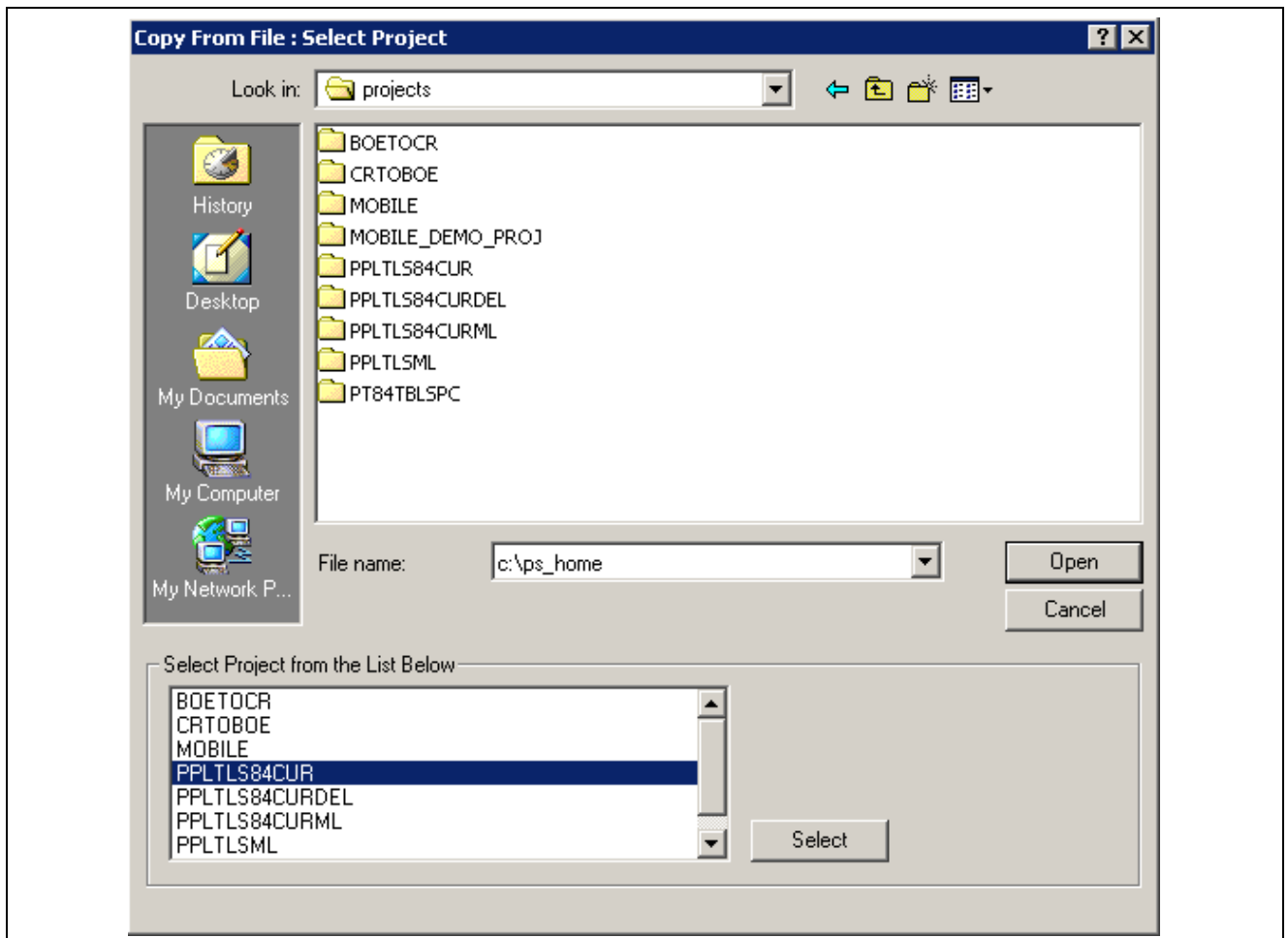
Task 8-11-3: Updating PeopleTools Database Objects

To update PeopleSoft PeopleTools database objects to the current release you must be in Application Designer. The Copy from File functionality lets you update your PeopleSoft PeopleTools database objects from a file. You must perform this step to bring the database objects in sync with the PeopleSoft PeopleTools release. Failure to run this step will introduce problems to your environment.

To update PeopleSoft PeopleTools database objects:

1. Launch Application Designer and sign on to your database with a valid PeopleSoft user ID.
2. Select Tools, Copy Project, From File.
3. In the resulting dialog box, change the import directory to *PS_HOME\projects*, select PPLTLS84CUR from the list of projects and click the Select button.

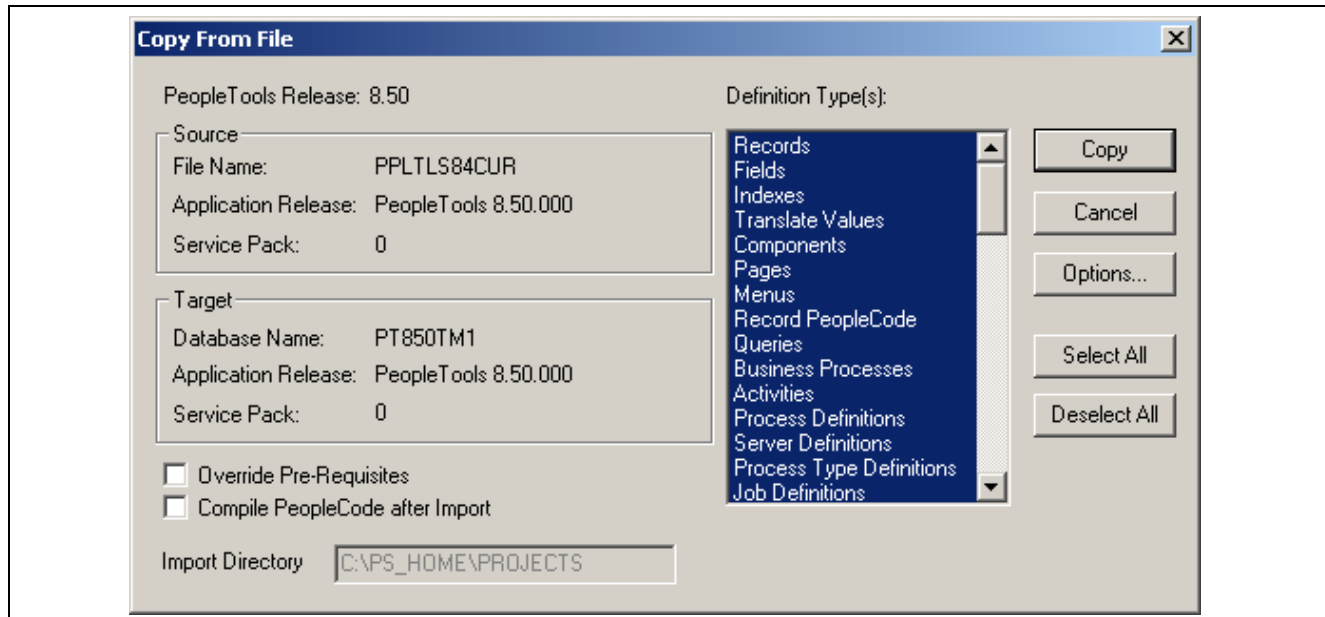
Note. If the project already exists on the database, a confirmation dialog box appears asking if you want to overwrite the existing project. Select the File radio button and click OK to overwrite the existing project.



Selecting PPLTLS84CUR in the Copy From File dialog box

4. The Copy From File dialog box appears.

Select all object types and then click the Copy button. When the progress window disappears, the project has been copied.



The Copy From File dialog box showing that PPLTLS84CUR will be copied

If you see the following types of messages in the output window do not worry; they are acceptable because the field label properties were copied with the object definition:

- Definition Name: OPERPSWD.OPERPSWD not copied, entire definition already copied (62,32).
- Definition Name: OPRID.NEW not copied, entire definition already copied (62,32).

Task 8-11-4: Updating PeopleTools Multilingual Objects

If you are currently updating a PeopleSoft Multilingual Database, you must also apply the project PPLTLS84CURML, which contains the translations of the PeopleSoft PeopleTools Objects.

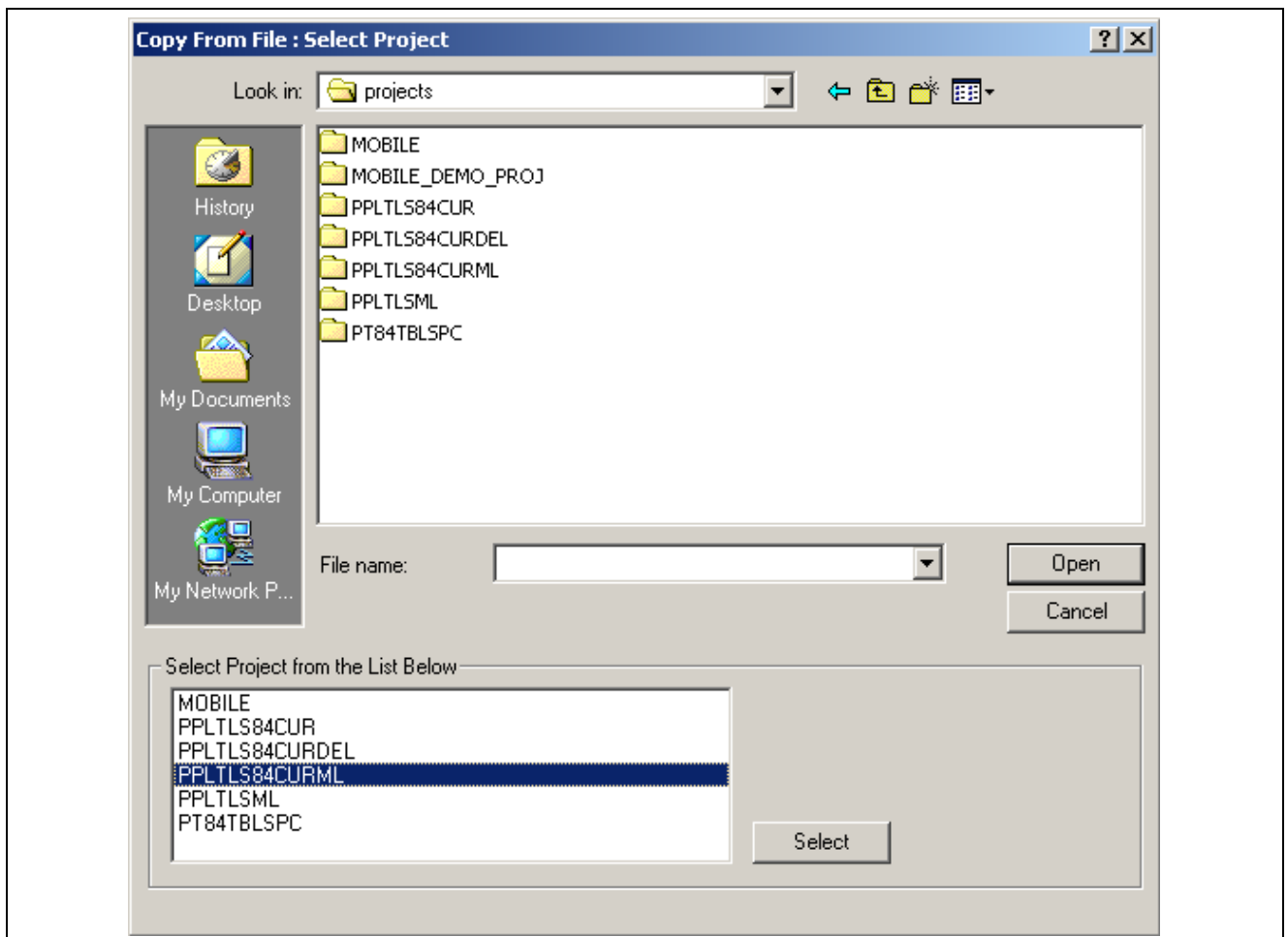
Note. If you have licensed and installed French into this database, copy the PPLTLSML project instead of the PPLTLS84CURML project for French *only*. Substitute the project name PPLTLSML instead of PPLTLS84CURML in the instructions below. Copy the PPLTLS84CURML project to update any non-French languages that are installed in the database.

To update PeopleSoft PeopleTools database objects to the current release you must be in Application Designer. The Copy from File functionality lets you update your PeopleSoft PeopleTools database objects from a file.

To apply the translation project for PeopleSoft PeopleTools 8.50:

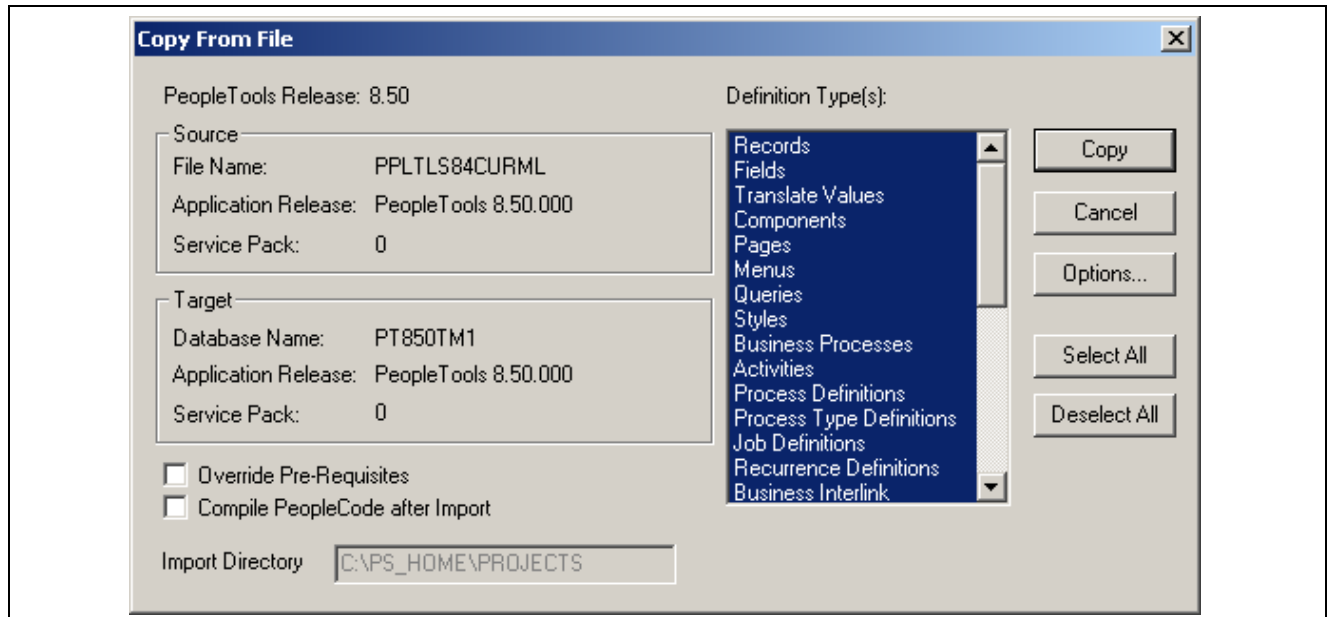
1. Bring up the Configuration Manager and select the Display tab.
Ensure that the language matches the base language of your database. Always run upgrade copy as a base language user.
2. Launch Application Designer and sign on to your database with a valid PeopleSoft user ID.
3. Select Tools, Copy Project, From File.
4. In the resulting dialog box, change the import directory to *PS_HOME*\projects.
5. Select PPLTLS84CURML from the list of projects and click the Select button.

Note. If the project already exists on the database, a confirmation dialog box appears asking if you want to overwrite the existing project. Select the File radio button and click OK to overwrite the existing project.



Selecting PPLTLS84CURML in the Copy From File dialog box

6. The Upgrade Copy dialog box appears.
Make sure that all object types are selected.
7. Click the Options button, select the Copy Options tab, and ensure that only the non-English languages you have installed are selected.
Please note that English and Common should *not* be selected.
8. Select the languages that you are currently installing from the Copy Options dialog box.
9. Click the Copy button.



The Copy From File dialog box showing that PPLTLS84CURML will be copied

When the progress dialog box disappears, the project has been copied.

Task 8-11-5: Deleting Obsolete PeopleTools Database Objects

This process removes obsolete PeopleSoft PeopleTools objects from your database. To update PeopleSoft PeopleTools database objects to the current release you must be in Application Designer. You will use the Copy from File functionality to delete the obsolete objects from the database.

The copy process detects whether any deleted fields are in use on other objects, such as records. You may see the following kind of warning during the copy:

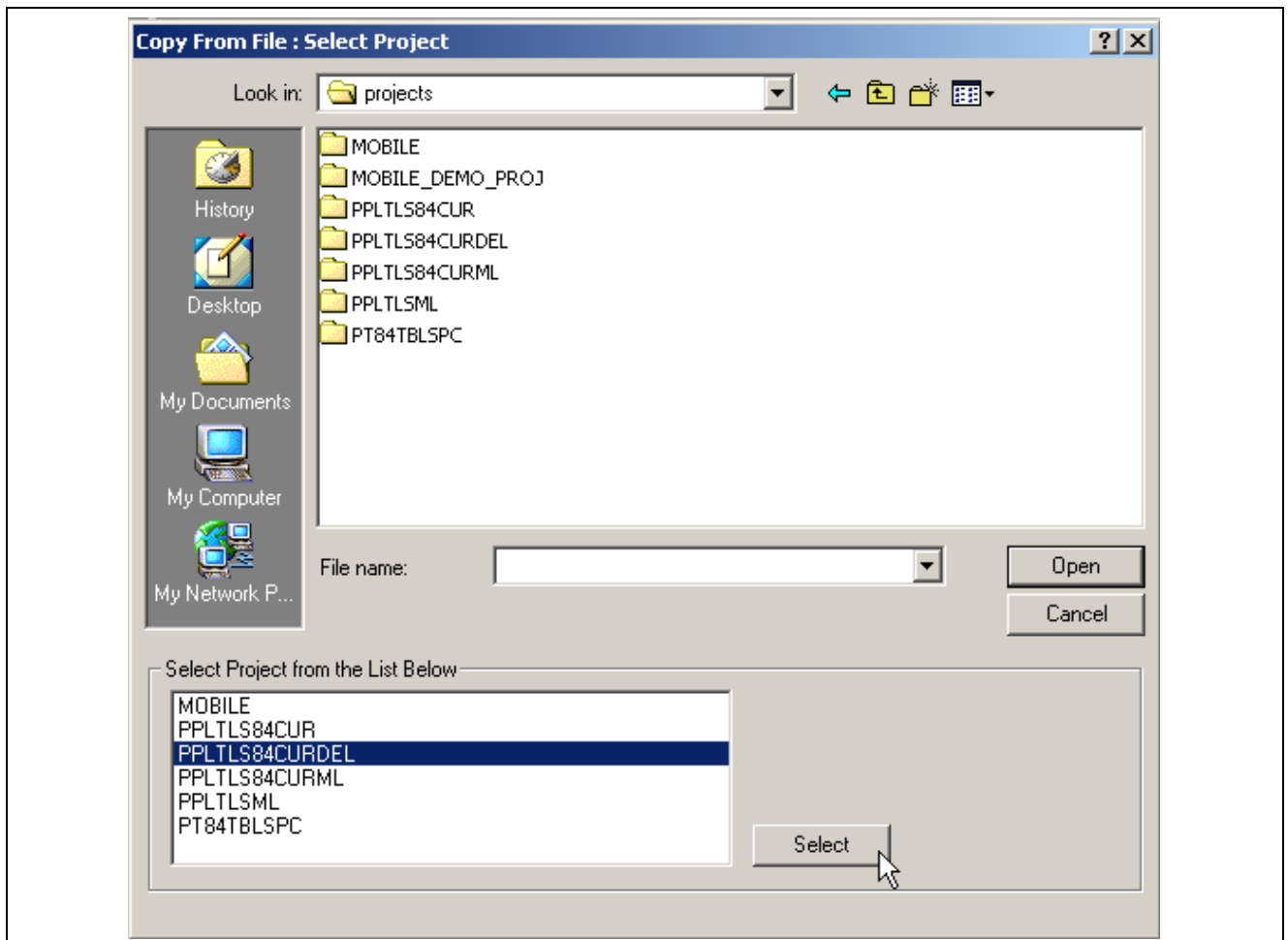
Field <FIELDNAME> is in use on at least one record.

You must clean up any objects that reference the deleted field(s) after the upgrade. While PeopleTools has deleted the field as part of the new release, you may still have objects that reference this deleted field. After fixing any objects that reference this field, delete the field from your system.

To delete obsolete PeopleSoft PeopleTools database objects:

1. Launch Application Designer and sign on to your database with a valid PeopleSoft user ID.
2. Select Tools, Copy Project, From File.
3. In the resulting dialog box, change the import directory to *PS_HOME\projects*, select PPLTLS84CURDEL from the list of projects and click Select.

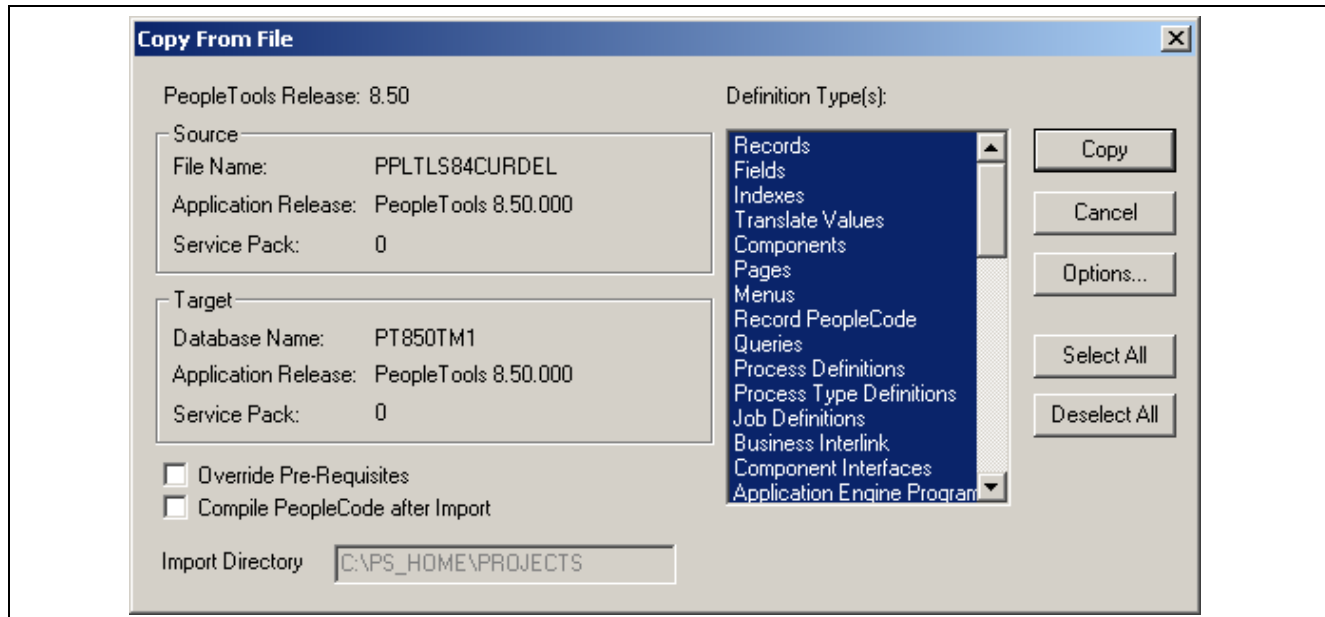
Note. If the project already exists on the database, a confirmation dialog box appears asking if you want to overwrite the existing project. Select the File radio button and click OK to overwrite the existing project.



Selecting PPLTLS84CURDEL in the Copy From File dialog box

4. The Copy From File dialog box appears.

Select all object types and click the Copy button. When the progress dialog box disappears, the project has been copied.



The Copy From File dialog box showing that PPLTLS84CURDEL will be copied

Note. If you are applying a required for install PeopleSoft PeopleTools patch *and if a database project is included*, apply the database projects now. Make sure to read the patch release notes to find out if database changes are in the patch. Read the documentation included with the patch and follow any additional instructions. This is discussed in the next section.

See Applying Patched PeopleTools Database Objects

Task 8-11-6: Applying Patched PeopleTools Database Objects

If you are applying a required for install PeopleSoft PeopleTools patch and *if a database project is included as part of the patch*, apply the database project(s) now. Make sure you apply all projects that are appropriate for your environment, including multilingual (ML) projects, if necessary. Make sure to read the patch release notes to find out if database changes are in the patch.

To update patched PeopleSoft PeopleTools database objects to the current release you must be in Application Designer. The Copy from File functionality lets you update your PeopleSoft PeopleTools database objects from a file. You must perform this step to bring the database objects in sync with the PeopleSoft PeopleTools patch release. Failure to run this step will introduce problems to your environment.

To apply patched PeopleSoft PeopleTools database objects:

1. Launch Application Designer and sign on to your database with a valid PeopleSoft user ID.
2. Select Tools, Copy Project, From File.
3. In the resulting dialog box, change the import directory to *PS_HOME*\projects, select the patch project from the list of projects and click the Select button.
4. Follow the patch instructions to select the correct copy options. Select all object types and then click the Copy button.

When the progress window disappears, the project has been copied.

Note. If no project is included as part of the patch, run *PS_HOME\scripts\PTPATCH.DMS* in user mode instead.

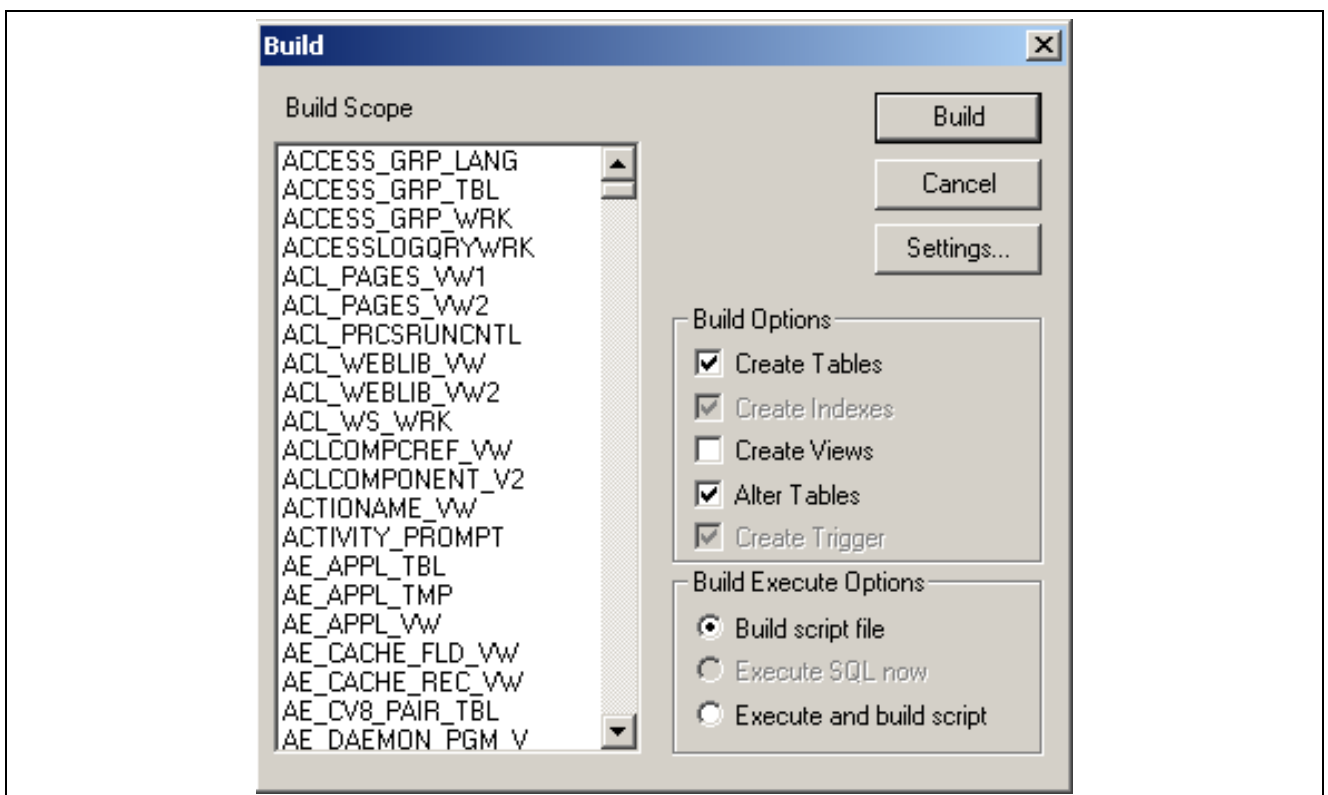
Task 8-11-7: Altering PeopleTools Tables

Use the ALTER AUDIT process in this step to check whether the PeopleSoft PeopleTools tables are synchronized with the underlying SQL data tables in your database. This step uses a delivered project to compare the data structures of your database tables with the PeopleSoft PeopleTools tables to uncover inconsistencies. The ALTER AUDIT process then reports its findings. At this point in the installation, we expect to see differences between the database structure and the PeopleSoft PeopleTools tables. You will generate and run a SQL script to synchronize the PeopleSoft PeopleTools table definitions with the underlying tables in your database.

To alter PeopleSoft PeopleTools tables:

1. Launch Application Designer with a valid PeopleSoft user ID and sign on to the installed database.
2. Select File, Open.
3. Select *Project*, enter *PPLTLS84CUR* in the name dialog box, and click OK.
4. Select Build, Project.

The Build dialog box appears:

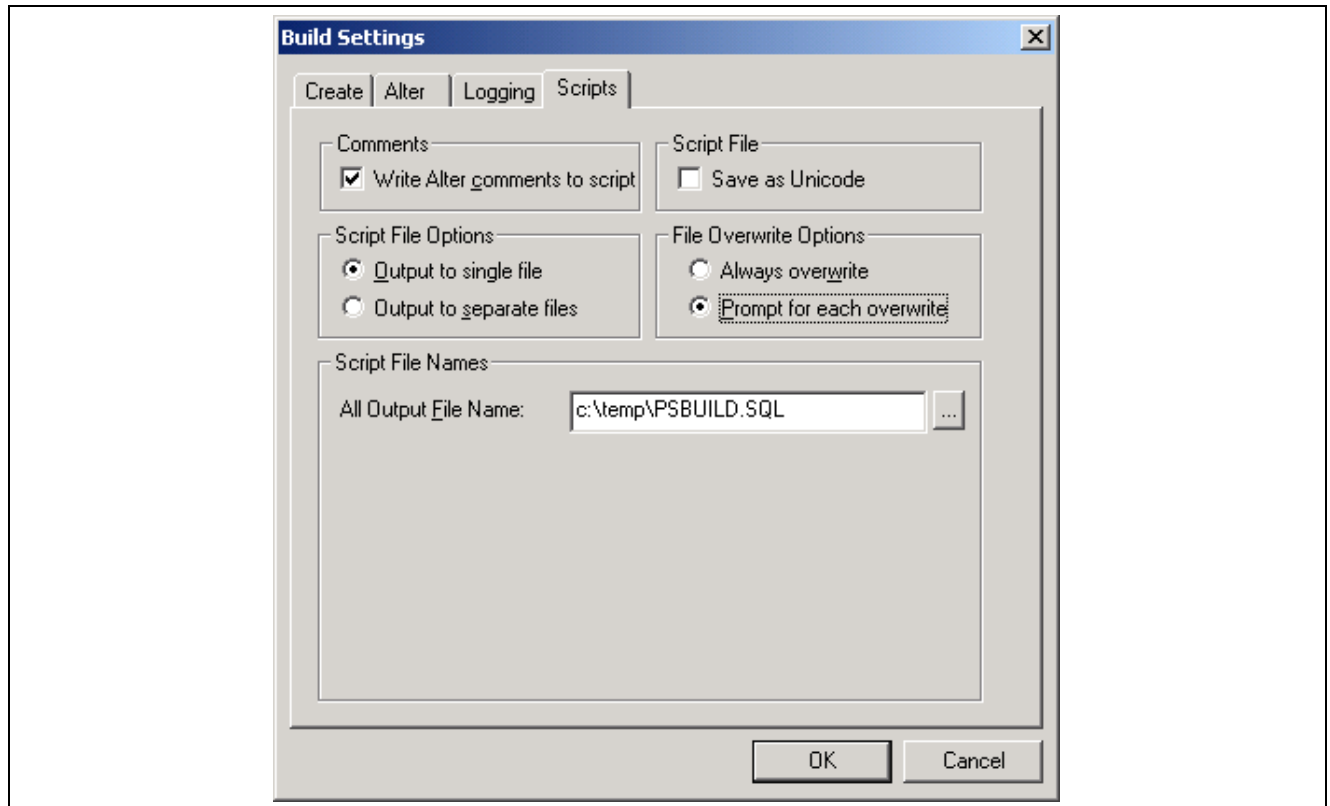


The Build dialog box

5. Select Create Tables and Alter Tables in the Build Options region (Create Indexes and Create Trigger will automatically be selected).
6. Select Build script file in the Build Execute Options region.

7. Click Settings.

The Build Settings dialog box appears:

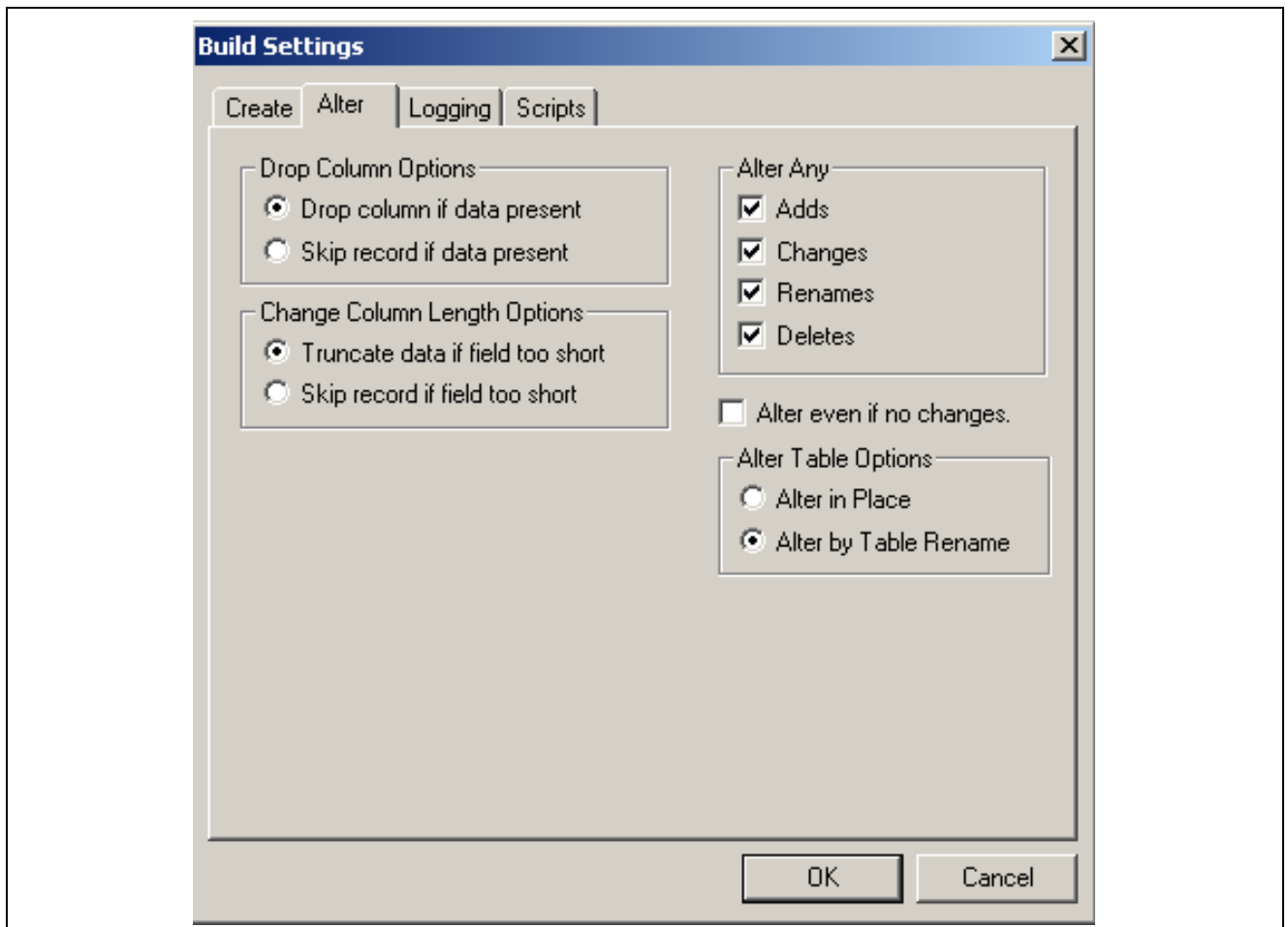


Build Settings dialog box: Scripts tab

8. Select the Scripts tab.
9. Select Write Alter comments to script.
10. Select the Alter tab and ensure that the Adds, Changes, Renames, and Deletes check boxes are selected in the Alter Any region.

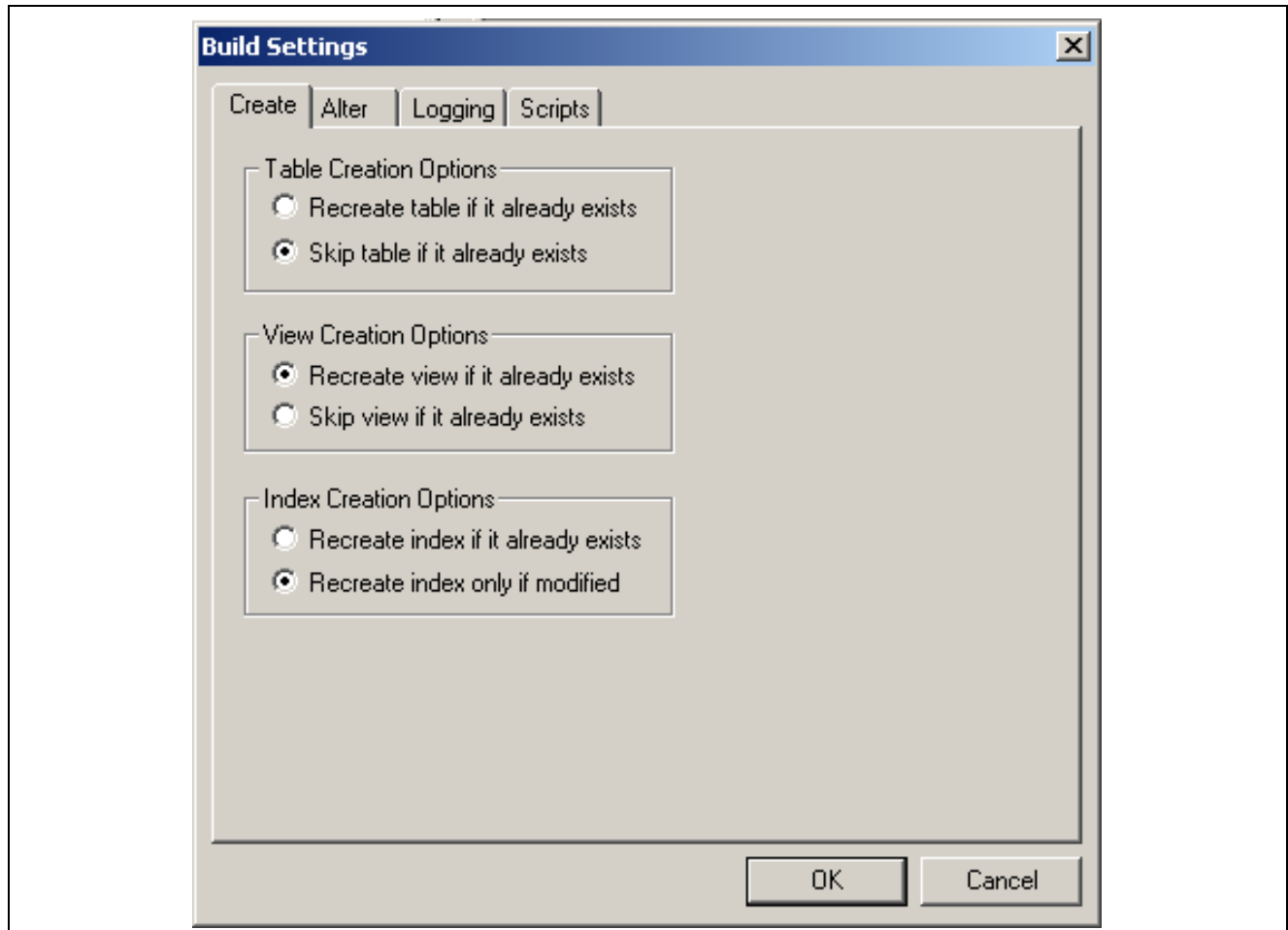
Drop column if data present should be selected in the Drop Column Options region, and Truncate data if field too short should be selected in the Change Column Length Options region.

Make sure that the option Alter by Table Rename is selected in the Alter Table Options region.



Build Settings dialog box: Alter tab

11. Select the Create tab and ensure that the Skip table if it already exists, Recreate view if it already exists, and Recreate index only if modified options are selected.



Build Settings dialog box: Create tab

12. Click OK.

The Build dialog box reappears.

13. Click Build.

14. Click Close when the process is completed.

15. Edit the generated SQL script for the correct database name.

16. Edit the generated SQL script for the correct tablespace names and sizing parameters if you are not using delivered PeopleSoft Tablespace names.

17. Run the generated SQL script in your platform-specific query tool to bring your database structure in sync with the PeopleSoft PeopleTools tables.

Task 8-11-8: Migrating Records to New Tablespaces

This section discusses:

- Copying the Tablespace Record Project
- Running Alter Tools Tables

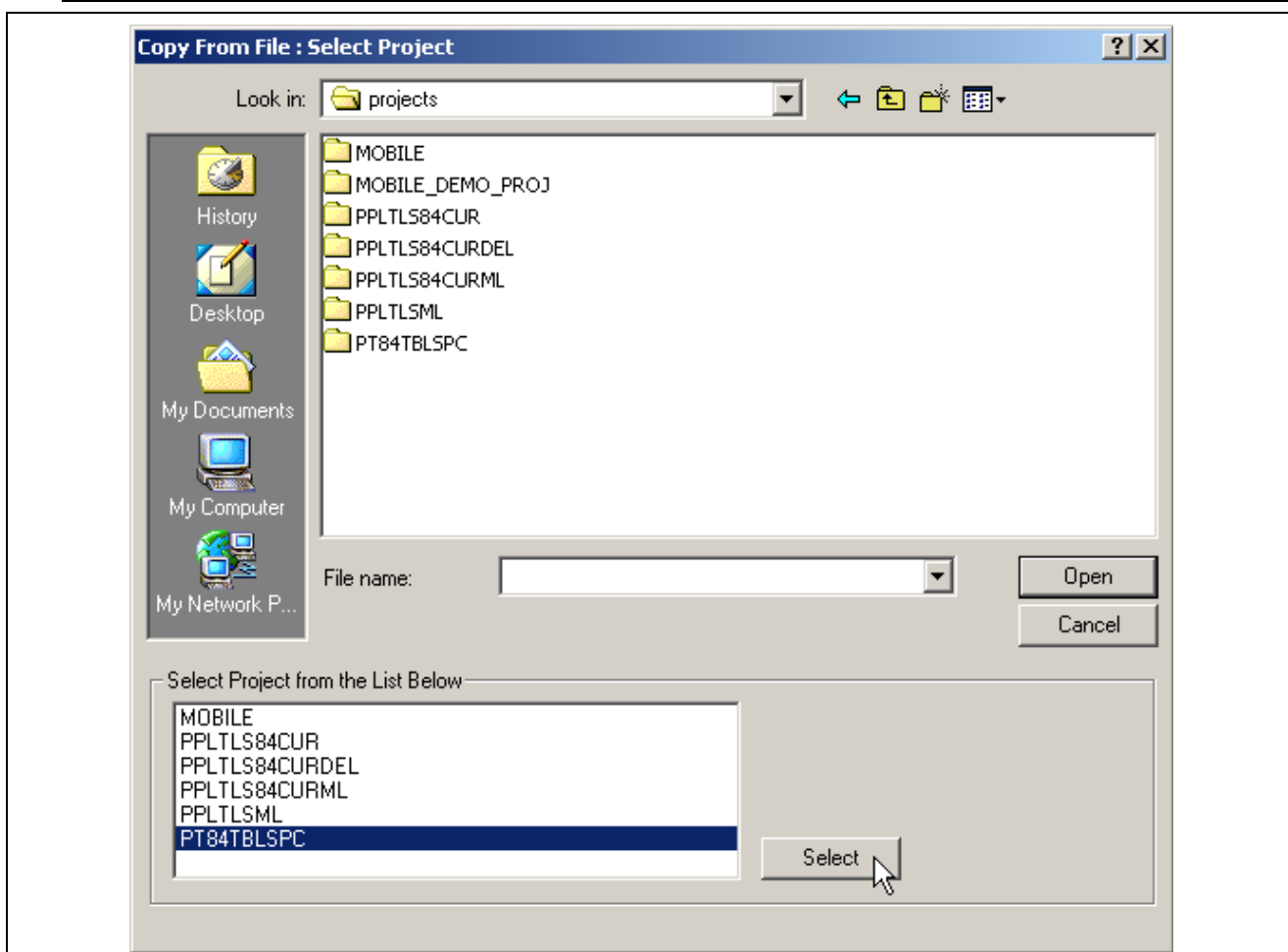
Copying the Tablespace Record Project

Oracle moved some delivered tables to different Tablespaces for PeopleSoft releases 8.44 and above. You must run this step to move the tables.

To copy the Tablespace Record project:

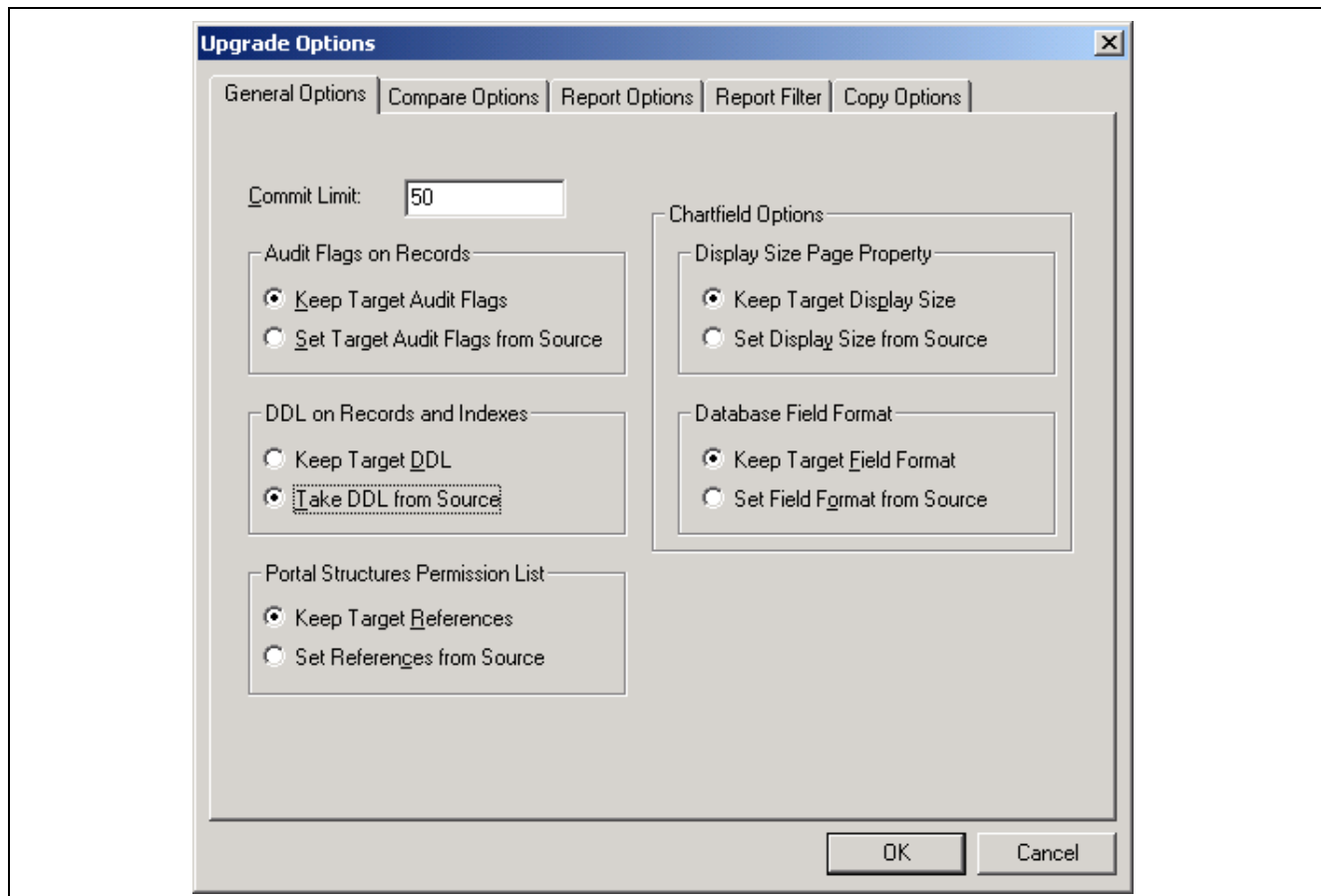
1. Launch Application Designer and sign on to your database with a valid PeopleSoft user ID.
2. Select Tools, Copy Project, From File.
3. In the resulting dialog box, change the import directory to *PS_HOME\projects*, select PT84TBLSPC from the list of projects, and click Select.

Note. If the project already exists on the database, a confirmation dialog box appears asking if you want to overwrite the existing project. Select the File radio button and click OK to overwrite the existing project.



Selecting PT84TBLSPC in the Copy From File dialog box

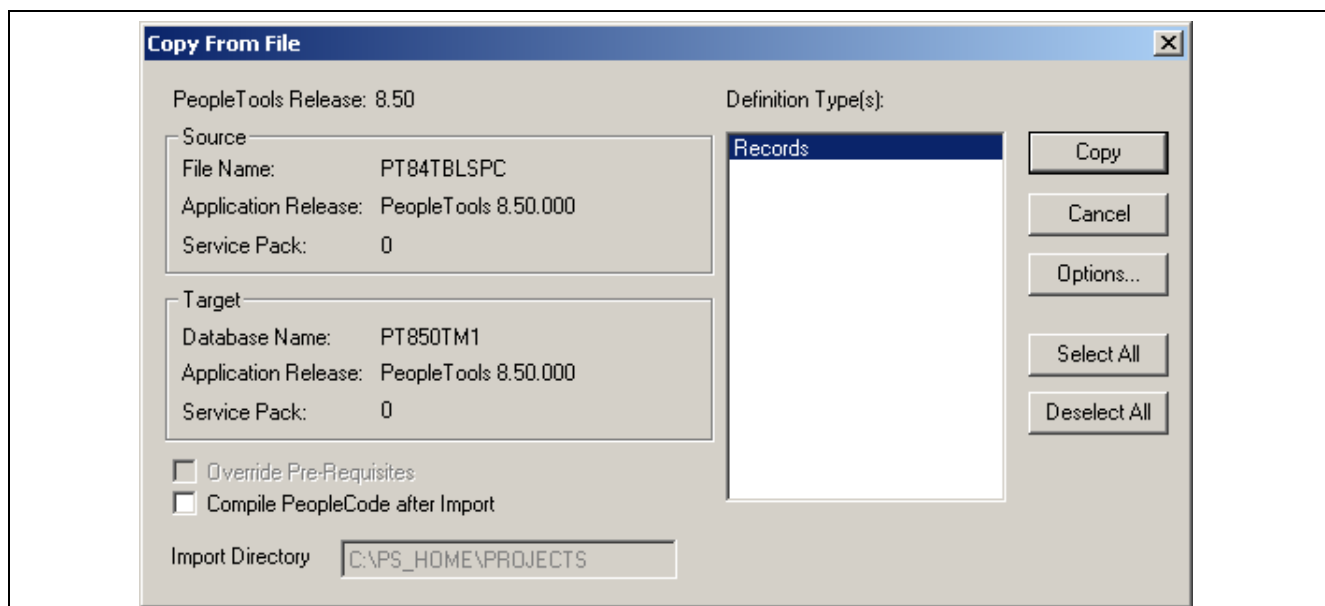
4. The Copy From File dialog box appears.
Select all object types and click the Options button. Navigate to General Options and make sure that the Take DDL from Source option is selected.
Click OK.



Upgrade Options dialog box: General Options tab

5. Click the Copy button.

When the progress dialog box disappears, the project has been copied.



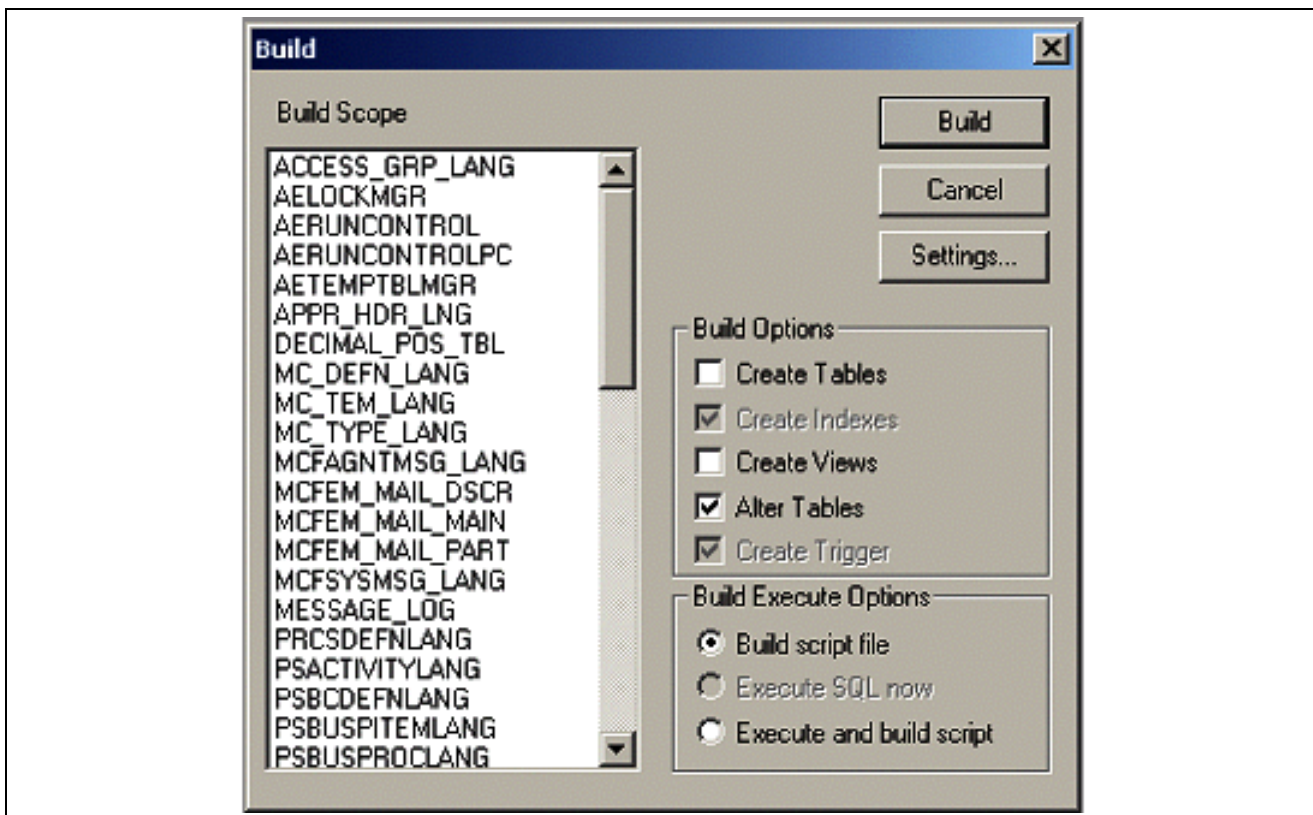
The Copy From File dialog box showing that PT84TBLSPC will be copied

Running Alter Tools Tables

To run Alter Tools tables:

1. Launch PeopleSoft PeopleTools and sign on to Installed database.
2. From the Application Designer, select File, Open.
3. Select Project, enter PT84TBLSPC in the name dialog box, and click OK.
4. Select Build, Project.

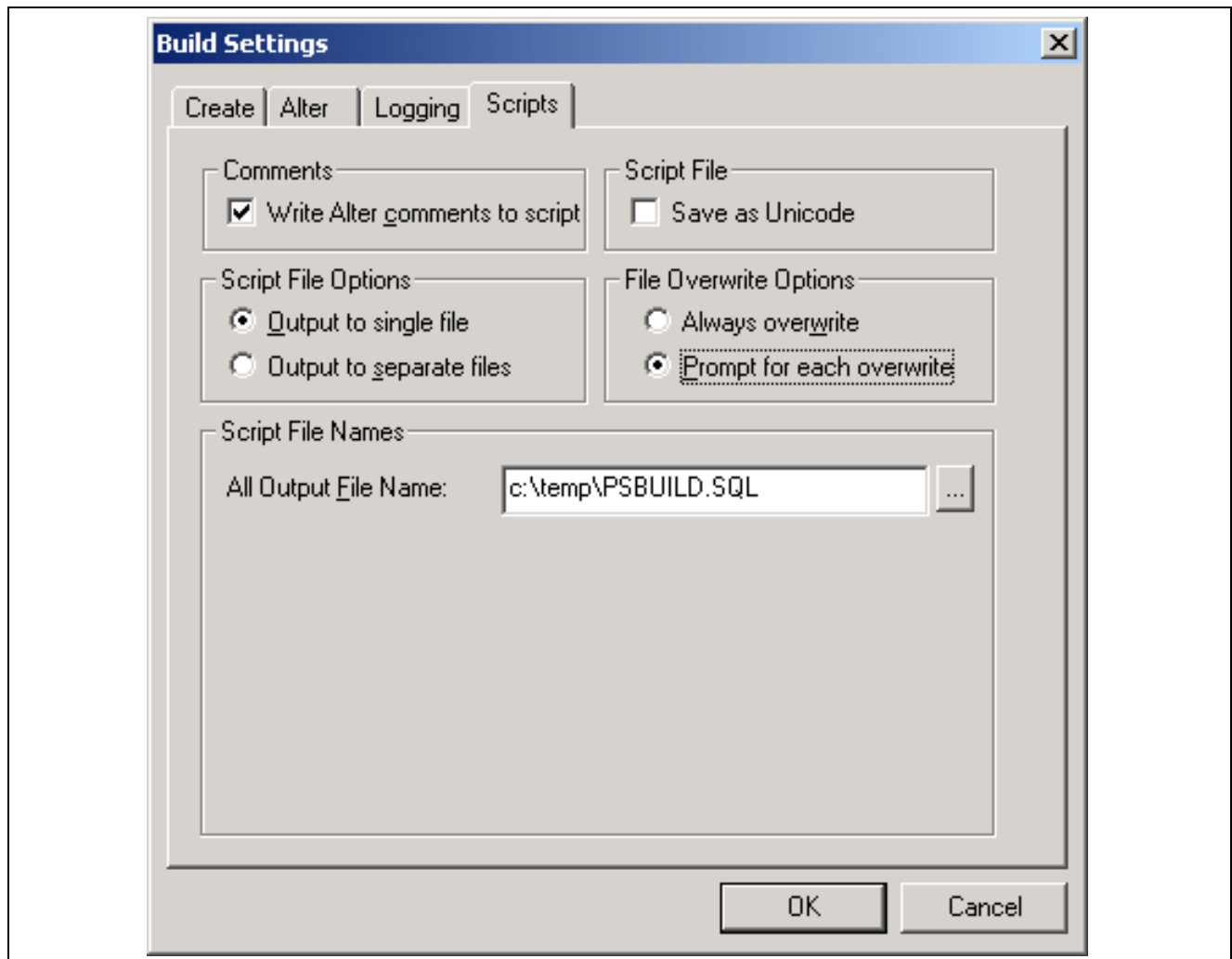
The Build dialog box appears:



The Build dialog box

5. Select Alter Tables in the Build Options region (Create Indexes and Create Trigger will automatically be selected).
6. Select Build script file in the Build Execute Options region.
7. Click Settings.

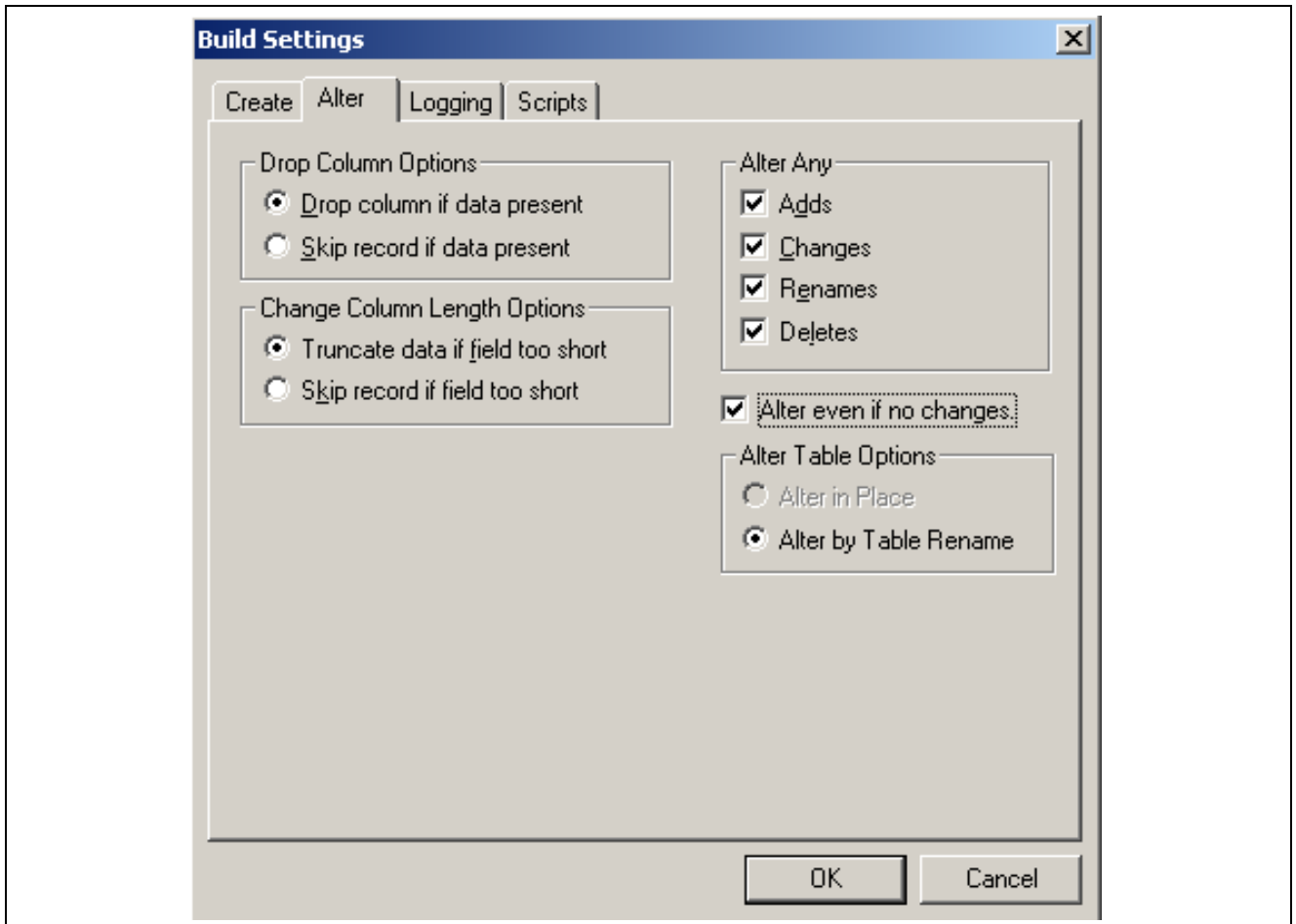
The Build Settings dialog box appears:



Build Settings dialog box: Scripts tab

8. Select the Scripts tab.
9. Select Write Alter comments to script.
10. Select the Alter tab and ensure that the Adds, Changes, Renames, and Deletes check boxes are selected in the Alter Any region, and that the Alter even if no changes check box has been selected.

Drop column if data present should be selected in the Drop Column Options region, and Truncate data if field too short should be selected in the Change Column Length Options region.



Build Settings dialog box: Alter tab

11. Click OK.

The Build dialog box reappears.

12. Click Build.

13. Click Close when the process is completed.

14. Edit the generated SQL script for the correct database name.

15. Edit the generated SQL script for the correct Tablespace names and sizing parameters if you are not using delivered PeopleSoft Tablespace names.

16. Run the generated SQL script in your platform-specific query tool move the tables to the correct Tablespaces.

Task 8-11-9: Updating PeopleTools System Data

Data Mover scripts that update PeopleSoft PeopleTools system data are run to enable new features and load new messages for the PeopleSoft PeopleTools 8.50 release. Several of the scripts that you need to run are dependent upon the version of the application you are running.

See Understanding Database Updates.

To update PeopleSoft PeopleTools system data:

Note. DB2 UDB for z/OS scripts need the “set current sqld” statement so that the tables are created with the correct owner ID. Open each script listed below, and then uncomment and modify all of the statements specific for DB2 UDB for z/OS to reflect your environment.

1. Invoke Data Mover by running *PS_HOME\bin\client\winx86\psdmt.exe*.
The PeopleSoft Logon window appears.
2. Log on using the access ID you specified when you created your Data Mover scripts with the Database Setup program.
This will start Data Mover in bootstrap mode.
3. Run the appropriate Data Mover scripts for your application database version.
The application database version refers to the version before you started this step. Be sure to run the scripts in the order listed. The scripts are found in the *PS_HOME\scripts* directory:

Application Database Version	Scripts to Run
8.40	pt841tls, pt842tls, pt843tls, pt844tls, pt845tls, pt846tls, pt847tls, pt848tls, pt849tls, and pt850tls
8.41	pt842tls, pt843tls, pt844tls, pt845tls, pt846tls, pt847tls, pt848tls, pt849tls, and pt850tls
8.42	pt843tls, pt844tls, pt845tls, pt846tls, pt847tls, pt848tls, pt849tls, and pt850tls
8.43	pt844tls, pt845tls, pt846tls, pt847tls, pt848tls, pt849tls, and pt850tls
8.44	pt845tls, pt846tls, pt847tls, pt848tls, pt849tls, and pt850tls
8.45	pt846tls, pt847tls, pt848tls, pt849tls, and pt850tls
8.46	pt847tls, pt848tls, pt849tls, and pt850tls
8.47	pt848tls, pt849tls, and pt850tls
8.48	pt849tls and pt850tls
8.49	pt850tls
8.50	None

4. Run the *pslanguages.dms* Data Mover script in the *PS_HOME\scripts* directory.
This script loads language-specific seed data.
5. Run the *tlsupgnoncomp.dms* Data Mover script in the *PS_HOME\scripts* directory.
This will import the updated PeopleSoft PeopleTools Trees, Roles, and Access Groups into your database.
6. If you are a Multilingual customer, from the Data Mover script that was created for your PeopleSoft database installation, find the UPDATE to PSLANGUAGES.
The statement should look similar to the following:

```
UPDATE PSLANGUAGES SET INSTALLED=1 WHERE LANGUAGE_CD = 'xxx';
```

where *xxx* is one of the PeopleSoft three-letter language code identifiers, as described earlier.

See "Preparing for Installation," Planning Multilingual Strategy.

Run the SQL command identified above using your SQL tool.

7. Open Data Mover using a valid PeopleSoft Operator ID, such as PS for HRMS or VP1 for FDM.
8. If you are a Multilingual customer and have licensed non-English languages, run the pt850tlsxxx.dms scripts in the *PS_HOME\scripts* directory.

This will update the language-specific PeopleSoft PeopleTools system data in your database.

Note. The portion of the script name xxx is equivalent to the language code (that is, FRA, CFR, GER, JPN, and so on) of the non-English languages you have installed. There will be a Data Mover script for each non-English language.

9. Run the msgtleng.dms Data Mover Script in the *PS_HOME\scripts* directory.
Non-English message data was loaded in the pt850tlsxxx.dms scripts. This will update the messages in your database.
10. Run the ptstreng.dms Data Mover script in the *PS_HOME\scripts* directory.
Non-English system data was loaded in the pt850tlsxxx.dms scripts. This will update the SQR strings in your database.
11. Run the storept.dms Data Mover script in the *PS_HOME\src\cbl\base* directory.
This will update your PeopleSoft PeopleTools COBOL stored statements.
12. Run the ptdefnsec.dms Data Mover script in the *PS_HOME\scripts* directory.
This will update the PeopleSoft PeopleTools Definition Security group.
13. Run the createvw.dms Data Mover script in the *PS_HOME\scripts* directory.
This will recreate all the views in your database.

Task 8-11-10: Running PeopleTools Conversions

This section discusses:

- Understanding Usage of Application Engine Programs
- Convert Portal Objects
- Convert Query Headings
- Convert Setup Manager
- Convert Navigation Collection and Pagelet Wizard Data
- Convert Additional Pagelet Wizard Data
- Populating the Feed Options Table

Understanding Usage of Application Engine Programs

You run several Application Engine programs in this section. For information on Application Engine, including how to use and restart Application Engine programs, consult the Application Engine documentation.

See *Enterprise PeopleTools 8.50 PeopleBook: Application Engine*, "Managing Application Engine Programs."

Convert Portal Objects

The Application Engine program UPG844PORTAL splits PSPRSMDEFN.PORTAL_URLTEXT into segments. This is performed for PeopleSoft Components URLs to extract Menu, Component, and Market information. Record, Field, Event, and Function Names are extracted from Iscript URLs. This program must be run by a PeopleSoft user with the Portal Administrator or PeopleSoft Administrator role. The following SQL will identify which users have the PeopleSoft Administrator or Portal Administrator roles:

```
select ROLEUSER, ROLENAME from PSROLEUSER where ROLENAME in ('PeopleSoft⇒
Administrator','Portal Administrator')
```

Run the UPG844PORTAL Application Engine program on your database. From the DOS command line, the syntax is:

```
<PS_HOME>\bin\client\winx86\psae -CD <dbname> -CT DB20DBC -CO <oprid> -CP <pswd> -⇒
R INSTALL -AI UPG844PORTAL
```

Use the values for the database name and user ID that you entered on the startup tab of the Configuration Manager for <dbname> and <oprid>, respectively. However, be aware that <pswd> is not the same as the connect password that you entered on the Configuration Manager startup tab. Enter a value for <pswd> that is the password you want to be associated with the <oprid>.

See "Setting Up the Install Workstation."

You may see some of the following errors when running this Application Engine program:

- **Not authorized CRef: <Portal Object Name> (95,5032).**
This means that you do not have proper privileges to run this conversion. The user ID that you are using to run this conversion needs to have Portal Administrator permissions.
- **Security synchronization failed for Portal Object: <Portal Object Name> (96,61).**
This is not a fatal error. It may be caused by a content reference that contains invalid URL text and indicates that there was an internal error writing to the security table. The invalid URL text may be pointing to a component or script that does not exist in the database. If you receive this error, search the Patches and Downloads section of My Oracle Support for Required at Install patches for your application and apply the patches after installing your database.
- **Cref <Portal Object Name> points to Menu: <Menu Name>, Component <Component Name> which doesn't exist. (96,80).**
The content reference is pointing to an invalid Menu/Component combination. If you receive this error, search the Patches and Downloads section of My Oracle Support for Required at Install patches for your application and apply the patches after installing your database.

See *Enterprise PeopleTools 8.50 PeopleBook: PeopleTools Portal Technology*.

Convert Query Headings

Crystal Reports when run through Process Scheduler will not handle queries with two or more prompts that have the same heading. These duplicates are also not legal in Query. Any old queries that have this condition need to be altered to work with Crystal. This Application Engine program searches for duplicate prompt headings in the table PSQRYBIND and appends numbers onto the text. For example "Item ID" would become "Item ID 2".

Run the UPGQRYDUPHED Application Engine program on your database. From the DOS command line, the syntax is:

```
<PS_HOME>\bin\client\winx86\psae -CD <dbname> -CT DB20DBC -CO <oprid> -CP <pswd> -⇒
```

```
R INSTALL -AI UPGQRYDUPHED
```

Note. If a duplicate heading is found that will exceed the length of the field HEADING, the heading will need to be manually changed. The following error will be written to the log file in these cases :

The prompt heading <HEADING> for Query <QUERY> is duplicated.
Please manually correct. (108, 1108)

See *Enterprise PeopleTools 8.50 PeopleBook: PeopleSoft Query*.

Convert Setup Manager

The application engine program UPGPTSMDAT upgrades Setup Manager Version 1 (shipped with Fin SCM 8.8, CRM 8.9, and with HCM 8.9) to Setup Manager Version 2 (shipped with PeopleSoft PeopleTools 8.46 and above). The program moves all data from Setup Manager Version 1 tables to Version 2 tables.

The application engine program was designed so that it can be run in any database, and can be rerun in the same database. In either case, it will determine if there is data to convert and run as appropriate. For detailed information, see comments attached to the Steps and Actions in this Application Engine Program within Application Designer. This program must be run by a PeopleSoft user with PeopleSoft Administrator role.

Run the UPGPTSMDAT Application Engine program on your database. From the DOS command line, the syntax is:

```
<PS_HOME>\bin\client\winx86\psae -CD <dbname> -CT DB20DBC -CO <oprid> -CP <pswd> -=>
R INSTALL -AI UPGPTSMDAT
```

Convert Navigation Collection and Pagelet Wizard Data

The application engine program UPGPT846PP adds Navigation Collection and Pagelet Wizard data from the Common Components and Enterprise Portal storage tables into PeopleSoft PeopleTools tables.

The application engine program performs the following conversions:

1. Moves data from Common Components tables to PeopleSoft PeopleTools tables.
2. Moves data from Enterprise Portal tables to PeopleSoft PeopleTools tables.
3. Updates the registry definitions to enable displaying Navigation pages.
4. Adds, updates, and deletes the Navigation Collections folders and content references in the portal registry to the new structures.
5. Converts Pagelet Wizard definitions to the PeopleSoft PeopleTools Pagelet Wizard version.
6. Renames Navigation Collection and Pagelet Wizard portal registry attributes to the PeopleSoft PeopleTools attribute names.

This program must be run by a PeopleSoft user with the Portal Administrator or PeopleSoft Administrator role.

Run the UPGPT846PP Application Engine program on your database. From the DOS command line, the syntax is:

```
<PS_HOME>\bin\client\winx86\psae -CD <dbname> -CT DB20DBC -CO <oprid> -CP <pswd> -=>
R INSTALL -AI UPGPT846PP
```

You may see the following error when running this Application Engine program:

```
You are not authorized for the <objecttype>...
```

This means that you do not have proper privileges to run this conversion. The user ID that you are using to run this conversion needs to have Portal Administrator permissions.

You can ignore any other errors encountered on Oracle-delivered objects at this time. Check the Patches and Downloads section of My Oracle Support for Required at Install patches for your application and apply the patches after installing your database. You can safely rerun UPGPT846PP to check for any remaining errors after applying patches.

Convert Additional Pagelet Wizard Data

The application engine program UPGPT848PP adds the following Pagelet Wizard data sources from Enterprise Portal to PeopleSoft PeopleTools: IB Connector, Integration Broker, SOAP, and URL. In addition, the application program transforms the WSRP Portlets created in PeopleSoft PeopleTools 8.46 or 8.47 versions of Pagelet Wizard. The process includes the following:

- Move data from Enterprise Portal tables to PeopleSoft PeopleTools tables.
- Convert WSRP Portlets created by Pagelet Wizard to the new version.

This program must be run by a PeopleSoft user with the Portal Administrator or PeopleSoft Administrator role.

Run the UPGPT848PP Application Engine program on your database. From the DOS command line, the syntax is:

```
<PS_HOME>\bin\client\winx86\psae -CD <dbname> -CT DB20DBC -CO <oprid> -CP <pswd> -=>
R INSTALL -AI UPGPT848PP
```

You may see the following error when running this Application Engine program:

```
You are not authorized for the <objecttype>...
```

This means that you do not have proper privileges to run this conversion. The user ID that you are using to run this conversion needs to have Portal Administrator permissions.

You can ignore any other errors encountered on Oracle-delivered objects at this time. Check the Patches and Downloads section of My Oracle Support for Required at Install patches for your application and apply the patches after installing your database. You can safely rerun UPGPT848PP to check for any remaining errors after applying patches.

Populating the Feed Options Table

The Application Engine program UPGPT850PTFP populates the feed options table PS_PTFP_OPTIONS if it is empty.

Run the UPGPT850PTFP Application Engine program on your database. From the DOS command line, the syntax is:

```
<PS_HOME>\bin\client\winx86\psae -CD <dbname> -CT DB20DBC -CO <oprid> -CP <pswd> -=>
R INSTALL -AI UPGPT850PTFP
```

Task 8-11-11: Converting Integration Broker

This section discusses:

- Updating Integration Broker Defaults
- Creating Integration Broker Objects
- Saving Application Messaging Objects
- Exporting Node Transactions

- Deleting Application Messaging Objects
- Deleting Node Transactions

If your database is delivered with PeopleSoft PeopleTools 8.48 or higher, do *not* run this task since the database is already delivered with the new Integration Broker objects as of PeopleSoft PeopleTools 8.48. Instead, proceed to Running Additional PeopleTools Conversions.

Updating Integration Broker Defaults

User-level node security and transactional security have been added as of PeopleSoft PeopleTools 8.48. Service namespace information, a low-level user on the node, and a low-level permission list for service operations, need to be specified. Edit *PS_HOME*\scripts\ptibupgrade.dms and make the necessary modifications as documented in the script. Consult with your Integration Broker specialist for assistance.

Open Data Mover using a valid PeopleSoft Operator ID and run this script.

Creating Integration Broker Objects

The application engine program UPGPT848IBUG converts Application Package metadata into Integration Broker metadata. It also creates the projects PTUPGIBCLONE and PTUPGIBDELETE, and the script ptupg_trx.dms.

Note. Conversion errors in the Application Engine log file will be resolved by applying application-specific Required for Install patches.

Run the UPGPT848IBUG Application Engine program on your database. From the DOS command line, the syntax is:

```
<PS_HOME>\bin\client\winx86\psae -CD <dbname> -CT DB20DBC -CO <oprid> -CP <pswd> -=>
R INSTALL -AI UPGPT848IBUG
```

Saving Application Messaging Objects

The PTUPGIBCLONE project was created by the UPGPT848IBUG Application Engine program and contains objects that were successfully converted. Copy this project to a directory of your choice where it will not be overwritten. The objects are copied to file as a precautionary measure since you will delete them from the database in a subsequent step.

To save Application Messaging Objects:

1. Launch Application Designer and sign on to your database with a valid PeopleSoft user ID.
2. From the Application Designer, select File, Open.
3. Select Project, enter *PTUPGIBCLONE* in the name dialog box, and click OK.
4. Select Tools, Copy Project, To File.
5. In the resulting dialog box, change the export directory to one of your choice, and click Copy.

When the progress dialog box disappears, the project has been copied to the specified location.

Exporting Node Transactions

Open Data Mover using a valid PeopleSoft Operator ID and run the script *PS_HOME*\scripts\ptupg_trx_export.dms to save the old pre-conversion node transaction data.

Deleting Application Messaging Objects

Delete the obsolete pre-conversion object definitions from the database by first copying the PTUPGIBDELETE project to file, and then copying the same project from file. This project was created by the UPGPT848IBUG Application Engine program and contains the same objects as PTUPGIBCLONE.

To delete Application Messaging Objects:

1. Launch Application Designer and sign on to your database with a valid PeopleSoft user ID.
2. From the Application Designer, select File, Open.
3. Select Project, enter *PTUPGIBDELETE* in the name dialog box, and click OK.
4. Select Tools, Copy Project, To File.
5. In the resulting dialog box, change the export directory to the same one you used for PTUPGIBCLONE, and click Copy.

When the progress dialog box disappears, the project has been copied to the specified location.

6. Select Tools, Copy Project, From File.
7. In the resulting dialog box, change the import directory to the previously specified directory, select PTUPGIBDELETE from the list of projects, and click Select.

Note. Because the project already exists on the database, a confirmation dialog box appears asking if you want to overwrite the existing project. Select the File radio button and click OK to overwrite the existing project.

8. Select all object types and click the Copy button.

When the progress dialog box disappears, the project has been copied. The actions in the project are set to Delete, so this will delete the obsolete pre-conversion object definitions from the database.

Deleting Node Transactions

The script *ptupg_trx.dms* is generated by the UPGPT848IBUG Application Engine program. This script can be found in the location specified in the OUTPUT variable set in Configuration Manager.

To view the OUTPUT variable:

1. Open Configuration Manager.
2. Select the Profile tab.
3. Click Edit to open the Default profile.
4. Select the Process Scheduler tab.
5. Examine the Output Directory value.

Open Data Mover using a valid PeopleSoft Operator ID and run this script to remove obsolete node transaction data associated with the obsolete objects in the PTUPGIBDELETE project.

Task 8-11-12: Running Additional PeopleTools Conversions

The Application Engine program UPGPTSERVOPR converts WSDL and Schema data.

Run the UPGPTSERVOPR Application Engine program on your database. From the DOS command line, the syntax is:

```
<PS_HOME>\bin\client\winx86\psae -CD <dbname> -CT DB20DBC -CO <oprid> -CP <pswd> -=>
R INSTALL -AI UPGPTSERVOPR
```

Task 8-11-13: Changing the User Interface

Oracle has updated the styles that define the PeopleSoft user interface. This PeopleSoft PeopleTools release delivers the classic (old) style as well as two new styles: a dark blue style and a light blue style. PeopleSoft 8.4 Applications and pre-8.50 release PeopleSoft PeopleTools System databases use the classic style, but all other applications use the new dark blue style. The dark blue style is set as the default. To use another interface, you have to delete the substyle sheets associated with the dark blue style and replace them with either the classic or light blue substyle sheet. The classic and light blue styles are considered deprecated as of PeopleTools 8.50.

Note. The new user interface is supported by Microsoft Internet Explorer release 5 and above and Netscape Navigator release 6 and above. If you are using a browser and release other than these, the system defaults to the classic style.

Before enabling the new user interface, you must change the security setting for the Permission List that your User ID is assigned to. To change the security setting:

1. In Application Designer, select Go, Definition Security.

The PS Definitions Security dialog box appears.

2. Select File, Open, Permission List.

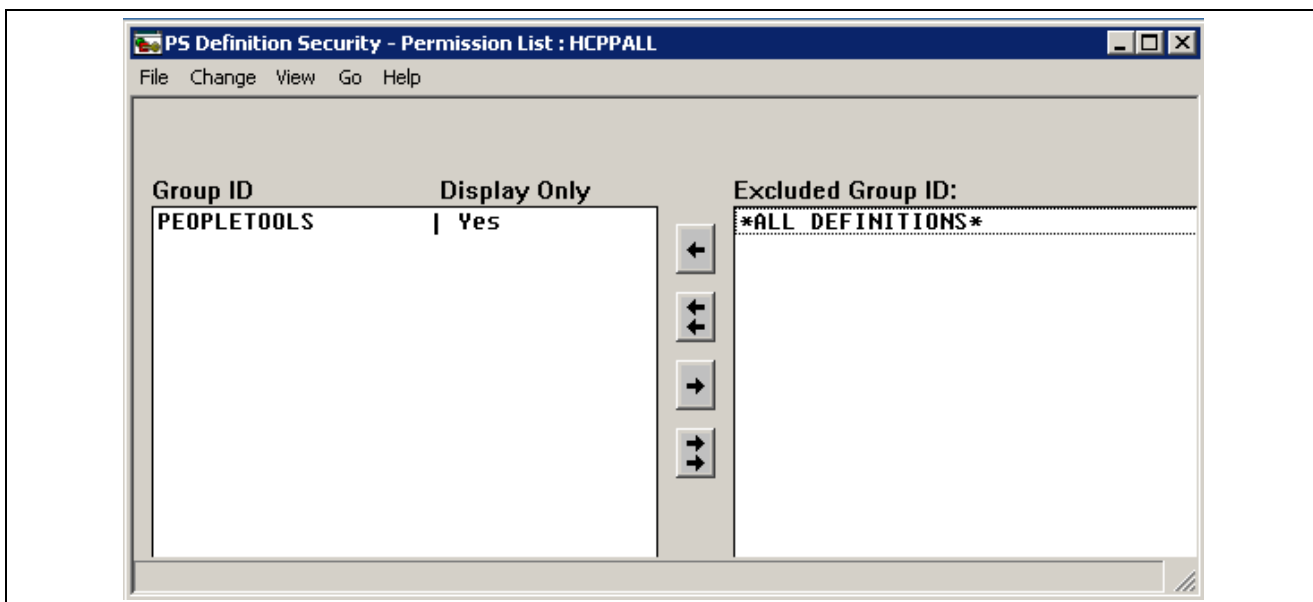
The Definition Security Open dialog box appears.

3. Select a Permission list.

For example:

- For FSCM user ID VP1 select ALLPAGES.
- For HCM user ID PS select HCPPALL.

4. If the Group ID column on the left-hand side of the PS Definition Security window does not show PEOPLETOOLS, select it on the right-hand side and click the left arrow (⇐) to move it over.



PS Definition Security dialog box

5. Select Change, Display Only.
6. Click PEOPLETOOLS in the Definition Security list to unhighlight it, and click OK.
The value in the Display Only column for PEOPLETOOLS should now be No.
7. Select Save from the File menu and close the PS Definitions Security dialog box.

To enable a deprecated user interface:

1. In Application Designer, select File, Open.
2. On the Open Definition dialog box, select *Style Sheet* from the Definition drop-down list.
3. Enter the name *PSSTYLEDEF* in the Selection Criteria Name field, and select Open.
4. Highlight PSSTYLEDEF in the list, and select Open.
5. Click the PSALTERNATE sub-stylesheet and press DELETE.
6. Select Insert, Insert Sub Style Sheet.
7. Select *PSALTERNATE_LIGHTBLUE*.
8. Repeat steps 5 through 7 for the PTSTYLEDEF and PSACE Sub Style Sheets.

After you delete each sub-stylesheet, make sure to insert the new sub-stylesheet that has the same extension as the one you inserted in Step 7.

9. Select File, Save.
10. Open the style sheet *PSQUERYSTYLEDEF* as in steps 1 through 4.
11. Click the *PTQUERYSTYLESUB_DARKBLUE* sub-stylesheet and press DELETE.
12. Select Insert, Insert Sub Style Sheet.
13. Select *PTQUERYSTYLESUB_LIGHTBLUE* or *PTQUERYSTYLESUB*.

Use the same sub-stylesheet that has the same extension as the one you inserted in step 7.

14. Select File, Save.

After you complete the changes for the user interface, be sure to return to the security definitions and return them to the original setting. To reset the security definitions:

1. In Application Designer, select Go, Definition Security.
The PS Definitions Security dialog box appears.
2. Select File, Open, Permission List.
The Definition Security Open dialog box appears.
3. Select the Permission list that you specified previously.
4. Select Change, Display Only.
5. Click PEOPLETOOLS in the Definition Security list to highlight it, and click OK.
The value in the Display Only column for PEOPLETOOLS should now be Yes.
6. Select Save from the File menu and close the PS Definitions Security dialog box.

See Also

Enterprise PeopleTools 8.50 PeopleBook: Security Administration, "Implementing Definition Security"

Task 8-12: Running the DB2 RUNSTATS Utility

Do not run the DB2 RUNSTATS utility against the xxWORK tablespaces. The tables in these tablespaces are designated as temporary tables or tables against which %UpdateStats is being performed. Running RUNSTATS against these tables at this time could prove detrimental to performance.

Note. The PeopleSoft Tablespace DDL Automation Assistance Tool (PSTAAT) isolates temporary tables to individual tablespaces named as follows: TMP00001, TMP00002 and so on. Do not run RUNSTATS against any of the TMPnnnnnn tablespaces at this time because this could prove detrimental to performance. The TMPnnnnnn tablespaces should also be excluded from routine RUNSTATS and other database maintenance jobs. See the appendix “Using the PeopleSoft Tablespace DDL Automation Assistance Tool” for more details.

Task 8-13: Creating PeopleSoft Views

This section discusses:

- Understanding PeopleSoft Views
- Creating Views in Data Mover
- Creating Views in Application Designer

Understanding PeopleSoft Views

If you had to carry out the task "Updating Database to Latest PeopleTools Release" you have already created your views, in which case you can skip this task.

When creating the PeopleSoft Views, you can use Data Mover or Application Designer to create the objects directly, or you may use Application Designer to generate a DDL script of SQL statements, which can then be run using another utility such as SPUFI or DSNTEP2 and/or a User ID other than the Access ID.

Task 8-13-1: Creating Views in Data Mover

To create views in Data Mover:

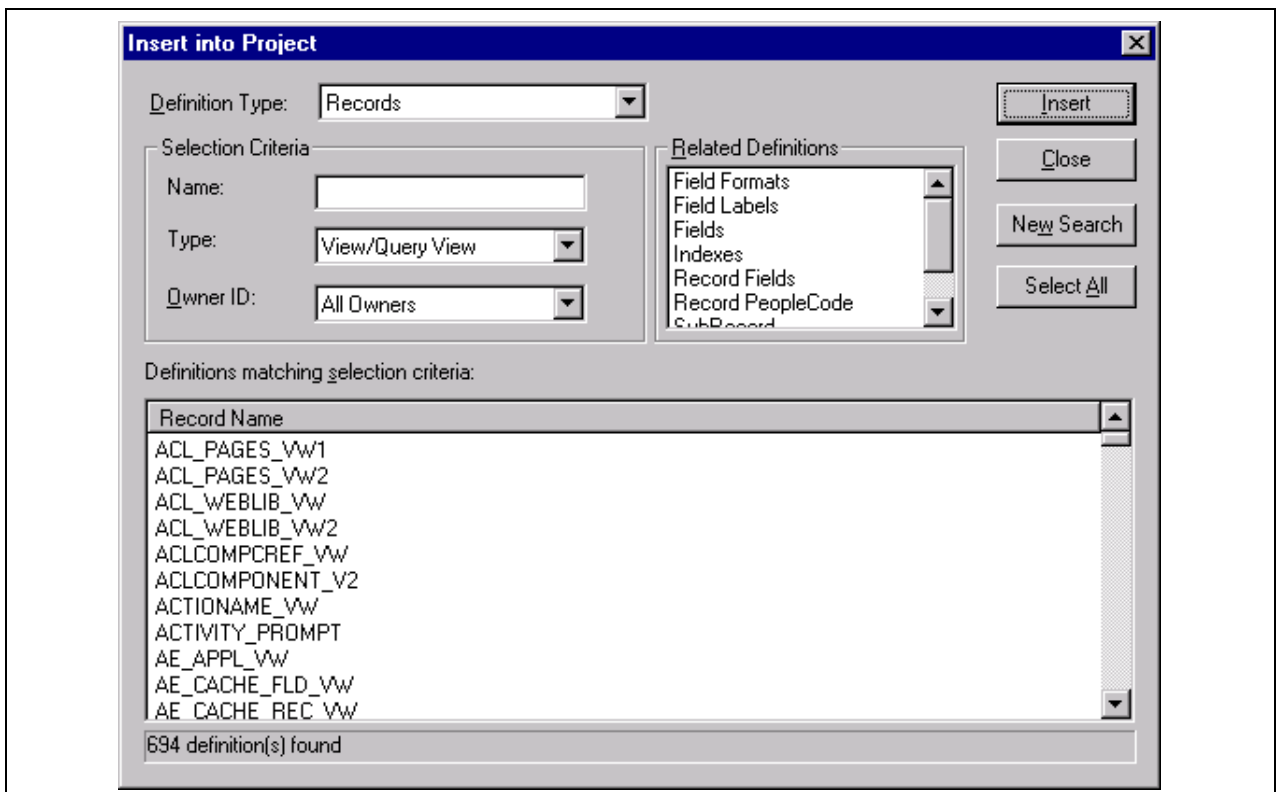
1. Start Data Mover in User mode using a valid PeopleSoft operator ID, for example, PS or VP1.
2. Select File, Open from the Data Mover menu and navigate to *PS_HOME*\scripts.
3. Select the script CREATEVW.dms.
4. Select File, Run to execute the script.
5. Exit Data Mover.

Task 8-13-2: Creating Views in Application Designer

To create views in Application Designer:

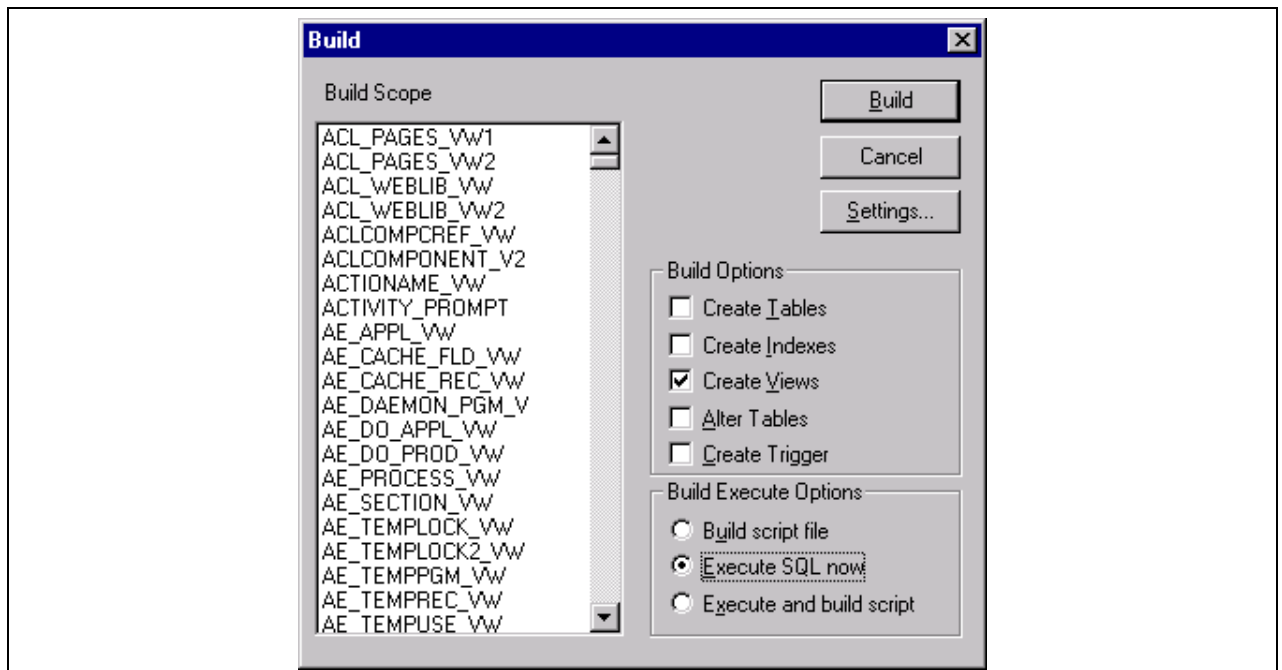
1. Start Application Designer (Start, Programs, PeopleTools 8.4, Application Designer).
2. Create a new project. Choose File, New, and then select Project from the New dialog.
3. Insert all PeopleTools view records into the project:
 - a. Choose *Insert, Definitions into Project*. The *Insert into Project* dialog appears.

- b. Select a *Definition Type* of *Records*.
- c. In the Selection Criteria control group, choose a *Type of View/Query View*; and then press ENTER to select the records.



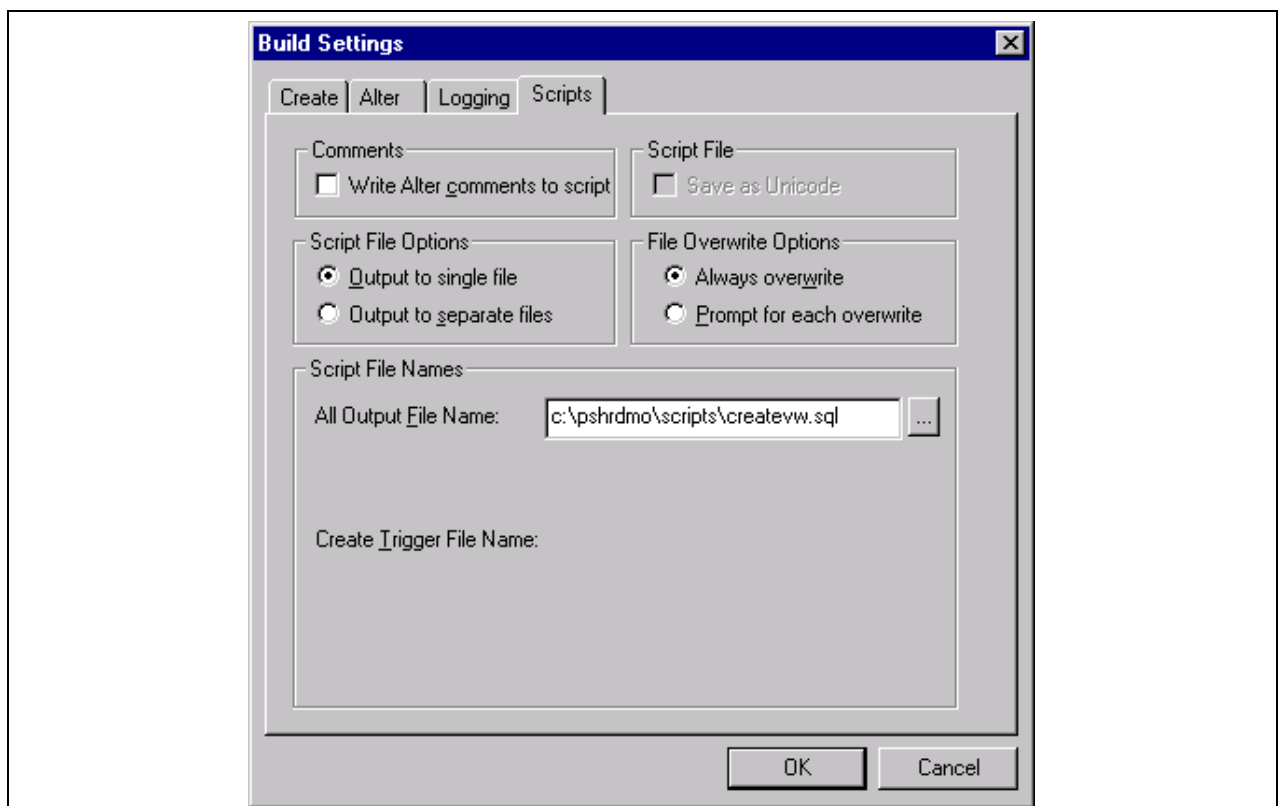
Insert into Project dialog box

- d. Click *Select All*, and then click *Insert* to insert the View/Query View records into the project.
 - e. Click *Close* to close the *Insert into Project* dialog.
4. Build the project.
 - a. Choose *Build, Project*. The *Build* dialog displays.
 - b. In the *Build Options* group, select the *Create Views* check box. In the *Build Execute Options* group, select the *Execute SQL now* radio button to create the views directly, or the *Build script file* radio button to generate a DDL script of CREATE VIEW statements.



Selecting Create Views and Execute SQL now in the Build dialog box

- c. If you select *Build script file*, click *Settings*, go to the *Scripts* tab, and enter the output directory and filename where you want the DDL statement script written.



Build Settings dialog box

- d. Click *OK* to return to the Build dialog.

- e. Click *Build* to build the views in the project.

Depending on the Build Execute Option you selected, Application Designer will either directly build the views on the database or generate a script file of CREATE VIEW DDL statements. If you have opted to generate the script file, execute the DDL statements either through SPUI or DSNTEP2. Because of the time it may take the script to complete, we recommend submitting this script in batch mode using DSNTEP2. You may also need to prefix the script with the SQL command *SET CURRENT SQLID = <ownerid>*.

Note. On DB2 z/OS, when a object is dropped, all the dependent objects are automatically dropped. As a result some of the drop view statements could fail—and generate errors—if they were dependent on the view earlier dropped in the script. Please ignore these errors and restart the remaining part of the script.

Task 8-14: Building Temporary Tables

This section discusses:

- Understanding Temporary Tables
- Running SQR SETSPACE.SQR
- Correcting Invalid Database/Tablespace Combinations
- Setting the Number of Temporary Tables
- Using the Volatile Table Attribute
- Building the Temporary Tables and Their Indexes

Understanding Temporary Tables

In this task you use Application Designer to create temporary tables. Oracle has introduced a new temporary table structure where the number of instances for each base temporary table is controlled internally to PeopleSoft PeopleTools. The definition of each base temporary table is stored in the PeopleSoft PeopleTools table PSRECDEFN. The temporary table instances themselves are not defined. The table PSRECTBLSPC contains the database and tablespace values for each record defined in PSRECDEFN. The DDL generated by Application Designer to create the temporary tables uses the database and tablespace information from the base temporary table definition in PSRECTBLSPC. The delivered database and tablespace values are in synch with the xxDDL script that you ran earlier to create the databases and tablespaces. If you changed the database or tablespace name values in this script for tablespaces originally named xxWORK, you need to either update the PSRECTBLSPC table or revise the DDL script to be generated to create the temporary tables.

Oracle recommends that you run SQR SETSPACE.SQR against your database and use the output from the SQR as a guide in making the necessary updates or revisions. How and where to make the adjustments is discussed in the later section "Correcting Invalid Database/Tablespace Combinations."

Note. If you used the PeopleSoft Tablespace DDL Automation Assistance Tool (PSTAAT) to optimize the installation DDL, run the SETSPACE.SQR to update table PSRECTBLSPC with the database and tablespace values created by PSTAAT.

Task 8-14-1: Running SQR SETSPACE.SQR

In this procedure, you run SQR SETSPACE.SQR to update table PSRECTBLSPC with the database and tablespace values from the DB2 system catalog. Application Designer uses the database and tablespace values stored in PSRECTBLSPC to generate DDL statements to create the tables.

SETSPACE.SQR serves multiple purposes:

- It updates PSRECTBLSPC with the database/tablespace values from the DB2 system catalog table SYSIBM.SYSTABLES for the tables defined in the DB2 System Catalog.
- It reports tables in PSRECTBLSPC that are updated with a new database or tablespace name.
- It reports tables that are defined in PSRECTBLSPC, but not defined in the DB2 system catalogs, and whether the database/tablespace combination defined for the record is valid or invalid (not defined in the DB2 system catalog table SYSIBM.SYSTABLESPACE).
- It synchs up the database/tablespace combinations used in PSRECTBLSPC with the PeopleTools "master" tablespace table PSTBLSPCCAT by inserting the valid combinations in PSTBLSPCCAT if they have not already been defined.
- It reports those database/tablespace values added to the PSTBLSPCCAT table.
- It summarizes and reports database/tablespace combinations defined in PSTBLSPCCAT that are not valid. The reports are a valuable tool in determining how and where to make revisions so the temporary tables are created in the correct location, and without error.

To run SQR SETSPACE.SQR:

Submit the Job PSHLQ.PPvvv.JCLLIB(SETSPACE) to execute the SQR on the mainframe.

The SDSF logs will display the results of running the SQR and information related to the success of executing this SQR.

An output file will be written to PSHLQ.PPvvv.SQRLIST(SETSPACE) detailing the records processed and actions taken.

Note. The SQR can be run multiple times without any negative impact, but the output file will be overwritten with each execution. You may want to rename the member PSHLQ.Ppyyy.SQRLIST(SETSPACE) to another name before each resubmission of the SQR.

Task 8-14-2: Correcting Invalid Database/Tablespace Combinations

Review the output in PSHLQ.PPvvv.SQRLIST(SETSPACE). Note any messages with "Table Undefined — DB/TS Invalid," but most importantly, note any Warning messages in the second Phase of the output report. These warning messages summarize the database/tablespace name combinations defined in PSRECTBLSPC that have not been defined in the DB2 system catalog tables.

There are five options for making the necessary revisions. Of these options, Option 1 is the recommended one. Editing can be done globally, no table data will be impacted as it would in other options, you are guaranteed that the temporary table will be built in the database and tablespace that you intend and you may have already found it necessary to edit the script file of DDL statements to create the Temporary table for other reasons.

- *Option 1:* Proceed through the Installation process and build a script file of the DDL statements to create the temporary tables. After the script has been generated, but before executing it, globally edit the database/tablespace name combinations using the second Phase of the output report as a guide to the "before" values, changing them to your preferred site specific values. (Recommended option)
- *Option 2:* Update the PSRECTBLSPC table directly via the database interface of choice before building the script file of DDL statements to create the temporary tables. Use the second Phase of the output report as a guide. The SQL to correct each invalid database/tablespace combination would be scripted as follows:

```
UPDATE PSRECTBLSPC SET DBNAME = '<new dbname>',
```

```

                DDLSPACENAME = '<new tablespacename>'
WHERE DBNAME = '<old dbname>'
AND DDLSPACENAME = '<old tablespacename>'
AND DBTYPE = (SELECT MAX(A.DBTYPE) FROM PSRECTBLSPC A
              WHERE RECNAME = A.RECNAME
              AND A.DBTYPE IN (' ', '1'))

```

- *Option 3:* Run SQR SETDBNAM to update the database value in PSRECTBLSPC with a "best guess" value based on the tablespace value defined in PSRECTBLSPC. The accuracy of this SQR is based on the following caveats:
 - The ID or Current SqlID that was used to create the tablespaces must be the same value as the owner ID of the tables comprising the logical PeopleSoft database. In other words, the CREATOR field value in SYSIBM.SYSTABLESPACE must be the same value as the CREATOR field in SYSIBM.SYSTABLES.
 - The given tablespace name and CREATOR value in SYSIBM.SYSTABLESPACE must represent a unique relationship. For a given CREATOR, if you have defined a given tablespace name in more than one database, the SQR will use the database value associated with the tablespace that contains the fewest number of tables.

If either of these requirements is not met, either a database value will not be found and PSRECTBLSPC will not be updated, or PSRECTBLSPC could be updated with a database value different from that intended.

To run the SQR SETDBNAM, follow the same procedure as running SQR SETSPACE, using the JCL Job PSHLQ.PPvvv.JCLLIB(SETDBNAM) instead.

- *Option 4:* Log into the database via Application Designer, and update the record definitions with valid database/tablespace combinations, before building the script of DDL statements to create the temporary tables. Use the first Phase of the output report as a guide. (This could be a tedious and time-consuming process and is not recommended over the previously described options.)
- *Option 5:* Create the database/tablespace combinations in DB2 so they are no longer invalid, before executing the script file of DDL statements to create the Temporary tables. Use the second Phase of the output report as a guide to the databases and tablespaces that need to be created. (This is not recommended simply because it is likely to contradict the naming standards established for your DB2 installation.)

Task 8-14-3: Setting the Number of Temporary Tables

Normally, you will leave the number of temporary tables set to the default defined in the database. You may want to change this setting for optimal performance, depending on various aspects of your implementation, including account transaction volumes, benchmark numbers for the current hardware and database platform, and your service-level requirements.

Oracle delivers a minimum of three temporary table instances in most cases. You cannot adjust the number of temporary tables unless you have installed the PeopleSoft Pure Internet Architecture. (See “Setting Up the PeopleSoft Pure Internet Architecture in GUI Mode” or “Setting Up the PeopleSoft Pure Internet Architecture in Console Mode.”) You may skip this step entirely, and come back to it after PeopleSoft Pure Internet Architecture has been installed and you have a better idea of how many instances of the temporary tables might best fit your processing requirements. Another option is to update the PeopleTools table that controls the number of temporary table instances directly. Using the Database SQL interface of choice, issue the following SQL:

```

UPDATE PSOPTIONS SET TEMPTBLINSTANCES = <#>, TEMPINSTANCEONLINE = <#> WHERE⇒
TEMPINSTANCEBATCH = 0

```

The number of instances (#) for either field should not be less than 3 or greater than 9.

For non-EPM applications, it is strongly recommended that the TEMPTBLINSTANCES and TEMPINSTANCEONLINE values be the same. For EPM applications we strongly recommend that you take the delivered defaults.

Note. Again, this step can be performed at installation and/or at any time during the life of your database. The only caveat is that when any of the parameters are changed that would impact the number of temporary table instances, all temporary tables should be regenerated.

Task 8-14-4: Using the Volatile Table Attribute

Beginning with PeopleSoft PeopleTools 8.48, all temporary tables will be created using the volatile keyword.

Sample DB2 UDB for z/OS volatile temporary DDL follows:

```
CREATE TABLE Q848902.PS_AEEXT_TAO (PROCESS_INSTANCE DECIMAL(10) NOT
NULL,
    AE_INT_1 SMALLINT NOT NULL,
    AE_APPLID CHAR(12) NOT NULL,
    AE_SECTION CHAR(8) NOT NULL,
    AE_STEP CHAR(8) NOT NULL) VOLATILE IN Q848902.PTAPPE;
```

The volatile attribute specifies that the DB2 optimizer should favor index access on this table whenever possible for SQL operations regardless of the presence of statistics.

For more details on the volatile table attribute, refer to the DB2 UDB for z/OS V8 SQL Reference and the DB2 UDB for z/OS V8 Administration Guide.

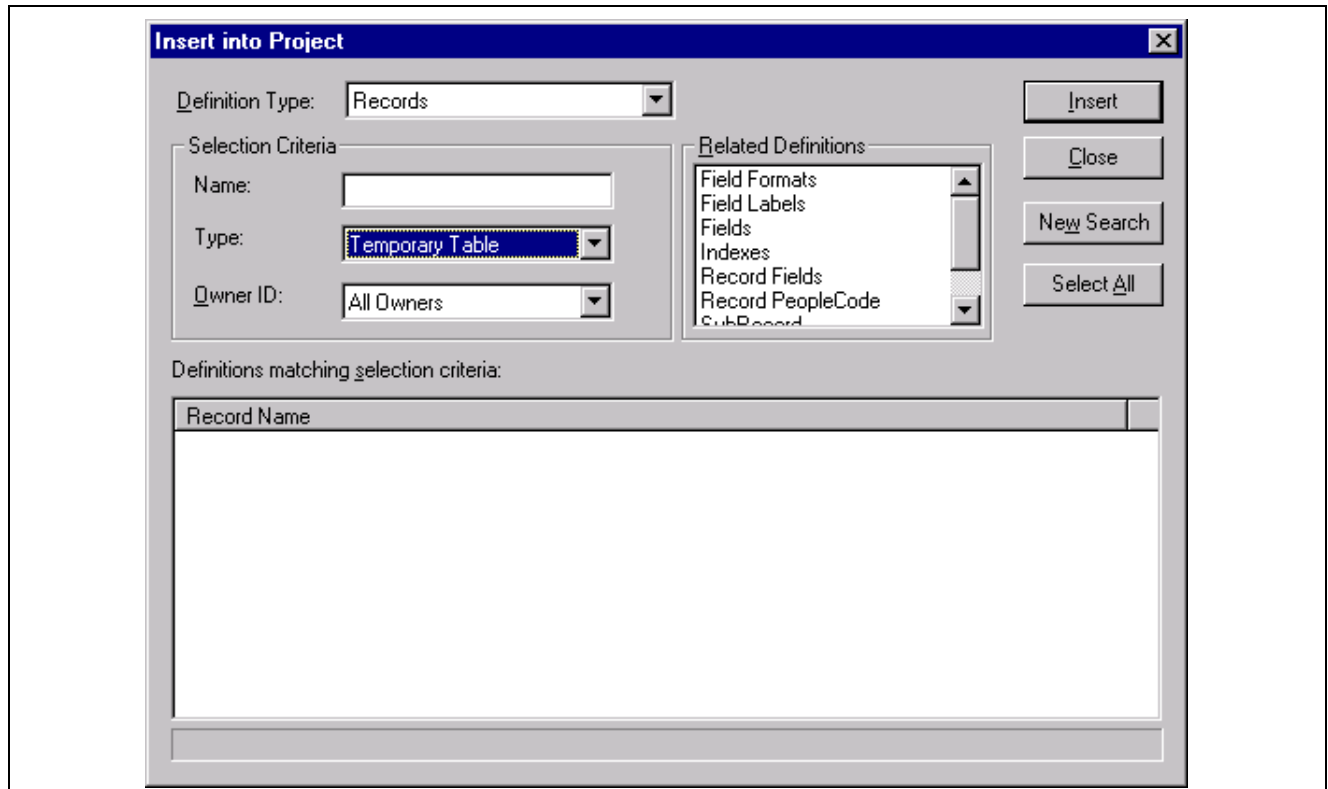
Task 8-14-5: Building the Temporary Tables and Their Indexes

Use the following procedure to build temporary tables in the database.

Note. You may use the temporary table DDL script created at the end of this task as input to the PeopleSoft Tablespace DDL Automation Assistance Tool (PSTAAT) to isolate each of the temporary tables to its own tablespace.

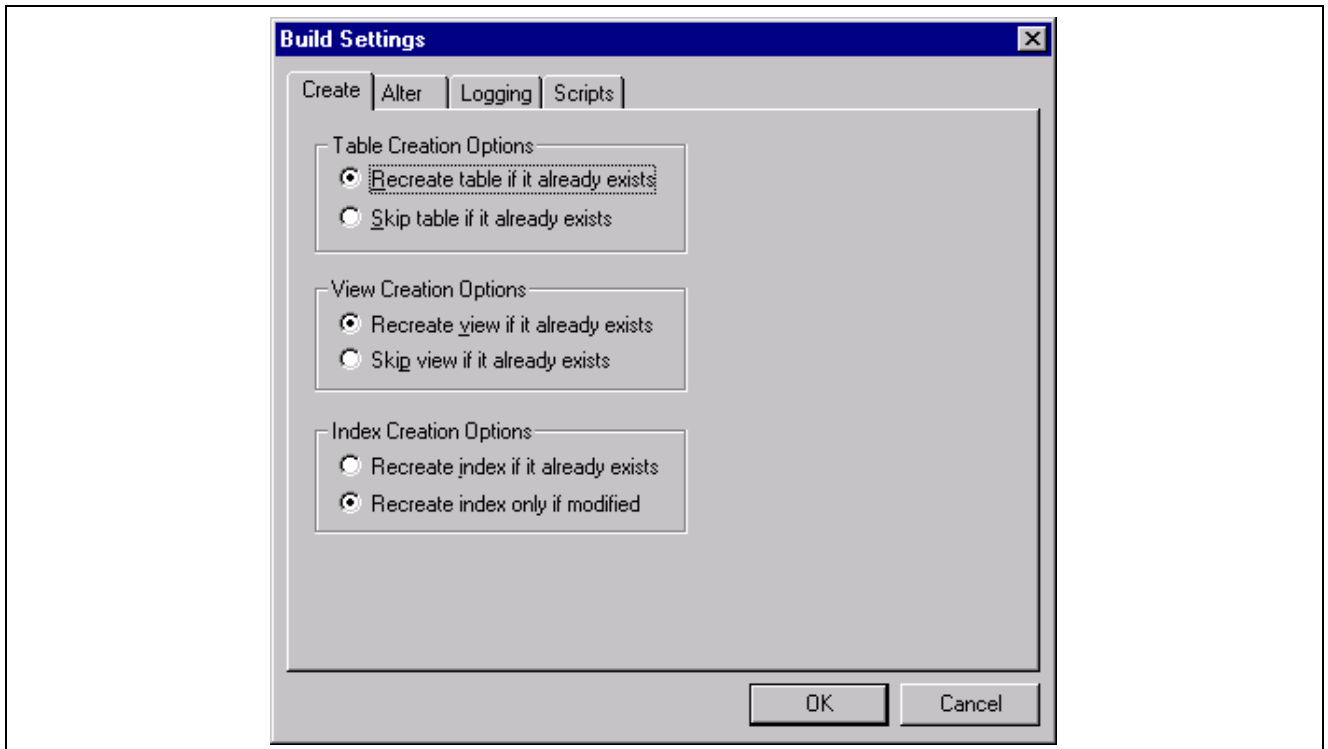
To build temporary tables:

1. Open Application Designer.
2. Choose File, New. In the New dialog, select Project, and then click OK.
3. Choose Insert, Definitions into Project.
4. Set Definition Type to *Records* and Type to *Temporary Table*.



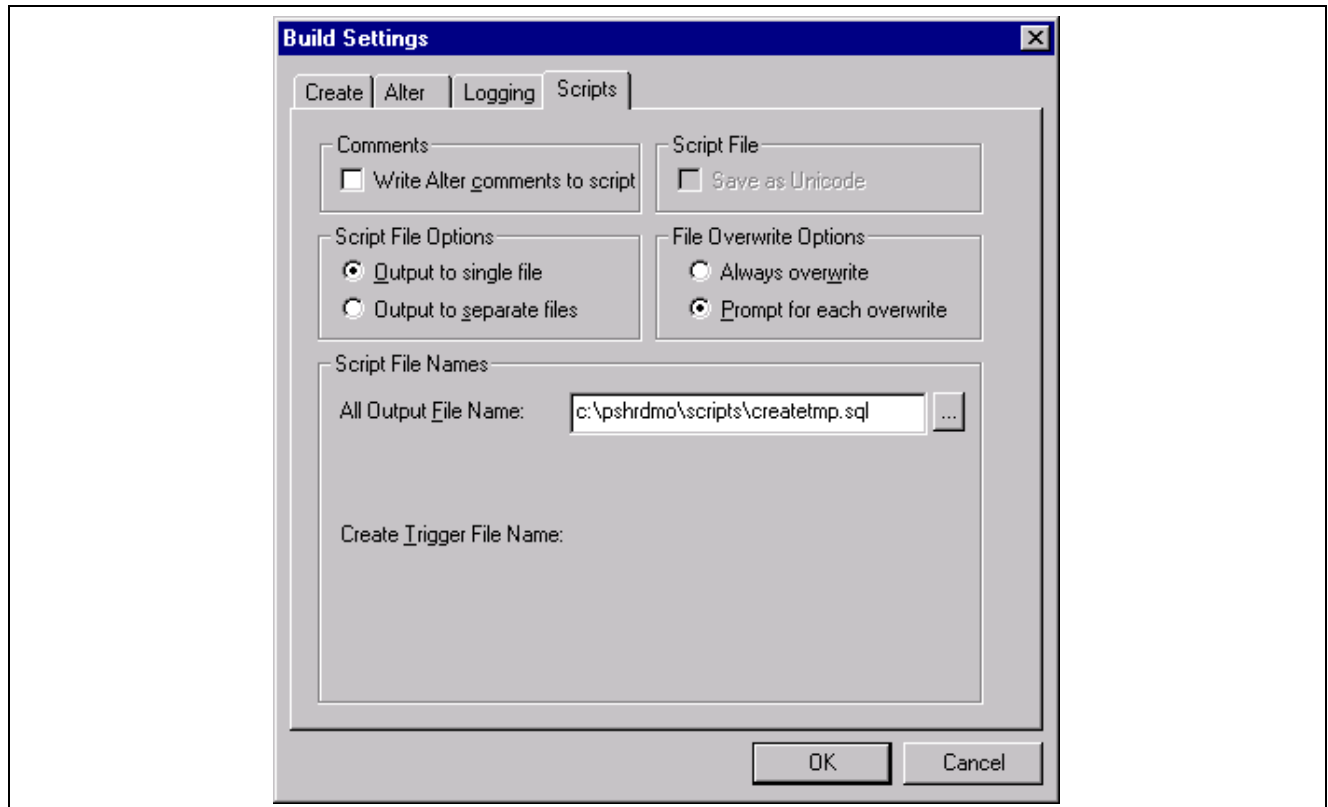
Insert into Project dialog box

5. Press ENTER, or click Insert and then click the Select All button. This selects all of the PeopleTools Records for temporary tables.
6. Click Insert to insert all of the temporary tables into the new project.
7. Click Close to close the Insert into Project dialog.
8. Before building the project, you should save it. Choose File, Save Project As and enter a project name such as *TEMPTBL*.
9. Choose Build, Project. The Build dialog appears.
10. In the Build Options group, select the Create Tables check box. The Create Index check box should be selected by default.
11. Select Build script file to direct the DDL to a file.
12. Click the Settings button. The Build Settings dialog appears.
13. On the Create tab, select Recreate table if it already exists (if it is not already selected) under Table Creation Options.



Selecting the Recreate table if it already exists in the Build Settings dialog box

14. Select the Scripts tab, and select Output to Single File under Script File Options.
15. Under Script File Names, specify the path and filename for the output file to contain the DDL to create the Temporary tables and their indexes (for example, *PS_HOME*\scripts\TEMPDDL.SQL).



Specifying the path and filename in the All Output File Name section

16. Click OK to accept the build settings.
17. Click Build to build temp tables. You may receive a warning message, which you can disregard because the temp tables do not contain any existing data.
18. After the script generation process has finished, click Close in the Build Progress dialog box to return to Application Designer.
19. Transfer the file of DDL statements just created to the mainframe server PDS HLQ.PSvvv.DDLLIB (*filename*).
20. If you have corrected the invalid database/tablespace combinations following Option 1 described earlier, and not updated the PSRECTBLSPC table with the database and tablespace names used in your installation, you need to edit the file, changing both the database and tablespace names from the values as would be noted in the second Phase of the output report from SQR SETSPACE, to your site-specific values.

Note. If you intend to use the %UpdateStats functionality, you should use the PeopleSoft Tablespace DDL Automation Assistance Tool (PSTAAT) to isolate each of the temporary tables to its own tablespace to avoid contention in any concurrently running processes. See the appendix “Using the PeopleSoft Tablespace DDL Automation Assistance Tool.”

21. When the file has been edited with the appropriate database and tablespace name values, save your changes and submit the DDL statements either through SPUFI or DSNTEP2. It is preferable to submit this in batch mode using DSNTEP2, because the task could take over an hour to complete.

Task 8-15: Creating PeopleSoft Triggers

This section discusses:

- Understanding PeopleSoft Triggers
- Creating Triggers in Data Mover
- Creating Triggers in Application Designer

Understanding PeopleSoft Triggers

When creating the PeopleSoft Triggers, you can use Data Mover or Application Designer to create the objects directly, or you can use Application Designer to generate a DDL script of SQL statements, which can then be run using another utility such as SPUFI or DSNTEP2, and with a UserID with a greater level of database authority.

Task 8-15-1: Creating Triggers in Data Mover

To create triggers in Data Mover:

1. Start Data Mover in User mode, using a valid PeopleSoft operator ID, for example, PS or VP1.
2. Choose File, Open from the Data Mover menu and navigate to *PS_HOME*\scripts.
3. Select the script *CREATETRGR.dms*.
4. Choose File, Run to execute the script.
5. Exit Data Mover.

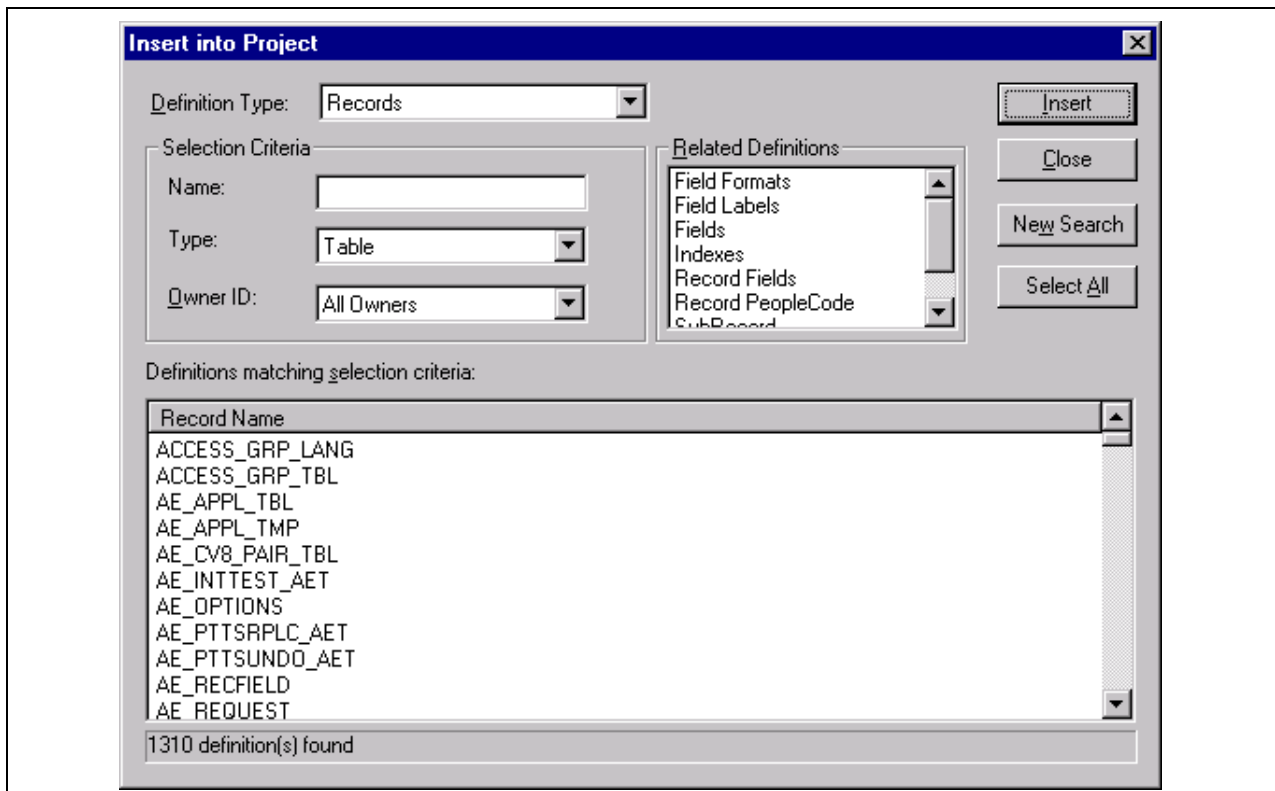
Task 8-15-2: Creating Triggers in Application Designer

To create triggers in Application Designer:

1. Start Application Designer (*Start, Programs, PeopleTools 8.4, Application Designer*).
2. Create a new project. Choose File, New, and then select Project from the New dialog.
3. Insert all PeopleTools Table records into the project.

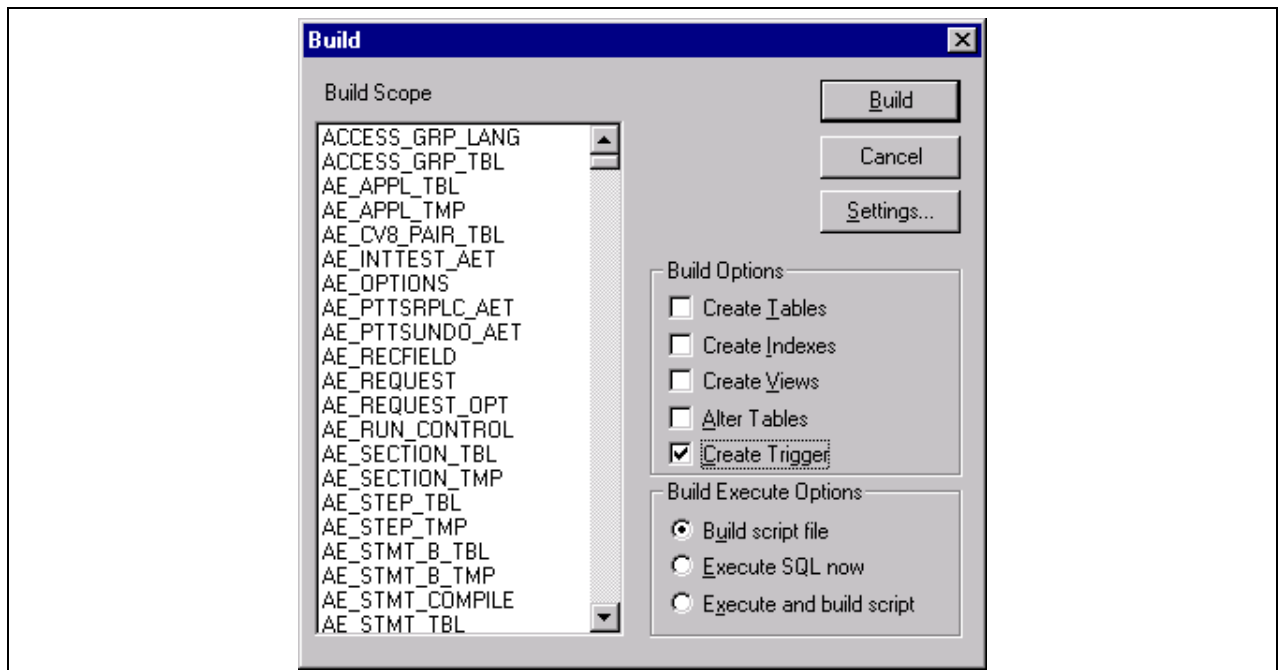
To insert the Table records:

- a. Choose Insert, Definitions into Project. The Insert into Project dialog appears.
- b. Select a Definition Type of *Records*.
- c. In the Selection Criteria control group, choose a Type of *Table*; and then press ENTER to select the records.



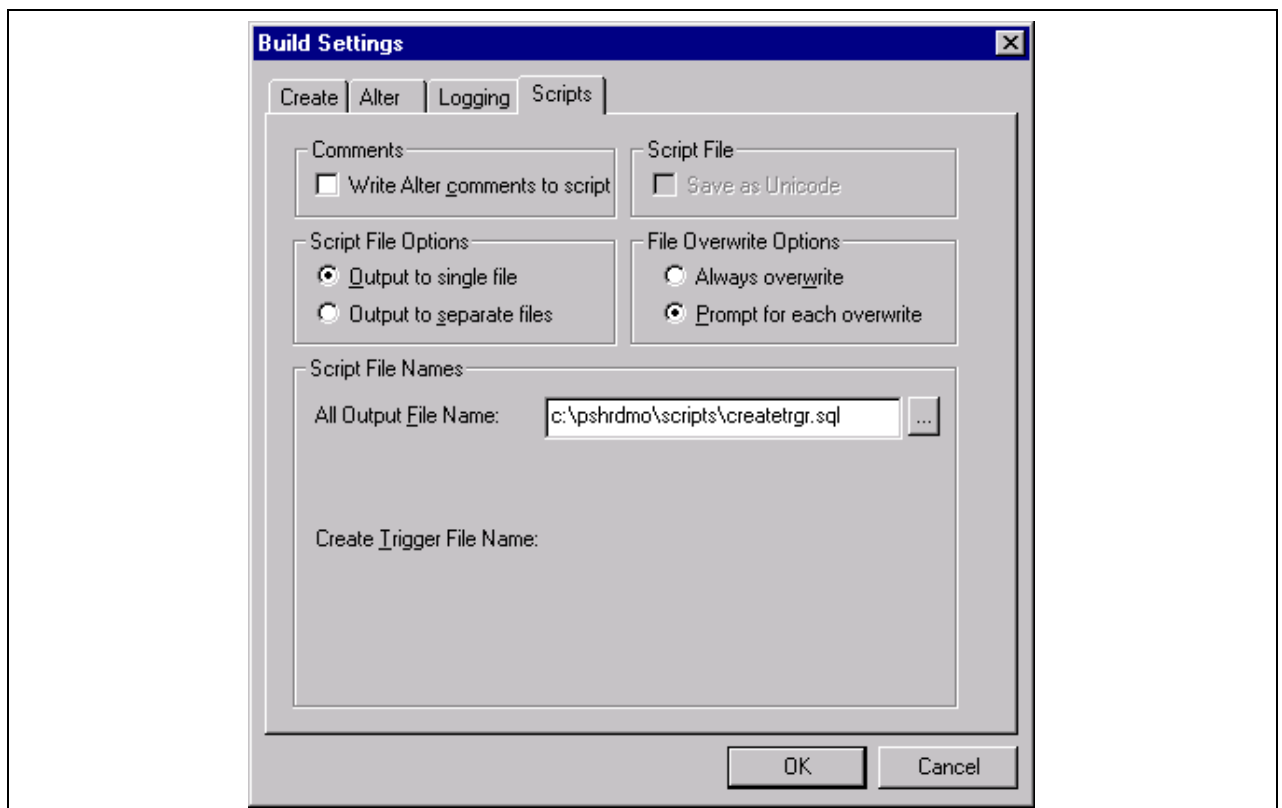
Insert into Project dialog box

- d. Click Select All, and then click Insert to insert the Table records into the project.
- e. Click Close to close the Insert into Project dialog.
4. Build the project.
 - a. Choose Build, Project. The Build dialog displays.
 - b. In the Build Options group, select the Create Trigger check box. In the Build Execute Options group, select either the Execute SQL now radio button to create the triggers directly, or the Build script file radio button to generate a DDL script of CREATE TRIGGER statements.



Build dialog box

- c. If you have selected the Build script file radio button, click the Settings button, go to the Scripts tab, and enter the output directory and filename where you want the DDL statement script written.



Build Settings dialog box

- d. Click OK to return to the Build dialog.
5. Click Build to build the triggers associated with the tables in the project.

Depending on the Build Execute Option selected, Application Designer will either directly build the triggers on the database or generate a script file of CREATE TRIGGER DDL statements. If you have opted to generate the script file, execute the DDL statements either through SPUFI or DSNTEP2. Because of the time it may take the script to complete, we recommend submitting this script in batch mode using DSNTEP2. You may also need to prefix the script with the SQL command `SET CURRENT SQLID = <ownerid>`.

Task 8-16: Running Additional Data Mover Scripts

To import additional data for your specific PeopleSoft database, or to make other required changes, you may need to run additional Data Mover scripts. These script files have the extension .dms and are sometimes referred to as “DMS scripts.” They are located in the *PS_HOME*\scripts directory of your file server, and need to be run from the file server by means of Data Mover.

For the details on which additional application-specific Data Mover scripts to run, consult your application-specific installation instructions.

If you have installed a language other than English, you may need additional instructions on language-specific Data Mover scripts.

See Installing a Multilingual PeopleTools System Database.

Task 8-17: Installing a Multilingual PeopleTools System Database

This section discusses:

- Understanding the Multilingual Database Project
- Applying the Multilingual Database Project
- Populating the Translated System Data

Understanding the Multilingual Database Project

The information in this section applies if you are installing a multilingual PeopleSoft PeopleTools System database. If not, skip this task and go on to the task “Running VERSION Application Engine Program.” If you are installing an application database (for example, HRMS, FSCM, EPM, and so on), you do not need to run this task.

If you are adding a new (Oracle-delivered) language to the PTSYS database, you must execute this step for that language. For example, if you want to add Polish to your current multilingual database, you should install Polish from PPLTLSML so you will get all objects. If you only “upgrade” your database to have Polish using PPLTLS84CURML, you will only get the objects that changed between 8.40 and the current release.

If you are installing a PeopleSoft PeopleTools System database and you want it to be multilingual, you need to perform the steps in the following section after the database has been loaded with Data Mover.

See Applying the Multilingual Database Project.

Note. When you log onto the multilingual database, be sure to select the base language of the database.

Task 8-17-1: Applying the Multilingual Database Project

This procedure describes how to apply the multilingual database project that contains translations of the PeopleSoft PeopleTools objects.

To apply the multilingual database project:

1. Launch Application Designer.
2. Select Tools, Copy Project, From File.
3. In the resulting dialog box, change the import directory to *PS_HOME\projects*.
4. Select *PPLTLSML* from the list of projects and click the Open button.
5. In the Upgrade Copy dialog box, make sure that all object types are selected.
6. Click the Options button, select the Copy Options tab, and ensure that only the non-English languages you have installed are selected.

Please note that English and Common should *not be selected*.

7. Select the languages that you are currently installing from the Copy Options dialog box.
8. Click the Copy button.

(The Reset Done Flags check box will be selected; accept this default.)

Task 8-17-2: Populating the Translated System Data

To populate the translated system data:

Note. You need to run the following script in User mode.

1. Launch Data Mover.
2. Open the *pt850tlsx.dms* script using File, Open.
3. Select File, Run

Note. The portion of the script name *xxx* is equivalent to the language code (that is, FRA, CFR, GER, JPN, and so on) of the languages you have installed. There will be a Data Mover script for each language.

Task 8-18: Running SQR Reports

This section discusses:

- Binding the *dbcalls.bnd*
- Running SQRs on the Client Workstation
- Creating a Shortcut to Run SQRs

Note. The following instructions describe how to run SQR reports from the client workstation. On the Windows client, you may prefer to create a shortcut to allow you to run the reports repeatedly. You can use these instructions to run SQRs required in the upcoming task “Checking the Database.” You can also choose to run SQR reports from the command line in console mode.

Task 8-18-1: Binding the dbcalls.bnd

You need to bind the dbcalls.bnd before running SQR reports.

To bind dbcalls.bnd:

1. Using an ID with mainframe logon and BINDADD privileges, log on to DB2 Connect Command Line Processor:

```
db2 => CONNECT TO <database name> USER <mainframe User Id>
```

Note. Enter your current password for "mainframe User Id": <mainframe User Id password>.

2. The Windows SQR bind executable is located in the File or Report Server directory (for example, *PS_HOME\bin\sqr\db2\BINW\dbcalls.bnd*).

- Issue the following bind command for an EBCDIC installation:

```
db2 => bind <ps_home>\bin\sqr\db2\BINW\dbcalls.bnd blocking all grant public=>
sqlerror continue
```

- For a Unicode installation, you must bind the windows SQR executable with encoding unicode as follows:

```
db2 -> bind <ps_home>\bin\sqr\db2\BINW\dbcalls.bnd encoding unicode blocking=>
all grant public sqlerror continue
```

Note. The executable program PSSQR.EXE is a wrapper program used by PeopleSoft Process Scheduler to run SQR reports. It is not designed to run manually outside of Process Scheduler. That is, the PeopleSoft system does not support running PSSQR from the command line.

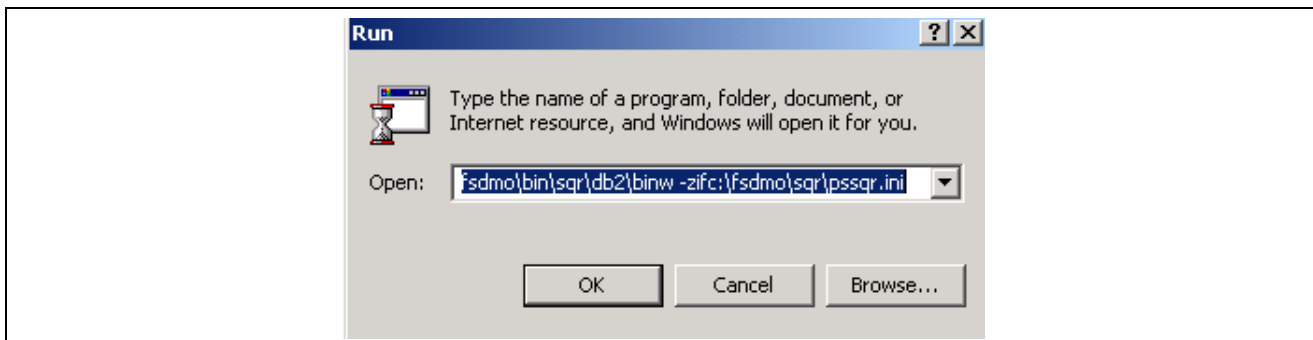
Task 8-18-2: Running SQRs on the Client Workstation

To run an SQR on the client workstation:

1. Select Start, Run, click Browse, and navigate to *PS_HOME\bin\sqr\DB2\binw*. Select sqrw.exe and click Open.

2. Add any needed flags at the end of the command line.

Refer to the table that follows. For those flags that require attributes, append the attributes to the flags with no intervening spaces (for example, `-fd:\psbase\psenv\cr881dmo\`).



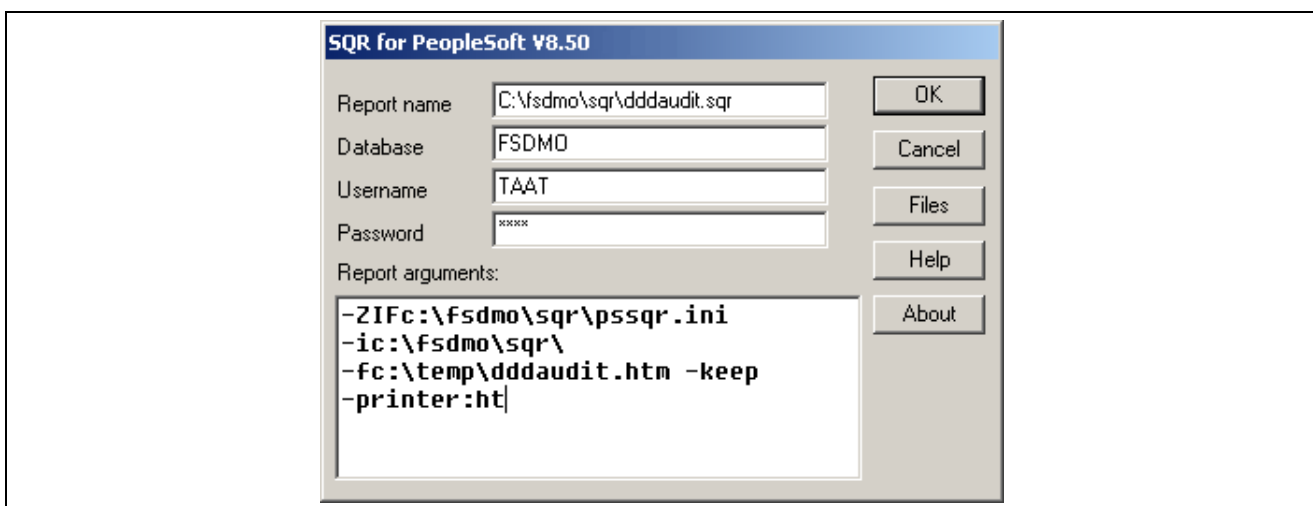
Running an SQR report on the client

The following table summarizes the SQR report arguments used by PeopleSoft software. (For a full listing of report arguments, press the Help button to view the SQR help topic for this dialog box.)

Flag	Description
-I	Specifies the directories that SQR will search for the #INCLUDE files. (A trailing slash is required.)
-f	Specifies the directory where the report output will be sent. If you use the <code>-keep</code> flag, specify a directory with an ending slash. If you use the <code>-printer</code> flag, specify a full pathname with a filename for the HTML file.
-ZIF	Sets the full path and name of the SQR initialization file. The <code>-ZIF</code> flag should point to your <code>PS_HOME\sqr\pssqr.ini</code> file.
-keep	Keeps the .SPF file after the program runs. This enables you to view the report with the SQR viewer.
-printer:ht	Generates the output file in HTML format. Specify the filename, with path location, with the <code>-f</code> flag.

- Click OK.

The resulting dialog box should look something like this:



SQR for PeopleSoft dialog box

- Enter the following values:

- Enter the report name.
You must specify the full path.
 - Enter the access ID in the Username field.
 - Enter the access password in the Password field.
 - Enter the database name.
5. Click OK to run the SQR report.

Task 8-18-3: Creating a Shortcut to Run SQRs

If you think you may need to run the SQR reports more than once, you may want to create a shortcut on the Windows client workstation. To save the report arguments:

1. Open Windows Explorer on the machine on which you want to run SQR.
2. Navigate to *PS_HOME\bin\sqr\DB2\binw*.
3. Right-click *sqrw.exe* and click Create Shortcut.
4. Right-click the shortcut that you just created and select Properties.
5. On the Shortcut tab, add the same *sqr* flags that you used in the previous task after *sqrw.exe* in the Target entry box.
6. Click OK.
7. To run the report, double-click the shortcut and specify the following information in the dialog box:
 - Report Name: Enter the full path and the name.
 - Database name
 - Username: Enter the access ID.
 - Password: Enter the access password.
 - Report arguments: Make any necessary modifications to the saved arguments.
8. Click OK.

Task 8-19: Updating PeopleSoft System Tables

This section discusses:

- Understanding PeopleSoft System Tables
- Updating PeopleSoft System Tables

Understanding PeopleSoft System Tables

In this task, you run SQR scripts that update PeopleTools tables with information from the DB2 system catalog tables.

- *SETSPACE.SQR* was run in an earlier task, but should be re-run at this point. It updates PSRECTBLSPC with the database and tablespace information captured from the DB2 system catalog table SYSIBM.SYSTABLES, inserts valid database and tablespace combinations defined in PSRECTBLSPC

that have not yet been defined in PSTBLSPCCAT, and provides an audit report of actions taken and invalid database and tablespace combinations defined in PSRECTBLSPC but not defined in the DB2 system catalog table SYSIBM.SYSTABLESPACE. You can run this SQR multiple times without negative impact.

- *SETTMPIN.SQR* inserts rows into PSRECTBLSPC to store the database and tablespace location for each temporary table instance defined in the DB2 system catalog table SYSIBM.SYSTABLES. You need to run this SQR after each time you create or refresh the temporary tables on your database. You can run this SQR multiple times without negative impact.

Note. This SQR will *not* facilitate regeneration of the temporary tables by ensuring that each instance is rebuilt in the database/tablespace location to which it was originally assigned. The purpose of the SQR is to capture the location of each temporary table instance after it has been created in the database, and sync PSRECTBLSPC with the DB2 system catalog.

Task 8-19-1: Updating PeopleSoft System Tables

To update PeopleSoft system tables initiate SQRW.exe as you did in the task Running SQR Reports and run the SETSPACE.SQR and SETTMPIN.SQR (if applicable) programs.

Note. Oracle also provides SETINDEX.SQR and SETBUFF.SQR, which will help the PeopleSoft DBA keep the PeopleSoft system tables in sync with the DB2 catalogs.

Task 8-20: Binding DB2 Plans

If you are not planning to run COBOL on the mainframe, this step is not necessary.

You need to bind the following DB2 Plans used by PTPSQLRT—the first one is for the Native Attach Facility for UNIX System Services, and the second one is for the Call Attach Facility. On the z/OS server, submit the following two JCL jobs:

```
HLQ.PSVVV.JCLLIB(BINDAADD)
HLQ.PSVVV.JCLLIB(BINDEADD)
```

The only acceptable message reads:

```
BIND SUCCESSFUL
```

If you receive any other message, it means you have encountered an error. Common bind errors include:

- Program PTPSQLRT failed to precompile (jobs PSCOBDA and/or PSCOBDE) and the DBRM was not generated. If this is the case, run PSCOBDA or PSCOBDE again, and carefully examine the return codes.
- If you get a "Plan Already Exists" error, do a bind/replace using BINDAREP and BINDEREP.

Task 8-21: Running VERSION Application Engine Program

Run the VERSION Application Engine program on your database. From the DOS command line, the syntax is:

```
<PS_HOME>\bin\client\winx86\psae -CD <dbname> -CT DB2ODBC -CO <userid> -CP=>
<userpswd> -R INSTALL -AI VERSION
```

Use the values for the database name and user ID that you entered on the startup tab of the Configuration Manager for <dbname> and <userid> respectively. However, be aware that <userpswd> is not the same as the connect password you entered on the Configuration Manager startup tab. Enter a value for <userpswd> that is the password you want to be associated with the <userid>.

See "Setting Up the Install Workstation."

Task 8-22: Changing the Base Language

Chapter 1 will help you determine whether you should change your base language, and lists the currently supported languages.

See "Preparing for Installation," Planning Multilingual Strategy.

This task applies only if your users will be operating PeopleSoft applications *primarily* in one particular language other than English. It gives a performance boost to the language you designate as the base language, but requires more administrative overhead than leaving English as the base language. The details are spelled out in the following PeopleBook:

See *Enterprise PeopleTools 8.50 PeopleBook: Global Technology*.

Task 8-23: Checking the Database

Run and examine two SQR reports to verify that your database is complete.

See Updating PeopleTools System Tables.

To verify that the database is complete, run the following SQR reports from the *PS_HOME\sqr* directory:

- dddaudit.sqr
- sysaudit.sqr.

For further information about the dddaudit and sysaudit reports, consult PeopleBooks. This documentation includes specific information on how to interpret the reports and how to fix any errors found there.

It is good practice to run and read the audit reports, which include sysaudit, dddaudit and alter audit, after making changes such as applying patches, bundles, and upgrades to the database, to make sure that the tables are internally and externally in synch. It is also a good idea to schedule regular maintenance, for example weekly, in which you run and review the reports.

See *Enterprise PeopleTools 8.50 PeopleBook: Data Management*, "Ensuring Data Integrity."

Note. If any records show up in the VIEWS-2 or TABLE-3 section of dddaudit and are contained within the PPLTLS84CURDEL project, you may safely drop these records using the SQL query tool for your platform.

See Also

Enterprise PeopleTools 8.50 PeopleBook: Data Management

Enterprise PeopleTools 8.50 PeopleBook: System and Server Administration

Task 8-24: Running Alter Audit

Use the ALTER AUDIT process to check whether the PeopleSoft PeopleTools tables are synchronized with the underlying SQL data tables in your database. This process compares the data structures of your database tables with the PeopleSoft PeopleTools tables to uncover inconsistencies. The ALTER AUDIT process then reports its findings. At this point of time in the install, we do not expect to see differences between the database structure and the PeopleSoft PeopleTools tables.

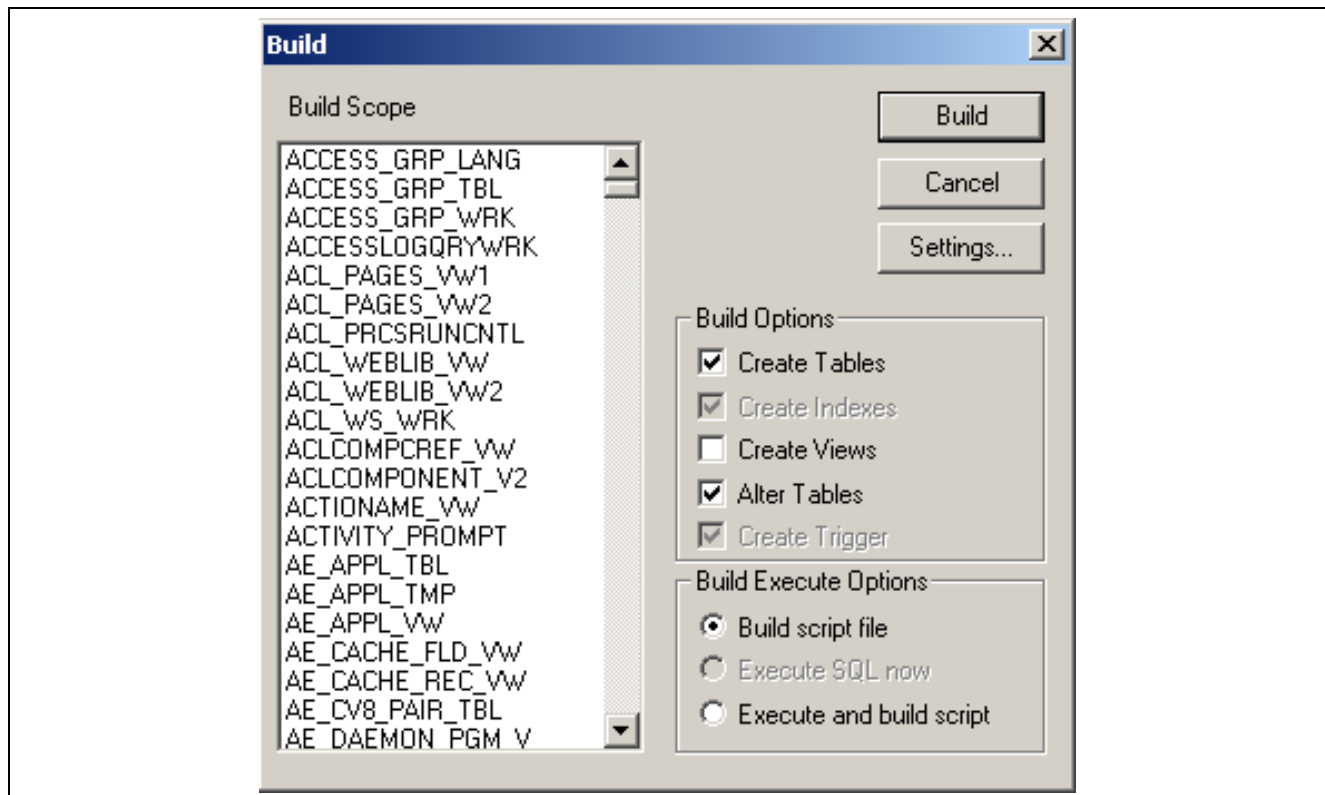
Note. If your application database was delivered on the PeopleSoft PeopleTools release you are installing (see the table at the beginning of the task “Updating PeopleTools System Tables”), this task is optional.

Note. Triggers are always dropped and re-created during the alter process and will always show up in the generated Alter Audit script. You can ignore the generated script for triggers.

To alter PeopleSoft PeopleTools tables:

1. Launch Application Designer and sign on to the installed database with a valid PeopleSoft user ID.
2. Select File, New.
3. Select Project and click OK.
4. Select Insert, Definitions into Project.
5. Select *Records* from the Definition Type drop-down list box.
6. Select *Table* from the Type drop-down list box.
7. Click Insert, and then click Select All.
8. Click Insert, and then click Close.
9. Select Build, Project.

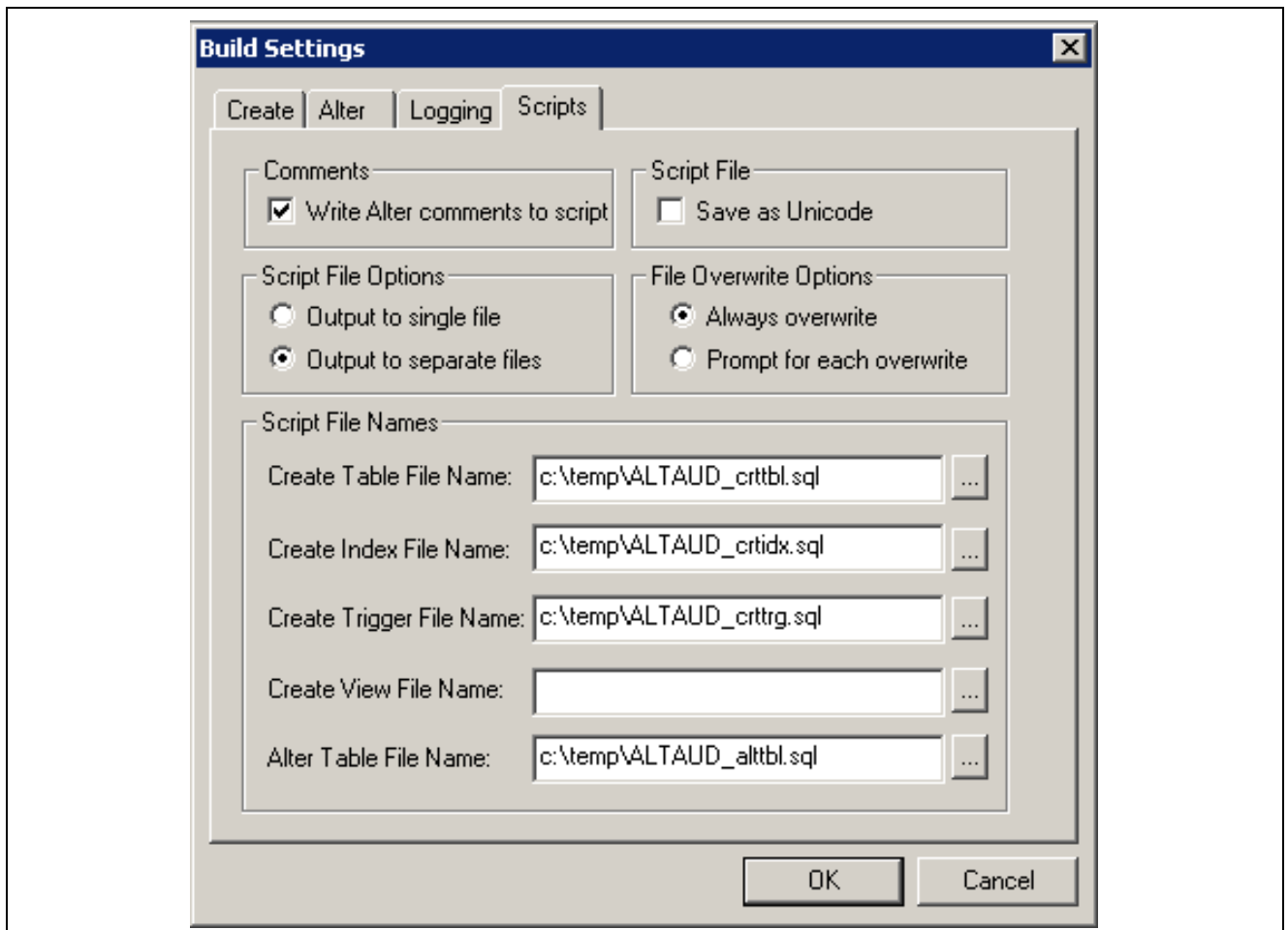
The Build dialog box appears:



The Build dialog box

10. Select Create Tables and Alter Tables in the Build Options region (Create Indexes and Create Trigger will automatically be selected).
11. Select Build script file in the Build Execute Options region.
12. Click Settings.

The Build Settings dialog box appears:

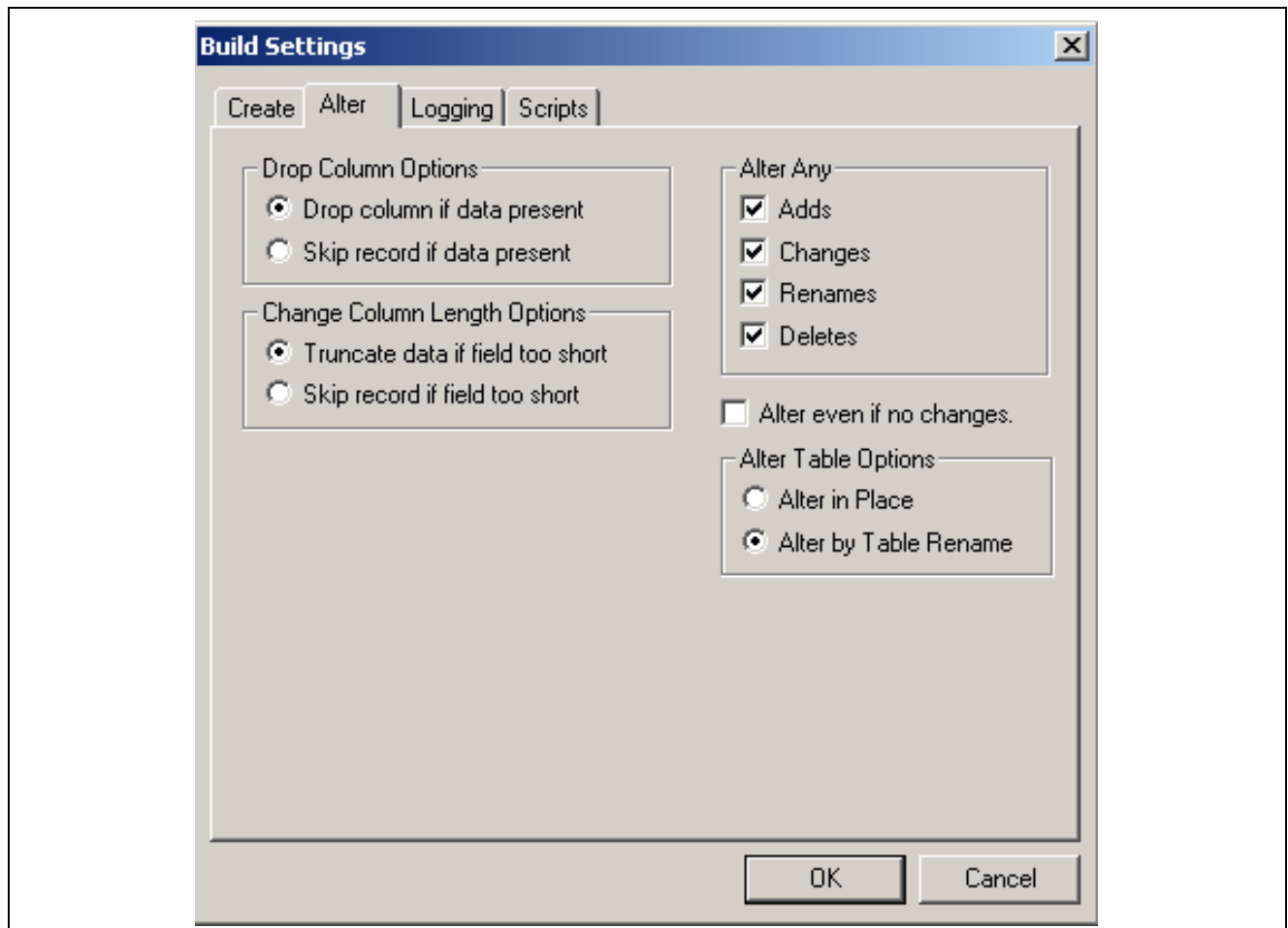


Build Settings dialog box: Scripts tab

13. Select the Scripts tab.
14. Select Write Alter comments to script.
15. Enter a unique output file name for each type.
16. Select the Alter tab and ensure that the Adds, Changes, Renames, and Deletes check boxes are selected in the Alter Any region.

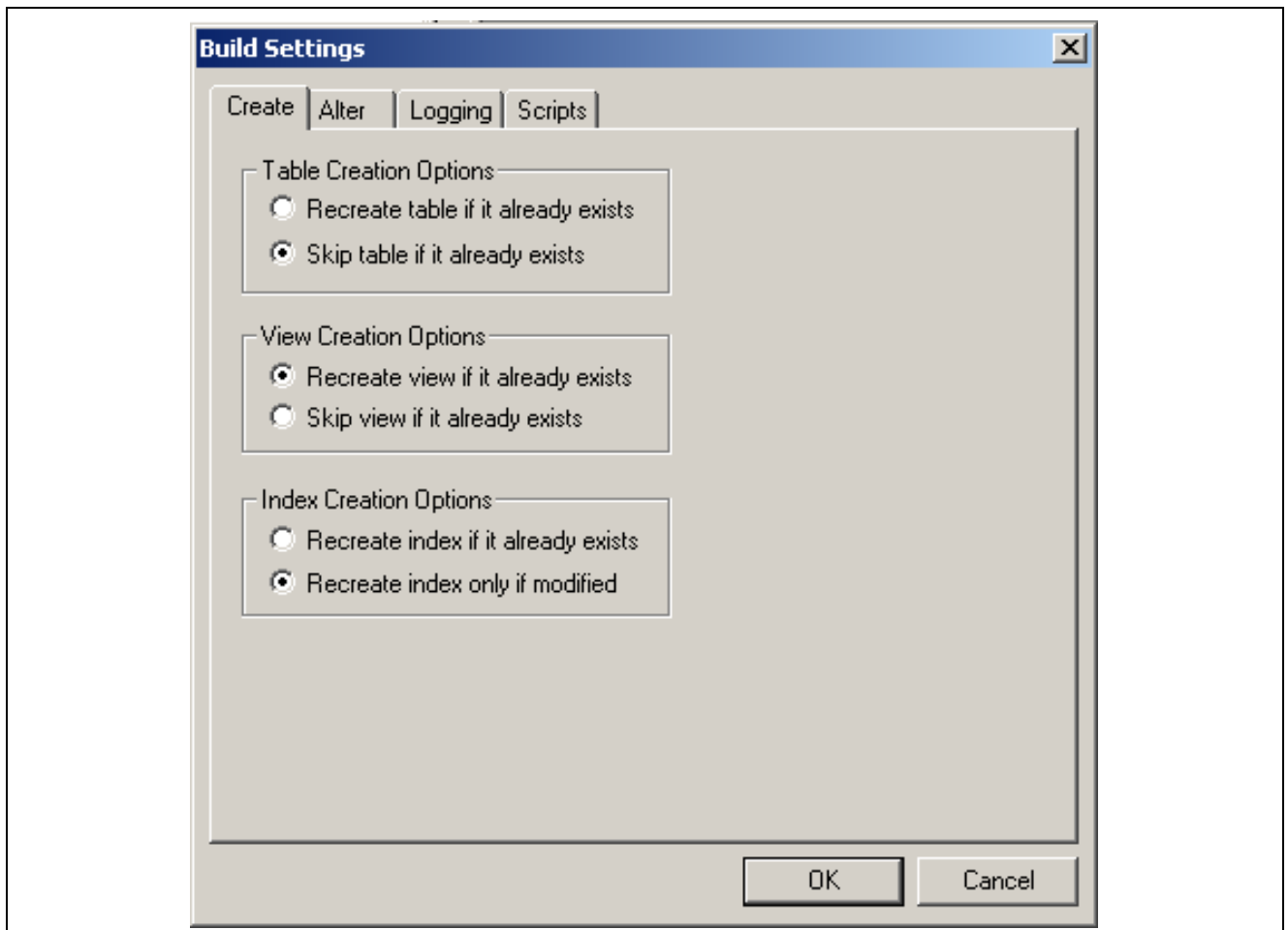
Drop column if data present should be selected in the Drop Column Options region, and Truncate data if field too short should be selected in the Change Column Length Options region.

Make sure that Alter by Table Rename is selected in the Alter Table Options region.



Build Settings dialog box: Alter tab

17. Select the Create tab, and ensure that the options Skip table if it already exists, Recreate view if it already exists, and Recreate index only if modified are selected.



Build Setting dialog box: Create tab

18. Click OK.

The Build dialog box reappears.

19. Click Build.

20. Click Close when the process is completed.

21. Edit the generated SQL script for the correct database name.

22. Edit the generated SQL script for the correct tablespace names and sizing parameters if you are not using delivered PeopleSoft tablespace names.

23. Run the generated SQL scripts in your platform-specific query tool to bring your database structure in sync with the PeopleTools tables.

Task 8-25: Disabling %UpdateStats

This step is required if you followed the traditional installation path, and optional if you followed the enhanced installation path.

PeopleSoft 8 introduced the meta-SQL %UpdateStats to allow an Application Engine program to update statistics in the DB2 catalog tables. For the DB2 z/OS platform, there are certain caveats to successfully implementing the %UpdateStats functionality. The primary consideration for using %UpdateStats functionality is the database schema. It is highly recommended that tables subject to this feature be placed in their own tablespace. %UpdateStats invokes the DB2 utility RUNSTATS, which is executed at the tablespace level. The more tables in a given tablespace, the longer it will take for the RUNSTATS job to complete. If the enhanced installation path is not taken, this can severely degrade rather than improve performance. PeopleSoft 8 uses the IBM Stored Procedure DSNUTILS to invoke DB2 Utility RUNSTATS.

If you have not implemented the DSNUTILS stored procedure and/or followed the traditional installation path, you might consider disabling recognition of the %UpdateStats function by setting DBFLAGS to 1 in your Process Scheduler configuration file. See the previous section, “Using %UpdateStats,” or search PeopleBooks for more details on using DBFLAGS to disable %UpdateStats.

See *Enterprise PeopleTools 8.50 PeopleBook: Data Management*.

CHAPTER 9A

Configuring the Application Server on Windows

This chapter discusses:

- Understanding the Application Server
- Prerequisites
- Setting Up COBOL for Remote Call
- Verifying Database Connectivity
- Creating, Configuring, and Starting an Initial Application Server Domain
- Configuring Asian Language Fonts

Understanding the Application Server

The information in this chapter is provided to help you configure your PeopleSoft application server.

Note. COBOL is not needed for PeopleSoft PeopleTools or for applications that contain no COBOL programs. Check the information on My Oracle Support, and your application-specific documentation, for the details on whether your application requires COBOL.

Oracle supports a Microsoft Windows application server to use with any of our supported databases for the PeopleSoft installation.

Application servers are not supported on z/OS because Tuxedo cannot run on the mainframe. For this reason, you can only install an application server in a “physical” three-tier configuration—with the application server on a machine separate from the database server machine. You cannot run a “logical” three-tier configuration—with the application server on the same machine as the database server.

In PeopleSoft PeopleTools 8.50, the configuration and log files for application server domains reside in *PS_CFG_HOME*. If you do not set a *PS_CFG_HOME* environment variable before beginning the application server configuration, the system installs it in a default location based on the current user’s settings, as follows:

```
%USERPROFILE%\psft\pt\<peopletools_version>
```

See "Preparing for Installation," Defining Server Domain Configurations.

See *Enterprise PeopleTools 8.50 PeopleBook: System and Server Administration*, "Working with Server Domain Configurations."

To test a three-tier connection from the PeopleTools Development Environment (the Windows-based client):

1. Launch Application Designer.
2. Sign on to the PeopleSoft database using Application Server as the Connection Type.

Enter <Machine name or IP Address>:<WSL port number> for the application server name—for example, 224.160.192.128:7000

3. Enter the user name and password, and click OK.
The Application Designer window should open.
4. Alternatively, launch Configuration Manager.
5. Select the Startup tab.
6. Fill out the page with the default information for signon.
7. Select the Profiles tab.
8. Highlight the default profile, and click Edit.
9. On the Database/Application Server page, specify connect information regarding your application server.

Note. You can start application servers as a Windows service, which means that administrators no longer need to manually start each application server that runs on a Windows machine.

See Also

"Using the PeopleSoft Installer," Understanding PeopleSoft Servers

"Setting Up Process Scheduler on Windows," Starting Process Scheduler as a Windows Service

Enterprise PeopleTools 8.50 PeopleBook: System and Server Administration, "Using PSADMIN Menus"

Enterprise PeopleTools 8.50 PeopleBook: Data Management

My Oracle Support, Certifications

"Setting Up the Install Workstation"

"Compiling COBOL on Windows"

Prerequisites

Before beginning this procedure, you should have completed the following tasks:

- Installed your application server.
See "Using the PeopleSoft Installer," Understanding PeopleSoft Servers.
- Installed Tuxedo 10gR3.
See "Installing Additional Components."
- Granted authorization to a PeopleSoft user ID to start the application server. User ID: VP1 for Enterprise Performance Management and Financials/Supply Chain Management, and PS for HRMS, should be delivered with authorization to start the application server.
- Run the following SQL statements on your database server to review and if needed, update the PSCLASSDEFN table:

```
SELECT CLASSID, STARTAPPSERVER FROM PSCLASSDEFN
WHERE CLASSID IN (SELECT OPRCLASS FROM PSOPRCLS WHERE OPRID='<OPRID>')
```

```
UPDATE PSCLASSDEFN SET STARTAPPSERVER=1 WHERE CLASSID='<CLASSID>'
```

Note. Installers typically use VP1 or PS to test the application server, and the password for these users is stored in a fairly accessible text file. If these users are deleted or their passwords are changed, the application server will no longer be available. To avoid this problem, you can set up a new operator (called PSADMIN or PSASID, for instance) with privileges to start the application server. If you do this, you can use the new operator for your application servers and you won't need to change the password each time VP1 or PS is changed.

Task 9A-1: Setting Up COBOL for Remote Call

Remote Call is a PeopleCode feature that launches a COBOL program from an application server, PeopleCode program or a batch Application Engine PeopleCode program and waits for it to complete execution before continuing. The execution of a COBOL program via Remote Call is completely independent of the Process Scheduler. You need to set up a COBOL runtime environment and COBOL executables on the application server to support Remote Call.

See "Compiling COBOL on Windows."

If your application does not contain COBOL programs, you do not need to purchase or compile COBOL.

See *Enterprise PeopleTools 8.50 Hardware and Software Requirements*.

Task 9A-2: Verifying Database Connectivity

Before continuing, it is critical to verify connectivity to the database that the application server domain will use. To verify connectivity, connect to the database server from the application server using the native SQL tool on the application server.

If you are running DB2 UDB for z/OS, you can issue this command from the UNIX prompt:

```
db2 connect to <database name> user <z/OS ID> using <password>
```

If you are running DB2 UDB for z/OS and are setting up your application server on a Windows machine, enter the preceding command at a DB2 Connect command window, or use DB2 Connect's Command Center or Client Configuration Assistant.

See *Installing and Configuring DB2 Connect*.

Task 9A-3: Creating, Configuring, and Starting an Initial Application Server Domain

This section discusses:

- Creating, Configuring, and Starting the Application Server Domain
- Testing the Three-Tier Connection

- Importing an Existing Application Server Domain Configuration
- Setting Up a Custom Application Server Domain Configuration
- Troubleshooting Common Errors

Task 9A-3-1: Creating, Configuring, and Starting the Application Server Domain

To create, configure, and start the application server domain:

1. To run PSADMIN, go to the *PS_HOME*\appserv directory and enter the following command:

```
psadmin
```

Note. Make sure you change the directory from the *PS_HOME* on the file server to the *PS_HOME*, or high-level directory, on the application server.

2. When the menu appears, specify *1* for Application Server and press ENTER.
3. Specify *2* to Create a domain and press ENTER.
4. Specify the domain name. For example:

```
Please enter name of domain to create :HR84
```

Domain names are case sensitive and must be eight US-ASCII characters or less. The domain name is used to create a directory name under the *PS_CFG_HOME*\appserv directory.

See *Enterprise PeopleTools 8.50 PeopleBook: System and Server Administration*, "Working with Server Domain Configurations."

5. Specify *4* for small if this is your initial domain installation, press ENTER.

See *Enterprise PeopleTools 8.50 PeopleBook: System and Server Administration*.

6. After the system creates the domain, this prompt appears:

```
Would you like to configure this domain now? (y/n) [y] :
```

Enter *y*. The PeopleSoft Application Server Administration menu appears with a Quick-configure menu similar to this:

```
-----
Quick-configure menu -- domain: HR84
-----
```

Features		Settings	
=====		=====	
1) Pub/Sub Servers	: No	15) DBNAME	: [HR84]
2) Quick Server	: No	16) DBTYPE	: [DB2ODBC]
3) Query Servers	: No	17) UserId	: [QEDM0]
4) Jolt	: Yes	18) UserPswd	: [QEDM0]
5) Jolt Relay	: No	19) DomainID	: [TESTSERV]
6) WSL	: No	20) AddToPATH	: []
7) PC Debugger	: No	21) ConnectID	: [people]
8) Event Notification	: Yes	22) ConnectPswd	: [people]
9) MCF Servers	: No	23) ServerName	: []

10) Perf Collator	: No	24) WSL Port	: [7000]
11) Analytic Servers	: Yes	25) JSL Port	: [9000]
12) Domains Gateway	: No	26) JRAD Port	: [9100]

Actions

=====

- 13) Load config as shown
- 14) Custom configuration
- h) Help for this menu
- q) Return to previous menu

HINT: Enter 15 to edit DBNAME, then 13 to load

Enter selection (1-26, h, or q):

Note. If your installation includes more than one application server domain on a given machine, read the troubleshooting section for more information.

See Troubleshooting Common Errors.

7. If you need to modify any of the values for these settings, enter the number next to the parameter name, type the new value, and press ENTER.

If you need to change any of the features, type the number next to the feature name and press ENTER.

8. Configure the WSL to boot by changing option 6 to Yes.

Enter 6, and press ENTER.

9. If you intend to use the PeopleSoft Report Distribution system, you must select *Yes* for feature 8, Event Notification.

This enables the REN server, which is used by the “run to window” functionality of the Report Distribution system. *The Report Distribution system, MultiChannel Framework, and Optimization Framework use REN servers.* You must also remember to enter an Authentication Token Domain when installing the PeopleSoft Pure Internet Architecture (PIA).

10. If you are configuring an application server domain to support applications based on the PeopleSoft MultiChannel Framework (such as PeopleSoft CRM ERMS), select feature 9, MCF Servers.

See *Enterprise PeopleTools 8.50 PeopleBook: PeopleSoft MultiChannel Framework*, "Configuring REN Servers."

11. If you are not installing a REN server, after you update the settings you can load the configuration by entering 13, for Load config as shown, from the Quick-configure menu.

12. If you are installing a REN server:

- a. Enter 14 for Custom configuration.

- b. Reply *y*, and press ENTER, at this prompt:

Do you want to change any config values <y/n> [n]?

- c. Reply *n*, and press ENTER, at this prompt:

Do you want to change any values <y/n> [n]?

Continue to enter *n*, for No, for all sections until you see the PSRENSRV section, and then answer *y*. (Be aware that there are several sections.)

- d. Leave the defaults for all settings except for `default_auth_token`, which you should set to the domain name for your web server.

Note. The `default_auth_token` setting should be identical to the Authentication Token Domain that you set during PIA installation.

See "Setting Up the PeopleSoft Pure Internet Architecture in GUI Mode."

- e. Accept the defaults for the next series of questions until asked if you want Event Notification configured. In this case, answer *y*.
 - f. Accept the default for the remaining questions; the configuration will load automatically.
13. To start the application server (whether you installed a REN server or not), select *1*, Boot this domain, from the PeopleSoft Domain administration menu.
 14. Select *1*, Boot (Serial Boot) or *2*, Parallel Boot, from the PeopleSoft Domain Boot Menu.

Note. The messages you see and the number of processes started will depend on the options you chose during configuration.

15. If you plan to continue with PIA installation and testing, do not shut down the application server at this time.
16. If you want to shut down your PeopleSoft application server domain later, follow these simple steps:
 - a. From the PeopleSoft Domain Administration menu, enter *2* for Domain shutdown menu.
 - b. From the PeopleTools Domain Shutdown Menu, enter *1* for Normal shutdown.

You see messages about the application server processes being shut down. The number of processes stopped will vary depending on the number of processes that started when you booted the domain.

- c. Enter *q* to quit the PeopleSoft Domain Administration Menu.

Task 9A-3-2: Testing the Three-Tier Connection

If you get an error message when you try to start the application server, it may be due to an incorrect server name or port number, because the database server is not running, or because the application server was not booted. To test a three-tier connection from the PeopleTools Development Environment (the Windows-based client):

1. Select Start, Programs, PeopleTools 8.50, Configuration Manager to start Configuration Manager.
2. Select the Profile Tab. Highlight Default and select Edit.
3. On the Edit Profile dialog box, select *Application Server* as the Connection Type.
4. Enter values for these parameters:
 - Application Server Name
 - Machine Name or IP Address
 - Port Number (WSL)
5. Select Set to add the definition to the list and select OK to close the dialog box.
6. On the Configuration Manager dialog box, select the Startup tab.

7. Select *Application Server* from the Database Type list. Your application server name should be displayed.
8. Enter the values for User ID, Connect ID, and password.
9. Click OK.

Note. Confirm that the application server is running by booting it. Select *1, Boot this domain*, from the PeopleSoft Domain administration menu. Select option *1, Boot (Serial Boot)* or *2, Parallel Boot*, from the PeopleSoft Domain Boot menu.

10. Select Start, Programs, PeopleTools 8.50, Application Designer.
11. In the PeopleSoft Signon dialog box, select *Application Server* as the Connection Type, and confirm that the Application Server Name is correct. Enter values for User ID and password.
12. Select OK to open Application Designer.

Task 9A-3-3: Importing an Existing Application Server Domain Configuration

If you have an existing application server configuration for a previous PeopleSoft PeopleTools release, you can import it to create a new domain. You can import an existing domain configuration by specifying a file or by specifying the path to an existing domain. To import from a file, you must use the `psappsrv.cfg` file found inside an existing application server domain folder (you must specify the full path to `psappsrv.cfg`). This file can be located anywhere in the file system, but must be named `psappsrv.cfg`. To import from an existing domain configuration that you created in PeopleSoft PeopleTools 8.50, you must specify `PS_CFG_HOME` and the name of an existing application server domain. (If you are importing a domain from a release before PeopleSoft PeopleTools 8.50, note that the domains were created in `PS_HOME`, and that is the path that you should provide.)

To import an existing application server domain configuration:

1. Go to the `PS_HOME\appserv` directory and run PSADMIN.

Note. Make sure you change the directory from the `PS_HOME` on the file server to the `PS_HOME` on the application server.

2. Specify *1* for Application Server:

```
-----
PeopleSoft Server Administration
-----

1) Application Server
2) Process Scheduler
3) Search Server
4) Service Setup
q) Quit
```

Command to execute (1-4, q): 1

3. Specify *4* for *Import domain configuration*.

```
-----
PeopleSoft Application Server Administration
```

```
-----
1) Administer a domain
2) Create a domain
3) Delete a domain
4) Import domain configuration
q) Quit
```

Command to execute (1-4, q): 4

4. Specify *1* for *Import regular domain*.

```
-----
PeopleSoft Import Application Server Configuration
-----
```

```
1) Import regular domain
2) Import IB Master Configuration
q) Quit
```

Command to execute (1-2, q) : 1

5. Specify whether to import the domain configuration from a file (1) or from an existing application domain configuration (2).

```
-----
PeopleSoft Import Application Server Configuration
-----
```

```
1) Import from file
2) Import from application domain
q) Quit
```

Command to execute (1-2, q) :

6. If you selected *1*, provide the full path to the file `psappsrv.cfg`, and then specify the name of the domain you want to create. If you selected *2*, go to the next step.

Enter full path to configuration file
:C:\temp\oldconfig\psappsrv.cfg

Enter domain name to create
:HR84

7. If you selected *2*, to *Import from application domain*, provide the full path to the `PS_CFG_HOME` of the existing domain.

If importing from PeopleTools 8.49 or earlier, provide `PS_HOME` for `PS_CFG_HOME`.

Enter `PS_CFG_HOME` of domain you wish to import: C:\Documents and Settings⇒
\JSMITH\psft\pt\8.50

If applicable, choose among the existing application server domains in the specified `PS_CFG_HOME`:
Tuxedo domain list:

```
1) HR84A
2) HR84B
```

```
Select domain number to import: 1
```

```
Enter a name for new domain: HR84
```

After you create the domain, continue to the next task to verify that the imported configuration parameters are appropriate for the newly created domain. You may need to change the following values:

- **DBName**
DBName can be the same or different, depending on which database the application server needs to point to.
- **DBType**
DBType depends on the database type of DBName.
- **UserId and UserPswd**
UserId and UserPswd are the user's choice.
- **Workstation Listener Port**
Workstation Listener Port will need to be modified if the old domain will be up and running in the same machine.
- **Jolt Listener Port**
Jolt Listener Port will also need a different number if the old domain will be up and running in the same machine.
- **Jolt Relay Adapter Listener Port**
Jolt Relay Adapter Listener Port will need a different number if the old domain will be up and running in the same machine, and will be using Jolt Relay Adapter.

Task 9A-3-4: Setting Up a Custom Application Server Domain Configuration

The Quick-configure menu is initially displayed when you choose to configure your domain. This menu is intended for the commonly adjusted parameters—those most likely to change from domain to domain. However, there are additional configuration parameters that are not available through the Quick-configure menu. For such configuration parameters, you must use the Custom Configuration option, which you can access from the Quick-configure menu. Feel free to skip this procedure if you have already created and configured your Application Server using the Quick-configure menu and want to move forward.

The following steps assume you will be using PSADMIN to specify parameter settings.

To reconfigure an application server domain:

1. Go to the *PS_HOME*\appserv directory and run PSADMIN.
2. Specify *1* for Application Server and press ENTER.
3. Specify *1* for Administer a domain and press ENTER.
4. Select the domain to administer and press ENTER.
5. Specify *4* for Configure this domain and press ENTER.

The option Configure this domain performs the following tasks:

- Shuts down the application server, if it is running. (Shutdown is required since the binary file PSTUXCFG must be deleted and re-created to enable new configuration values. If there are no processes running when shutdown is attempted, an error will be displayed but the script continues on. This is normal.)
 - Initiates an interactive dialog, prompting for configuration parameters.
 - Updates psappsrv.cfg, generates psappsrv.ubb, and internally invokes Tuxedo's tmloadcf executable to create binary file PSTUXCFG used during the domain boot process.
6. Specify *14* for Custom Configuration and press ENTER.
 7. Respond to this prompt:
Do you want to change any config values (y/n):
 - Specify *y* to start an interactive dialog to change or examine parameter values, as described in the next step.
Oracle recommends this option for more experienced users.
 - Specify *n* if you have already edited psappsrv.cfg, skip the next step, and continue with step 9.
 8. Complete the interactive dialog to specify configuration parameters.

Configuration parameters are grouped into sections. For each section, you are asked whether you want to change any parameters in that section, as in the following example:

Values for config section - Startup

```
DBName=
DBType=
UserId=
UserPswd=
ConnectId=
ConnectPswd=
ServerName=
```

Do you want to change any values (y/n)? [n]: y

Note. Enter the user ID and user password that has security to start the application server. All application databases are delivered with one or more application server security users, usually PS or VP1.

- Specify *y* to change any parameter values for the current configuration section displayed.
You are prompted for each parameter value. Either specify a new value, or press ENTER to accept the default if applicable. After pressing ENTER, you are positioned at the next parameter in that section. When you are done with that section, you are again asked whether you want to re-edit any of the values you changed.

- If you do not wish to change any values, specify *n* and you will be prompted for the next configuration section.

Note. The WSL, JSL, and JRAD port numbers have default values of 7000, 9000, and 9100, respectively. These values must be unique for each application server domain. You may alter the port values if necessary to ensure that they are unique.

Note. When setting up your application server, make a note of the values you use for Database Name, Application Server Name (the machine name), and JSL Port. You will need to use these same values when installing the PeopleSoft Pure Internet Architecture.

See *Enterprise PeopleTools 8.50 PeopleBook: System and Server Administration*.

9. Select server process options.

At this point, you will be prompted to select server process options. If this is your initial installation, we suggest you accept the defaults. A message similar to this appears:

```
Setting Log Directory to the default... [PS_SERVDIR\LOGS]
Configuration file successfully created.
Loading new configuration...
```

“Loading new configuration” indicates that PSADMIN is generating a binary file named PSTUXCFG, which is used to boot the application server. At this point, your application server should be properly configured.

Task 9A-3-5: Troubleshooting Common Errors

For troubleshooting help, you can access a log file through the PeopleSoft Domain Administration menu. The following information is a list of possible errors you may encounter.

- Use PSADMIN menu option 6 for Edit configuration/log files menu to check for errors in `<PS_CFG_HOME>\appserv\<domain>\LOGS\APPSRV_mmdd.log` and `<PS_CFG_HOME>\appserv\<domain>\LOGS\TUXLOG.mmddyy`.
- If a PeopleSoft server such as PSAPPSRV fails, examine your configuration parameters. The failure of the PSAPPSRV process is often signalled by the message “Assume failed”—which means the process has failed to start. Check the SIGNON section for misspelled or invalid database name, an invalid or unauthorized OprId, or ConnectId or ServerName is missing or invalid. Finally, make sure the database connectivity is set correctly.
- If a WSL (or JSL) fails to start, try specifying another port number (it may be in use already by another application server domain process).
- If you are unable to start the BBL, check that your Tuxedo is installed fully and that the directory really exists.
- If the installation includes more than one application server domain on a single machine, before booting the second domain, adjust the REN server configuration to avoid conflict in one of these ways:
 - Use PSADMIN to disable Event Notification (option 8 on the Quick-configure menu) for the second and subsequent app server domains.
 - Change default_http_port to a value other than 7180.

See Also

Enterprise PeopleTools 8.50 PeopleBook: System and Server Administration

Enterprise PeopleTools 8.50 PeopleBook: PeopleSoft MultiChannel Framework

Task 9A-4: Configuring Asian Language Fonts

For text that is rendered by the Java Virtual Machine on the application server (for example, charting) the appropriate fonts must be available on the system. If characters are missing or fail to display after installation, additional configuration may be needed. Fonts are defined with a logical name (such as `psjvm.1`) in the database, and a system font name (such as `HGothic`) on the application server. Mappings between the logical name and the system font name are defined on the application server in `PS_HOME\class\PSOFTFonts.properties`. These mappings generally do not need to be specified for non-Asian languages.

Note. `psjvm.1` is used by default.

The information that follows is an example of the Japanese entries on Microsoft Windows:

```
ps.lang.1=JPN
JPN.psjvm.1=MS Mincho
JPN.psjvm.2=MS Gothic
```

In the example above, '`psjvm.1`' and '`psjvm.2`' can be used in charting style classes.

See Also

Enterprise PeopleTools 8.50 PeopleBook: PeopleCode API Reference, "Chart Class"

CHAPTER 9B

Configuring the Application Server on UNIX

This chapter discusses:

- Understanding the Application Server
- Understanding the Application Server Domain Processes
- Prerequisites
- Setting Environment Variables
- Setting Up COBOL for Remote Call
- Verifying Database Connectivity
- Creating, Configuring, and Starting an Initial Application Server Domain
- Configuring Asian Language Fonts

Understanding the Application Server

The information in this chapter is provided to help you configure your PeopleSoft application server.

Note. We do not support application servers on z/OS.

Note. COBOL is not needed for PeopleSoft PeopleTools or for applications that contain no COBOL programs. Check the information on My Oracle Support, and your application-specific documentation, for the details on whether your application requires COBOL.

Oracle supports UNIX application servers on the following platforms for the PeopleSoft installation:

- IBM AIX
- Linux
- Solaris (on Sparc hardware)

Application servers are not supported on z/OS because Tuxedo cannot run on the mainframe. For this reason, you can only install an application server in a “physical” three-tier configuration—with the application server on a machine separate from the database server machine. You cannot run a “logical” three-tier configuration—with the application server on the same machine as the database server.

In PeopleSoft PeopleTools 8.50, the configuration and log files for application server domains reside in *PS_CFG_HOME*. If you do not set a *PS_CFG_HOME* environment variable before beginning the application server configuration, the system installs it in a default location based on the current user’s settings, as follows:

`$HOME/psft/pt/<peopletools_version>`

See "Preparing for Installation," Defining Server Domain Configurations.

See *Enterprise PeopleTools 8.50 PeopleBook: System and Server Administration*, "Working with Server Domain Configurations."

To test a three-tier connection from the PeopleTools Development Environment (the Windows-based client):

1. Launch Application Designer.
2. Sign on to the PeopleSoft database using Application Server as the Connection Type.
Enter <Machine name or IP Address>:<WSL port number> for the application server name—for example, 224.160.192.128:7000
3. Enter the user name and password, and click OK.
The Application Designer window should open.
4. Alternatively, launch Configuration Manager.
5. Select the Startup tab.
6. Fill out the page with the default information for signon.
7. Select the Profiles tab.
8. Highlight the default profile, and click Edit.
9. On the Database/Application Server page, specify connect information regarding your application server.

See Also

"Using the PeopleSoft Installer," Understanding PeopleSoft Servers

Enterprise PeopleTools 8.50 PeopleBook: System and Server Administration, "Using PSADMIN Menus"

Enterprise PeopleTools 8.50 PeopleBook: Data Management

My Oracle Support, Certifications

"Setting Up the Install Workstation"

"Compiling COBOL on UNIX"

Understanding the Application Server Domain Processes

On most platforms (AIX, Solaris, Linux, and HP-UX) no changes are required from the system defaults, in order to allow the "small" and "development" domains that are shipped with PeopleSoft PeopleTools to boot successfully.

Refer to the performance documentation for guidance in configuring your system to run larger domains. That document describes the suggested minimum kernel settings for running PeopleSoft PeopleTools in a real-world environment.

See "Online Performance Configuration Guidelines for PeopleTools 8.45, 8.46, 8.47, 8.48, and 8.49, 8.50" on My Oracle Support.

Permanently changing system-wide parameters generally requires root privileges, and any changes to the kernel configuration of your operating system should be done with care.

Prerequisites

Before beginning this procedure, you should have completed the following tasks:

- Installed your application server.
See "Using the PeopleSoft Installer," Understanding PeopleSoft Servers.
- Installed Tuxedo 10gR3.
See "Installing Additional Components."
- Granted authorization to a PeopleSoft user ID to start the application server. User ID: VP1 for Enterprise Performance Management and Financials/Supply Chain Management, and PS for HRMS, should be delivered with authorization to start the application server.
- Run the following SQL statements on your database server to review and if needed, update the PSCLASSDEFN table:

```
SELECT CLASSID, STARTAPPSERVER FROM PSCLASSDEFN
WHERE CLASSID IN (SELECT OPRCLASS FROM PSOPRCLS WHERE OPRID='<OPRID>')
UPDATE PSCLASSDEFN SET STARTAPPSERVER=1 WHERE CLASSID='<CLASSID>'
```

Note. Installers typically use VP1 or PS to test the application server, and the password for these users is stored in a fairly accessible text file. If these users are deleted or their passwords are changed, the application server will no longer be available. To avoid this problem, you can set up a new operator (called PSADMIN or PSASID, for instance) with privileges to start the application server. If you do this, you can use the new operator for your application servers and you won't need to change the password each time VP1 or PS is changed.

Task 9B-1: Setting Environment Variables

Telnet to your UNIX system. Log in and ensure the following environment variables are set appropriately.

Note. The environment variables for Tuxedo must be set explicitly; they are not set by running psconfig.sh. These can be also set using the .profile file in the user's home directory.

- \$TUXDIR must be set to the correct Oracle Tuxedo installation directory. For example:
`TUXDIR=/home/user/Oracle/tuxedo10gR3; export TUXDIR`
- \$TUXDIR/lib must be prepended to LD_LIBRARY_PATH, LIBPATH, or SHLIB_PATH, whichever is appropriate for your platform. For example:
`LD_LIBRARY_PATH=$TUXDIR/lib:$LD_LIBRARY_PATH; export LD_LIBRARY_PATH`
- \$TUXDIR/bin must be prepended to PATH. For example:
`PATH=$TUXDIR/bin:$PATH; export PATH`

One method to ensure that the following PeopleSoft environment variables are set is to source `psconfig.sh`. Go to the `PS_HOME` directory, and enter the following command:

```
. ./psconfig.sh
```

Task 9B-2: Setting Up COBOL for Remote Call

Remote Call is a PeopleCode feature that launches a COBOL program from an application server, PeopleCode program or a batch Application Engine PeopleCode program and waits for it to complete execution before continuing. The execution of a COBOL program via Remote Call is completely independent of the Process Scheduler. You need to set up a COBOL runtime environment and COBOL executables on the application server to support Remote Call.

See "Compiling COBOL on UNIX."

If your application does not contain COBOL programs, you do not need to purchase or compile COBOL.

See *Enterprise PeopleTools 8.50 Hardware and Software Requirements*.

Task 9B-3: Verifying Database Connectivity

Before continuing, it is critical to verify connectivity to the database that the application server domain will use. To verify connectivity, connect to the database server from the application server using the native SQL tool on the application server.

If you are running DB2 UDB for z/OS, you can issue this command from the UNIX prompt:

```
db2 connect to <database name> user <z/OS ID> using <password>
```

If you are running DB2 UDB for z/OS and are setting up your application server on a Windows machine, enter the preceding command at a DB2 Connect command window, or use DB2 Connect's Command Center or Client Configuration Assistant.

See *Installing and Configuring DB2 Connect*.

Task 9B-4: Creating, Configuring, and Starting an Initial Application Server Domain

This section discusses:

- Creating, Configuring, and Starting the Application Server Domain
- Testing the Three-Tier Connection
- Importing an Existing Application Server Domain Configuration
- Setting Up a Custom Application Server Domain Configuration
- Troubleshooting Common Errors

Task 9B-4-1: Creating, Configuring, and Starting the Application Server Domain

To create, configure, and start the application server domain:

1. To run PSADMIN, go to the *PS_HOME/appserv* directory and enter the following command:

```
psadmin
```

Note. Make sure you change the directory from the *PS_HOME* on the file server to the *PS_HOME*, or high-level directory, on the application server.

2. When the menu appears, specify *1* for Application Server and press ENTER.
3. Specify *2* to Create a domain and press ENTER.
4. Specify the domain name. For example:

```
Please enter name of domain to create :HR84
```

Domain names are case sensitive and must be eight characters or less. The domain name is used to create a directory name under the *PS_CFG_HOME/appserv* directory.

See *Enterprise PeopleTools 8.50 PeopleBook: System and Server Administration*, "Working with Server Domain Configurations."

5. Specify *4* for small if this is your initial domain installation, press ENTER.

See *Enterprise PeopleTools 8.50 PeopleBook: System and Server Administration*.

6. After the system creates the domain, this prompt appears:

```
Would you like to configure this domain now? (y/n) [y] :
```

Enter *y*. The PeopleSoft Application Server Administration menu appears with a Quick-configure menu similar to this:

```
-----
Quick-configure menu -- domain: HR84
-----
```

Features		Settings	
=====		=====	
1) Pub/Sub Servers	: No	15) DBNAME	: [HR84]
2) Quick Server	: No	16) DBTYPE	: [DB20DBC]
3) Query Servers	: No	17) UserId	: [VP1]
4) Jolt	: Yes	18) UserPswd	: [VP1]
5) Jolt Relay	: No	19) DomainID	: [TESTSERV]
6) WSL	: No	20) AddToPATH	: []
7) PC Debugger	: No	21) ConnectID	: [people]
8) Event Notification	: Yes	22) ConnectPswd	: [people]
9) MCF Servers	: No	23) ServerName	: []
10) Perf Collator	: No	24) WSL Port	: [7000]
11) Analytic Servers	: Yes	25) JSL Port	: [9000]
12) Domains Gateway	: No	26) JRAD Port	: [9100]

Actions

```

=====
13) Load config as shown
14) Custom configuration
   h) Help for this menu
   q) Return to previous menu

```

HINT: Enter 15 to edit DBNAME, then 13 to load

Enter selection (1-26, h, or q):

Note. If your installation includes more than one application server domain on a given machine, read the troubleshooting section for more information.

See Troubleshooting Common Errors.

7. If you need to modify any of the values for these settings, enter the number next to the parameter name, type the new value, and press ENTER.

If you need to change any of the features, type the number next to the feature name and press ENTER.

8. Configure the WSL to boot by changing option 6 to Yes.

Enter 6, and press ENTER.

9. If you intend to use the PeopleSoft Report Distribution system, you must select *Yes* for feature 8, Event Notification.

This enables the REN server, which is used by the “run to window” functionality of the Report Distribution system. *The Report Distribution system, MultiChannel Framework, and Optimization Framework use REN servers.* You must also remember to enter an Authentication Token Domain when installing the PeopleSoft Pure Internet Architecture (PIA).

10. If you are configuring an application server domain to support applications based on the PeopleSoft MultiChannel Framework (such as PeopleSoft CRM ERMS), select feature 9, MCF Servers.

See *Enterprise PeopleTools 8.50 PeopleBook: PeopleSoft MultiChannel Framework*, “Configuring REN Servers.”

11. If you are not installing a REN server, after you update the settings you can load the configuration by entering 13, for Load config as shown, from the Quick-configure menu.

12. If you are installing a REN server:

- a. Enter 14 for Custom configuration.

- b. Reply *y*, and press ENTER, at this prompt:

```
Do you want to change any config values <y/n> [n]?
```

- c. Reply *n*, and press ENTER, at this prompt:

```
Do you want to change any values <y/n> [n]?
```

Continue to enter *n*, for No, for all sections until you see the PSRENSRV section, and then answer *y*. (Be aware that there are several sections.)

- d. Leave the defaults for all settings except for default_auth_token, which you should set to the domain name for your web server.

Note. The default `_auth_token` setting should be identical to the Authentication Token Domain that you set during PIA installation.

See "Setting Up the PeopleSoft Pure Internet Architecture in GUI Mode."

- e. Accept the defaults for the next series of questions until asked if you want Event Notification configured. In this case, answer *y*.
 - f. Accept the default for the remaining questions; the configuration will load automatically.
13. To start the application server (whether you installed a REN server or not), select *1*, Boot this domain, from the PeopleSoft Domain administration menu.
 14. Select *1*, Boot (Serial Boot) or *2*, Parallel Boot, from the PeopleSoft Domain Boot Menu.

Note. The messages you see and the number of processes started will depend on the options you chose during configuration.

15. If you plan to continue with PIA installation and testing, do not shut down the application server at this time.
16. If you want to shut down your PeopleSoft application server domain later, follow these simple steps:
 - a. From the PeopleSoft Domain Administration menu, enter *2* for Domain shutdown menu.
 - b. From the PeopleTools Domain Shutdown Menu, enter *1* for Normal shutdown.
 You see messages about the application server processes being shut down. The number of processes stopped will vary depending on the number of processes that started when you booted the domain.
 - c. Enter *q* to quit the PeopleSoft Domain Administration Menu.

Task 9B-4-2: Testing the Three-Tier Connection

If you get an error message when you try to start the application server, it may be due to an incorrect server name or port number, because the database server is not running, or because the application server was not booted. To test a three-tier connection from the PeopleTools Development Environment (the Windows-based client):

1. Select Start, Programs, PeopleTools 8.50, Configuration Manager to start Configuration Manager.
2. Select the Profile Tab. Highlight Default and select Edit.
3. On the Edit Profile dialog box, select *Application Server* as the Connection Type.
4. Enter values for these parameters:
 - Application Server Name
 - Machine Name or IP Address
 - Port Number (WSL)
5. Select Set to add the definition to the list and select OK to close the dialog box.
6. On the Configuration Manager dialog box, select the Startup tab.
7. Select *Application Server* from the Database Type list. Your application server name should be displayed.
8. Enter the values for User ID, Connect ID, and password.
9. Click OK.

Note. Confirm that the application server is running by booting it. Select *1*, Boot this domain, from the PeopleSoft Domain administration menu. Select option *1*, Boot (Serial Boot) or *2*, Parallel Boot, from the PeopleSoft Domain Boot menu.

10. Select Start, Programs, PeopleTools 8.50, Application Designer.
11. In the PeopleSoft Signon dialog box, select *Application Server* as the Connection Type, and confirm that the Application Server Name is correct. Enter values for User ID and password.
12. Select OK to open Application Designer.

Task 9B-4-3: Importing an Existing Application Server Domain Configuration

If you have an existing application server configuration for a previous PeopleSoft PeopleTools release, you can import it to create a new domain. You can import an existing domain configuration by specifying a file or by specifying the path to an existing domain. To import from a file, you must use the `psappsrv.cfg` file found inside an existing application server domain folder (you must specify the full path to `psappsrv.cfg`). This file can be located anywhere in the file system, but must be named `psappsrv.cfg`. To import from an existing domain configuration that you created in PeopleSoft PeopleTools 8.50, you must specify `PS_CFG_HOME` and the name of an existing application server domain. (If you are importing a domain from a release before PeopleSoft PeopleTools 8.50, note that the domains were created in `PS_HOME`, and that is the path that you should provide.)

To import an existing application server domain configuration:

1. Go to the `PS_HOME/appserv` directory and run PSADMIN.

Note. Make sure you change the directory from the `PS_HOME` on the file server to the `PS_HOME` on the application server.

2. Specify *1* for Application Server:

```
-----
PeopleSoft Server Administration
-----
```

- ```
1) Application Server
2) Process Scheduler
3) Search Server
q) Quit
```

Command to execute (1-3, q): 1

3. Specify *4* for *Import domain configuration*.

```

PeopleSoft Application Server Administration

```

- ```
1) Administer a domain
2) Create a domain
3) Delete a domain
4) Import domain configuration
```

q) Quit

Command to execute (1-4, q): 4

4. Specify *1* for *Import regular domain*.

```
-----
PeopleSoft Import Application Server Configuration
-----
```

```
1) Import regular domain
2) Import IB Master Configuration
q) Quit
```

Command to execute (1-2, q) : 1

5. Specify whether to import the domain configuration from a file (1) or from an existing application domain configuration (2).

```
-----
PeopleSoft Import Application Server Configuration
-----
```

```
1) Import from file
2) Import from application domain
q) Quit
```

Command to execute (1-2, q) :

6. If you selected *1*, provide the full path to the file `psappsrv.cfg`, and then specify the name of the domain you want to create. If you selected *2*, go to the next step.

Enter full path to configuration file
:/home/oldconfig/psappsrv.cfg

Enter domain name to create
:HR84

7. If you selected *2*, to *Import from application domain*, provide the full path to the `PS_CFG_HOME` of the existing domain.

If importing from PeopleTools 8.49 or earlier, provide `PS_HOME` for `PS_CFG_HOME`.

Enter `PS_CFG_HOME` of domain you wish to import: /home/JSMITH/pseopletools/8.50

If applicable, choose among the existing application server domains in the specified `PS_CFG_HOME`:

Tuxedo domain list:

```
1) HR84A
2) HR84B
```

Select domain number to import: 1

Enter a name for new domain: HR84

After you create the domain, continue to the next task to verify that the imported configuration parameters are appropriate for the newly created domain. You may need to change the following values:

- **DBName**
DBName can be the same or different, depending on which database the application server needs to point to.
- **DBType**
DBType depends on the database type of DBName.
- **UserId and UserPswd**
UserId and UserPswd are the user's choice.
- **Workstation Listener Port**
Workstation Listener Port will need to be modified if the old domain will be up and running in the same machine.
- **Jolt Listener Port**
Jolt Listener Port will also need a different number if the old domain will be up and running in the same machine.
- **Jolt Relay Adapter Listener Port**
Jolt Relay Adapter Listener Port will need a different number if the old domain will be up and running in the same machine, and will be using Jolt Relay Adapter.

Task 9B-4-4: Setting Up a Custom Application Server Domain Configuration

The Quick-configure menu is initially displayed when you choose to configure your domain. This menu is intended for the commonly adjusted parameters—those most likely to change from domain to domain. However, there are additional configuration parameters that are not available through the Quick-configure menu. For such configuration parameters, you must use the Custom Configuration option, which you can access from the Quick-configure menu. Feel free to skip this procedure if you have already created and configured your Application Server using the Quick-configure menu and want to move forward.

The following steps assume you will be using PSADMIN to specify parameter settings.

To reconfigure an application server domain:

1. Go to the *PS_HOME/appserv* directory and run PSADMIN.
2. Specify *1* for Application Server and press ENTER.
3. Specify *1* for Administer a domain and press ENTER.
4. Select the domain to administer and press ENTER.
5. Specify *4* for Configure this domain and press ENTER.

The option Configure this domain performs the following tasks:

- Shuts down the application server, if it is running. (Shutdown is required since the binary file PSTUXCFG must be deleted and re-created to enable new configuration values. If there are no processes running when shutdown is attempted, an error will be displayed but the script continues on. This is normal.)
- Initiates an interactive dialog, prompting for configuration parameters.

- Updates psappsrv.cfg, generates psappsrv.ubb, and internally invokes Tuxedo's tmlodcf executable to create binary file PSTUXCFG used during the domain boot process.
6. Specify *14* for Custom Configuration and press ENTER.
 7. Respond to this prompt:

Do you want to change any config values (y/n):

 - Specify *y* to start an interactive dialog to change or examine parameter values, as described in the next step.
 - Oracle recommends this option for more experienced users.
 - Specify *n* if you have already edited psappsrv.cfg, skip the next step, and continue with step 9.
 8. Complete the interactive dialog to specify configuration parameters.

Configuration parameters are grouped into sections. For each section, you are asked whether you want to change any parameters in that section, as in the following example:

Values for config section - Startup

```
DBName=
DBType=
UserId=
UserPswd=
ConnectId=
ConnectPswd=
ServerName=
```

Do you want to change any values (y/n)? [n]: y

Note. Enter the user ID and user password that has security to start the application server. All application databases are delivered with one or more application server security users, usually PS or VP1.

- Specify *y* to change any parameter values for the current configuration section displayed.
- You are prompted for each parameter value. Either specify a new value, or press ENTER to accept the default if applicable. After pressing ENTER, you are positioned at the next parameter in that section. When you are done with that section, you are again asked whether you want to re-edit any of the values you changed.
- If you do not wish to change any values, specify *n* and you will be prompted for the next configuration section.

Note. The WSL, JSL, and JRAD port numbers have default values of 7000, 9000, and 9100, respectively. These values must be unique for each application server domain. You may alter the port values if necessary to ensure that they are unique.

Note. When setting up your application server, make a note of the values you use for Database Name, Application Server Name (the machine name), and JSL Port. You will need to use these same values when installing the PeopleSoft Pure Internet Architecture.

See *Enterprise PeopleTools 8.50 PeopleBook: System and Server Administration*.

9. Select server process options.

At this point, you will be prompted to select server process options. If this is your initial installation, we suggest you accept the defaults. A message similar to this appears:

```
Setting Log Directory to the default... [PS_SERVDIR/LOGS]
Configuration file successfully created.
Loading new configuration...
```

“Loading new configuration” indicates that PSADMIN is generating a binary file named PSTUXCFG, which is used to boot the application server. At this point, your application server should be properly configured.

Task 9B-4-5: Troubleshooting Common Errors

For troubleshooting help, you can access a log file through the PeopleSoft Domain Administration menu. The following information is a list of possible errors you may encounter.

- Use the PSADMIN PeopleSoft Domain Administration menu option 6 for Edit configuration/log files menu to check for errors in `<PS_CFG_HOME>/appserv/<domain>/LOGS/APPSRV_mmdd.LOG` and `<PS_CFG_HOME>/appserv/<domain>/LOGS/TUXLOG.mmddyy`.
- If a PeopleSoft server such as PSAPPSRV fails, examine your configuration parameters. The failure of the PSAPPSRV process is often signalled by the message “Assume failed”—which means the process has failed to start. Check the SIGNON section for misspelled or invalid database name, an invalid or unauthorized OprId, or ConnectId or ServerName is missing or invalid. Finally, make sure the database connectivity is set correctly.
- If a WSL (or JSL) fails to start, try specifying another port number (it may be in use already by another application server domain process).
- If you are unable to start the BBL, check that your Tuxedo is installed fully and that the directory really exists.
- If the installation includes more than one application server domain on a single machine, before booting the second domain, adjust the REN server configuration to avoid conflict in one of these ways:
 - Use PSADMIN to disable Event Notification (option 8 on the Quick-configure menu) for the second and subsequent app server domains.
 - Change default_http_port to a value other than 7180.

Also check that you do not have older Tuxedo releases (such as Tuxedo 6.4) prepended in your PATH or runtime library (LIBPATH, SHLIB_PATH or LD_LIBRARY_PATH, depending on UNIX platform).

See Also

Enterprise PeopleTools 8.50 PeopleBook: System and Server Administration

Enterprise PeopleTools 8.50 PeopleBook: PeopleSoft MultiChannel Framework

Task 9B-5: Configuring Asian Language Fonts

For text that is rendered by the Java Virtual Machine on the application server (for example, charting) the appropriate fonts must be available on the system. If characters are missing or fail to display after installation, additional configuration may be needed. Fonts are defined with a logical name (such as `psjvm.1`) in the database, and a system font name (such as `HG Gothic`) on the application server. Mappings between the logical name and the system font name are defined on the application server in `PS_HOME/appserver/classes/PSOFTFonts.properties`. These mappings generally do not need to be specified for non-Asian languages.

Note. On UNIX, the X11 font packages must be installed.

Note. `psjvm.1` is used by default.

The information that follows is an example of the Japanese entries on HP-UX:

```
ps.lang.1=JPN
JPN.psjvm.1=HG GothicB
JPN.psjvm.2=HG MinchoL
```

In the example above, 'psjvm.1' and 'psjvm.2' can be used in charting style classes. Extra fonts and languages can be added if needed.

Note. On all UNIX platforms, the `PS_HOME/jre/lib/fonts.propertiesXXX` file (where XXX represents the locale that the machine is operating under) must contain the mappings for all the fonts that will be used by the application server to generate charts. On most platforms, the default `font.propertiesXXX` files contain mappings only for those fonts most commonly used by each locale. If you wish to generate charts using fonts that are not by default mapped into the `font.propertiesXXX` file for your locale, you must manually modify the default file to include this information. Find the `font.propertiesXXX` files containing the appropriate mapping information, and append that mapping information to the end of the `font.propertiesXXX` file that matches your machine's locale.

Note. On HP-UX, the path to the fonts must be entered in the JVM's `font.propertiesXXX` file (where XXX is the locale that the machine is operating under). Each full path must be separated by colons under the setting `hp.fontpath`. This file is located in `PS_HOME/jre/lib`. Following is an example:

```
hp.fontpath=/usr/lib/X11/fonts/ms.st/typefaces:/usr/lib
/X11/fonts/TrueType/japanese.st/typefaces:
```

See Also

Enterprise PeopleTools 8.50 PeopleBook: PeopleCode API Reference, "Chart Class"

CHAPTER 10A

Setting Up the PeopleSoft Pure Internet Architecture in GUI Mode

This chapter discusses:

- Understanding PeopleSoft Pure Internet Architecture
- Using Authentication Domains in the PeopleSoft Pure Internet Architecture Installation
- Installing the PeopleSoft Pure Internet Architecture on Oracle WebLogic in GUI Mode
- Installing the PeopleSoft Pure Internet Architecture on WebSphere in GUI Mode
- Testing the PeopleSoft Pure Internet Architecture Installation
- Completing Post-Installation Steps

Understanding PeopleSoft Pure Internet Architecture

This chapter explains how to install and configure the components of the PeopleSoft Pure Internet Architecture (PIA) in GUI mode. It includes instructions for installing the PeopleSoft files on Oracle WebLogic and IBM WebSphere. Only complete the instructions for the web server product that you installed.

See "Installing Web Server Products."

The setup program for the PeopleSoft Pure Internet Architecture is installed to the web server machine when you run the PeopleSoft Installer and select the PeopleSoft Web Server option.

See "Using the PeopleSoft Installer."

Oracle only supports customer installations that use the version of the web servers packaged with PeopleSoft PeopleTools. *You must install the web server before you install the PeopleSoft Pure Internet Architecture.* Before you install the PeopleSoft Pure Internet Architecture, you must also have configured an application server, as described in the previous chapter.

The location where you install the PeopleSoft Pure Internet Architecture is referred to in this documentation as *PIA_HOME*. You can specify different locations for *PS_HOME* and *PIA_HOME* unless you are planning to install PeopleBooks. In that case, use the same directory for *PS_HOME* and *PIA_HOME*. After you complete the PeopleSoft Pure Internet Architecture installation, you can locate the installation files in the directory *PIA_HOME/webserv*. The directory and path that you specify for *PIA_HOME* or *PS_HOME* must *not* include spaces.

See "Preparing for Installation," Defining Installation Locations.

If your web server is on a different machine than your application server, you need to make sure you have JRE installed on your web server to run the PeopleSoft Pure Internet Architecture installation.

The initial PeopleSoft Pure Internet Architecture setup automatically creates the default PeopleSoft site named *ps*. In subsequent PeopleSoft Pure Internet Architecture setups, change the site name from *ps* to a unique value. We recommend using the database name. This is handy for easy identification and ensures that the database web server files are installed in a unique web site.

The URL that you use to invoke the PeopleSoft Pure Internet Architecture must conform to ASN.1 specifications. That is, it may contain only alphanumeric characters, dots ("."), or dashes ("-"). The URL must not begin or end with a dot or dash, or contain consecutive dots (".."). If the URL includes more than one portion, separated by dots, do not use a number to begin a segment if the other segments contain letters. For example, "mycompany.second.country.com" is correct, but "mycompany.2nd.country.com" is wrong.

Note. If you want to connect between multiple application databases, you need to implement single signon.

Note. If the PeopleSoft Pure Internet Architecture installation encounters an error, it will indicate which log files to refer to.

See "Installing Web Server Products."

Warning! Do not use GUI mode to install the PeopleSoft Pure Internet Architecture if you want to install on a IBM WebSphere server *and* you are running on a UNIX platform. In this situation, use console mode to set up the PeopleSoft Pure Internet Architecture.

Note. The machine on which you run the PeopleSoft Pure Internet Architecture install must be running in *256 color mode*. This is not necessary for UNIX or console mode.

The PeopleSoft Pure Internet Architecture installation includes the following products:

- *PeopleSoft Pure Internet Architecture.* This product is the centerpiece of the PeopleSoft architecture that enables users to work on a machine with only a supported browser installed. This option installs the servlets required for deploying PeopleSoft Applications and for the PeopleSoft Portal. The portal packs and Enterprise Portal have their own installation instructions, which are available on My Oracle Support. For an overview of the various types of portals, consult the following.

See *Enterprise PeopleTools 8.50 PeopleBook: PeopleTools Portal Technology*.

- *PeopleSoft Report Repository.* This product works in conjunction with Process Scheduler to allow report distribution over the web.
- *PeopleSoft Integration Gateway.* This product is the entry and exit point for all messages to and from the Integration Broker. Its Java-based Connector architecture allows asynchronous and synchronous messages to be sent over a variety of standard protocols, many that are delivered at install, or through custom connectors.

Important! For PeopleSoft PeopleTools 8.50 and higher, review the section on security properties for Integration Gateway. When setting the properties in the `integrationGateways.properties` file, the property `secureFileKeystorePasswd` must be encrypted, and the `secureFileKeystorePath` must be set.

See *Enterprise 8.50 PeopleBook: Integration Broker Administration*, "Managing Integration Gateways."

- *PeopleSoft CTI Console.* This product works in conjunction with CTI vendor software to enable call center agents to take advantage of browser based teleset management and automatic population of application pages with relevant data associated with incoming calls, such as customer or case details.

See *Enterprise PeopleTools 8.50 PeopleBook: PeopleSoft MultiChannel Framework*.

- *Environment Management Hub*. The Environment Management hub is a web application that is installed with the PeopleSoft Pure Internet Architecture and portal. It is started along with the rest of the web applications when the user boots the web server. You cannot start the Environment Management Hub on a server that is configured to run HTTPS; in other words, if you plan to run Environment Management, your PIA server needs to be configured in HTTP mode.

See *Enterprise PeopleTools 8.50 PeopleBook: PeopleSoft Change Assistant*.

See Also

Enterprise PeopleTools 8.50 PeopleBook: Security Administration

Enterprise PeopleTools 8.50 PeopleBook: System and Server Administration

"Using the PeopleSoft Installer," Verifying Necessary Files for Installation on Windows

Using Authentication Domains in the PeopleSoft Pure Internet Architecture Installation

You have the option to specify an authentication domain when you install the PeopleSoft Pure Internet Architecture on Oracle WebLogic or WebSphere.

Note. The authentication domain was referred to as the Authentication Token Domain in previous releases, and that term is still seen in the software.

When an authentication domain is specified during the PeopleSoft Pure Internet Architecture install, that value gets used as the Cookie domain in the web server configuration. The main requirements when setting a cookie domain are:

- The host must have a fully qualified domain name (FQDN). The requirement that you must have a domain name does not imply that you must have a DNS, but you do need some type of naming service such as DNS or some managed `..etc\hosts` file that contains a list of the servers with their domain name.
- The cookie domain value being set must begin with a dot (.ps.com is valid, ps.com is NOT valid).
- The cookie domain value being set must contain at least 1 embedded dot (.ps.com is valid, .corp.ps.com is valid, .com is NOT valid).
- The cookie domain value can only be a single domain name. It cannot be a delimiter-separated list of domains.

By default, the browser only sends cookies back to the machine that set the cookie. So if web server `crm.yourdomain.com` sets a cookie, the browser will only send it back there. You can make the browser send the single signon cookie to all servers at `yourdomain.com` by typing your domain name in the Authentication Token Domain list box of web server `crm`.

Specifying the authentication domain may be necessary in certain cases. For example, if you plan to use the PeopleSoft portal technology, be sure to read the supporting documentation to determine whether setting the authentication domain is required for correct operation.

See *Enterprise PeopleTools 8.50 PeopleBook: PeopleTools Portal Technology*, "Configuring the Portal Environment."

Specify an authentication domain if you plan to run a REN Server. REN Servers are required for PeopleSoft MultiChannel Framework, Reporting, and some PeopleSoft CRM applications supported by PeopleSoft MultiChannel Framework.

See *Enterprise PeopleTools 8.50 PeopleBook: PeopleSoft MultiChannel Framework*.

Specify an authentication domain if you plan to use Business Objects Enterprise.

See "Installing and Configuring Software for Crystal Reports," Installing BusinessObjects Enterprise XI.

Task 10A-1: Installing the PeopleSoft Pure Internet Architecture on Oracle WebLogic in GUI Mode

This section describes how to install the PeopleSoft Pure Internet Architecture on Oracle WebLogic.

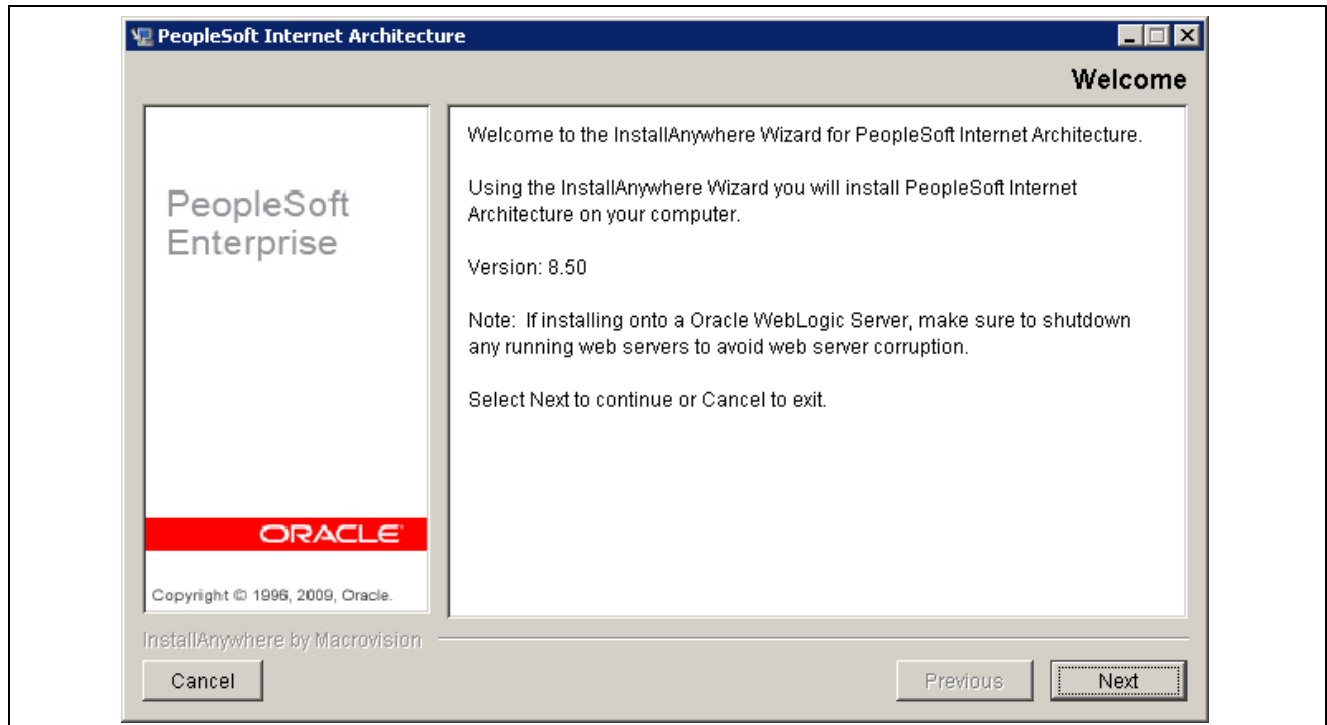
PeopleSoft PeopleTools 8.50 supports Oracle WebLogic 10.3.1.

See "Installing Web Server Products," Installing Oracle WebLogic.

See *Enterprise PeopleTools 8.50 PeopleBook: System and Server Administration*, "Working with BEA WebLogic."

To install the PeopleSoft Pure Internet Architecture on Oracle WebLogic:

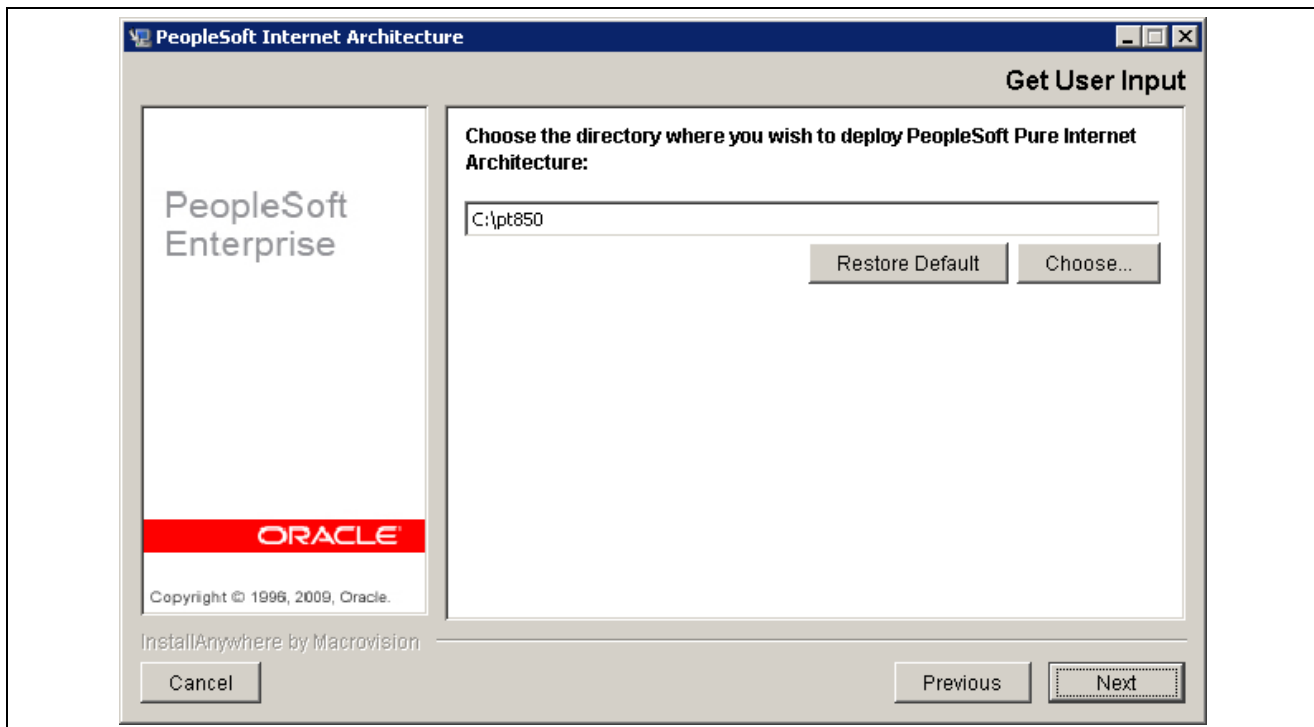
1. Go to `PS_HOME\setup\PsmPPIAInstall` and run `setup.bat`.
2. Click Next on the Welcome window.



PeopleSoft Internet Architecture Welcome window

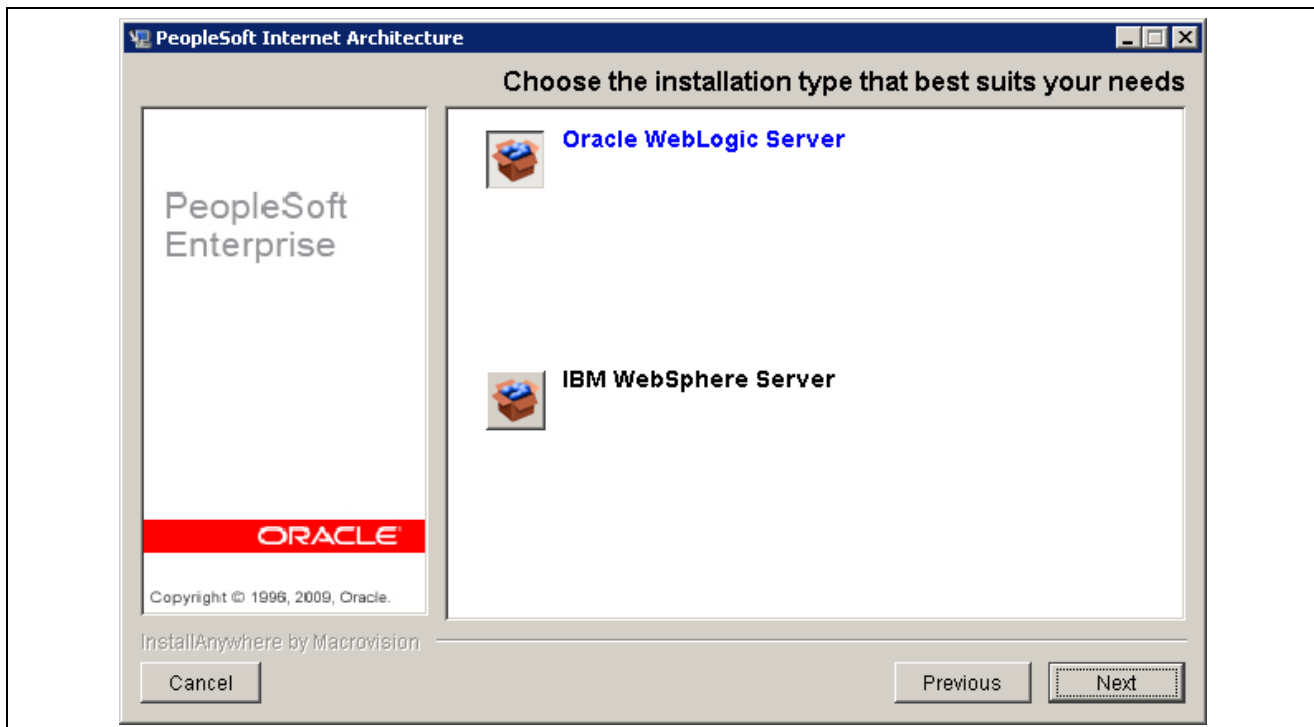
3. Enter the location where you want to install the PeopleSoft Pure Internet Architecture, referred to in this documentation as *PIA_HOME*.

Note. If you plan to install PeopleBooks, enter your *PS_HOME* location.



Specifying the installation location for PeopleSoft Pure Internet Architecture

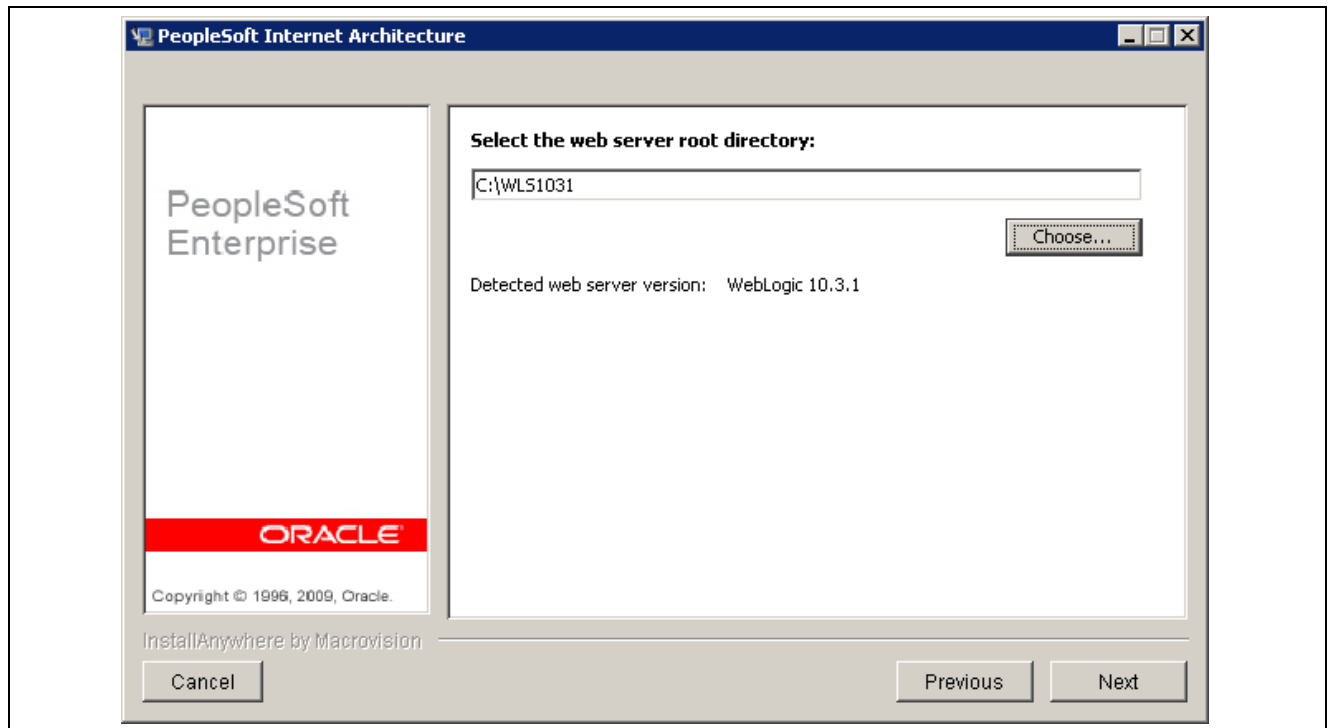
4. Select Oracle WebLogic Server and click Next.



Selecting the installation type for PeopleSoft Pure Internet Architecture

5. Specify the root directory where Oracle WebLogic is installed, *WLS_HOME*, and click Next.

Note. If you enter an incorrect path for Oracle WebLogic, you receive an error message “Detected web server version: no choices available.” Check that you have Oracle WebLogic installed, and in the designated directory.

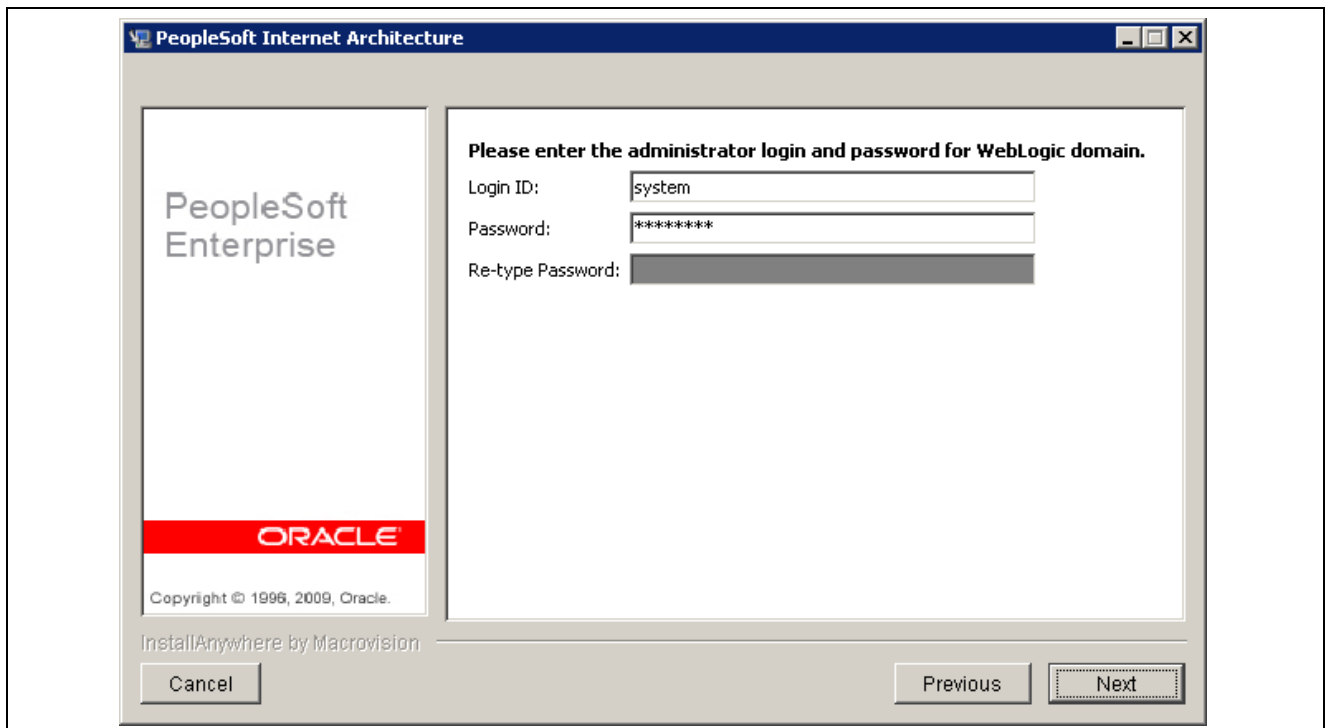


Selecting the web server root directory on the PeopleSoft Internet Architecture window

6. Enter the administrator login ID and password for the new domain to be created.

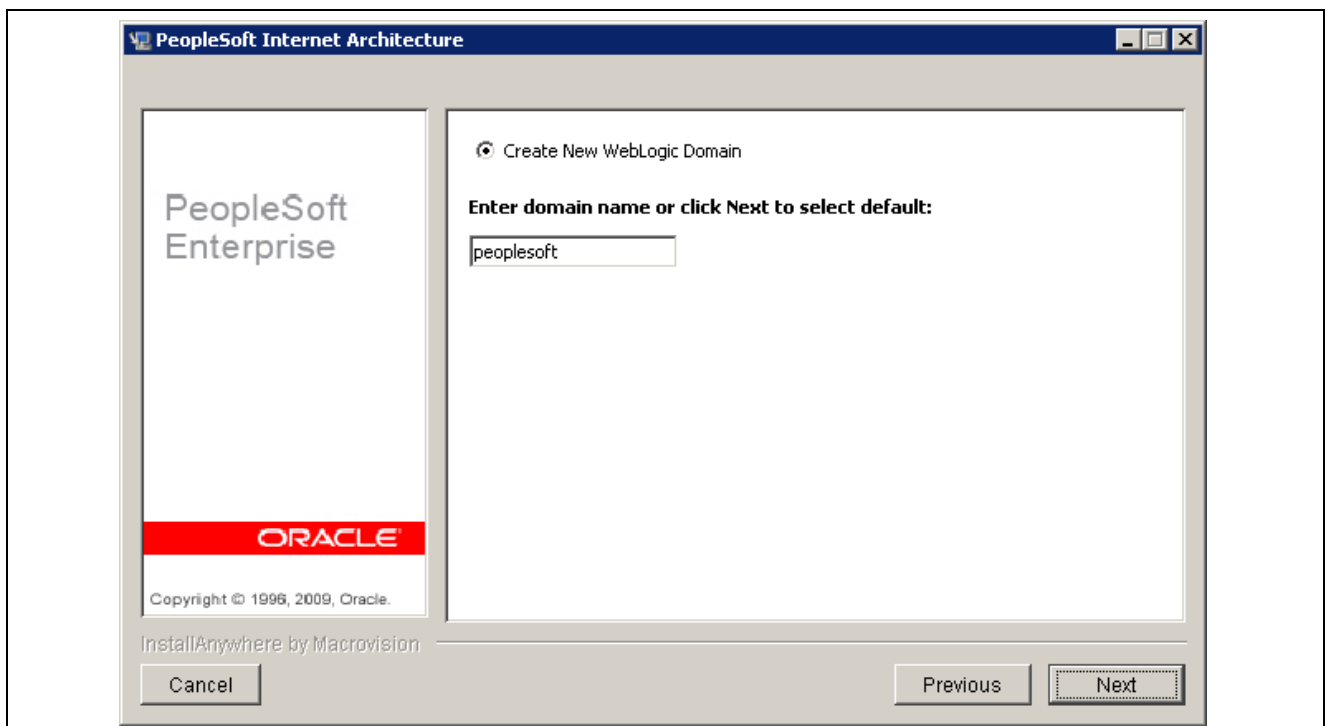
Note. The default login ID is system, and the default password is Passw0rd (with a capital “P” and zero rather than the letter “o”).

Click Next to continue.



Specifying administrator login and password on the PeopleSoft Internet Architecture window

7. If the PIA installer cannot detect any existing Oracle WebLogic domains, only the option Create New WebLogic Domain is available.

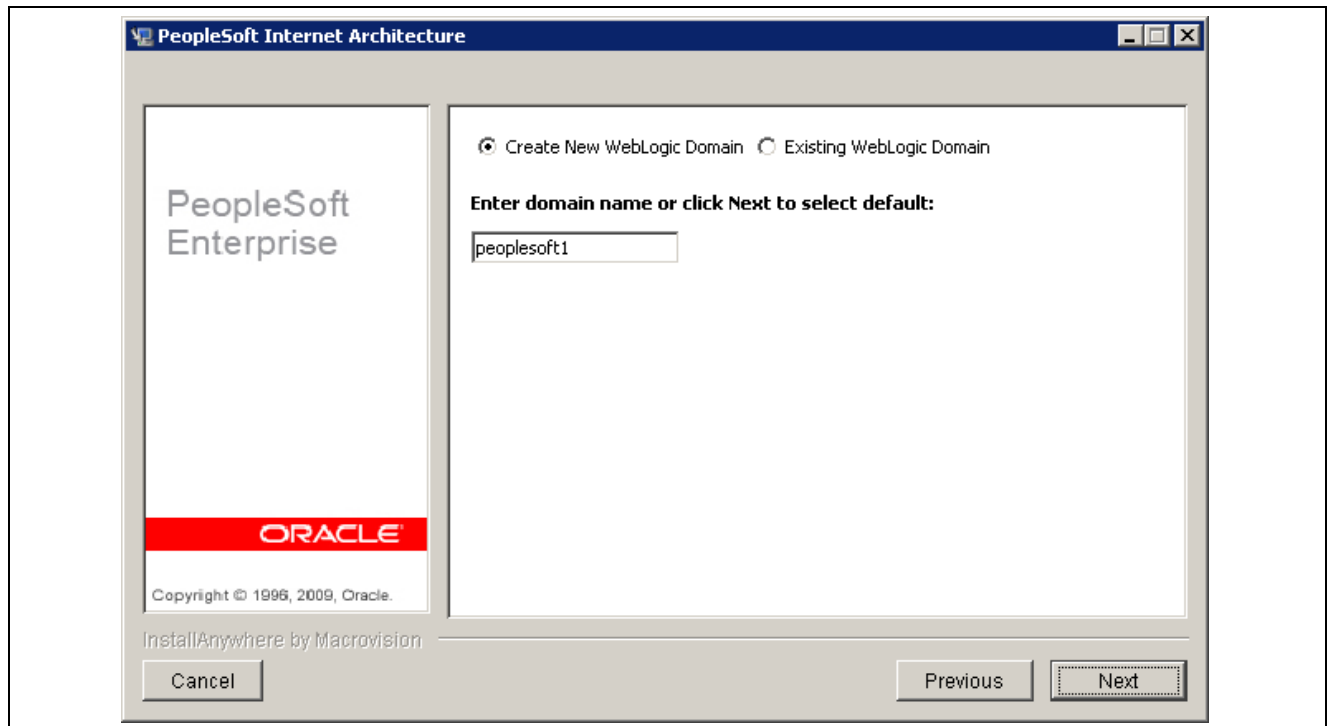


Entering new domain name on the PeopleSoft Internet Architecture window

8. If there are existing Oracle WebLogic domains on your system, select one of the options Create New WebLogic Domain or Existing WebLogic Domain.

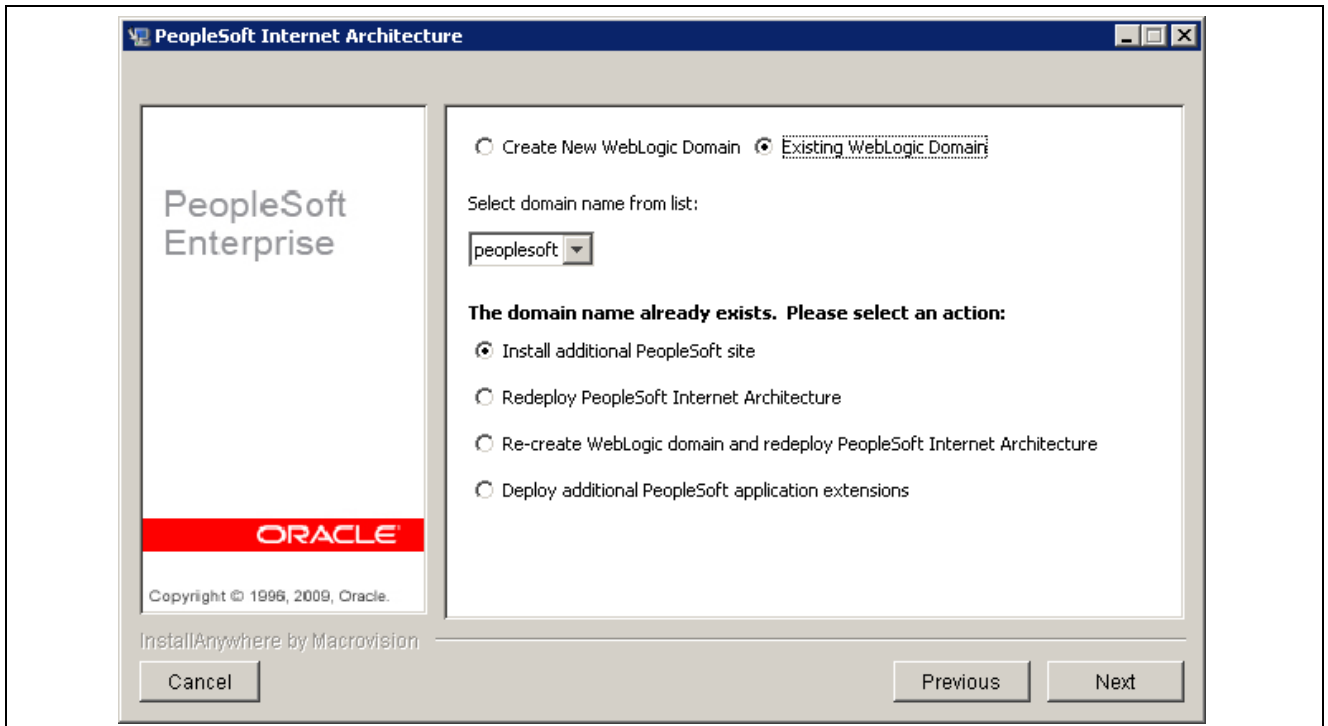
If you select Create New WebLogic Domain, the installation process automatically generates a valid domain name in the domain name field.

If you attempt to enter an invalid domain name, you see a prompt asking you to enter a new domain name or choose an existing domain.



Choosing a new or existing WebLogic domain

9. If you select Existing WebLogic Domain, specify the domain name and select one of the following options:



Selecting an existing WebLogic domain

- *Install additional PeopleSoft site*

This option is relevant only to the PeopleSoft PORTAL web application, and does not modify or revert any other configuration settings. Select this option to install only the necessary files for defining an additional PeopleSoft site onto an existing Oracle WebLogic configuration. The new site will be accessed using its name in the URL. A site named “CRM” would be accessed using a URL similar to `http://mywebserver_machine/CRM`. To reset or re-create an existing PeopleSoft site, simply enter that site's name as the site to create. On your web server, a PeopleSoft site is comprised of the following directories within the PORTAL web application:

```
<WEBLOGIC_DOMAIN>\applications\peoplesoft\PORTAL\<site>\*
```

```
<WEBLOGIC_DOMAIN>\applications\peoplesoft\PORTAL\WEB-INF\psftdocs\<site>\*
```

- *Redeploy PeopleSoft Internet Architecture*

This selection affects all of the PeopleSoft Pure Internet Architecture web applications installed to the local Oracle WebLogic domain. Select this option to redeploy all of the class files and jar files that comprise web components of PeopleSoft Pure Internet Architecture. Oracle WebLogic Server configuration files, scripts and any existing PeopleSoft (PORTAL) sites are not overwritten, unless you specify an existing PeopleSoft site during this setup.

- *Re-create WebLogic domain and redeploy PeopleSoft Internet Architecture*

This option affects Oracle WebLogic Server configuration and all of the PeopleSoft Pure Internet Architecture web applications installed to the local Oracle WebLogic domain. Select this option to completely remove an existing Oracle WebLogic domain and create the newly specified PeopleSoft site.

Warning! Re-creating an existing domain will delete everything previously installed into that domain, including PeopleBooks. If you choose to re-create—instead of redeploying—a domain, you may first want to back up your PeopleBooks <docroot> directory (typically, htmldoc) at the top level of the PeopleSoft Online Library (PSOL) web site. You can then restore it after the PeopleSoft Pure Internet Architecture installation.

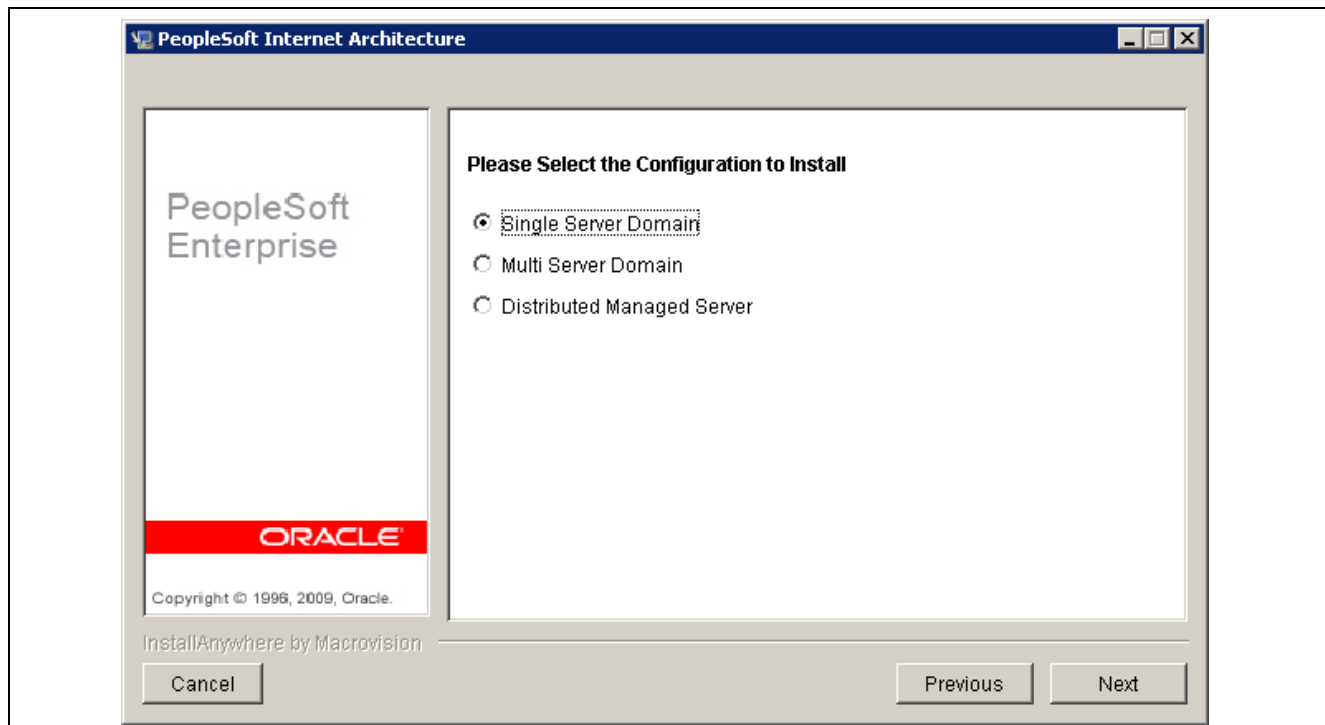
See *Enterprise PeopleTools 8.50 PeopleBook: PeopleTools Portal Technology*.

- *Deploy additional PeopleSoft application extensions*

This option is solely for use with PeopleSoft applications. PeopleSoft application extensions are provided with certain PeopleSoft applications, and this option allows you to deploy those extensions. Consult the installation documentation for your PeopleSoft application to see if this option is appropriate. PeopleSoft PeopleTools does not use application extensions.

- If there are application packages in the archives directory, you'll be asked whether you want to deploy them. (If you are using an existing domain, you'll only be prompted if you selected Deploy additional PeopleSoft extensions.)
- Select the type of domain to create—single server, multi server, or distributed managed server.

Note. You must select Multi Server Domain if you plan to host PeopleBooks on the web server on which you are installing the PeopleSoft Pure Internet Architecture.



Choosing the domain type

There are three domain configuration options:

- *Single Server Domain*

This domain configuration contains one server named PIA, and the entire PeopleSoft Enterprise application is deployed to it. This configuration is intended for single user or very small scale, nonproduction environments. This configuration is very similar to the Oracle WebLogic domain provided in PeopleSoft PeopleTools 8.40 through 8.44.

- *Multi Server Domain*

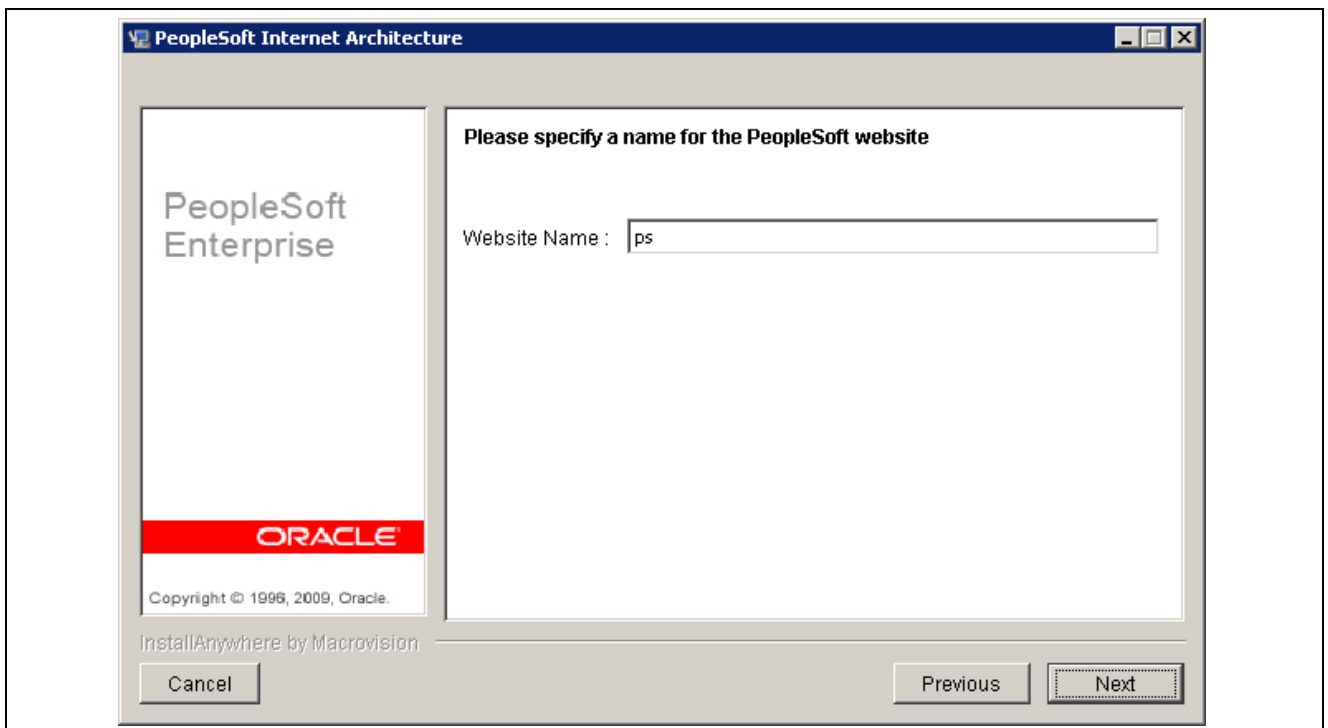
This domain configuration contains seven unique server definitions, a Oracle WebLogic cluster, and the PeopleSoft Enterprise application split across multiple servers. This configuration is intended for a production environment.

- *Distributed Managed Server*

This option is an extension of the Multi Server Domain selection and installs the necessary files to boot a managed server. This option requires a Multi Server installation to be performed to some other location, which will contain the configuration for this managed server.

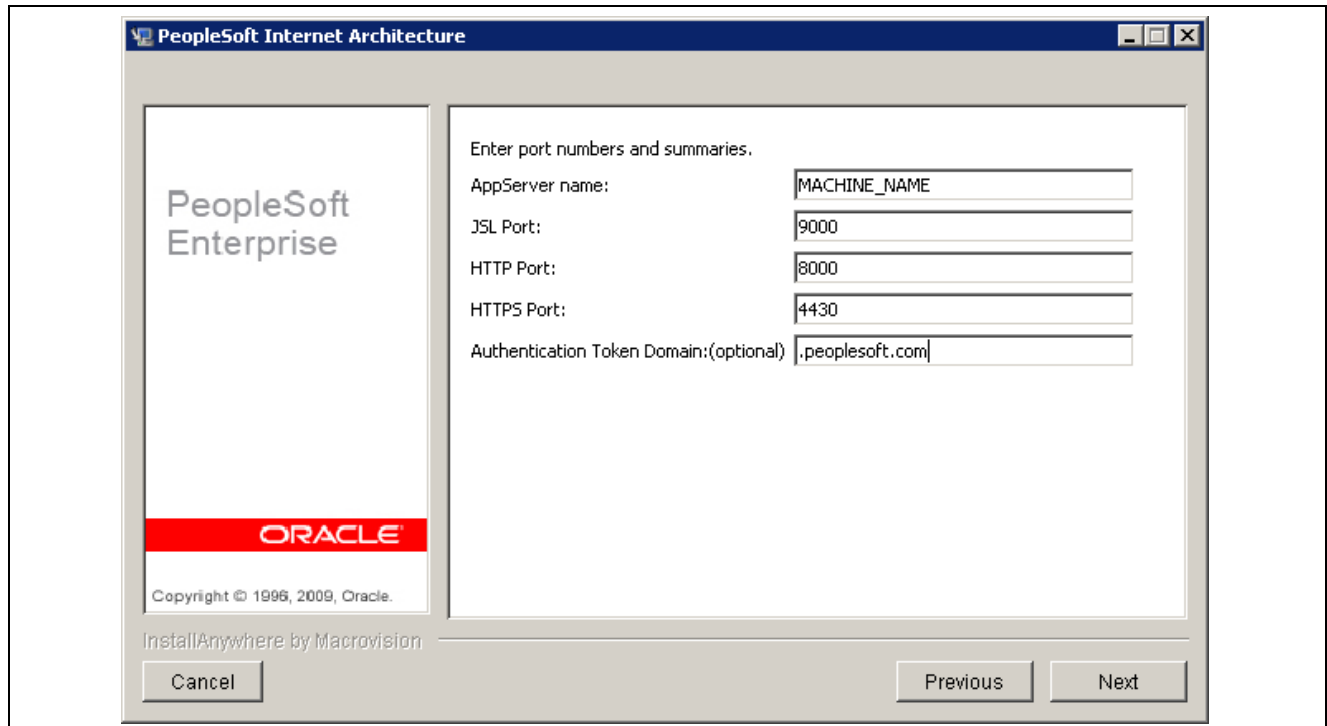
12. Enter a PeopleSoft web site name; the default is ps.

Warning! The site name can include underscores (_), but an underscore cannot be followed by a numeric character or the string “newwin” (for example, my_site_3 or my_newwin_site).



Specifying the PeopleSoft website name

13. Specify your application server name, its JSL (Jolt Station Listener) port number, its HTTP and HTTPS port numbers, the Authentication Token Domain (optional), and click Next.



Specifying application server name, port numbers, and authentication token domain

- *AppServer name*

For the AppServer name setting, enter the name of your application server.

- *JSL Port*

For the JSL port setting, enter the JSL port number you specified when setting up your application server. (The default value is 9000.)

See "Configuring the Application Server on <Windows or UNIX>."

- *Authentication Token Domain*

Note. The value you enter for Authentication Token Domain must match the value you specify when configuring your application server, as described earlier in this book. In addition, certain installation configurations require that you specify an authentication domain.

See Using Authentication Domains in the PeopleSoft Pure Internet Architecture Installation.

If you enter a value for Authentication Token Domain, the URL to invoke PeopleSoft Pure Internet Architecture must include the network domain name in the URL. For example, if you do not enter an authentication domain, the URL to invoke PeopleSoft Pure Internet Architecture is `http://MachineName/ps/signon.html`. If you do enter a value for the authentication domain (for example, `.myCompany.com`), the URL to invoke PeopleSoft Pure Internet Architecture is `http://MachineName.myCompany.com/ps/signon.html`. In addition, if the web server for the database is using an http port other than the default port of 80, the URL must include the port number, for example `http://MachineName:8080/ps/signon.html` if there is no authentication domain, or `http://MachineName.myCompany.com:8080/ps/signon.html` if there is an authentication domain. The URL must also comply with the naming rules given earlier in this chapter.

See Understanding the PeopleSoft Pure Internet Architecture.

14. Enter the name of the web profile name in the database that will be used to configure this PeopleSoft web site.

This can be the name of either a predelivered one shown on the page, or one you intend to create yourself using PeopleTools, Web Profile Configuration, after logging in. Each site is configured according to the profile you specify here when it is first accessed after the web server is booted. The user ID and password will be used by the PIA servlets themselves at runtime to log in to the application server to retrieve the profile. For applications on PeopleSoft PeopleTools 8.44 and above, Oracle predelivers the PTWEBSEVER user ID for the purpose of configuring PIA servlets at runtime and running the Performance Monitor Agents. You may have to unlock that user profile in certain application databases. If you have any problems logging in after starting the web server, refer to the application server domain logs.

See *Enterprise PeopleTools 8.50 PeopleBook: PeopleTools Portal Technology*.

Note. If you are upgrading your application database to PeopleSoft PeopleTools 8.44 and above, you must set up the PTWEBSEVER user ID. Go to PeopleTools, Security, User Profiles, User Profiles. Click Add a New Value, enter PTWEBSEVER for User ID, and click Add. Enter and confirm a password, and enter a description. Enter the role *PeopleTools Web Server* and then click Save.

Specifying web profile information

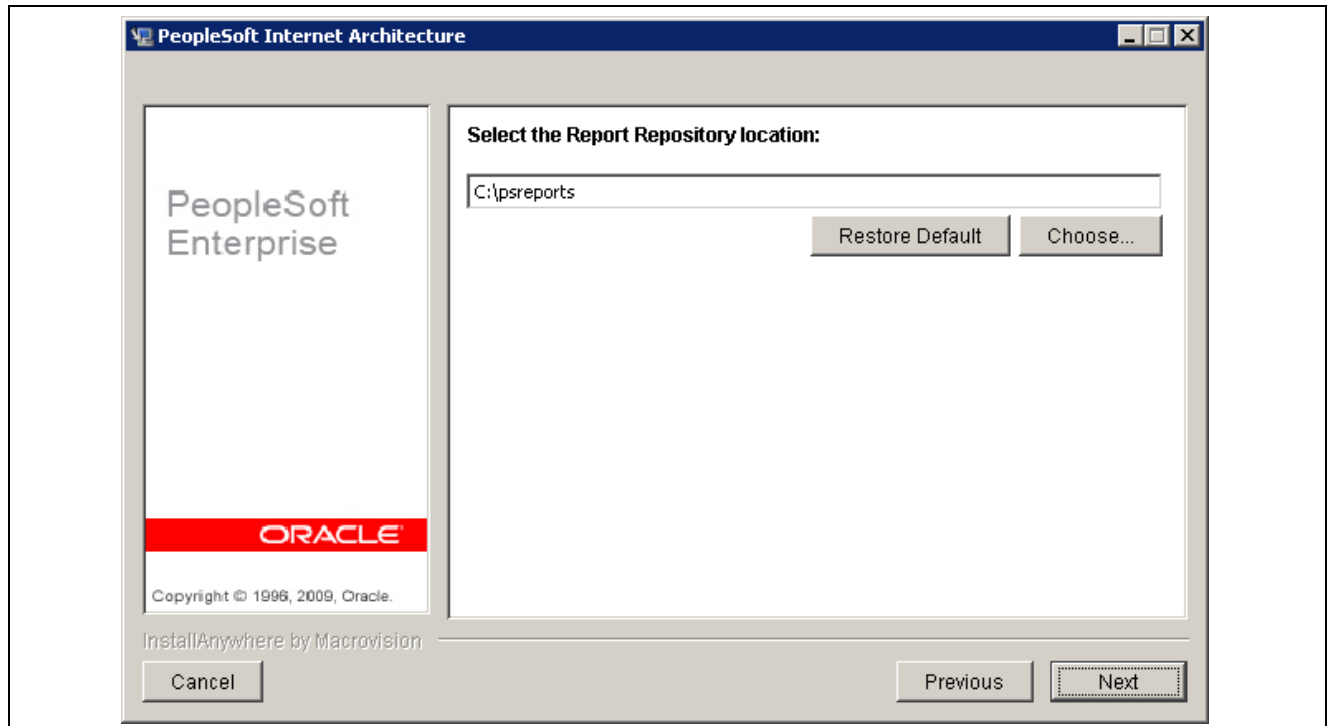
15. Specify the root directory for the Report Repository, and click Next.

Make sure that the report repository directory is shared. You must have write access to the Report Repository directory. The default is C:\psreports.

Note. In setting up the Process Scheduler to transfer reports, if you choose the FTP transfer protocol, use the same directory for the Home Directory as you use here for the report repository.

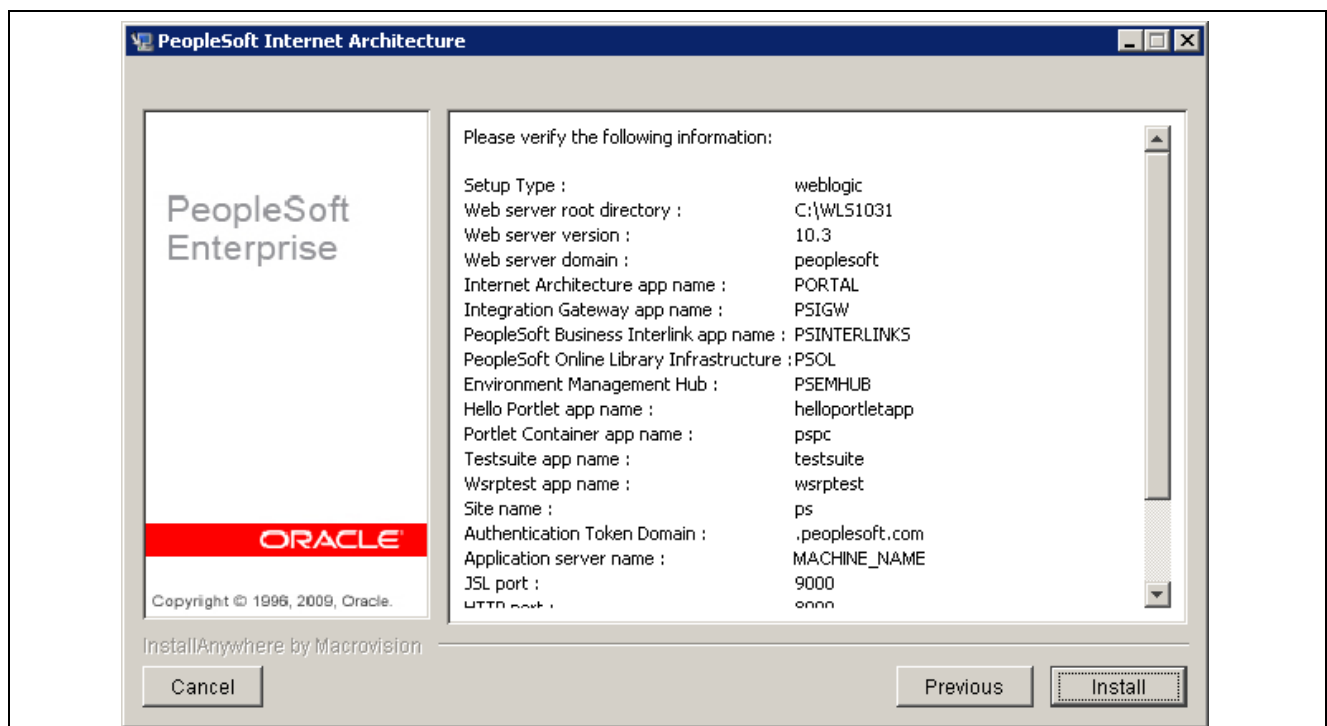
See *Enterprise PeopleTools 8.50 PeopleBook: PeopleTools Portal Technology*.

See "Setting Up Process Scheduler on Windows," Setting Up the Process Scheduler to Transfer Reports and Logs to Report Repository.



Specifying the Report Repository location

16. Verify all of your selections (click Back if you need to make any changes), and click Install to begin the installation.



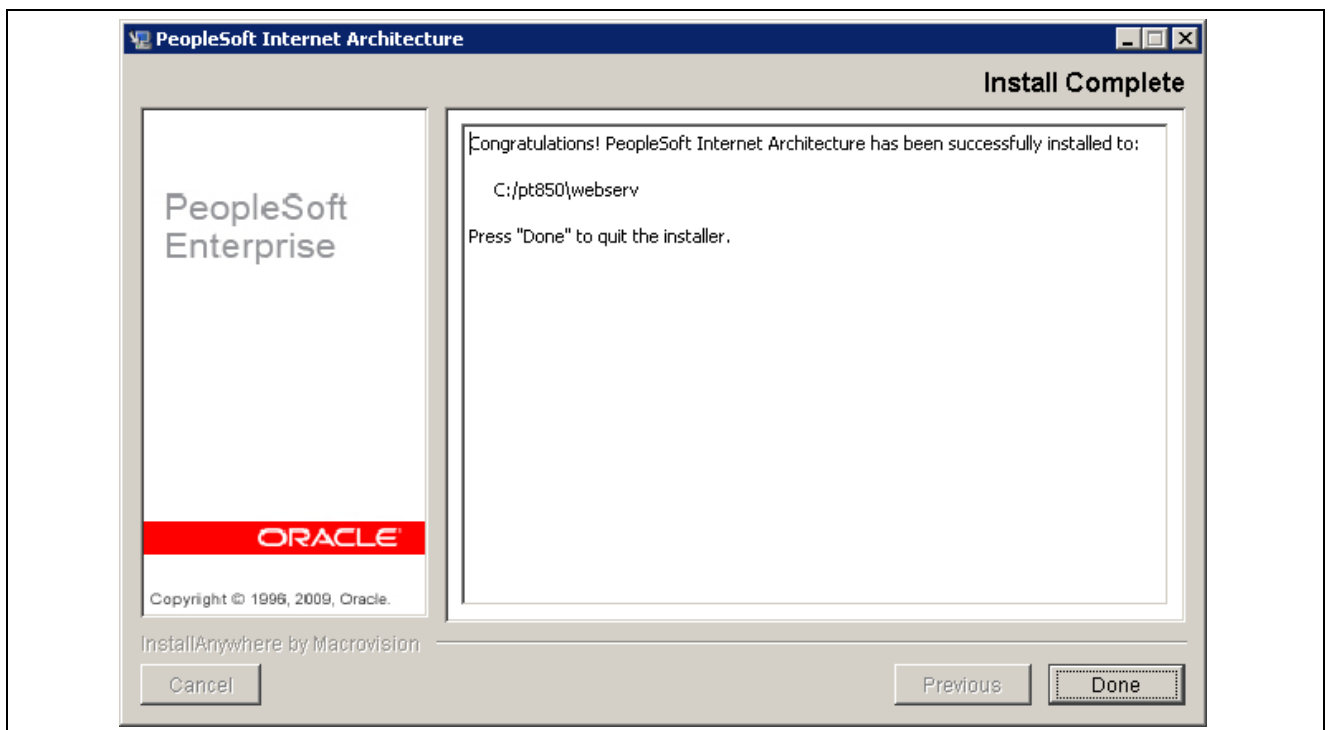
Summary information for the PeopleSoft Internet Architecture installation

An indicator appears showing the progress of your installation.

17. Click Finish to complete the installation.

The default installation directory is `<PIA_HOME>\websrv\<domain>\`.

Note. If you are installing into an existing domain, you need to restart that domain.



PeopleSoft Internet Architecture Install Complete window

Task 10A-2: Installing the PeopleSoft Pure Internet Architecture on WebSphere in GUI Mode

This section discusses:

- Prerequisites
- Installing the PeopleSoft Pure Internet Architecture on WebSphere
- Uninstalling the PeopleSoft Pure Internet Architecture from WebSphere

Prerequisites

The information in this section applies to the installation of PeopleSoft Pure Internet Architecture (PIA) on an IBM WebSphere Application Server.

Each IBM WebSphere Application Server runs one PeopleSoft Pure Internet Architecture application. If you need to install more than one PeopleSoft Pure Internet Architecture application on your IBM WebSphere Application Server, you must run PIA install again.

See Also

"Installing Web Server Products," Installing WebSphere

Task 10A-2-1: Installing the PeopleSoft Pure Internet Architecture on WebSphere

Before installing the PeopleSoft Pure Internet Architecture (PIA) on WebSphere Application Server Network Deployment, (referred to here as WebSphere ND) you must have installed the WebSphere ND software.

See "Installing Web Server Products," Installing WebSphere Application Server.

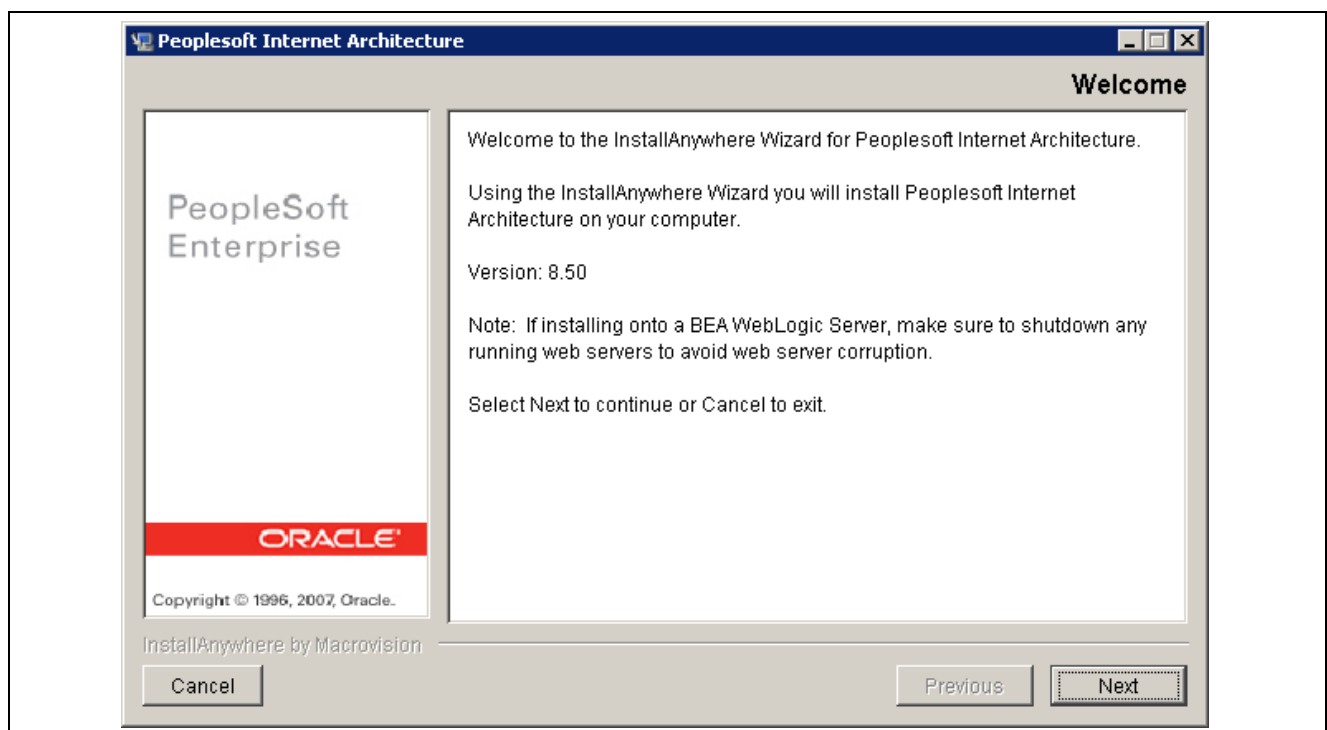
When installing PIA on WebSphere ND, you must work with a local copy of the PIA installation software; you cannot install remotely. If you are doing the installation on a machine other than the one on which you installed PeopleSoft PeopleTools, copy the *PS_HOME\setup\PsMpPIAInstall* directory to the local machine and keep the same directory structure.

Note. Both WebSphere Application Server Network Deployment and PeopleSoft Pure Internet Application need to be installed and deployed using the same user id. Following this requirement avoids any security and profile management issues.

To install the PIA on WebSphere ND:

1. Go to *PS_HOME\setup\PsMpPIAInstall*.
2. Double-click on *setup.bat*.

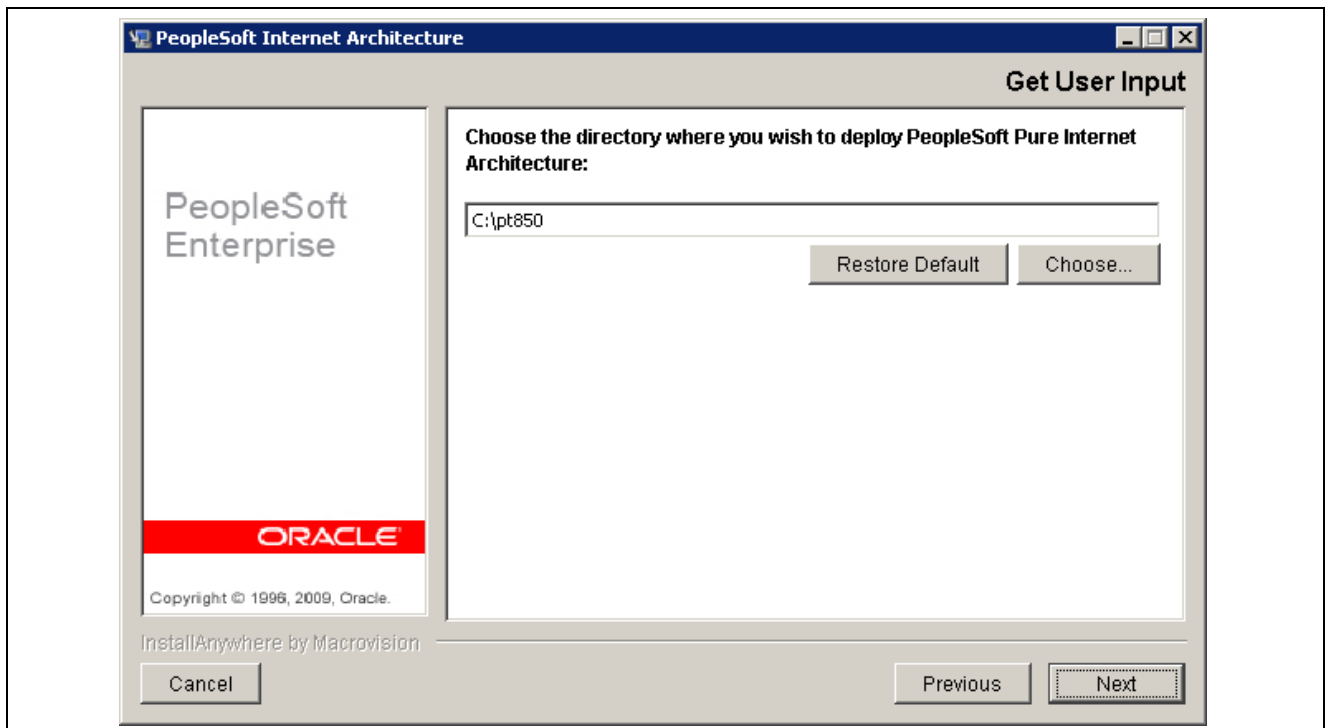
The Welcome window appears.



PeopleSoft Internet Architecture Welcome window

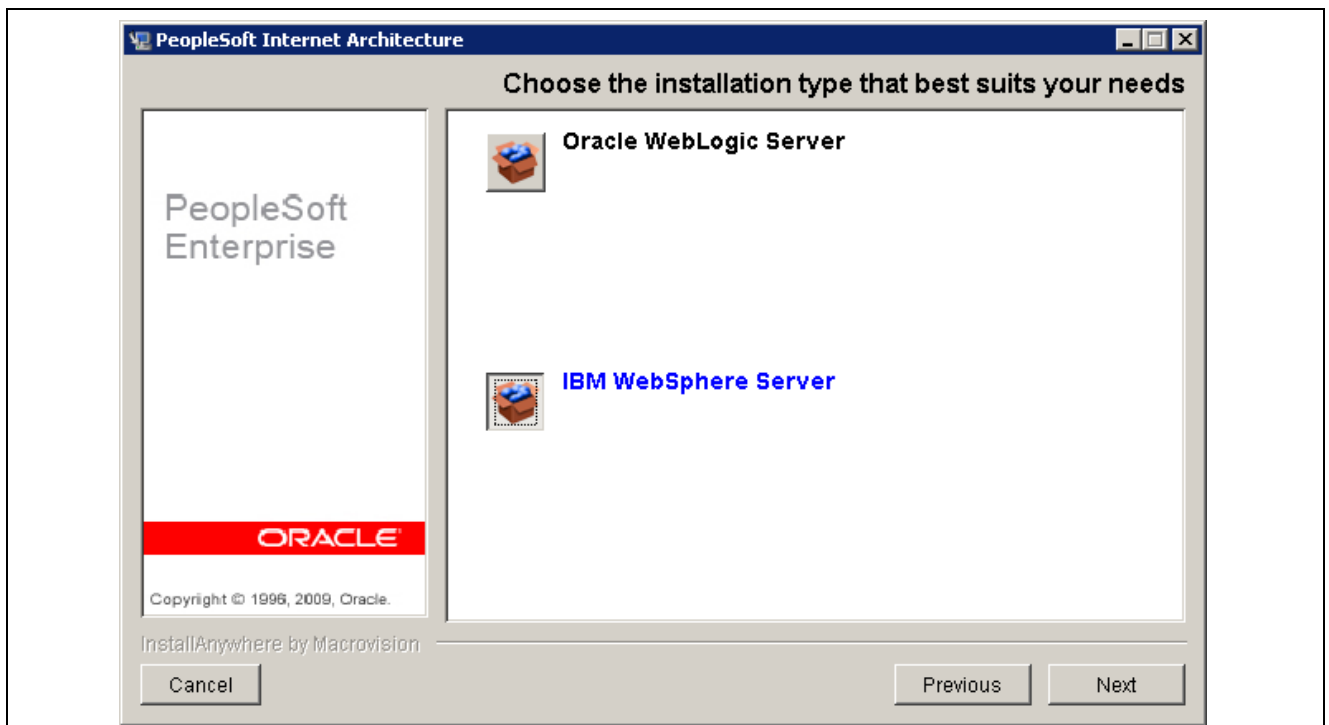
3. Click Next in the Welcome window, and specify the directory where you want to install the PeopleSoft Pure Internet Architecture, referred to here as *PIA_HOME*.

Note. If you plan to install PeopleBooks, enter your *PS_HOME* location here.



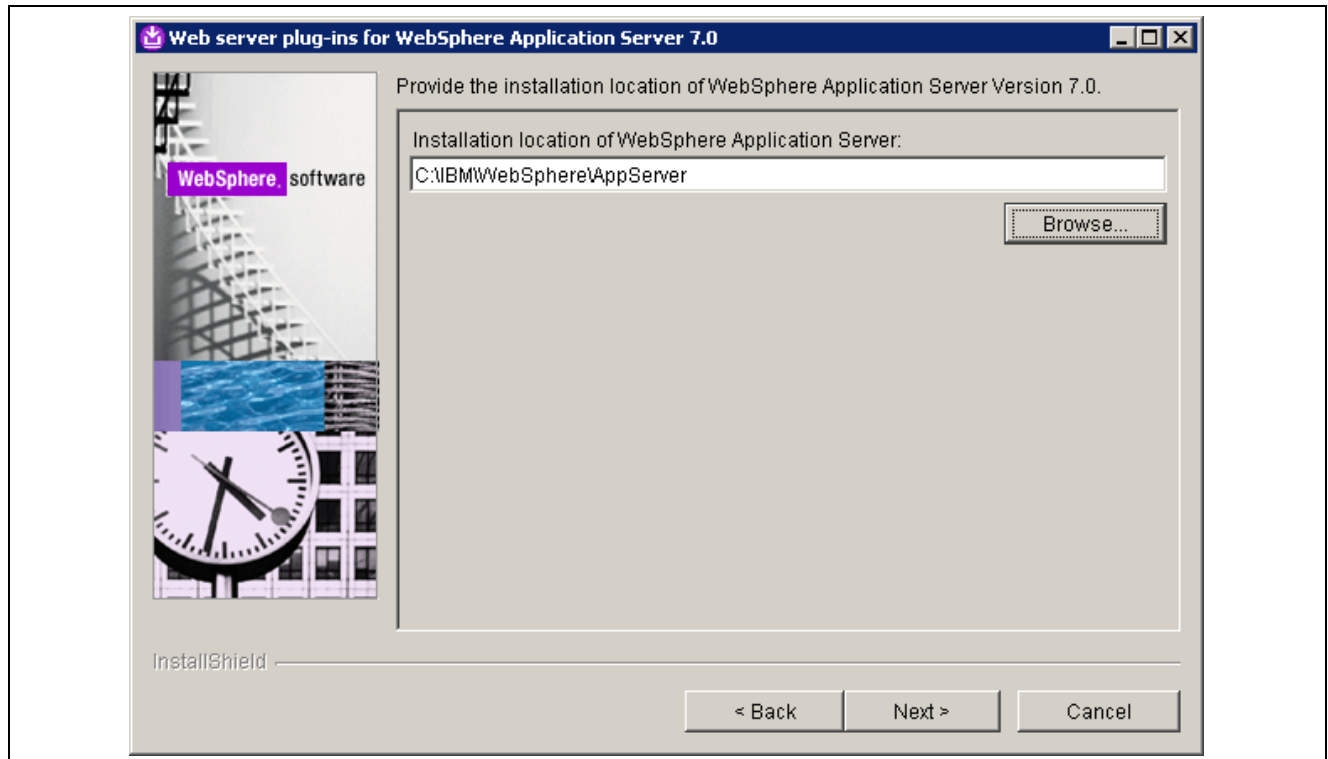
Specifying the installation location for the PeopleSoft Pure Internet Architecture

4. Select the option IBM WebSphere Server and click Next.



Selecting IBM WebSphere Server

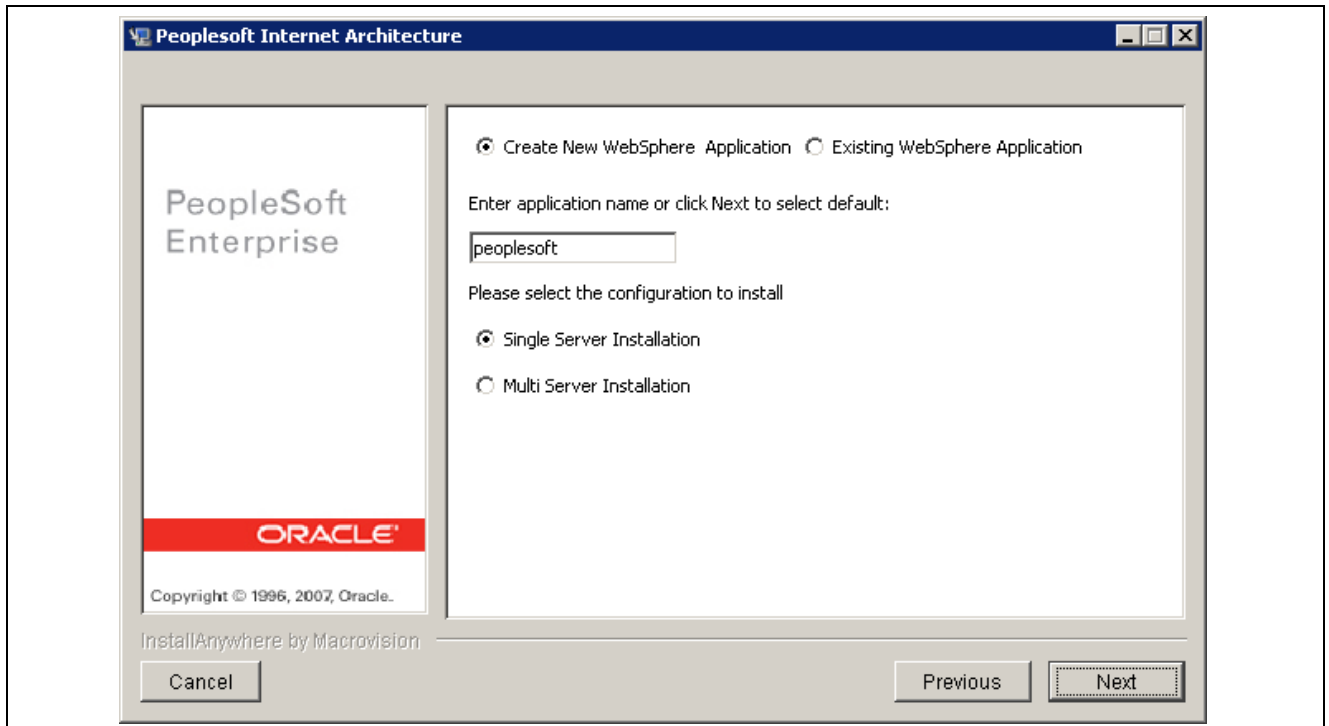
5. Specify the directory where WebSphere ND was installed, referred to as *WAS_HOME*. Click Next.



Specifying the WebSphere application server installation directory

6. Choose whether to create a new WebSphere application (domain) or to use an existing application, and specify the name of the application (referred to as *application_name* below). Enter an application name for this web server (for example, peoplesoft) and select the type of server you want to install.

Note. The name you specify here for each application must be unique for each WebSphere node.



Specifying a new WebSphere domain in a single server installation

- If you select Create New WebSphere Application, the install automatically generates a valid application name in the application name field. If you attempt to enter an invalid application name, you'll be prompted to enter a new application name or choose an existing application.

- If there is already a WebSphere application in *PIA_HOME*, the option Existing WebSphere Application is active.

If you select the Existing WebSphere Application option, you can choose from a drop-down list of existing applications, and can select whether to install an additional PeopleSoft site, redeploy PeopleSoft Pure Internet Architecture, or deploy additional PeopleSoft application extensions. You can also choose a single-server or multi-server installation.

Note. Make sure the server is up and running before installing an additional PeopleSoft site, redeploying PIA, or deploying additional PeopleSoft application extensions.

Install additional PeopleSoft site

Select this option to install only the necessary files for defining an additional PeopleSoft site onto the existing WebSphere ND web server configuration.

Redeploy PeopleSoft Internet Architecture

This selection affects all of the PIA web applications installed to the local WebSphere Application Server profile. Select this option to redeploy applications that comprise web components of PIA.

Deploy additional PeopleSoft application extensions

This option is solely for use with PeopleSoft product applications. PeopleSoft application extensions are provided with certain PeopleSoft applications, and this option allows you to deploy those extensions. Consult the installation documentation for your PeopleSoft application to see whether this option is appropriate. PeopleSoft PeopleTools does not use application extensions.

Single-server installation

The Single Server Installation option creates one WebSphere Application Server profile to hold all the PeopleSoft web applications. The installer uses the Application Name you enter for the new profile's name.

Multi-server installation

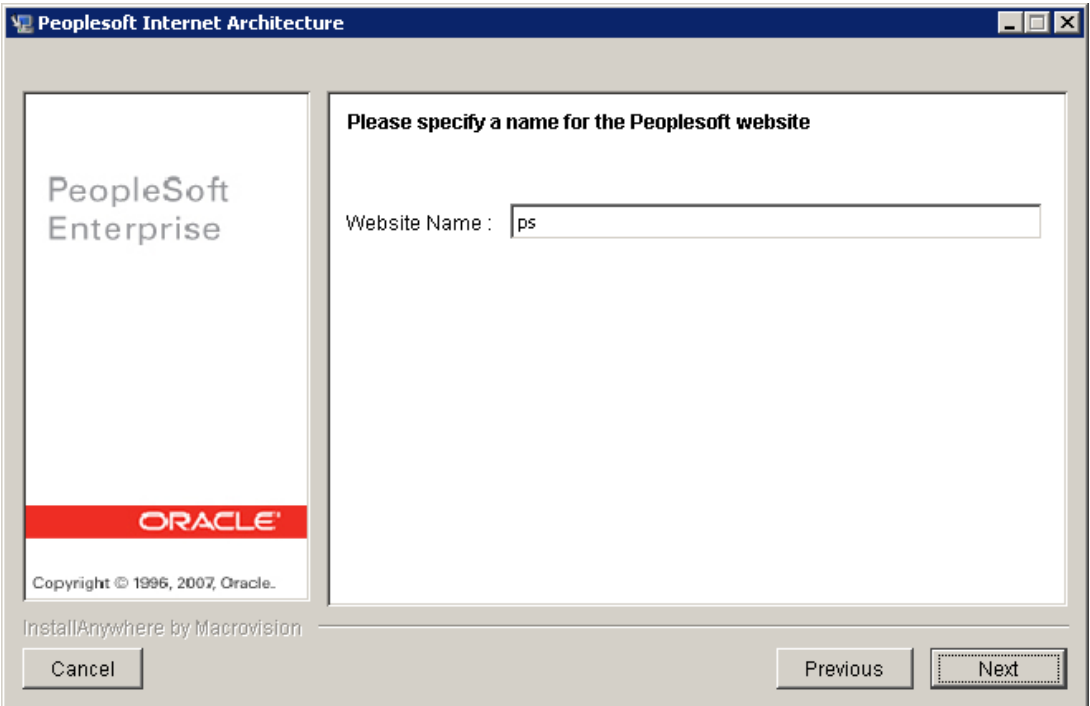
The Multi Server Installation option creates a single profile with the name you entered above, *application_name*. The *application_name* profile includes three servers, which deploy discrete functionality and are found on different ports, as specified in the following table:

Server Name	Purpose	HTTP or HTTPS Port Number
server1	PORTAL applications	X
psemhub	PeopleSoft Environment Management Framework applications (PSEMHUB)	X+1
psol	PeopleSoft Online Library application (PSOL)	X+2

Note. You must select the option Multi Server Installation if you plan to host PeopleBooks on the web server on which you are installing the PeopleSoft Pure Internet Architecture.

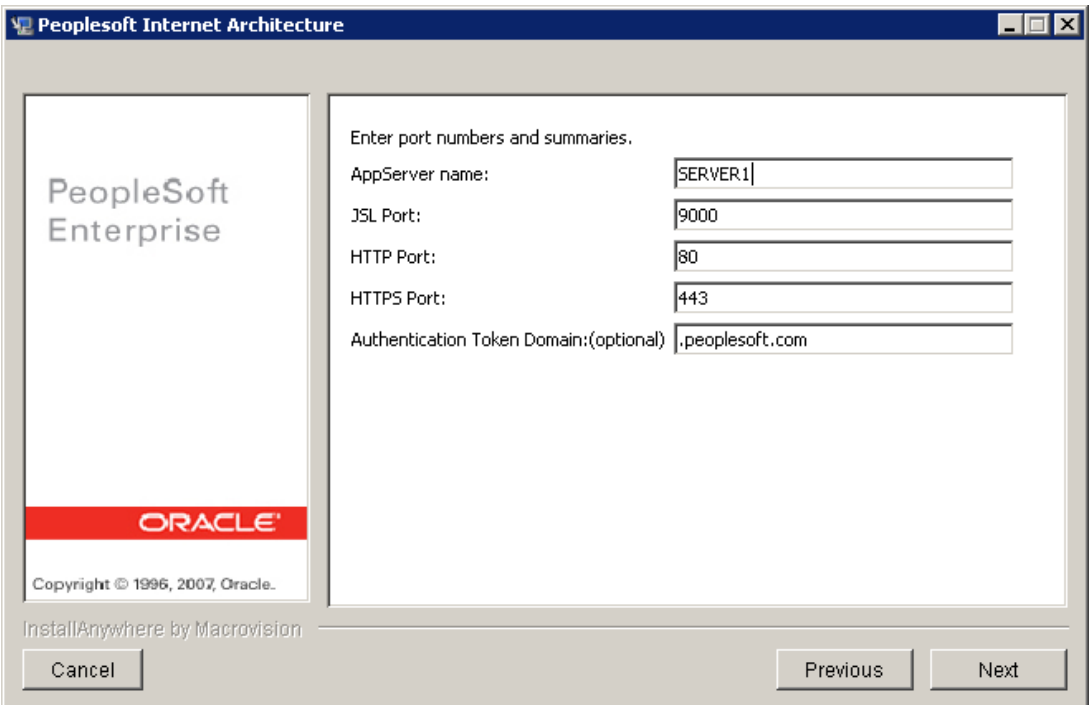
7. If there are application packages in the archives directory, you'll be asked whether you want to deploy them. If you're using an existing domain, you'll only be prompted if you selected Deploy additional PeopleSoft extensions.
8. Enter a PeopleSoft web site name; the default is ps.

Warning! The site name can include underscores (_), but an underscore cannot be followed by a numeric character or the string “newwin” (for example, my_site_3 or my_newwin_site).



Entering the PeopleSoft web site name

9. Specify your application server name, its JSL (Jolt Station Listener) port number, its HTTP and HTTPS port numbers, the authentication token domain, and click Next.



Specifying your application server name, your port numbers, and the authentication token domain

- *AppServer name*

For AppServer name, enter the name of your application server.

- *JSL port*

For the JSL port, enter the JSL port number you specified when setting up your application server. (The default value is 9000.)

See "Configuring the Application Server on Windows."

- *HTTP and HTTPS ports*

When you enter HTTP and HTTPS port numbers, they will not be recognized until you restart your WebSphere server.

In the case of Multi Server Installation type, HTTP and HTTPS ports *cannot* be consecutive numbers. The range for port number will be <Port#>-<Port#>+2 for all the three application servers that the install creates. For example, if you select HTTP Port as 5555 and HTTPS port as 5560 then the ports are assigned as given below.

Server Name	HTTP Port Number	HTTPS Port Number
server1	5555	5560
psemhub	5556	5561
psol	5557	5562

- *Authentication Token Domain*

The value you enter for Authentication Token Domain must match the value you specify for the authentication domain when configuring your application server, as described earlier in this book. In addition, certain installation configurations require that you specify an authentication domain.

See Using Authentication Domains in the PeopleSoft Pure Internet Architecture Installation.

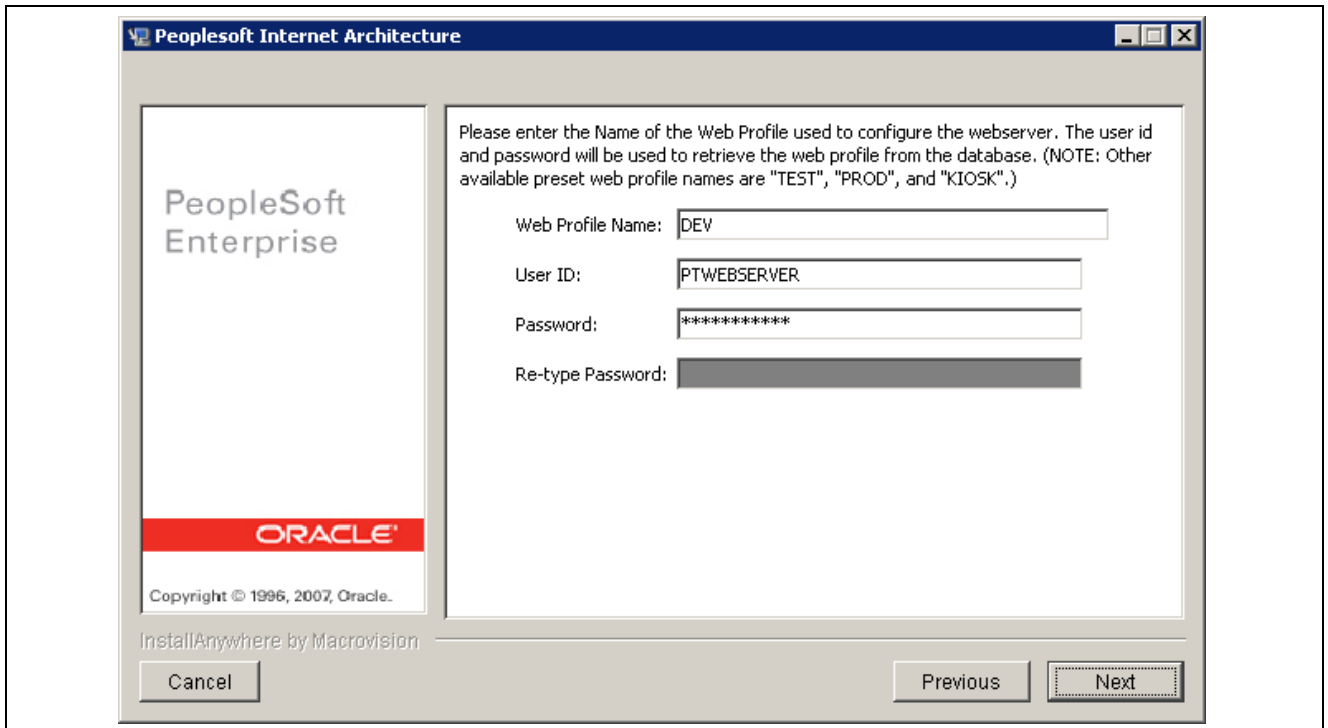
If you enter a value for the Authentication Token Domain, the URL to invoke PIA must include the network domain name in the URL. For example, if you do not enter an authentication domain, the URL to invoke PIA is `http://MachineName:port/ps/signon.html`. If you do enter a value for the authentication domain (for example, `.myCompany.com`), the URL to invoke PIA is `http://MachineName.myCompany.com:port/ps/signon.html`. The URL must also comply with the naming rules given earlier in this chapter.

See "Understanding the PeopleSoft Pure Internet Architecture."

10. Enter the web profile name in the database that will be used to configure this PeopleSoft web site.

This can be either the name of a pre-delivered one shown on the page, or one you intend to create yourself using PeopleTools, Web Profile Configuration, after logging in to PIA. Each site is configured according to the profile you specify here when it is first accessed after the web server is booted. The user ID and password will be used by the PIA servlets themselves at runtime to log in to the application server to retrieve the profile. For applications on PeopleSoft PeopleTools 8.44 and above, Oracle pre-delivers the PTWEBSERVER user ID for the purpose of configuring PIA servlets at runtime and running the Performance Monitor Agents. You may have to unlock that user profile in certain application databases. If you have any problems logging in after starting the web server, refer to the application server domain logs.

See *Enterprise PeopleTools 8.50 PeopleBook: PeopleTools Portal Technology*.



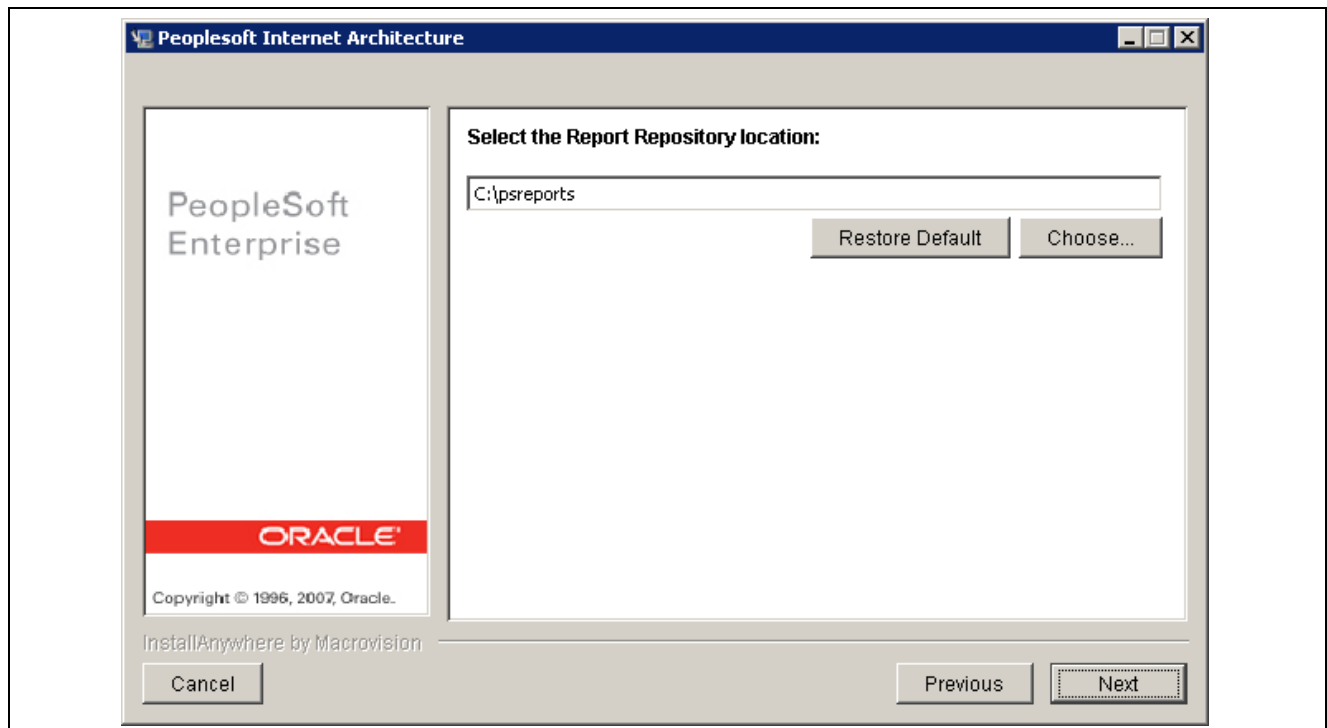
Entering a web profile

If you are upgrading your application database to PeopleSoft PeopleTools 8.47 or later, you will need to set up the PTWEBSEVER user ID by doing the following:

- a. Go to PeopleTools, Security, User Profiles, User Profiles, click Add a New Value.
 - b. Enter PTWEBSEVER for User ID, and click Add.
 - c. Enter and confirm a password.
 - d. Enter a description, the role *PeopleTools Web Server* and then click Save.
11. Specify the root directory for the Report Repository (c:\psreports by default), and click Next.
Make sure that the report repository directory is shared, and that you have write access.

Note. In setting up the Process Scheduler to transfer reports, if you choose the FTP protocol, use the same directory for the Home Directory as you use here for the report repository.

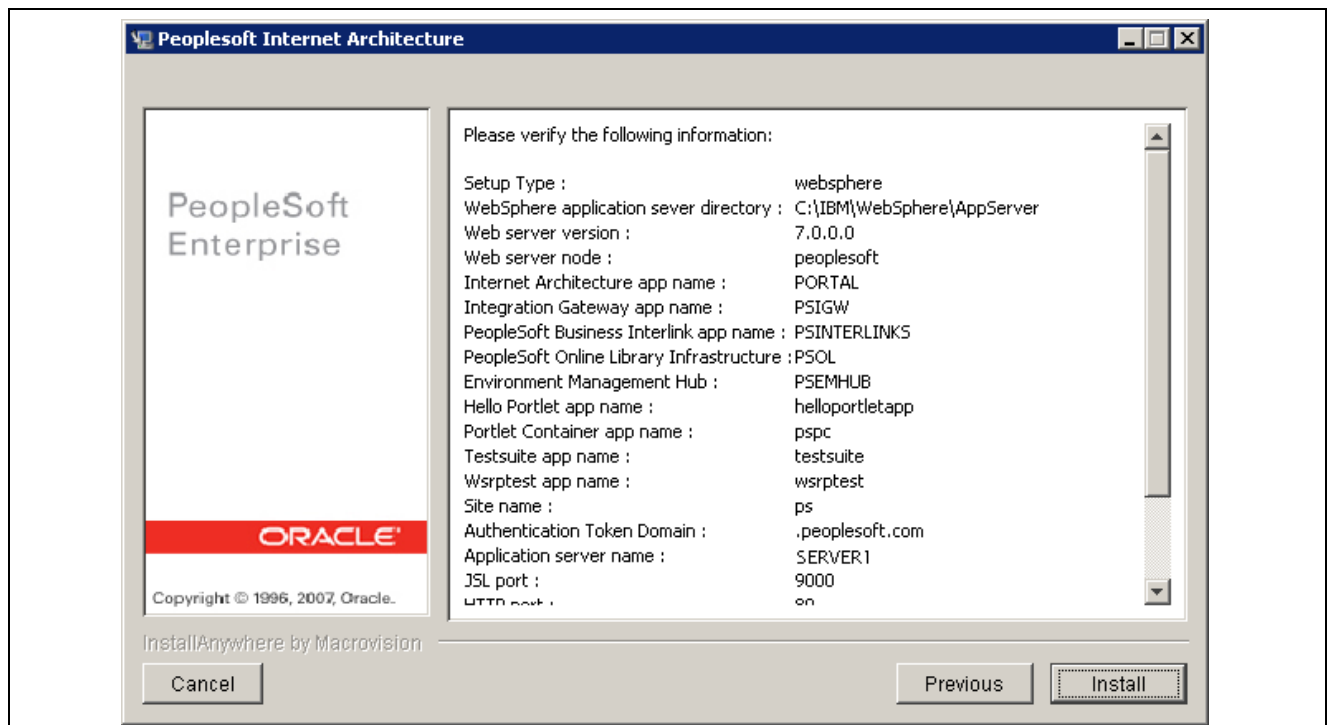
See "Setting Up Process Scheduler on Windows," Setting Up the Process Scheduler to Transfer Reports and Logs to Report Repository.



Specifying the report repository

12. Verify all your selections.

Click Back if you need to make any changes and click Next to begin the installation. An indicator shows the progress of your installation.



Verifying Installation options window

13. Click Finish to complete the installation.

The default installation directory is `<PIA_HOME>\webserv\<profile_name>`

Task 10A-2-2: Uninstalling the PeopleSoft Pure Internet Architecture from WebSphere

You cannot uninstall PeopleSoft Pure Internet Architecture simply by deleting `<PIA_HOME>\webserv\<profile_name>`, without uninstalling it from IBM WebSphere Administration Console. If you do so, the IBM WebSphere registry becomes corrupt, and subsequent attempts to install PeopleSoft Pure Internet Architecture will fail. Instead, if necessary, you must uninstall PeopleSoft Pure Internet Architecture on IBM WebSphere as described here.

To uninstall PeopleSoft Pure Internet Architecture on IBM WebSphere:

1. Open WebSphere Administration Console at `http://<machine-name>:9060/ibm/console`
2. Log in as any user.
3. Choose Applications, Enterprise Applications.
4. Select the check boxes for the PeopleSoft Pure Internet Architecture applications you want to uninstall, and click Stop.
5. Select the check boxes for the PeopleSoft Pure Internet Architecture applications you want to uninstall, and click Uninstall.
6. Save your configuration.
7. Stop WebSphere server using the following commands:

On Windows:

```
<PIA_HOME>\webserv\<profile_name>\bin\stopServer.bat server1
```

On UNIX or Linux:

```
<PIA_HOME>\webserv\<profile_name>\bin\stopServer.sh server1
```

8. In addition to uninstalling the application, you need to remove the WebSphere Application Server profile (that got created during PIA install) to complete the PIA uninstallation.

To uninstall profile run the following steps:

- a. Go to `<PIA_HOME>\webserv\<profile_name>\bin`
- b. Run the following command

On Windows:

```
manageprofiles.bat -delete -profileName <profile_name>
```

On UNIX

```
manageprofiles.sh -delete -profileName <profile_name>
```

where `<profile_name>` indicates the application name that you have selected during the PIA install.

- c. Delete the directory `<PIA_HOME>\webserv\<profile_name>`

Task 10A-3: Testing the PeopleSoft Pure Internet Architecture Installation

This section discusses:

- Starting and Stopping Oracle WebLogic
- Starting and Stopping IBM WebSphere Application Servers
- Accessing the PeopleSoft Signon

Note. After installing the PeopleSoft Pure Internet Architecture, you should make sure that your configuration is functional. You can test this by signing on to PeopleSoft, navigating within the menu structure, and accessing pages. (Make sure the application server is configured and booted.)

Task 10A-3-1: Starting and Stopping Oracle WebLogic

If you are using the Oracle WebLogic web server, you need to sign on to Oracle WebLogic. If you are using IBM WebSphere instead, go on to the next procedure.

Note. Starting from Oracle WebLogic 9.2 and later releases, all the Life-cycle management scripts and other batch scripts for the PIA server on Oracle WebLogic are located in `<PIA_HOME>\webserv\<domain_name>\bin` folder.

To start Oracle WebLogic:

1. To start Oracle WebLogic Server as a Windows service, install the server as a windows service using the following command in your Oracle WebLogic domain directory):

Single Server:

```
installNTservicePIA.cmd
```

Multi Server or Distributed Server:

```
installNTservice.cmd <ServerName>
```

The Windows service name will be *WebLogicDomain-WebLogicServer*. For example, to install a server named *PIA* as a Windows service in a domain named *peoplesoft*, run `installNTservice.cmd PIA` and you will see "peoplesoft-PIA" as a service.

2. To start Oracle WebLogic Server as a foreground process, execute the following command in your Oracle WebLogic domain directory (the default directory is `<PIA_HOME>\webserv\<domain_name>\bin`):

• *Single Server:*

```
startPIA.cmd (on Windows)
startPIA.sh (on UNIX)
```

• *Multi Server or Distributed Server:*

```
startWebLogicAdmin.cmd (on Windows)
startWebLogicAdmin.sh (on UNIX)
```

and then

```
startManagedWebLogic.cmd <ManagedServerName> (on Windows)
startManagedWebLogic.sh <ManagedServerName> (on UNIX)
```

3. To stop the server, execute the following command in your Oracle WebLogic domain directory:

Single Server:

stopPIA.cmd (on Windows)

stopPIA.sh (on UNIX)

Multi Server or Distributed Server:

stopWebLogic.cmd [-url t3://ServerHostName:port | <ManagedServerName>] (on⇒
Windows)

stopWebLogic.sh [-url t3://ServerHostName:port | <ManagedServerName>] (on UNIX)

See *Enterprise PeopleTools 8.50 PeopleBook: PeopleTools Portal Technology*.

Task 10A-3-2: Starting and Stopping IBM WebSphere Application Servers

This section discusses:

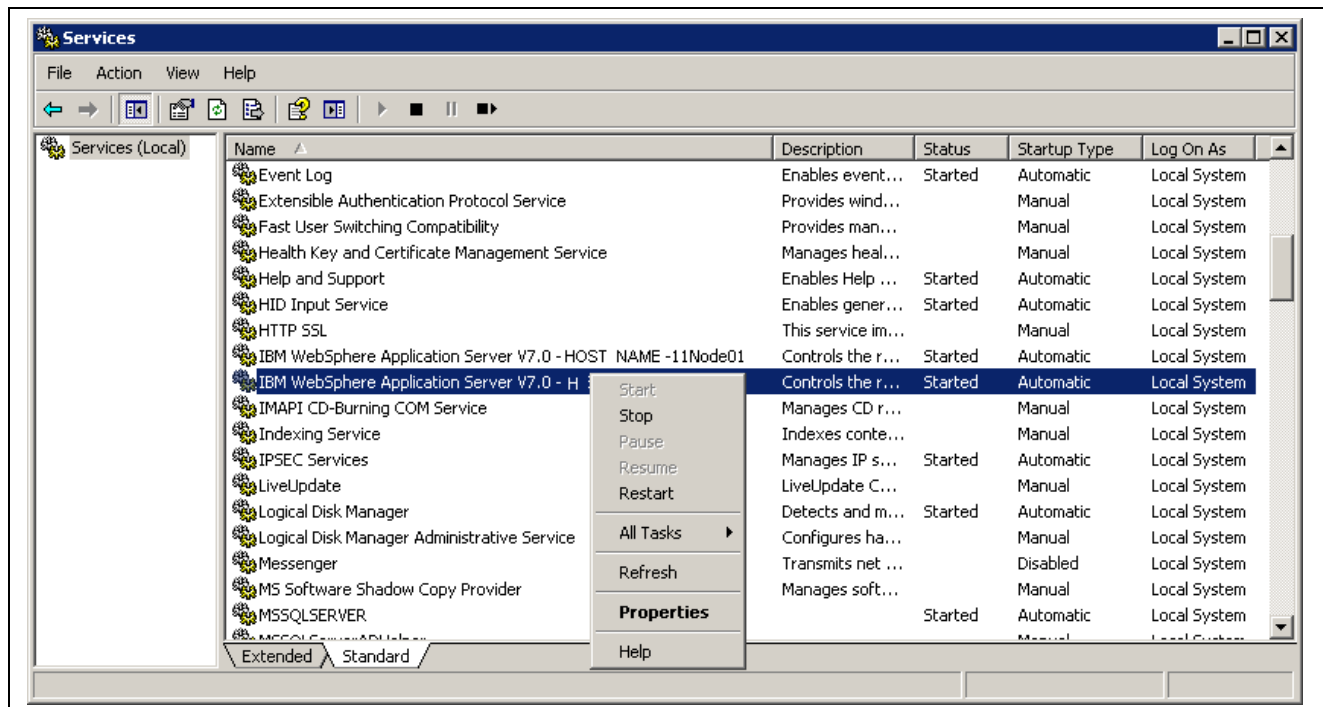
- Starting and Stopping IBM WebSphere Application Servers on Windows
- Starting and Stopping IBM WebSphere Application Servers on UNIX or Linux
- Verifying the IBM WebSphere Installation

Starting and Stopping IBM WebSphere Application Servers on Windows

To start and stop the WebSphere Application Server Network Deployment 7.0 (WebSphere ND), use one of these methods:

Windows service

If you selected the *Typical Profile creation* using the profile management tool when installing WebSphere ND, the installation should have added a system service to run the application server on your system called “IBM WebSphere Application Server V7.0”, as shown in this example:



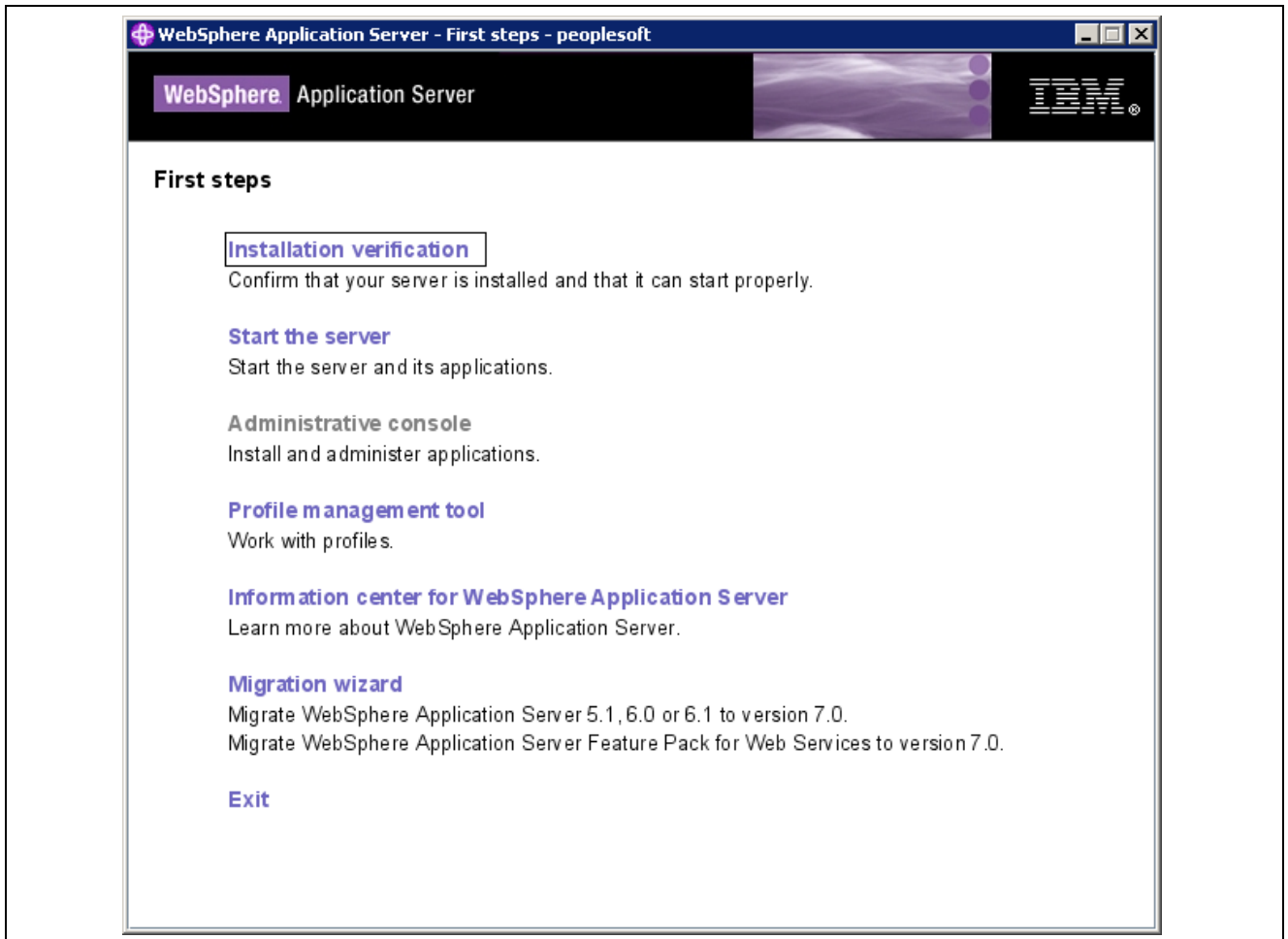
IBM WebSphere Application Server V7.0 Windows service

Right-click on the service name and use the Start, Stop, or other commands on the menu.

WebSphere First Steps utility

1. Select Start, Programs, IBM WebSphere, Application Server Network Deployment V7.0, Profiles, <profile_name>, First steps.

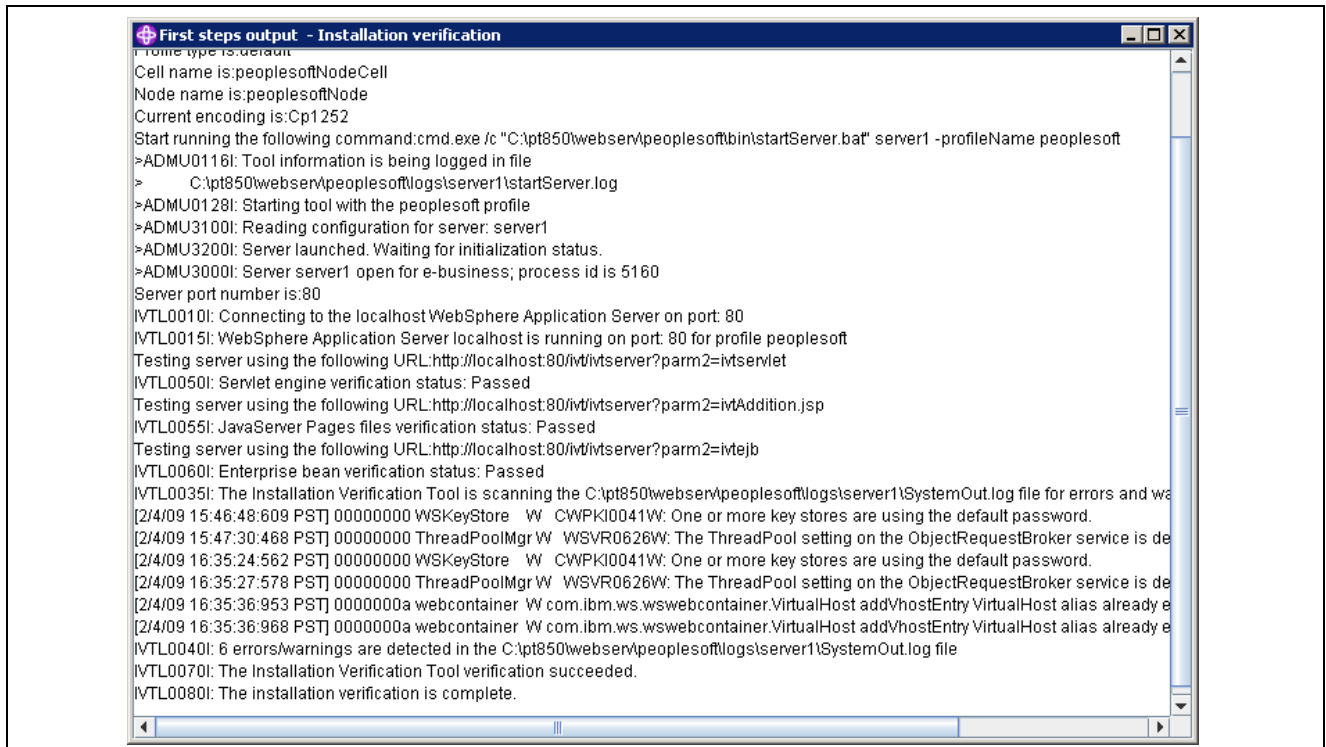
The following example shows the First steps window for the default profile *peoplesoft*:



WebSphere Application Server First Steps window

2. Select the link Start the server.

If the server starts properly, a verification window appears, as in this example:



First steps output - Installation verification window

3. To verify whether the server was installed and can start properly, click the link Installation Verification on the First Step window.

Starting and Stopping IBM WebSphere Application Servers on UNIX or Linux

To start WebSphere ND on UNIX or Linux, use the following command:

```
<PIA_HOME>/webserv/<profile_name>/bin/startServer.sh <server_name>
```

For example:

```
/home/pt850/webserver/peoplesoft/bin/startServer.sh server1
```

To stop WebSphere ND, use the following command:

```
<PIA_HOME>/webserv/<profile_name>/bin/stopServer.sh <server_name>
```

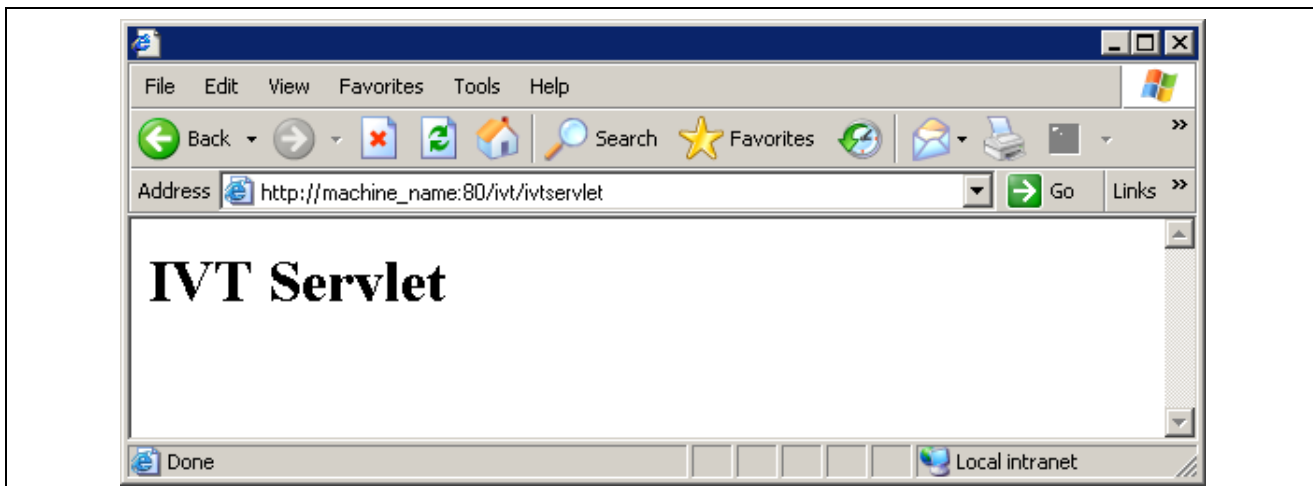
Verifying the IBM WebSphere Installation

Use this method to verify the WebSphere ND and PIA installation for both Windows and UNIX.

To verify the WebSphere ND and PIA installation, copy the following URL into a browser address bar, substituting your machine name and the http port number:

```
http://<machine_name>:<http_port>/ivt/ivtservlet
```

You should see the following message:



IVT Servlet window

You should also sign into the PeopleSoft application, as described in the next section, to verify the installation.

Task 10A-3-3: Accessing the PeopleSoft Signon

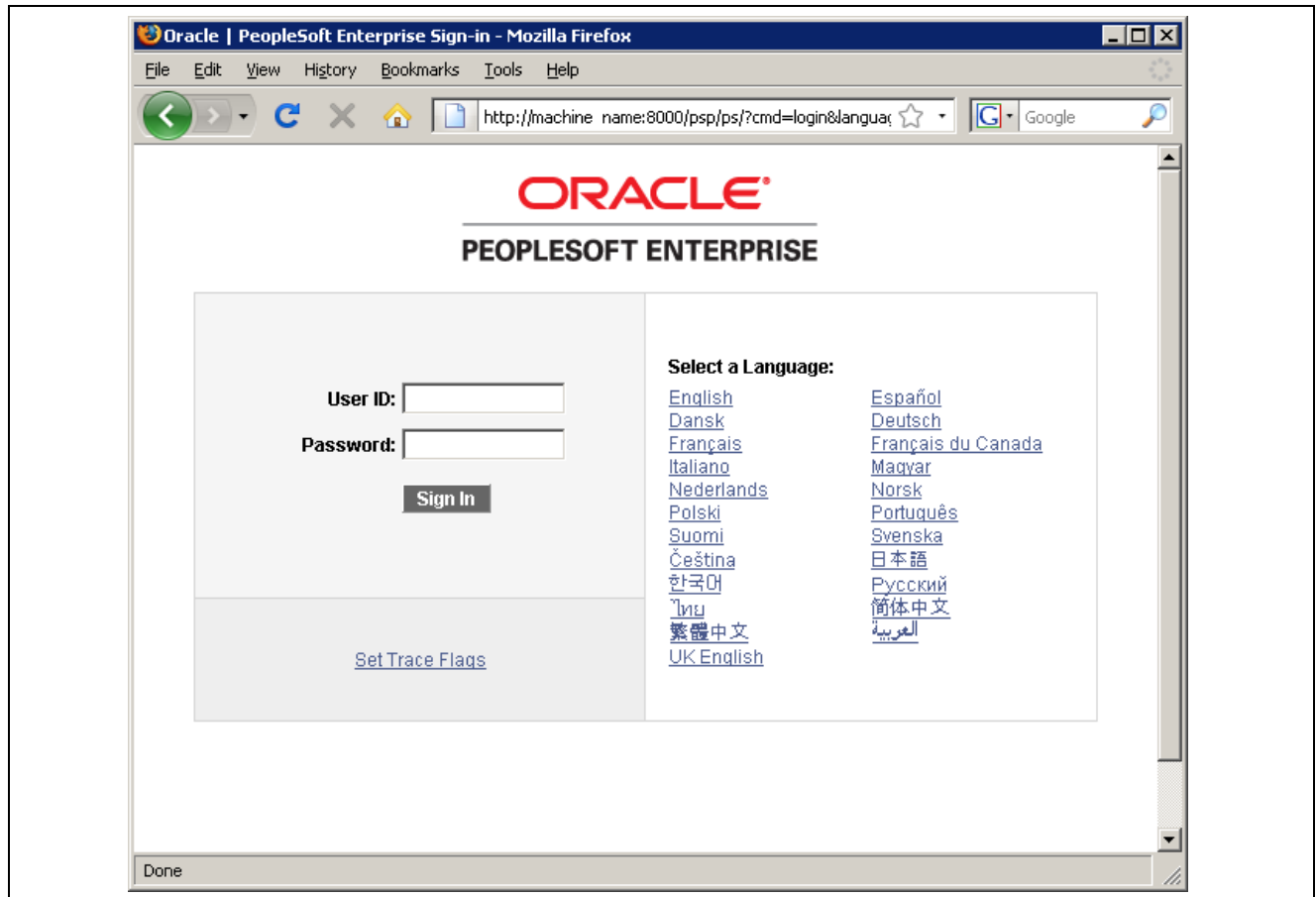
To access the PeopleSoft signon:

1. Open your web browser.
2. Enter the name of the site you want to access—for example (the default value for *<site_name>* is ps):

`http://<machine_name>:<http_port>/<site_name>/signon.html`

Note. PeopleSoft Pure Internet Architecture installed on IBM WebSphere server listens at the HTTP/HTTPS ports specified during the PeopleSoft Pure Internet Architecture install. Invoke PeopleSoft Pure Internet Architecture through a browser by using the specified HTTP or HTTPS ports—that is, `http://<WebSphere_machine_name>:<server_port>/<site_name>/signon.html` (if AuthTokenDomain is not specified) or `http://<WebSphere_machine_name.mycompany.com>:<server_port>/<site_name>/signon.html` (if you specified .mycompany.com as the AuthTokenDomain).

This will take you to the signon screen corresponding to your browser's language preference.



Oracle PeopleSoft Enterprise Sign in window

Note. If you do not see the signon screen, check that you supplied all the correct variables and that your application server and the database server are running.

3. Sign in to the PeopleSoft system by entering a valid user ID and password.

Note. The user ID and password are case sensitive. You need to enter the user ID and password using UPPERCASE characters.

Different applications use different default user IDs and passwords. For instance, for HRMS applications you enter PS for the user ID and the password. For Financials applications, you enter VP1 for the user ID and the password. Your application-specific install instructions contain any custom, delivered user IDs that you should use for the demonstration environment.

Task 10A-4: Completing Post-Installation Steps

This section discusses:

- Updating the Installation Table
- Updating PeopleTools Options

- Updating Database Information

Task 10A-4-1: Updating the Installation Table

After you complete the installation process, creating the database, installing the Application Server, and installing the PeopleSoft Pure Internet Architecture, you must complete this additional step. The license codes from the Oracle license code site mentioned earlier install all products available in the installation package. This post-installation step ensures that only the products for which you are licensed are active in the installation. The location of the installation table in the PeopleSoft Pure Internet Architecture menu varies depending upon the application that you installed.

To update the installation table:

1. Sign on to the PeopleSoft Pure Internet Architecture in a browser.
2. Select Setup *Application_name* (where *Application_name* is the PeopleSoft application you installed), Install, Installation Table.
Select the Products tab.
3. Clear the check boxes for the products for which you have not obtained a license.

See Also

"Using the PeopleSoft Installer," Obtaining License Codes

Accessing the PeopleSoft Signon

Task 10A-4-2: Updating PeopleTools Options

You can set the following options on the PeopleTools Options page:

- Multi-Currency — Select this check box if you plan to use currency conversion.
See Enterprise PeopleTools 8.50 PeopleBook: Global Technology, "Controlling Currency Display Format."
- Base Time Zone — Enter a value for the base time zone for your PeopleTools database.
See Enterprise PeopleTools 8.50 PeopleBook: Global Technology "Setting and Maintaining Time Zones."
- Data Field Length — Select one of the following values:
 - Others — If you are using a Unicode-encoded database or a non-Unicode SBCS database.
 - MBCS — If you are running a non-Unicode Japanese database.
See Enterprise PeopleTools 8.50 PeopleBook: Global Technology, "Selecting and Configuring Character Sets and Language Input and Output."
- Sort Order Option — If you specified a non-binary sort order for your database, choose the Sort Order Option that most closely approximates your database sort order.

See Enterprise PeopleTools 8.50 PeopleBook: Global Technology, "Sorting in PeopleTools."

Task 10A-4-3: Updating Database Information

The database information updated in this procedure is used by the PeopleSoft software update tools to identify your PeopleSoft database when searching for updates. These steps should be followed for all additional databases that you create to enable the accurate identification of your databases.

1. Sign on to your PeopleSoft database.
2. Navigate to PeopleTools, Utilities, Administration, PeopleTools Options.
3. Specify long and short names for your environment. For example:
 - Environment Long Name — Customer HR Demo Database
 - Environment Short Name — HR Demo DB
4. Select a system type from the drop-down list. For example, Demo Database.
5. Save your changes.

CHAPTER 10B

Setting Up the PeopleSoft Pure Internet Architecture in Console Mode

This chapter discusses:

- Understanding PeopleSoft Pure Internet Architecture
- Using Authentication Domains in the PeopleSoft Pure Internet Architecture Installation
- Installing the PeopleSoft Pure Internet Architecture on Oracle WebLogic in Console Mode
- Installing the PeopleSoft Pure Internet Architecture on IBM WebSphere in Console Mode
- Testing the PeopleSoft Pure Internet Architecture Installation
- Completing Post-Installation Steps

Understanding PeopleSoft Pure Internet Architecture

This chapter explains how to install and configure the components of the PeopleSoft Pure Internet Architecture in console mode. It includes instructions for installing the PeopleSoft files on Oracle WebLogic and IBM WebSphere. Only complete the instructions for the web server product that you installed.

Note. The console mode installation is typically used on UNIX platforms.

See "Installing Web Server Products."

The setup program for the PeopleSoft Pure Internet Architecture is installed to the web server machine when you run the PeopleSoft Installer and select the PeopleSoft Web Server option.

See "Using the PeopleSoft Installer."

Oracle only supports customer installations that use the version of the web servers packaged with PeopleSoft PeopleTools. *You must install the web server before you install the PeopleSoft Pure Internet Architecture.* Before you install the PeopleSoft Pure Internet Architecture, you must also have configured an application server, as described in the previous chapter.

The location where you install the PeopleSoft Pure Internet Architecture is referred to in this documentation as *PIA_HOME*. You can specify different locations for *PS_HOME* and *PIA_HOME* unless you are planning to install PeopleBooks. In that case, use the same directory for *PS_HOME* and *PIA_HOME*. After you complete the PeopleSoft Pure Internet Architecture installation, you can locate the installation files in the directory *PIA_HOME/webserv*. The directory and path that you specify for *PIA_HOME* or *PS_HOME* must *not* include spaces.

See "Preparing for Installation," Defining Installation Locations.

Before performing the steps in this chapter, verify that Sun's international version of JRE version 6 or higher is properly installed on the system and its path is in the system's environment variable PATH.

If your web server is on a different machine than your application server, you need to make sure you have JRE installed on your web server to run the PeopleSoft Pure Internet Architecture installation.

The initial PeopleSoft Pure Internet Architecture setup automatically creates the default PeopleSoft site named *ps*. In subsequent PeopleSoft Pure Internet Architecture setups, change the site name from *ps* to a unique value. We recommend using the database name. This is handy for easy identification and ensures that the database web server files are installed in a unique web site.

The URL that you use to invoke the PeopleSoft Pure Internet Architecture must conform to ASN.1 specifications. That is, it may contain only alphanumeric characters, dots ("."), or dashes ("-"). The URL must not begin or end with a dot or dash, or contain consecutive dots (".."). If the URL includes more than one portion, separated by dots, do not use a number to begin a segment if the other segments contain letters. For example, "mycompany.second.country.com" is correct, but "mycompany.2nd.country.com" is wrong.

Note. If you want to connect between multiple application databases, you need to implement single signon.

Note. If the PeopleSoft Pure Internet Architecture installation encounters an error, it will indicate which log files to refer to.

See "Installing Web Server Products."

Note. The machine on which you run the PeopleSoft Pure Internet Architecture install must be running in *256 color mode*. This is not necessary for UNIX or console mode.

Note. We do not support web servers on z/OS.

Note. If you encounter the error message "No Matching JVM," you need to specify the location of the Java Runtime Environment (JRE) to the installer using the `-javahome` command line parameter; for example:
`<PS_HOME>/setup/PsMpPIAInstall/setup.sh -tempdir <temporary_directory> -javahome <jredir>.`

The PeopleSoft Pure Internet Architecture installation includes the following products:

- *PeopleSoft Pure Internet Architecture.* This product is the centerpiece of the PeopleSoft architecture that enables users to work on a machine with only a supported browser installed. This option installs the servlets required for deploying PeopleSoft Applications and for the PeopleSoft Portal. The portal packs and Enterprise Portal have their own installation instructions, which are available on My Oracle Support. For an overview of the various types of portals, consult the following.

See *Enterprise PeopleTools 8.50 PeopleBook: PeopleTools Portal Technology*.

- *PeopleSoft Report Repository.* This product works in conjunction with Process Scheduler to allow report distribution over the web.
- *PeopleSoft Integration Gateway.* This product is the entry and exit point for all messages to and from the Integration Broker. Its Java-based Connector architecture allows asynchronous and synchronous messages to be sent over a variety of standard protocols, many that are delivered at install, or through custom connectors.

Important! For PeopleSoft PeopleTools 8.50 and higher, review the section on security properties for Integration Gateway. When setting the properties in the `integrationGateways.properties` file, the property `secureFileKeystorePasswd` must be encrypted, and the `secureFileKeystorePath` must be set.

See *Enterprise 8.50 PeopleBook: Integration Broker Administration*, "Managing Integration Gateways."

- *PeopleSoft CTI Console*. This product works in conjunction with CTI vendor software to enable call center agents to take advantage of browser based teleset management and automatic population of application pages with relevant data associated with incoming calls, such as customer or case details.

See *Enterprise PeopleTools 8.50 PeopleBook: PeopleSoft MultiChannel Framework*.

- *Environment Management Hub*. The Environment Management hub is a web application that is installed with the PeopleSoft Pure Internet Architecture and portal. It is started along with the rest of the web applications when the user boots the web server. You cannot start the Environment Management Hub on a server that is configured to run HTTPS; in other words, if you plan to run Environment Management, your PIA server needs to be configured in HTTP mode.

See *Enterprise PeopleTools 8.50 PeopleBook: PeopleSoft Change Assistant*.

See Also

Enterprise PeopleTools 8.50 PeopleBook: Security Administration

Enterprise PeopleTools 8.50 PeopleBook: System and Server Administration

Using Authentication Domains in the PeopleSoft Pure Internet Architecture Installation

You have the option to specify an authentication domain when you install the PeopleSoft Pure Internet Architecture on Oracle WebLogic or WebSphere.

Note. The authentication domain was referred to as the Authentication Token Domain in previous releases, and that term is still seen in the software.

When an authentication domain is specified during the PeopleSoft Pure Internet Architecture install, that value gets used as the Cookie domain in the web server configuration. The main requirements when setting a cookie domain are:

- The host must have a fully qualified domain name (FQDN). The requirement that you must have a domain name does not imply that you must have a DNS, but you do need some type of naming service such as DNS or some managed `../etc/hosts` file that contains a list of the servers with their domain name.
- The cookie domain value being set must begin with a dot (`.ps.com` is valid, `ps.com` is NOT valid).
- The cookie domain value being set must contain at least 1 embedded dot (`.ps.com` is valid, `.corp.ps.com` is valid, `.com` is NOT valid).
- The cookie domain value can only be a single domain name. It cannot be a delimiter-separated list of domains.

By default, the browser only sends cookies back to the machine that set the cookie. So if web server `crm.yourdomain.com` sets a cookie, the browser will only send it back there. You can make the browser send the single signon cookie to all servers at `yourdomain.com` by typing your domain name in the Authentication Token Domain list box of web server `crm`.

Specifying the authentication domain may be necessary in certain cases. For example, if you plan to use the PeopleSoft portal technology, be sure to read the supporting documentation to determine whether setting the authentication domain is required for correct operation.

See *Enterprise PeopleTools 8.50 PeopleBook: PeopleTools Portal Technology*, "Configuring the Portal Environment."

Specify an authentication domain if you plan to run a REN Server. REN Servers are required for PeopleSoft MultiChannel Framework, Reporting, and some PeopleSoft CRM applications supported by PeopleSoft MultiChannel Framework.

See *Enterprise PeopleTools 8.50 PeopleBook: PeopleSoft MultiChannel Framework*.

Specify an authentication domain if you plan to use Business Objects Enterprise.

See "Installing and Configuring Software for Crystal Reports," "Installing BusinessObjects Enterprise XI."

Task 10B-1: Installing the PeopleSoft Pure Internet Architecture on Oracle WebLogic in Console Mode

This section describes how to install the PeopleSoft Pure Internet Architecture on Oracle WebLogic. PeopleSoft PeopleTools 8.50 supports Oracle WebLogic 10.3.1.

See *Enterprise PeopleTools 8.50 PeopleBook: System and Server Administration*, "Working with Oracle WebLogic."

To install the PeopleSoft Pure Internet Architecture on Oracle WebLogic:

1. Change directory to `PS_HOME/setup/PsMpPIAInstall` and run one of these commands:

```
setup.sh -tempdir <temporary_directory>
```

See "Using the PeopleSoft Installer," Prerequisites.

A welcome message appears.

2. Press ENTER at the Welcome prompt to continue.

```
Welcome to the InstallShield Wizard for PeopleSoft Internet Architecture.
Using the InstallShield Wizard you will install PeopleSoft Internet=>
Architecture on your computer.
```

```
Version: 8.50
```

```
If installing onto a BEA WebLogic Server, make sure to shutdown any running=>
webservers to avoid web server configuration.
```

```
Press 1 for Next, 3 to Cancel, or 5 to Redisplay [1]/
```

3. Enter the directory where you want to install the PeopleSoft Pure Internet Architecture, referred to here as `PIA_HOME`.

Note. If you want to install PeopleBooks, specify the location of your *PS_HOME* here.

Choose the directory where you wish to deploy the PeopleSoft Pure Internet⇒
Architecture:

Please specify a directory name or press Enter
[/home/PT850]:

4. Enter *I* to select the Oracle WebLogic Server.

Choose the installation type that best suits your needs
->1- Oracle WebLogic Server
2- IBM WebSphere Server

To select an item enter its number, or 0 when you are finished [0]:

5. Enter the top-level directory where Oracle WebLogic is installed.

Select the web server root directory [/opt/bea]: /data4/WLS_HOME

Detected web server version: WebLogic 10.3.1

Note. You will get an error message if you specify a directory that does not contain Oracle WebLogic, or that contains an incorrect Oracle WebLogic version.

6. Enter the administrator login and password for your Oracle WebLogic domain, or accept the default values. Press ENTER to continue.

Note. The default login ID is system, and the default password is Passw0rd (with a capital “P” and zero rather than the letter “o”).

Please enter the administrator login and password for WebLogic domain.

Login ID [system]:

Password [Passw0rd]:

Re-type Password [Passw0rd]:

At the next prompt you must choose whether to create a new Oracle WebLogic domain or to use an existing domain.

7. If you select Create New WebLogic domain, the installation process automatically generates a valid domain name in the domain name field.

If you attempt to enter an invalid domain name, you see a prompt asking you to enter a new domain name or choose an existing domain.

Enter domain name or click Next to select default [peoplesoft]:

8. If you select Existing WebLogic Domain, specify the domain name and select one of these options:

Note. You only see the option Existing WebLogic Domain if there is already a domain in *PIA_HOME*.

- *Install additional PeopleSoft site*

This option is relevant only to the PeopleSoft PORTAL web application, and does not modify or revert any other configuration settings. Select this option to install only the necessary files for defining an additional PeopleSoft site onto an existing Oracle WebLogic configuration. The new site will be accessed using its name in the URL. A site named “CRM” would be accessed using a URL similar to `http://<mywebserver_machine>/CRM`. To reset or re-create an existing PeopleSoft site, simply enter that site's name as the site to create. On your web server, a PeopleSoft site is comprised of the following directories within the PORTAL web application:

`<WEBLOGIC_DOMAIN>/applications/peoplesoft/PORTAL/<site>/*`

`<WEBLOGIC_DOMAIN>/applications/peoplesoft/PORTAL/WEB-INF/psftdocs/<site>/*`

- *Redeploy PeopleSoft Internet Architecture*

This selection affects all of the PeopleSoft Pure Internet Architecture web applications installed to the local Oracle WebLogic domain. Select this option to redeploy all of the class files and jar files that comprise web components of PeopleSoft Pure Internet Architecture. Oracle WebLogic Server configuration files, scripts and any existing PeopleSoft (PORTAL) sites are not overwritten, unless you specify an existing PeopleSoft site during this setup.

- *Re-create WebLogic domain and redeploy PeopleSoft Internet Architecture*

This option affects Oracle WebLogic Server configuration and all of the PeopleSoft Pure Internet Architecture web applications installed to the local Oracle WebLogic domain. Select this option to completely remove an existing Oracle WebLogic domain and create the newly specified PeopleSoft site.

Warning! Re-creating an existing domain will delete everything previously installed into that domain, including PeopleBooks. If you choose to re-create—instead of redeploying—a domain, you may first want to back up your PeopleBooks *docroot* directory (typically, *html/doc*) below the PSOL directory. You can then restore it after the PeopleSoft Pure Internet Architecture installation.

See *Enterprise PeopleTools 8.50 PeopleBook: PeopleTools Portal Technology*.

- *Deploy additional PeopleSoft application extensions*

This option is solely for use with PeopleSoft applications. PeopleSoft application extensions are provided with certain PeopleSoft applications, and this option allows you to deploy those extensions. Consult the installation documentation for your PeopleSoft application to see if this option is appropriate. PeopleSoft PeopleTools does not use application extensions.

9. Specify the name of the domain.
10. If there are application packages in the archives directory, select whether you want to deploy them. (If you are using an existing domain, you see a prompt for this only if you elected to Deploy Additional PeopleSoft Extensions.)
11. Select the type of domain to create—single server, multi server, or distributed managed server.

Note. You must select *Multi Server Domain* if you plan to host PeopleBooks on the web server on which you are installing the PeopleSoft Pure Internet Architecture.

Please select the configuration to install.

->1- Single Server Domain

- 2- Multi Server Domain
- 3- Distributed Managed Server

There are three domain configuration options:

- *Single Server Domain*

This domain configuration contains one server, named PeopleSoft Pure Internet Architecture and the entire PeopleSoft enterprise application is deployed to it. This configuration is intended for single user or very small scale, nonproduction environments. This configuration is very similar to the Oracle WebLogic domain provided in PeopleSoft PeopleTools 8.40 through 8.44.

- *Multi Server Domain*

This domain configuration contains seven unique server definitions, a Oracle WebLogic cluster, and the PeopleSoft Enterprise Application split across multiple servers. This configuration is the intended for a production environment.

- *Distributed Managed Server*

This option is an extension of the Multi Server Domain selection and installs the necessary files to boot a managed server. This option requires a Multi Server installation to be performed to some other location, which will contain the configuration for this managed server.

12. Enter a PeopleSoft web site name; the default is ps.

Warning! The site name can include underscores (_), but an underscore cannot be followed by a numeric character or the string "newwin" (for example, my_site_3 or my_newwin_site).

Please specify a name for the PeopleSoft web site:

Website name [ps]:

13. Specify your application server name, its JSL (Jolt Station Listener) port number, its HTTP and HTTPS port numbers, the Authentication Token Domain (optional).

Enter port numbers and summaries.

AppServer name [APPSRVNAME]:

JSL Port [9000]:

HTTP Port [80]:

HTTPS Port [443]:

Authentication Token Domain (optional) []:

- *AppServer name*

For the AppServer name setting, enter the name of your application server.

See "Configuring the Application Server on <Windows or UNIX>."

See "Understanding the PeopleSoft Pure Internet Architecture."

- *JSL Port*

For the JSL port setting, enter the JSL port number you specified when setting up your application server. (The default value is 9000.)

- *HTTP and HTTPS Port*

The values for the HTTP and HTTPS ports should be greater than 1024. Any port number less than 1024 is reserved and only Root has access to it.

- *Authentication Token Domain*

The value you enter for the Authentication Token Domain must match the value you specify when configuring your application server, as described earlier in this book. In addition, certain installation configurations require that you specify an authentication domain.

See Using Authentication Domains in the PeopleSoft Pure Internet Architecture Installation.

If you enter a value for the Authentication Token Domain, the URL to invoke PeopleSoft Pure Internet Architecture must include the network domain name in the URL. For example, if you do not enter an authentication domain, the URL to invoke PeopleSoft Pure Internet Architecture is `http://MachineName/ps/signon.html`. If you do enter a value for authentication domain (for example, `.myCompany.com`), the URL to invoke PeopleSoft Pure Internet Architecture is `http://MachineName.myCompany.com/ps/signon.html`. In addition, if the web server for the database is using an http port other than the default port of 80, the URL must include the port number, for example `http://MachineName:8080/ps/signon.html` if there is no authentication domain, or `http://MachineName.myCompany.com:8080/ps/signon.html` if there is an authentication domain. The URL must also comply with the naming rules given earlier in this chapter.

14. Enter the name of the web profile name in the database that will be used to configure this PeopleSoft web site.

This can either be the name of one of the preset web profiles shown on the page, or one you intend to create yourself after installing and logging in to PIA, using the command PeopleTools, Web Profile Configuration. Each site is configured according to the profile you specify here when it is first accessed after the web server is booted. The user ID and password will be used by the PIA servlets themselves at runtime to log in to the application server to retrieve the profile. For applications on PeopleSoft PeopleTools 8.44 and above, Oracle delivers the PTWEBSEVER user ID for the purpose of configuring PIA servlets at runtime and running the Performance Monitor Agents. You may have to unlock that user profile in certain application databases. If you have any problems logging in after starting the web server, refer to the application server domain logs.

See *Enterprise PeopleTools 8.50 PeopleBook: PeopleTools Portal Technology*.

Please enter the Name of the Web Profile used to configure the web server. The⇒
user id and password will be used to retrieve the web profile from the⇒
database. (NOTE: Other available preset web profile names are "TEST", "PROD",⇒
and "KIOSK".)

Web Profile Name [DEV]:

User ID [PTWEBSEVER]:

Password [PTWEBSEVER]:

Re-type Password [PTWEBSEVER]:

Note. If you are upgrading your application database to PeopleSoft PeopleTools 8.44 and above, you must set up the PTWEBSEVER user ID. Go to PeopleTools, Security, User Profiles, User Profiles. Click Add a New Value, enter PTWEBSEVER for User ID, and click Add. Enter and confirm a password, and enter a description. Enter the role *PeopleTools Web Server* and then click Save.

15. Specify the root directory for the Report Repository.

The default directory is `<user_home>/PeopleSoft Internet Architecture/psreports`, where `<user_home>` is the home directory for the current user.

You must have write access to the specified directory.

Note. In setting up the Process Scheduler to transfer reports, if you choose the FTP protocol, use the same directory for the Home Directory as you use here for the report repository.

See "Setting Up Process Scheduler," Setting Up the Process Scheduler to Transfer Reports and Logs to Report Repository.

Select the Report Repository location:

Please specify a directory name or press Enter `[/ds1/home/PeopleSoft Internet⇒ Architecture/psreports]:`

16. Verify all of your selections and press Enter to begin the installation.

You see a progress indicator showing the progress of your installation.

17. When the installation is complete, exit from the console window.

The default installation directory is `<PIA_HOME>/websrv/<domain>/`, where `<domain>` is the web server domain (peoplesoft by default).

Task 10B-2: Installing the PeopleSoft Pure Internet Architecture on IBM WebSphere in Console Mode

This section discusses:

- Prerequisites
- Installing the PeopleSoft Pure Internet Architecture on IBM WebSphere Application Server ND
- Uninstalling the PeopleSoft Pure Internet Architecture from IBM WebSphere

Prerequisites

The information in this section applies to the installation of PeopleSoft Pure Internet Architecture on an IBM WebSphere Application Server.

Each IBM WebSphere Application Server runs one PeopleSoft Pure Internet Architecture application. If you need to install more than one PeopleSoft Pure Internet Architecture application on your WebSphere Application Server, you must run PIA install again.

See Also

"Installing Web Server Products," Installing IBM WebSphere

Task 10B-2-1: Installing the PeopleSoft Pure Internet Architecture on IBM WebSphere Application Server ND

Before installing the PeopleSoft Pure Internet Architecture (PIA) on WebSphere Application Server (WAS), you must have installed the WAS software.

See "Installing Web Server Products," Installing IBM WebSphere Application Server.

When installing PIA on WAS, you must work with a local copy of the PIA installation software; you cannot install remotely. If you are doing the installation on a machine other than the one on which you installed PeopleSoft PeopleTools, copy the *PS_HOME\setup\PsmPPIAInstall* directory to the local machine.

Note. Both WebSphere Application Server Network Deployment and PeopleSoft Pure Internet Application must be installed and deployed using the same user id. This restriction has been put forth in order to avoid any security and manage profile creation issues.

To install the PeopleSoft Pure Internet Architecture on IBM WebSphere:

1. Change directory to *PS_HOME/setup/PsmPPIAInstall* and run this command:

```
setup.sh
```

A welcome message appears.

2. Select Enter to continue.
3. Choose the directory where you want to install the PeopleSoft Pure Internet Architecture, referred to in this documentation as *PIA_HOME*.

If you plan to install PeopleBooks, use your *PS_HOME* here.

4. At the prompt

```
->1- Oracle WebLogic Server
    2- IBM WebSphere Server
```

Enter 2, to select the IBM WebSphere Application Server.

5. At the following prompt

Select the WebSphere Application Server home:

```
Directory Name:
[/opt/IBM/WebSphere/AppServer]
```

Enter the directory where you installed WAS, or press ENTER to accept the default.

6. Enter an application name for this web server.
7. Select the type of server you want to install, and press ENTER to continue.

```
Select the server install type:
->1- Single Server Installation
```


2- Multi Server Installation

The Single Server Installation option creates one WebSphere Application Server profile to hold all the PeopleSoft web applications. The installer uses the Application Name you enter for the new profile's name.

The Multi Server Installation option creates a single profile with the name you entered above, *application_name*. The *application_name* profile includes three servers, which deploy discrete functionality and are found on different ports, as specified in the following table:

Server Name	Purpose	HTTP or HTTPS Port Number
server1	PORTAL applications	X
psemhub	PeopleSoft Environment Management Framework applications (PSEMHUB)	X+1
psol	PeopleSoft Online Library application (PSOL)	X+2

See *PeopleTools 8.50 PeopleBook: System and Server Administration*, "Working with IBM WebSphere."

8. If you enter a new name, for example, *peoplesoft*, press ENTER, skip the next two steps, and continue with step 11.
9. If the name you enter belongs to an WAS web application that already exists, for example, *jwong_single*, select one of the options below and press ENTER to continue.

The PeopleSoft application "jwong_single" already exists.

Select from the following:

- >1- Install additional PeopleSoft site
- 2- Redeploy PeopleSoft Internet Architecture
- 3- Deploy additional PeopleSoft application extensions

Note. Make sure the server is up and running before choosing any of the above options.

- *Install additional PeopleSoft site*

Select this option to install only the necessary files for defining an additional PeopleSoft site onto the existing WAS web server configuration.

- *Redeploy PeopleSoft Internet Architecture*

This selection affects all of the PeopleSoft Pure Internet Architecture web applications installed to the local WebSphere Application Server profile. Select this option to redeploy PeopleSoft Enterprise Application that comprise web components of PeopleSoft Pure Internet Architecture.

- *Deploy additional PeopleSoft application extensions*

This option is solely for use with PeopleSoft product applications. PeopleSoft application extensions are provided with certain PeopleSoft applications, and this option allows you to deploy those extensions. Consult the installation documentation for your PeopleSoft application to see whether this option is appropriate. PeopleSoft PeopleTools does not use application extensions.

10. If you select the option Deploy additional PeopleSoft application extension, select the application packages you want to deploy:

- >1- EMP PeopleSoft Activity Based Mgmt

11. Enter a web site name; the default is ps.

Warning! The site name can include underscores (_), but an underscore cannot be followed by a numeric character or the string “newwin” (for example, my_site_3 or my_newwin_site).

12. Specify your application server name, its JSL (Jolt Station Listener) port number, its HTTP and HTTPS port numbers, the authentication token domain (optional).

Enter port numbers and summaries.

AppServer name:

[<App Server Machine Name>]

JSL Port:

[9000]

HTTP Port:

[8000]

HTTPS Port:

[4430]

Authentication Token Domain:(optional) []

Note. For the AppServer name setting, enter the name of your application server. For the JSL port setting, enter the JSL port number you specified when setting up your application server. (The default value is 9000.)

See "Configuring the Application Server on UNIX."

Note. The HTTP/HTTPS port numbers are reset to those that you just specified when you restart your IBM WebSphere server.

Note. The value you enter for the Authentication Token Domain must match the value you specific when configuring your application server, as described earlier in this book. In addition, certain installation configurations require that you specify an authentication domain. See Using Authentication Domains in the PeopleSoft Pure Internet Architecture Installation.

Note. If you enter a value for the Authentication Token Domain, the URL to invoke PeopleSoft Pure Internet Architecture must include the network domain name in the URL. For example, if you do not enter an authentication domain, the URL to invoke PeopleSoft Pure Internet Architecture is `http://MachineName/ps/signon.html`. If you do enter a value for the authentication domain (for example, `.myCompany.com`), the URL to invoke PeopleSoft Pure Internet Architecture is `http://MachineName.myCompany.com/ps/signon.html`. In addition, if the web server for the database is using an HTTP port other than the default port of 9080, the URL must include the port number, for example `http://MachineName:8080/ps/signon.html` if there is no authentication domain, or `http://MachineName.myCompany.com:8080/ps/signon.html` if there is an authentication domain. The URL must also comply with the naming rules given earlier in this chapter.

See "Understanding the PeopleSoft Pure Internet Architecture."

13. Enter the name of the web profile in the database that will be used to configure this PeopleSoft web site.

This can either be the predelivered name as shown on the page, or one that you intend to create yourself after logging in to the PeopleSoft software, using the command PeopleTools, Web Profile Configuration. Each site is configured according to the profile you specify here when it is first accessed after the web server is booted. The user ID and password will be used by the PIA servlets themselves at runtime to log in to the application server to retrieve the profile. For applications on PeopleTools 8.44 and above, Oracle delivers the PTWEBSEVER user ID for the purpose of configuring PIA servlets at runtime and running the Performance Monitor Agents. You may have to unlock that user profile in certain application databases. If you have any problems logging in after starting the web server, refer to the application server domain logs.

See *Enterprise PeopleTools 8.50 PeopleBook: PeopleTools Portal Technology*.

Note. If you are upgrading your application database to PeopleSoft PeopleTools 8.44 and above, you must set up the PTWEBSEVER user ID. Go to PeopleTools, Security, User Profiles, User Profiles. Click Add a New Value, enter PTWEBSEVER for User ID, and click Add. Enter and confirm a password, and enter a description. Enter the role PeopleTools Web Server and then click Save.

14. Specify the root directory for the Report Repository.

You can install to any location, but the directory must have write access. The default directory is `<user_home>/PeopleSoft Internet Architecture/psreports`, where `<user_home>` is the home directory for the current user.

Note. In setting up the Process Scheduler to transfer reports, if you choose the FTP protocol, use the same directory for the Home Directory as you use here for the report repository.

See "Setting Up Process Scheduler," Setting Up the Process Scheduler to Transfer Reports and Logs to Report Repository.

15. Verify your selections and press Enter to start the installation. You see an indicator showing the progress of your installation.
16. When the installation is complete, exit from the console window.

The default installation directory is `<PIA_HOME>\webserv\<profile_name>`.

Task 10B-2-2: Uninstalling the PeopleSoft Pure Internet Architecture from IBM WebSphere

You cannot uninstall PeopleSoft Pure Internet Architecture simply by deleting `<PIA_HOME>/webserv/<profile_name>`, without uninstalling it from WebSphere Administration Console. If you do so, the WebSphere registry becomes corrupt, and subsequent attempts to install PeopleSoft Pure Internet Architecture will fail. Instead, if necessary, you must uninstall PeopleSoft Pure Internet Architecture on IBM WebSphere as described here:

To uninstall PeopleSoft Pure Internet Architecture on IBM WebSphere:

1. Open WebSphere Administration Console at `http://<machine-name>:9060/ibm/console`
2. Log in as any user.
3. Choose Applications, Enterprise Applications.
4. Select the check boxes for the PeopleSoft Pure Internet Architecture applications you want to uninstall, and click Stop.
5. Select the check boxes for the PeopleSoft Pure Internet Architecture applications you want to uninstall, and click Uninstall.
6. Save your configuration.
7. Stop WebSphere server using the following commands:

On Windows:

```
<PIA_HOME>\webserv\<profile_name>\bin\stopServer.bat server1
```

On UNIX:

```
<PIA_HOME>\webserv\<profile_name>\bin\stopServer.sh server1
```

8. In addition to uninstalling the application, you need to remove the WebSphere Application Server profile (that was created during PIA install) to complete the PIA uninstallation.

To uninstall profile run the following steps:

- a. Go to `<PIA_HOME>/webserv/<profile_name>/bin`
- b. Run the following command:

On Windows:

```
manageprofiles.bat -delete -profileName <profile_name>
```

On UNIX:

```
manageprofiles.sh -delete -profileName <profile_name>
```

where `<profile_name>` indicates the application name that you have selected during the PIA install.

- c. Delete the directory `<PIA_HOME>/webserv/<profile_name>`

Task 10B-3: Testing the PeopleSoft Pure Internet Architecture Installation

This section discusses:

- Starting and Stopping Oracle WebLogic
- Starting and Stopping IBM WebSphere Application Servers
- Accessing the PeopleSoft Signon

Note. After installing the PeopleSoft Pure Internet Architecture, you should make sure that your configuration is functional. You can test this by signing on to PeopleSoft, navigating within the menu structure, and accessing pages. (Make sure the application server is configured and booted.)

Task 10B-3-1: Starting and Stopping Oracle WebLogic

If you are using the Oracle WebLogic web server, you need to sign on to Oracle WebLogic. If you are using IBM WebSphere instead, go on to the next procedure.

Note. Starting from Oracle WebLogic 9.2 and later releases, all the Life-cycle management scripts and other batch scripts for the PIA server on Oracle WebLogic are located in `<PIA_HOME>\webserv\<domain_name>\bin` folder.

To start Oracle WebLogic:

1. To start Oracle WebLogic Server as a foreground process, execute the following command in your Oracle WebLogic domain directory (the default directory is `<PIA_HOME>\webserv\<domain_name>\bin`):

- *Single Server:*

```
startPIA.cmd (on Windows)
startPIA.sh (on UNIX)
```

- *Multi Server or Distributed Server:*

```
startWebLogicAdmin.cmd (on Windows)
startWebLogicAdmin.sh (on UNIX)
```

and then

```
startManagedWebLogic.cmd <ManagedServerName> (on Windows)
startManagedWebLogic.sh <ManagedServerName> (on UNIX)
```

2. To stop the server, execute the following command in your Oracle WebLogic domain directory:

Single Server:

```
stopPIA.cmd (on Windows)
stopPIA.sh (on UNIX)
```

Multi Server or Distributed Server:

```
stopWebLogic.cmd [-url t3://ServerHostName:port | <ManagedServerName>] (on⇒
Windows)
stopWebLogic.sh [-url t3://ServerHostName:port | <ManagedServerName>] (on UNIX)
```

See *Enterprise PeopleTools 8.50 PeopleBook: PeopleTools Portal Technology*.

Task 10B-3-2: Starting and Stopping IBM WebSphere Application Servers

This section discusses:

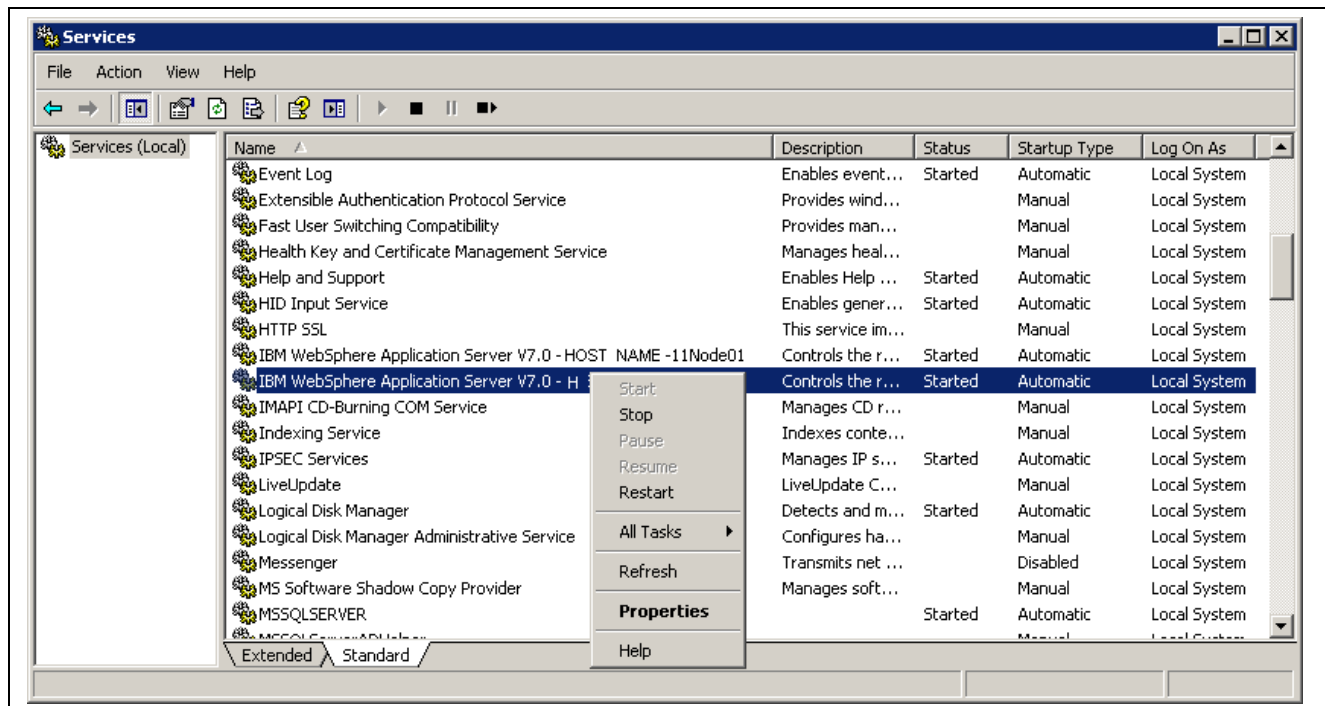
- Starting and Stopping IBM WebSphere Application Servers on Windows
- Starting and Stopping IBM WebSphere Application Servers on UNIX or Linux
- Verifying the IBM WebSphere Installation

Starting and Stopping IBM WebSphere Application Servers on Windows

To start and stop the WebSphere Application Server Network Deployment 7.0 (WebSphere ND), use one of these methods:

Windows service

If you selected the *Typical Profile creation* using the profile management tool when installing WebSphere ND, the installation should have added a system service to run the application server on your system called “IBM WebSphere Application Server V7.0”, as shown in this example:



IBM WebSphere Application Server V7.0 Windows service

Right-click on the service name and use the Start, Stop, or other commands on the menu.

WebSphere First Steps utility

1. Select Start, Programs, IBM WebSphere, Application Server Network Deployment V7.0, Profiles, <profile_name>, First steps.

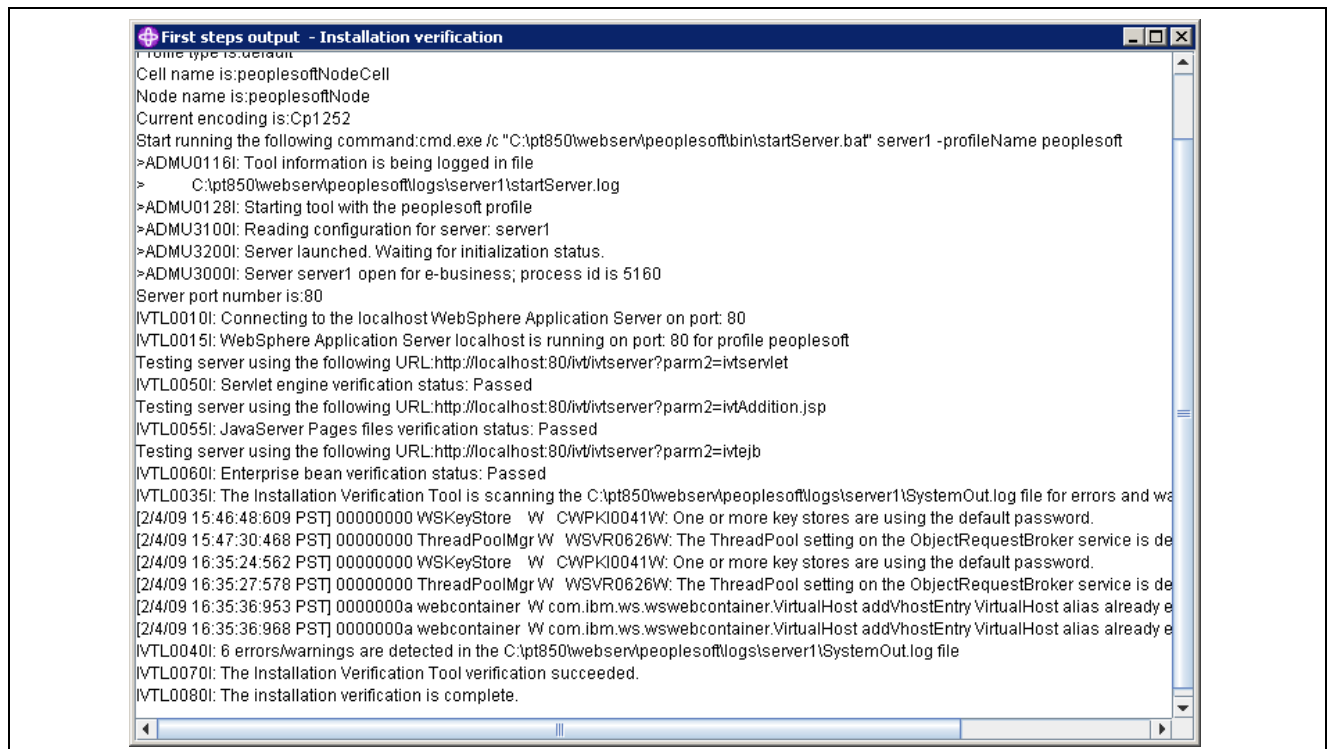
The following example shows the First steps window for the default profile *peoplesoft*:



WebSphere Application Server First Steps window

2. Select the link Start the server.

If the server starts properly, a verification window appears, as in this example:



First steps output - Installation verification window

3. To verify whether the server was installed and can start properly, click the link Installation Verification on the First Step window.

Starting and Stopping IBM WebSphere Application Servers on UNIX or Linux

To start WebSphere ND on UNIX or Linux, use the following command:

```
<PIA_HOME>/websrv/<profile_name>/bin/startServer.sh <server_name>
```

For example:

```
/home/pt850/webserver/peoplesoft/bin/startServer.sh server1
```

To stop WebSphere ND, use the following command:

```
<PIA_HOME>/websrv/<profile_name>/bin/stopServer.sh <server_name>
```

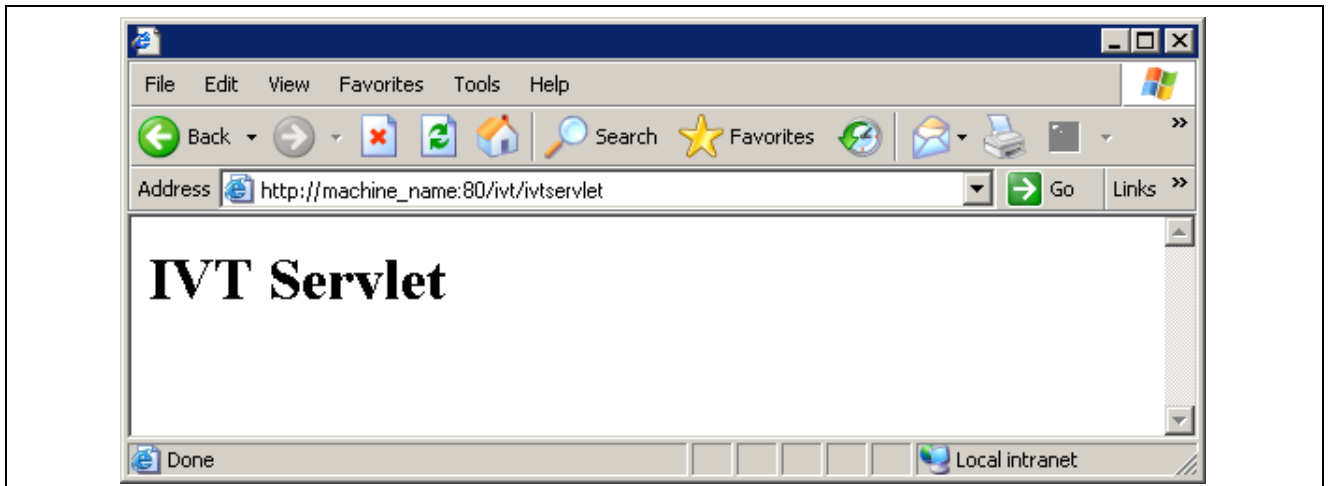
Verifying the IBM WebSphere Installation

Use this method to verify the WebSphere ND and PIA installation for both Windows and UNIX.

To verify the WebSphere ND and PIA installation, copy the following URL into a browser address bar, substituting your machine name and the http port number:

```
http://<machine_name>:<http_port>/ivt/ivtservlet
```

You should see the following message:



IVT Servlet window

You should also sign into the PeopleSoft application, as described in the next section, to verify the installation.

Task 10B-3-3: Accessing the PeopleSoft Signon

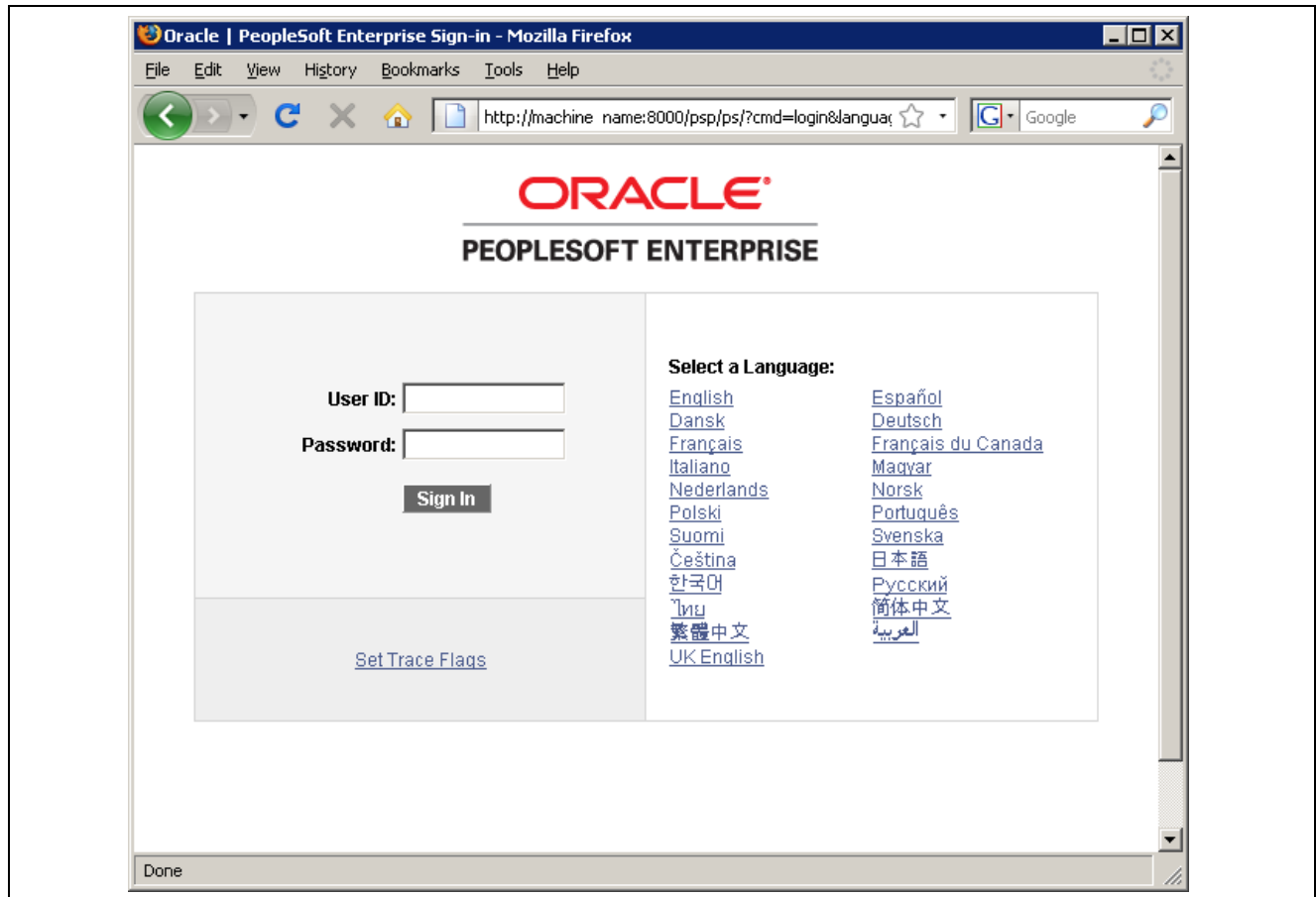
To access the PeopleSoft signon:

1. Open your web browser.
2. Enter the name of the site you want to access—for example (the default value for *<site_name>* is ps):

`http://<machine_name>:<http_port>/<site_name>/signon.html`

Note. PeopleSoft Pure Internet Architecture installed on IBM WebSphere server listens at the HTTP/HTTPS ports specified during the PeopleSoft Pure Internet Architecture install. Invoke PeopleSoft Pure Internet Architecture through a browser by using the specified HTTP or HTTPS ports—that is, `http://<WebSphere_machine_name>:<server_port>/<site_name>/signon.html` (if AuthTokenDomain is not specified) or `http://<WebSphere_machine_name.mycompany.com>:<server_port>/<site_name>/signon.html` (if you specified .mycompany.com as the AuthTokenDomain).

This will take you to the signon screen corresponding to your browser's language preference.



Oracle PeopleSoft Enterprise Sign in window

Note. If you do not see the signon screen, check that you supplied all the correct variables and that your application server and the database server are running.

3. Sign in to the PeopleSoft system by entering a valid user ID and password.

Note. The user ID and password are case sensitive. You need to enter the user ID and password using UPPERCASE characters.

Different applications use different default user IDs and passwords. For instance, for HRMS applications you enter PS for the user ID and the password. For Financials applications, you enter VP1 for the user ID and the password. Your application-specific install instructions contain any custom, delivered user IDs that you should use for the demonstration environment.

Task 10B-4: Completing Post-Installation Steps

This section discusses:

- Updating the Installation Table
- Updating PeopleTools Options

- Updating Database Information

Task 10B-4-1: Updating the Installation Table

After you complete the installation process, creating the database, installing the Application Server, and installing the PeopleSoft Pure Internet Architecture, you must complete this additional step. The license codes from the Oracle license code site mentioned earlier install all products available in the installation package. This post-installation step ensures that only the products for which you are licensed are active in the installation. The location of the installation table in the PeopleSoft Pure Internet Architecture menu varies depending upon the application that you installed.

To update the installation table:

1. Sign on to the PeopleSoft Pure Internet Architecture in a browser.
2. Select Setup *Application_name* (where *Application_name* is the PeopleSoft application you installed), Install, Installation Table.
Select the Products tab.
3. Clear the check boxes for the products for which you have not obtained a license.

See Also

"Using the PeopleSoft Installer," Obtaining License Codes

Accessing the PeopleSoft Signon

Task 10B-4-2: Updating PeopleTools Options

You can set the following options on the PeopleTools Options page:

- Multi-Currency — Select this check box if you plan to use currency conversion.
See Enterprise PeopleTools 8.50 PeopleBook: Global Technology, "Controlling Currency Display Format."
- Base Time Zone — Enter a value for the base time zone for your PeopleTools database.
See Enterprise PeopleTools 8.50 PeopleBook: Global Technology "Setting and Maintaining Time Zones."
- Data Field Length — Select one of the following values:
 - Others — If you are using a Unicode-encoded database or a non-Unicode SBCS database.
 - MBCS — If you are running a non-Unicode Japanese database.
See Enterprise PeopleTools 8.50 PeopleBook: Global Technology, "Selecting and Configuring Character Sets and Language Input and Output."
- Sort Order Option — If you specified a non-binary sort order for your database, choose the Sort Order Option that most closely approximates your database sort order.

See Enterprise PeopleTools 8.50 PeopleBook: Global Technology, "Sorting in PeopleTools."

Task 10B-4-3: Updating Database Information

The database information updated in this procedure is used by the PeopleSoft software update tools to identify your PeopleSoft database when searching for updates. These steps should be followed for all additional databases that you create to enable the accurate identification of your databases.

1. Sign on to your PeopleSoft database.
2. Navigate to PeopleTools, Utilities, Administration, PeopleTools Options.
3. Specify long and short names for your environment. For example:
 - Environment Long Name — Customer HR Demo Database
 - Environment Short Name — HR Demo DB
4. Select a system type from the drop-down list. For example, Demo Database.
5. Save your changes.

CHAPTER 11A

Setting Up Process Scheduler on Windows

This chapter discusses:

- Prerequisites
- Setting Up Process Scheduler Security
- Setting Up Process Scheduler to Transfer Reports and Logs to the Report Repository
- Setting Environment Variables
- Setting Up Process Scheduler Server Agent
- Starting Process Scheduler as a Windows Service (Optional)
- Configuring the Process Scheduler for Word for Windows (Optional)
- Configuring Setup Manager
- Setting Up PS/nVision

Prerequisites

Before setting up your Process Scheduler, you must:

- Install Tuxedo (except for z/Linux).
See "Installing Additional Components."
- Install database connectivity to be able to communicate with your database server (Process Scheduler requires a direct connection to the database).
See "Preparing for Installation."
- Set up the web server with the PeopleSoft Pure Internet Architecture, as described in the previous chapter. This is required to set up the Process Scheduler to transfer reports or log files to the Report Repository.
- Set up your COBOL batch environment if you need to run COBOL processes through Process Scheduler. COBOL is no longer required to start a Process Scheduler Server Agent because the program for Process Scheduler has been rewritten in C++. If the PeopleSoft modules purchased do not contain any COBOL modules, the COBOL run time libraries are not required. Also, COBOL is not required for applications that contain no COBOL programs. Consult My Oracle Support for the details on whether your application requires COBOL.
See "Preparing for Installation," Planning Your Initial Configuration.
- Install the Microsoft Office products Microsoft Word and Microsoft Excel.

- Have both your application server and the PeopleSoft Pure Internet Architecture started. In this chapter, you must modify security options of the designated PeopleSoft user ID that will be used to boot up Process Scheduler. This requires that the user ID's profile be modified through the User Security component. Please refer to earlier chapters for the details on starting the application server and the PeopleSoft Pure Internet Architecture.

In PeopleSoft PeopleTools 8.50, the configuration and log files for Process Scheduler server domains reside in *PS_CFG_HOME*. If you do not set a *PS_CFG_HOME* environment variable before beginning the application server configuration, the system installs it in a default location based on the current user's settings, as follows:

```
%USERPROFILE%\psft\pt\<peopletools_version>
```

See "Preparing for Installation," Defining Server Domain Configurations.

See *Enterprise PeopleTools 8.50 PeopleBook: System and Server Administration*, "Working with Server Domain Configurations."

See Also

Enterprise PeopleTools 8.50 Hardware and Software Requirements

Enterprise PeopleTools 8.50 PeopleBook: PeopleSoft Process Scheduler

My Oracle Support, Certifications

Task 11A-1: Setting Up Process Scheduler Security

This section discusses:

- Understanding Process Scheduler Security
- Changing User Account to Start ORACLE ProcMGR V10gR3 with VS2005
- Granting Process Scheduler Administrative Rights

Understanding Process Scheduler Security

This task—in which you set up the PeopleSoft User ID that will be used to boot Process Scheduler server so it has administrative rights to both Process Scheduler and Report Manager—guarantees that security is set up properly both in Windows and within your PeopleSoft database.

You must carry out this task to start Process Scheduler successfully.

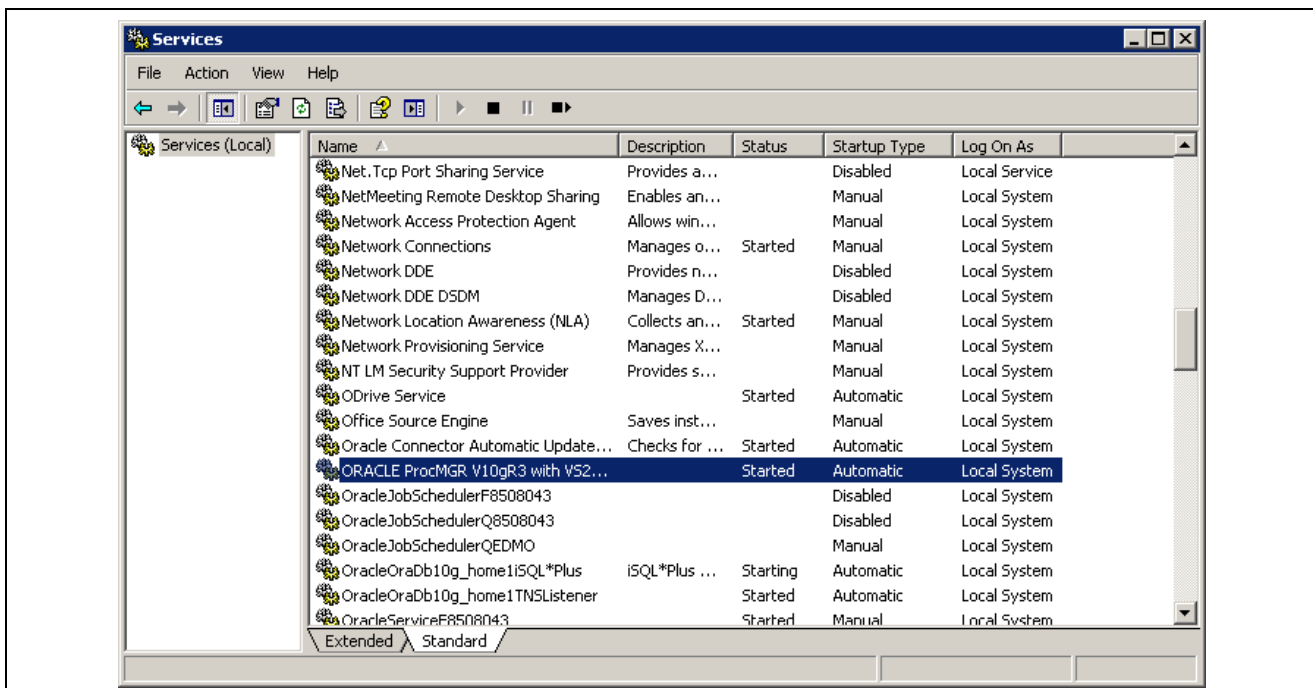
In the next section you set up ORACLE ProcMGR V10gR3 with VS2005 with a network user ID. When you install Oracle Tuxedo, the ORACLE ProcMGR V10gR3 with VS2005 service is set up by default to be started by local system account—a user account that does not have access to the Windows network. If the Process Scheduler server or processes initiated through Process Scheduler will be using a network printer, accessing files from a network drive, or using Windows utilities such as XCOPY that may access UNC paths, you need to change the user account used to start ORACLE ProcMGR V10gR3 with VS2005 with a network user account.

Task 11A-1-1: Changing User Account to Start ORACLE ProcMGR V10gR3 with VS2005

To change User Account to start ORACLE ProcMGR V10gR3 with VS2005:

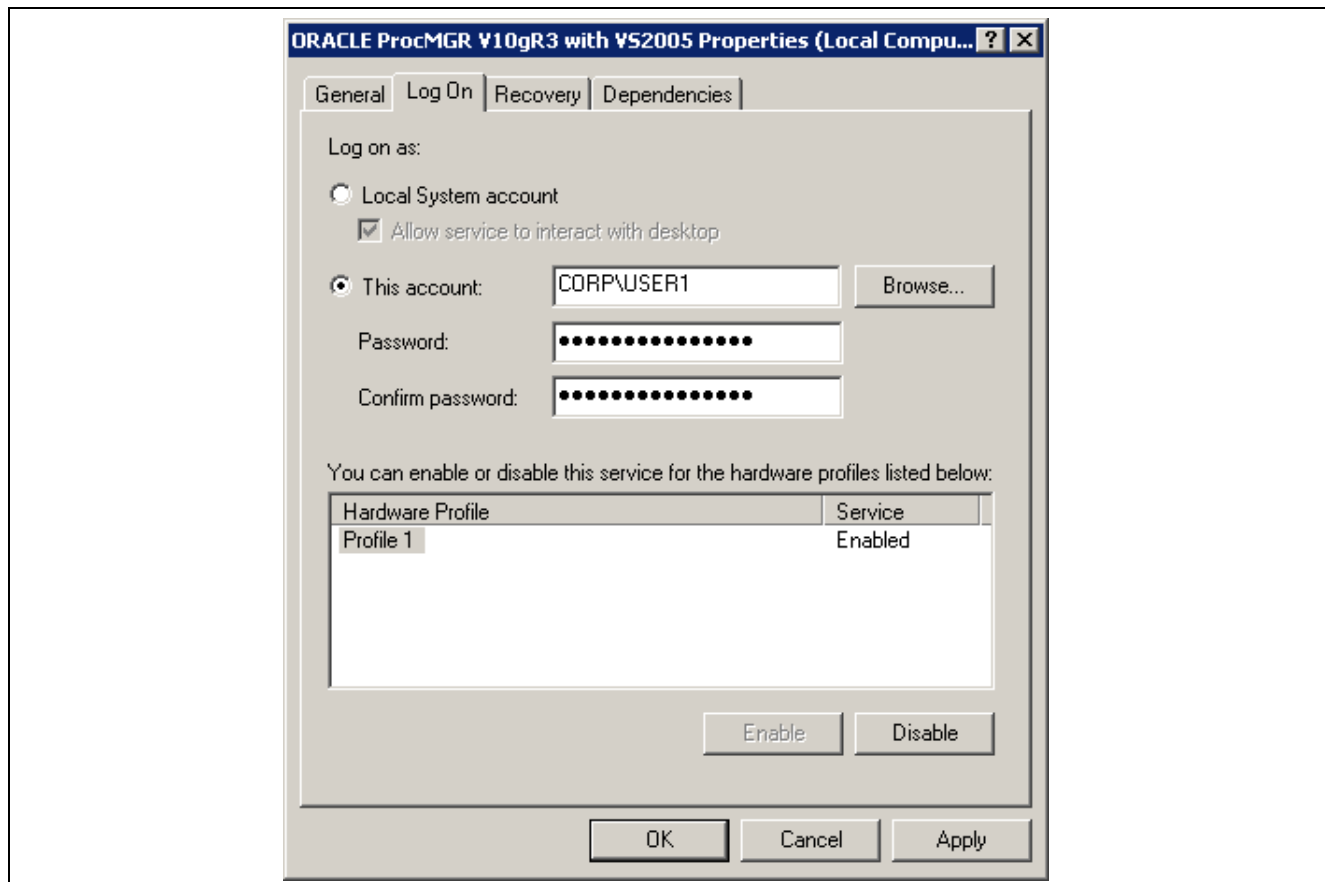
1. Select Start, Settings, Control Panel. Double-click Administrative Tools, and double-click the Services icon.

In the Services dialog box, find the service labeled *ORACLE ProcMGR V10gR3 with VS2005*. This service is installed automatically when you install Tuxedo.



Services dialog box

2. If the Stop button is enabled, click on it to stop the current ORACLE ProcMGR V10gR3 with VS2005 process.
 - a. Click Yes when a message informs you of the status change.
 - b. Double-click ORACLE ProcMGR V10gR3 with VS2005.
The Properties dialog box appears.
3. Select the option This account on the Log On tab.
Enter an account name and password.

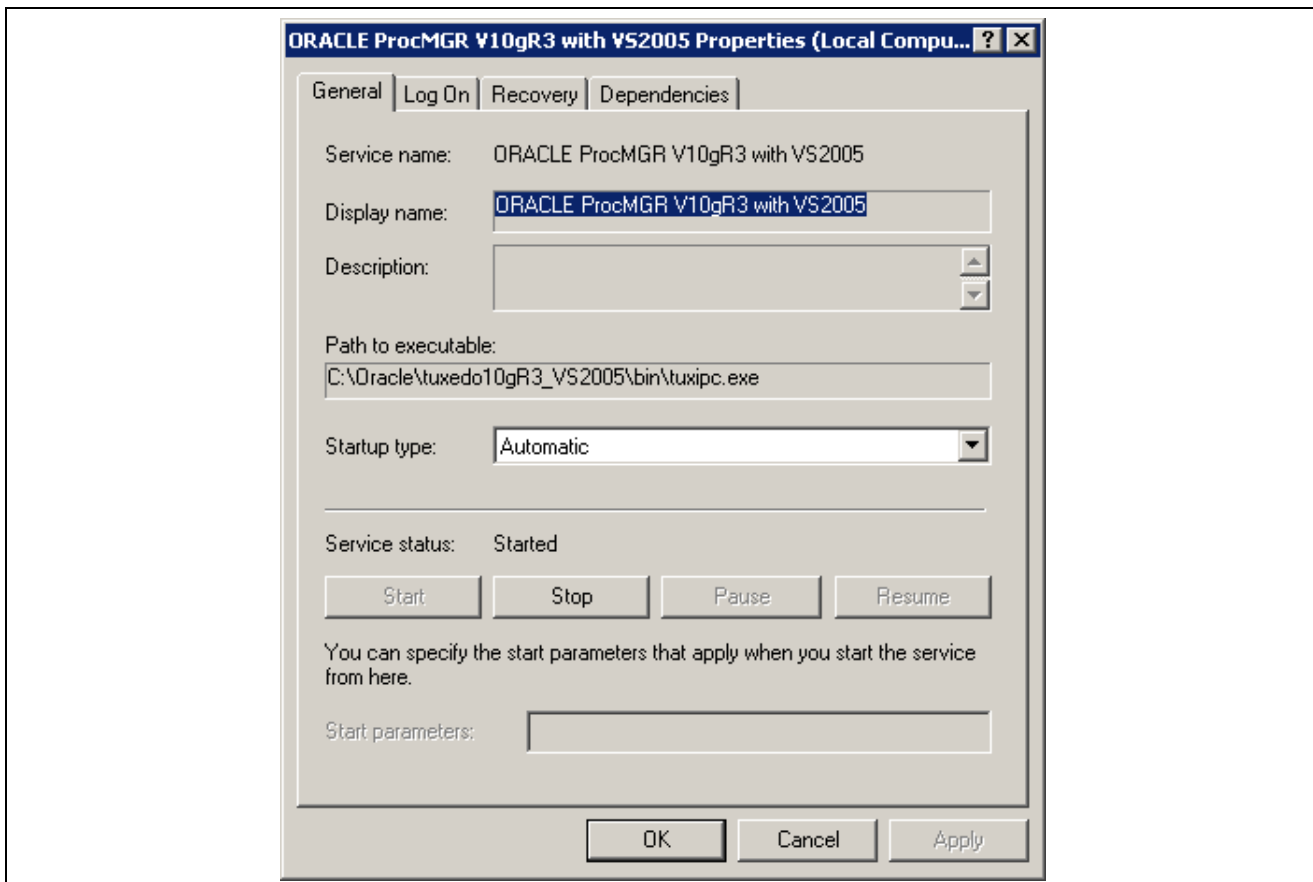


ORACLE ProcMGR V10gR3 with VS2005 Properties dialog box: Log On tab

Note. When you configure your Tuxedo server as outlined in the chapter, "Configuring the Application Server," the user ID designated to be the Application Server Administrator must have read/write permissions to the PeopleSoft file directory and read permission to the %TUXDIR% directory, such as C:\oracle\tuxedo10gR3_vs2005

4. Select the General tab.

Make sure that Startup Type is set to Automatic, and click OK.



ORACLE ProcMGR V10gR3 with VS2005 Properties dialog box: General tab

5. Click Start.

A message in the Properties dialog box will indicate the "Started" status. Click OK to close the dialog box.

Task 11A-1-2: Granting Process Scheduler Administrative Rights

To grant Process Scheduler administrative rights:

1. Log onto your PeopleSoft database through the PeopleSoft Pure Internet Architecture.
2. Select PeopleTools, Security, User Profiles.
3. Select the User Profiles component. Use the Search dialog to select the PeopleSoft User ID you plan to use to boot the Process Scheduler server.
4. Click the Roles tab, click the plus icon to insert a new row, and there enter the *ProcessSchedulerAdmin* role to grant the user ID with administrative rights in the Process Scheduler components.

General

ID

Roles

Workflow

Audit

Links

User ID Queries

User ID: VP1

Description: VP of Corporate Planning

Customize

Find

View All

First

1-10 of 10

Last

Role Name	Description	Dynamic		View Definition		
Coordinator	Coordinator	☐	Route Control	View Definition	+	-
PAPP_USER	Enterprise Portal User	☐	Route Control	View Definition	+	-
Packaging	Env. Mgmt. Packaging	☐	Route Control	View Definition	+	-
PeopleSoft Administra	PeopleSoft Admin Privileges	☐	Route Control	View Definition	+	-
PeopleSoft User	PeopleSoft User	☐	Route Control	View Definition	+	-
PeopleTools	PeopleTools	☐	Route Control	View Definition	+	-
ProcessSchedulerAdm	Process Scheduler Admin	☐	Route Control	View Definition	+	-
ReportDistAdmin	Report Distribution Admin	☐	Route Control	View Definition	+	-
UPG_ALLPANLS	ALLPANLS	☐	Route Control	View Definition	+	-
UPG_APPSRVR	Can start application server	☐	Route Control	View Definition	+	-

Process Scheduler window: Roles tab

- Repeat the instructions in step 4 to add the role *ReportDistAdmin*. This will grant the user ID administrative rights to the Report Manager component.
- Click Save to save your changes.
- Select the General tab and jot down the Permission List name assigned to the Process Profile field.
- From the Portal menu, choose PeopleTools, Security, Permissions & Roles, Permission Lists.
- In the Search dialog, enter the Permission List you noted in step 7.
- Select the Can Start Application Server check box.
- Click Save to save your changes.

Task 11A-2: Setting Up Process Scheduler to Transfer Reports and Logs to the Report Repository

This section discusses:

- Understanding Report Distribution
- Setting Up Single Signon to Navigate from PIA to Report Repository
- Determining the Transfer Protocol
- Starting the Distribution Agent
- Setting Up the Report Repository
- Setting Up the Distribution for Your Process Scheduler Server

- Setting Up Sending and Receiving of Report Folders in the Report Manager

Understanding Report Distribution

The PeopleSoft PeopleTools Report Distribution lets you access reports and log files generated from process requests run by a Process Scheduler Server Agent. Using the PeopleSoft Pure Internet Architecture, you can view reports and log files from the web browser through the Report Manager or Process Monitor Detail page. Report Distribution enables you to restrict access to these reports to authorized users based either on user ID or role ID.

This product also includes the Distribution Agent component, which runs on the same server as the Process Scheduler Server Agent. The Distribution Agent, a process that runs concurrently with the Process Scheduler Server Agent, transfers to the Report Repository files generated by process requests initiated by the Process Scheduler Server Agent.

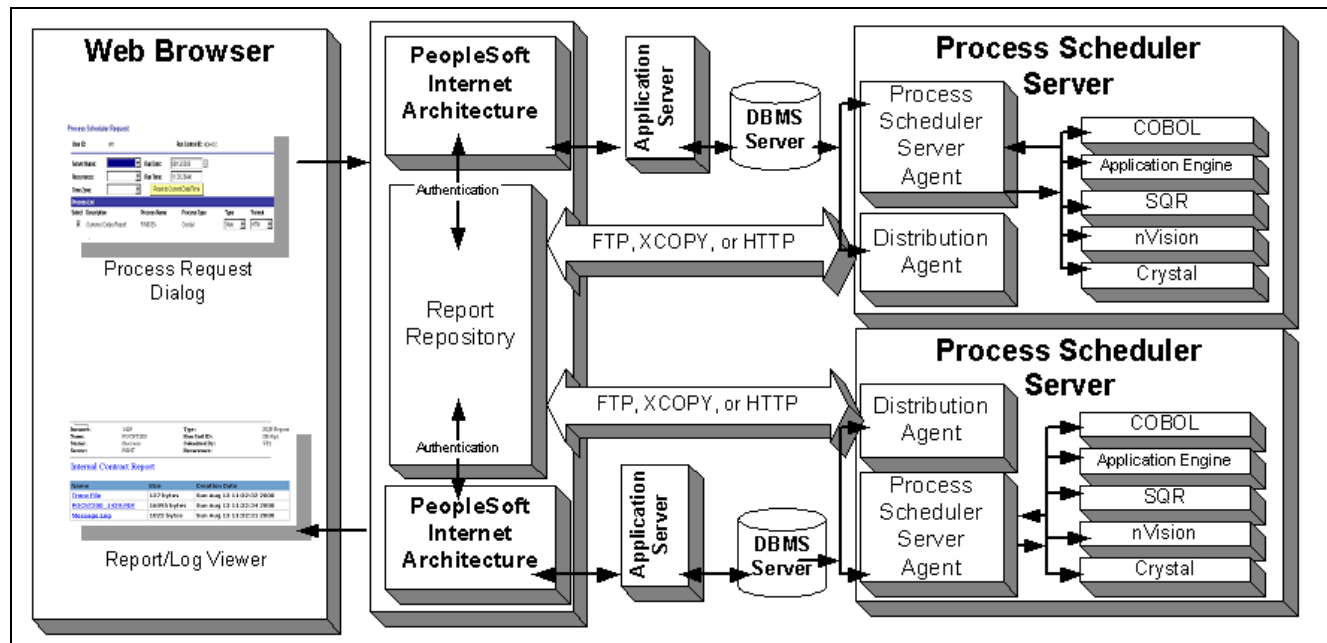
The Distribution Agent transfers files to the Report Repository when one of these criteria is true:

- The Process Scheduler Server Agent is set up in the *Server Definition* to transfer all log files to the Report Repository.
- The process request output destination type is *Web/Window*.

In either case, the Process Scheduler Server Agent inserts a row in the Report List table (PS_CDM_LIST). The server agent then updates the distribution status for a process request to *Posting* upon completion of the program associated with the process request. The distribution status of Posting signals the Distribution Status that the files for the process request are ready for transfer to the Report Repository. The Distribution Agent is notified by Process Scheduler for any process requests that are ready for transferring. As part of the process to transfer files to the Report Repository, the Distribution Agent performs the following steps:

- *Transfer files to the Report Repository.* All the report and log files are transferred to the Report Repository. For each process request transferred, a directory is created in the Report Repository using the following format: \<database name>\<date yyymmdd>\<report id>. All the files for a process request are stored in this directory.
- *Delete the directory from the Process Scheduler Agent's Log/Output directory.* When the output destination type specified for a process request is Web/Window, all the files and directory associated with the process request are deleted from the Process Scheduler Log/Output directory after the files are transferred to the Report Repository.

The following diagram illustrates the Process Scheduler and Report Repository architecture.



Process Scheduler and Report Repository Architecture

Note. The PeopleSoft Pure Internet Architecture must be installed for Process Scheduler to be able to transfer reports to the Repository.

Note. Before users can view a report, they are authenticated against the PeopleSoft database.

Note. You should set up single signon if you do not want users to have to log on an additional time to view reports in the Report Repository. For the details on setting up single signon, consult the security PeopleBook.

See *Enterprise PeopleTools 8.50 PeopleBook: Security Administration*.

Task 11A-2-1: Setting Up Single Signon to Navigate from PIA to Report Repository

To view reports (log files or system files) from Report Repository, you need to pass the authentication. Report Repository should be treated as a separate PeopleSoft application. To navigate from PeopleSoft Pure Internet Architecture (PIA) to Report Repository, you need to set up single signon to avoid getting a prompt for a second signon. Here are some considerations for setting up single signon to navigate from PIA to Report Repository:

If Report Repository resides on the same web server as the PeopleSoft Pure Internet Architecture, make sure your Local Message Node is set up to be a "trusted" node for single signon for your system.

If Report Repository resides on a different web server than PeopleSoft Pure Internet Architecture, do the following:

- Make sure your Local Message Node is set up to be a "trusted" node for single signon for your system.
- Use a fully qualified domain name when addressing the web server for both PIA and Report Repository. For example, enter `http://<machineName>.peoplesoft.com/<site_name>/signon.html` instead of `http://<machineName>/<site_name>/signon.html`.

- Specify the Authentication Domain for your application during installation. If you have multiple applications, and you want them to employ single signon, it is important to specify the same Authentication Domain for all applications.

See *Enterprise PeopleTools 8.50 PeopleBook: Security Administration*, "Implementing Single Signon."

- Set up single signon with a password, like this:
 - Choose PeopleTools, Integration Broker, Integration Setup, Nodes.
 - Click Search and then select the node marked as Default Local Node.
 - Select *Password* for the Authentication Option.
 - Enter a password of your choice.
 - Enter the password again in the Confirm Password field.
 - Enter the user ID for which you are setting up single signon in the Default User ID field.
 - Save the Node Definition.
 - Sign off of PIA.
 - Reboot your application server.

See Also

Enterprise PeopleTools 8.50 PeopleBook: Security Administration

Task 11A-2-2: Determining the Transfer Protocol

We recommend using HTTP as your transfer protocol.

Before transferring the files to the Report Repository, you need to determine which transfer protocol to use. If you have a Windows Process Scheduler and a Windows web server, you can use either an XCOPY, FTP, or HTTP/HTTPS. (If FTP information is not specified, Process Scheduler will perform an XCOPY.) If you have any other combination of servers (such as a Windows or z/OS Process Scheduler and a UNIX web server), you must use FTP or HTTP/HTTPS.

Note. If you are using FTP, the FTP service must be set up in your web server.

Note. If you are on DB2 z/OS, you need to have JRE set up on your Process Scheduler server.

Task 11A-2-3: Starting the Distribution Agent

The Distribution Agent is automatically started as another Oracle Tuxedo server when a Process Scheduler Server is booted. If a Process Scheduler Server was set up without specifying a Distribution Node in the *Server Definition* page, the Process Scheduler server will have a status in Process Monitor of "Running with No Report Node." Once a node is defined for the Process Scheduler server and in the next cycle the Process Scheduler server checks the state of the system, the Distribution Agent dynamically sets up its environment.

Task 11A-2-4: Setting Up the Report Repository

This section discusses:

- Defining ReportRepositoryPath
- Defining the Report Node to Use HTTP/HTTPS

- Defining the Report Node to Use XCOPY
- Defining the Report Node to Use FTP

Defining ReportRepositoryPath

The ReportRepositoryPath specifies the location of a directory for the Report Repository. You can specify the location for the Report Repository Path on the General page of the Web Profile during installation. If you do not set the location in the Web Profile, the location given by ReportRepositoryPath in the configuration.properties file is used for the default location. Note that the value entered for Report Repository Path in the Web Profile overrides any entry in the configuration.properties file.

See *Enterprise PeopleTools 8.50 PeopleBook: PeopleTools Portal Technology*, "Configuring the Portal Environment."

Use the following formats to enter the name for the directory that you want to use for the ReportRepositoryPath. The examples below give the default values. Note that you must use a forward slash (/) in both cases:

- *Windows*: ReportRepositoryPath=c:/psreports
- *UNIX*: ReportRepositoryPath=<user_home>/PeopleSoft Internet Architecture/psreports

For <user_home> substitute the home directory for the current user.

Defining the Report Node to Use HTTP/HTTPS

To define the report node to use HTTP/HTTPS:

1. Select PeopleTools, Process Scheduler, Report Nodes.
2. Select the Add a New Value link and enter the Report node name.
The Report Node Definition page appears. You are on the Http Distribution Node page.
3. Verify that the Http Information option is selected.

Report Node Definition page for HTTP

4. Enter the *URL* of the web server using the following format:

http://<machine name>:<port number>/psreports/<site name>

Replace <machine name> with the name of your machine. Use the fully qualified host name for your web server. If you are using an http port other than 80, you need to specify the port number.

Note. If you specify the Authentication Token Domain name during the PeopleSoft Pure Internet Architecture installation, you must include a fully qualified domain name for the URL instead of the IP address.

- *Description:* Enter a description of the server (optional).
 - *Operating System:* Select the web server operating system.
5. Enter the following Connection Information:
 - *http/https:* Select the http option if you are *not* using SSL (default). Select the https option if you are using SSL. Note that if you are using SSL you need to have Client Certificates installed on your web server.
 - *URI Host:* Enter the machine name for the report repository.

Note. In a basic setup, the machine name for the report repository will match the machine name of the web server URL. However, under certain circumstances—for example, if you are using a reverse proxy server—the URL and URI Host may have different machine names.

- *URI Port:* Enter the port number, which must match the port number of your web server (defaults are http = 80, https = 443). If you change a port number you will lose the default values for both protocols.
- *URI Resource:* Enter SchedulerTransfer/<site name>.

Note. The setup of basic authentication is optional, but is recommended for security of the Report Repository when using the HTTP to transfer files. For detailed instructions on setting up basic authentication on the web server where the Report Repository resides, refer to the appendix “Securing the Report Repository for HTTP.”

- *Login ID:* Enter the Login ID. This is not required, unless basic authentication has been set up on the web server by the Web Administrator.
- *Password:* Enter the password for the user ID specified in the Login ID field. This is not required, unless basic authentication has been set up on the web server by the Web Administrator.
- *Confirm Password:* Enter the password a second time as a confirmation. This is not required, unless basic authentication has been set up on the web server by the Web Administrator.

6. Click Save to save your entries.

7. To add additional report nodes, select Add to return to the Search page.

The following fields are shared between the FTP/XCOPY Distribution Node page and the Http Distribution page:

- URL
- Description
- Operating System
- Login ID
- Password
- Confirm Password.

When you enter the information on one page, the information is also displayed on the shared fields of the other page but the fields are grayed out.

Note. If you complete the information for one protocol and then change your selection to another protocol, the shared fields will become active on the other page and grayed out on the original page. When you save, the system automatically clears the fields that are not shared.

Defining the Report Node to Use XCOPY

If you use XCOPY the following parameters must be configured: URL, Operating System (must be Windows Server), Network Path (must be DOS or UNC paths and should be a shared directory with write permissions for the account running the Process Scheduler). Both the Process Scheduler machine and the Report Repository machine must be Windows for XCOPY to be used.

To define the report node to use XCOPY:

1. Select PeopleTools, Process Scheduler, Report Nodes.
2. Select Add a New Value, enter the Report node name, and click Add.
3. Select the FTP/XCopy option.

The FTP/XCopy Distribution page appears.

Report Node Definition page for XCOPY

- Enter the URL of the web server using this format:

http://<machine name>:<port number>/psreports/<site name>

Replace <machine name> with the name of your web server.

If you are using an http port other than 80, you need to specify the port number. <site name> refers to the directory where you installed the PIA files.

Note. If you installed the web server software with the default TCP port of 80, you do not need to specify the port number in the URL path. However, if you installed the web server to some other port, you must specify the port number in the URL path.

- Under Network Path replace <machine name> with the name of your machine.

Make sure that this directory is shared with the login or logins accounts used to start Process Scheduler. Enter the path that points to your Report Repository share. Use UNC format instead of mapped drive format.

- Select NT/Win2000 as the operating system.
- Select Save to save your entries.
- To add additional report nodes, select Add to return to the Search page.

Defining the Report Node to Use FTP

If you use FTP the following parameters must be configured: URL, Home Directory, Operating System, FTP Address, FTP ID, Password, Confirm Password. In addition, if your FTP server is a Windows server, you may have to set up the FTP service.

Note. The Distribution Agent will perform a validation after FTP has transferred files into the Report Repository by sending a query request to the web server. For this task to be accomplished, it is critical that the following setup is done:

The value entered in the URL must be accurate. Verify that the machine name, port number, and site number are correct.

If this setup is not completed, the process request will get a status of NOT POSTED in the Process Monitor Detail page and will log the message "Unable to verify files posted."

To define the report node to use FTP:

1. Select PeopleTools, Process Scheduler, Report Nodes.
2. Select Add a New Value, enter the Report node name, and click Add.
3. Select the FTP/XCopy option.

The FTP/XCopy Distribution node page appears.

Report Node Definition page for FTP

4. Enter the URL of the web server using this format:

`http://<machine name>:<port number>/psreports/<site name>`

Replace *<machine name>* with the name of your web server. If you are using an http port other than 80, you need to specify the port number. The variable *<site name>* refers to the directory where you installed the PIA files; this will default to ps for the first installation.

Note. If you specify the Authentication Token Domain name during the PeopleSoft Pure Internet Architecture installation, you must include a fully qualified domain name for the URL instead of the IP address.

Note. If you installed the web server software with the default TCP port of 80, you do not need to specify the port number in the URL path. However, if you installed the web server to some other port, you must specify the port number in the URL path.

5. Enter the following additional parameters:
 - *Home Directory:* Enter the directory specified during the installation of PeopleSoft Pure Internet Architecture as the Report Repository. The FTP user ID must have write access to this directory. Note that this is not a required field for HTTP transfer, as the system uses the Report Repository directory specified at install time or the current directory assigned to ReportRepositoryPath in configuration.properties. Note that the value you enter for the Report Repository Path in the Web Profile at install time overrides any entry for ReportRepositoryPath in configuration.properties.

For Windows, the directory needs to match the Report Repository path. Make sure that you do not include any drive information—as in c:\psreports\—because you are using the FTP protocol to interpret this parameter.
 - *Description:* Enter a description of the server (optional).
 - *Operating System:* Select the operating system of the Report Repository.
 - *FTP Address:* Enter the machine name or the IP address of the Report Repository. If the name of the machine is used, it must be included on a DNS server.
 - *FTP ID:* FTP user ID.
 - *Password:* Enter the password for the user ID specified in the FTP ID field.
 - *Confirm Password:* Enter the password a second time as a confirmation.
6. Select Save to save your entries.
7. To add additional report nodes, select Add to return to the Search page.

Task 11A-2-5: Setting Up the Distribution for Your Process Scheduler Server

To set up the Distribution Settings for your Process Scheduler Server:

1. Choose PeopleTools, Process Scheduler, Servers.
2. Enter the Server Name (such as PSNT). The Server Definition page appears.
3. Select the Distribution tab.

Server Definition | **Distribution** | Operation | Notification | Daemon

Server Name: PSNT

Server Distribution Details

Distribution Node Name:

Maximum Transfer Retries:

Interval for Transfer Attempt: seconds

Transfer System Files to Report Repository ☐

Save
 Return to Search
 Notify
 Add
 Update/Display

[Server Definition](#) | [Distribution](#) | [Operation](#) | [Notification](#) | [Daemon](#)

Server Definition page: Distribution tab

4. Click the lookup button to display the report node names and select the name of the required report node.
5. Enter a number for the Maximum Transfer Retries. This is the maximum number of times the server can try to send a report before it errors out.
6. Enter the number of seconds for the Interval for Transfer Attempt field. This is the interval between attempts to send the report.
7. Select the check box Transfer Log Files to Report Repository if you want to transfer all log and trace files from processes that do not generate reports.
8. Click Save to save your entries.
9. If Process Scheduler is running, you must reboot for any new settings to take effect.

To view reports (log files or system files) from Report Repository, you need to pass the authentication. Report Repository should be treated as a separate PeopleSoft Application. To navigate from PIA to Report Repository, you need to setup single signon in order to avoid getting prompt for second signon.

Task 11A-2-6: Setting Up Sending and Receiving of Report Folders in the Report Manager

To be able to view reports in the Report Manager Explorer and List pages, you need to set up the sending and receiving of report folders in the Report Manager by activating the domain on which a sending and receiving server resides. Consult the documentation covering the PeopleSoft Integration Broker to learn how to activate the sending and receiving server domain.

See *Enterprise PeopleTools 8.50 PeopleBook: PeopleSoft Integration Broker*, "Using the Service Operations Monitor."

Task 11A-3: Setting Environment Variables

To set the appropriate Tuxedo environment variables, carry out these steps. (If you have already set these variables on the machine you are using as your Process Scheduler Server, you can skip this task.)

See "Installing Additional Components," Installing Tuxedo on Windows.

To set the variables:

1. Choose Start, Settings, Control Panel.
2. Double-click the System icon.
3. Make sure that the NLSPATH environment variable is set.

NLSPATH does not need to be explicitly set since Tuxedo sets NLSPATH in its own registry tree. This value can be displayed using Control Panel, Tuxedo, on the Environment tab. However, the installation of certain products, such as IBM DB2 connectivity (DB2 UDB for z/OS and DB2 for Linux, UNIX, and Windows) sets NLSPATH to a value that causes Tuxedo to fail. The solution is to either set NLSPATH=c:\tuxedo\locale\c, or to delete it entirely and let Tuxedo pick up the value from its registry tree. If you are running DB2 for Linux, UNIX, and Windows, the solution instead is to append the c:\tuxedo\locale\c directory in the NLSPATH directory.

Task 11A-4: Setting Up Process Scheduler Server Agent

This section discusses:

- Understanding Process Scheduler Server Agent
- Creating and Configuring a Process Scheduler Server
- Reconfiguring a Process Scheduler Server
- Verifying the Process Scheduler Server Status

Understanding Process Scheduler Server Agent

For installation purposes, you can use predefined server names and other definitions. The predefined name that you might use is as follows:

Server Name	Operating System
PSNT	Windows

To test this, use processes already defined in your PeopleSoft database. To set up a new server definition in your PeopleSoft database, refer to the Process Scheduler PeopleBook.

See *Enterprise PeopleTools 8.50 PeopleBook: PeopleSoft Process Scheduler*

Note. When creating multiple Process Scheduler Servers for the same database, each server must have a unique server name. For example, two Process Scheduler Servers, both named PSNT, cannot run against the same database.

Task 11A-4-1: Creating and Configuring a Process Scheduler Server

This section describes how to create and configure a Process Scheduler server.

Note. For Cube Manager users, if Essbase Server is installed on a different machine than the Process Scheduler, you must install Essbase Client 11.1.1.1 on the process scheduler server machine. You must also ensure that the %ESSBASEPATH% and %ARBORPATH% environmental variables are properly set in the Process Scheduler.

Note. You can set Process Scheduler configuration parameters either by using PSADMIN, which provides an interactive dialog, or by editing the configuration file psprcs.cfg located in the *PS_CFG_HOME\appserv\prcs\database name* directory. The following steps assume you are using PSADMIN to specify parameter settings.

Note. If you use the configuration file psprcs.cfg, be aware that in the PeopleSoft PeopleTools 8.49 release and later, the section [Output Dest Exceptions] has been modified to trap metastring exceptions not only in the output destination but in other process parameters as well. In this section the entry `OUTDEST_EXCEPT01=%ANYMETASTRING%` has been changed to `PARAMETER_EXCEPT01=%ANYMETASTRING%`.

To create and configure a Process Scheduler Server:

1. From *PS_HOME\appserv* on the batch server, type `psadmin` and press ENTER to access the PeopleSoft Server Administration menu.
2. Select 2 to access the Process Scheduler submenus.

```
-----
PeopleSoft Server Administration
-----
1) Application Server
2) Process Scheduler
3) Search Server
4) Service Setup
q) Quit
```

Command to execute (1-4 q): 2

3. Select 4 from the PeopleSoft Process Scheduler Administration menu.

```
-----
PeopleSoft Process Scheduler Administration
-----
1) Start a Process Scheduler Server
2) Stop a Process Scheduler Server
3) Configure a Process Scheduler Server
4) Create a Process Scheduler Server Configuration
5) Delete a Process Scheduler Server Configuration
6) Edit a Process Scheduler Configuration File
7) Import an existing Process Scheduler Configuration
8) Show Status of a Process Scheduler Server
```

- 9) Kill a Process Scheduler Server
- 10) Clean IPC resources of a Process Scheduler Domain
- q) Quit

Command to execute (1-9, q) : 4

4. When prompted for the name of the database that your server will access, enter the name of the database and press ENTER:

Please enter name of Database that server will access :

5. Specify 1 for *nt* for the configuration templates.

The *nt* configuration is based on the operating system Process Scheduler server will be booted from.

Process Scheduler Configuration templates:

- 1) nt
- 2) os390

Select config template number:

6. After the system creates the domain, you see the prompt

Would you like to configure this Process Scheduler Server now? (y/n) [y] :

Choose y; you'll see a Quick-configure menu something like this:

```
-----
Quick-configure menu -- Scheduler for Database: HRDMO
-----
```

Features =====	Settings =====
1) Master Schdlr : Yes	5) DBNAME : [HRDMO]
2) App Eng Server : Yes	6) DBTYPE : [DB2ODBC]
	7) PrcsServer : [PSNT]
	8) UserId : [PS]
	9) UserPswd : [PS]
	10) ConnectID : [people]
	11) ConnectPswd: [peop1e]
	12) ServerName : []
	13) Log/Output Dir: [%PS_SERVDIR%\log_output]
	14) SQRBIN : [%PS_HOME%\bin\sqr\ODB\binw]
	15) AddToPATH : [%WINDIR%;%WINDIR%\SYSTEM32]
	16) DBBIN : [C:\<connectivity directory>]
Actions =====	
3) Load config as shown	
4) Custom configuration	
h) Help for this menu	
q) Return to previous menu	

HINT: Enter 5 to edit DBNAME, then 3 to load

Enter selection (1-16, h, or q):

Note. Cognos/Cube Manager Installs: Make sure to specify the proper path for Cognos in the *Add to Path* parameter. By default, that path is C:\Program Files\Cognos\cer2\bin;C:\ODI\OStore\bin. The Cognos and ODI are the important top level directories, and could change depending on the install.

7. If you need to modify any of these settings, enter the number next to the parameter name, type the new value, and press ENTER.

Parameter	Description
Master Schdlr	Flag to enable the Master Scheduler Server (PSMSTPRC). Default is to enable the server. See Enterprise PeopleTools 8.50 PeopleBook: PeopleSoft Process Scheduler.
App Eng Server	Flag to initiate Application Engine programs through the AE Tuxedo Server (PSAESRV). Default is set to run AE using PSAESRV. See Enterprise PeopleTools 8.50 PeopleBook: PeopleSoft Process Scheduler.
Load config as shown	Load the selections you made in the Quick Configure menu.
Custom configuration	Make custom selections in PSADMIN, using options that are not available in the Quick Configure menu.
DBNAME	Specify the database name that is associated with a PeopleSoft Process Scheduler Server Agent, such as HRDMO, FSDMO, SADMO, and so on.
DBTYPE	Specify the database type: DB2ODBC (for DB2 UDB for z/OS).
PrcsServer	Specify the process server name. This must match the name defined in the Server Definition table, such as <i>PSNT</i> or <i>PSUNIX</i> .
UserId	Enter the user ID. For Enterprise Resource Planning (ERP), this is typically <i>VPI</i> , and for Human Resources (HR) it's <i>PS</i> .
UserPswd	Enter the user password. For Enterprise Resource Planning, this is typically <i>VPI</i> , and for Human Resources it's <i>PS</i> .
ConnectID	Enter the connect ID. This value is required.
ConnectPswd	Enter the connect password. This value is required.
ServerName	This value is required for Sybase users.

Parameter	Description
Log/Output Dir	Specify the directory in which files that are generated by the program are written. When PeopleSoft Process Scheduler initiates a process request, it creates a subdirectory in the format <Process Type ID>_<Program Name>_<Process Instance> that contains the generated files. For instance, the SQR program XRFWIN that ran with process instance 20 has all reports, trace, and log files in the subdirectory SQR_XRFWIN_20. It is also the optional directory used with the Output Destination field when scheduling a request. This variable (%%OutputDirectory%%) can be used in the File/Printer field of the Process Scheduler Request dialog box.
SQRBIN	Enter the path to the SQR executables.
AddToPATH	(Optional for Tuxedo) Specify an additional directory that is appended to the PATH environment variable.
DBBIN	Enter the path to the database drivers; that is, your connectivity software.

For descriptions of the PSADMIN options that do not appear in the Quick-configure menu, consult the following. For a basic install, in most cases you can accept the defaults.

See *Enterprise PeopleTools 8.50 PeopleBook: PeopleSoft Process Scheduler*.

8. When you have updated the settings as needed, choose 3, *Load config as shown*, from the Quick-Configure menu to save your settings to the Process Scheduler configuration file, pstuxcfg.
9. To start Process Scheduler, choose 1 and select the item number corresponding to your database to start.

Note. The Crystal, ODBC, and nVision libraries and components are automatically configured when Process Scheduler is configured. Admin privileges are required for this task to complete successfully.

10. If you want to stop Process Scheduler Server, choose 2, *Stop a Process Scheduler Server*, from the PeopleSoft Process Scheduler Administration menu, and then enter the number corresponding to the name of the appropriate database.

Note. If you see the following message, then the server is already down:

```

Command to execute (1-2, q) [q]: 1
Loading command line administration utility ...
tmadmin - Copyright (c) 2007-2008, Oracle.
Portions * Copyright 1986-1997 RSA Data Security, Inc.
All Rights Reserved.
Distributed under license by Oracle.
Tuxedo is a registered trademark.
No bulletin board exists. Entering boot mode.
> TMADMIN_CAT:111: ERROR: No such command.
```

Task 11A-4-2: Reconfiguring a Process Scheduler Server

If you create and then immediately configure a Process Scheduler server, you can use the Quick-configure menu. However, if you want to update the configuration of an existing domain, or carry out a number of other administrative tasks, this handy shortcut is not available. Instead you can use PSADMIN as follows. Feel free to skip this procedure if you have already created and configured your Process Scheduler Server using the Quick-configure menu and want to move forward with your installation.

Note. If you want to configure the Process Scheduler Server while it is running, you need to stop and restart the server to load the new settings.

To reconfigure a Process Scheduler Server:

1. Go to `PS_HOME\appserv` and enter:

```
psadmin
```

2. Select 2 for Process Scheduler in the PeopleSoft Server Administration menu.
3. In the PeopleSoft Process Scheduler Administration menu, select 3 for Configure a Process Scheduler.
4. Select the database for which the Process Scheduler needs to be configured.
5. At the prompt

```
Do you want to change any config values (y/n)? [n]:
```

Specify *y* to start an interactive dialog that lets you examine or change parameter values.

6. Now you specify configuration parameters one by one. Configuration parameters are grouped into sections. At each section, you are asked whether to change any parameters—for example:

```
Values for config section - Startup
```

```
DBName=
DBType=
UserId=
UserPswd=
ConnectId=
ConnectPswd=
ServerName=
```

```
Do you want to change any values (y/n)? [n]:
```

- Specify *y* to change any parameter values for the current section. You are prompted for each parameter value. Either specify a new value or press ENTER to accept the default. After you press ENTER, you are positioned at the next parameter in that section. When you are done with that section, you are again asked whether you want to re-edit any of the values you changed.
- If you do not want to change any values, specify *n* and you are prompted for the next configuration section.

7. Once you have selected all your parameters, you see this message

```
You will need to shut down and start up the server to read the new settings.
```

For descriptions of the Process Scheduler options in the PSADMIN, consult the following. In most cases you can accept the defaults.

See *Enterprise PeopleTools 8.50 PeopleBook: PeopleSoft Process Scheduler*.

Task 11A-4-3: Verifying the Process Scheduler Server Status

At this stage it is a good idea to verify the Process Scheduler Server status.

To verify the Process Scheduler Server status:

1. From the PeopleSoft Process Scheduler Administration menu, select option 8.

```
-----
PeopleSoft Process Scheduler Administration
-----
1) Start a Process Scheduler Server
2) Stop a Process Scheduler Server
3) Configure a Process Scheduler Server
4) Create a Process Scheduler Server Configuration
5) Delete a Process Scheduler Server Configuration
6) Edit a Process Scheduler Configuration File
7) Import an existing Process Scheduler Configuration
8) Show Status of a Process Scheduler Server
9) Kill a Process Scheduler Server
10) Clean IPC resources of a Process Scheduler Domain

q) Quit
```

Command to execute (1-10, q) : 8

2. To verify the status of the Process Scheduler Server for a specific database, type the number corresponding to the appropriate database.

For example:

Database list:

- 1) HRDMO

Select item number to start: 1

will verify the status of the Process Scheduler Server for the database HRDMO.

Loading command line administration utility ...

tmadmin - Copyright (c) 2007-2008 Oracle.

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Distributed under license by Oracle.

Tuxedo is a registered trademark.

> Prog Name	Queue Name	Grp Name	ID	RqDone	Load	Done	Current	Service
BBL.exe	46845	PSSERVER+	0	9	450	(	IDLE	)
PSMONITORSRV.e	MONITOR	MONITOR	1	0	0	(	IDLE	)

```

PSAESRV.exe    00101.00001 AESRV          1      0      0 ( IDLE )
PSAESRV.exe    00101.00002 AESRV          2      0      0 ( IDLE )
PSAESRV.exe    00101.00003 AESRV          3      0      0 ( IDLE )
PSPCRSRV.exe   SCHEDQ      BASE        101     0      0 ( IDLE )
PSMSTPRC.exe   MSTRSCHQ    BASE        102     0      0 ( IDLE )
PSDSTSRV.exe   DSTQ        BASE        103     0      0 ( IDLE )
> Prog Name    Queue Name  # Serve  Wk Queued  #Queued  Ave. Len  Machine
-----
PSDSTSRV.exe   DSTC                1      -          0      - PSSERVER1+
>

```

You can also verify the status of the Process Scheduler Server from Process Monitor in PeopleSoft Pure Internet Architecture. To verify the Process Scheduler Server status from the Process Monitor page, go to PeopleTools, Process Scheduler, Process Monitor, and select *Server List*.

If the user has the process security rights to update the server status, the *Refresh* button can be used to refresh the screen, too.

See Setting Up Process Scheduler Security.

Process List		Server List								
										Refresh
Server	Hostname	Last Update Date/Time	Dist Node	Master	CPU (%)	Memory (%)	Active	Status	Details	
PSNT	PTLAB95	10/28/2003 9:53:33AM	https	N	1	29	0	Down	Details	
QE PSNT2	PTLAB95	10/28/2003 9:53:45AM	https	N	1	29	0	Down	Details	
QE HPX1	pt-hp07	10/28/2003 10:05:47AM	https	Y	21	34	1	Running	Details	

Process Monitor page: Server List tab

Task 11A-5: Starting Process Scheduler as a Windows Service (Optional)

You can start the Process Scheduler Server as a Windows service. This means that administrators do not need to manually boot each Process Scheduler Server that runs on a Windows machine. Instead, each time you boot the Microsoft Windows server where the Process Scheduler Server resides, the Process Scheduler Server will boot automatically. You can also still manually boot Process Scheduler Servers on your Microsoft Windows server.

Note. If you have set up TUXDIR and TEMP as new SYSTEM variables, you need to reboot your machine before any Windows services will pick up the value of these environment variables.

Note. You can also set up application servers and search servers as a Windows service using the instructions provided here.

The following directions assume that the Process Scheduler is already configured on the Microsoft Windows server.

To set up the Windows Service for a Process Scheduler Server:

1. Open the System utility within the Control Panel, and set the following variables in the System Variables section of the Environment tab.

Note. Even if the following variables are in the User Variables section, they must also be in the System Variables section because the Windows service will be started under the System Account.

Variable	Value
TEMP	Specify the location of the TEMP directory on the Windows server, as in C:\TEMP.
TUXDIR	Specify the location of the Tuxedo directory on the Windows server, as in C:\tuxedo.

2. Reboot the Windows computer if any changes or additions were made for the system variables.
3. Run the PeopleSoft PSADMIN utility (psadmin.exe in the *PS_HOME*\appserv directory).
4. Select 4 from the PeopleSoft Server Administration menu.

```

-----
PeopleSoft Server Administration
-----
1) Application Server
2) Process Scheduler
3) Search Server
4) Service Setup
q) Quit

```

Command to execute (1-4, q): 4

5. Select 1 from the PeopleSoft Services Administration menu.

```

-----
PeopleSoft Services Administration
-----
1) Configure a Service
2) Install a Service
3) Delete a Service
4) Edit a Service Configuration File
q) Quit

```

Command to execute (1-4, q) : 1

When asked if you want to change configuration values, enter y.

6. Enter the name of the Process Scheduler databases that you intend to include as part of the Windows service.

```

Values for config section - NT Services
Service Start Delay=60
Application Server Domains=HR840
Process Scheduler Databases=HR840
Search Server Domains=HR840

```

Do you want to change any values (y/n)? [n]:

If you specify more than one Process Scheduler database, separate each entry with a comma.

Note. You can use PSADMIN to set up Process Scheduler Servers, application servers, or search servers as a Windows service. The Windows Service psntrsv.exe automatically starts application servers, Process Scheduler servers, and search servers that reside on the same Microsoft Windows machine. Occasionally, psntrsv.exe would attempt to initiate a connection between an application server, Process Scheduler server, or search server and a database on the same machine that was not ready to receive requests. As a result the connection would fail. When you set up these servers as a Windows Service, you can specify a Service Start Delay, in seconds, that elapses before a service attempts to start any application server domains, Process Scheduler servers, or search servers. This allows the RDBMS to boot and become available to accept requests. The default setting for the Service Start Delay parameter is 60 seconds.

Note. The NT Services section of the PSADMIN modifies the psntrsv.cfg file located in the *PS_CFG_HOME\appserv* directory. You can edit this file manually by selecting *4, Edit a Service Configuration File* from the PeopleSoft Services Administration menu. If you edit it, you need to delete and then install the service again.

7. Select option 2 from the PeopleSoft Services Administration menu.

```
-----
PeopleSoft Services Administration
-----
  1) Configure a Service
  2) Install a Service
  3) Delete a Service
  4) Edit a Service Configuration File
  q) Quit
```

Command to execute (1-4, q) : 2

8. Return to the Control Panel, choose *Administrative Tools*, and launch the *Services* utility.
9. On the Services dialog, scroll to find the entry that adheres to the following naming convention, and select it:

PeopleSoft <PS_CFG_HOME>

Note. The default Startup mode is Manual.

10. Click *Startup*.
11. On the Service dialog in the Startup Type group, select *Automatic*, and in the Log On As group, select *System Account*. Then click OK.

Note. The *Log On As* setting needs to reflect that which you set for your ORACLE ProcMGR V10gR3 with VS2005 and Tlisten processes. Oracle recommends that you set these services to *System Account* when you install Tuxedo. The *Log On As* value only affects the application server because Process Scheduler runs independently from Tuxedo. See the chapter “Installing Additional Components” for more information on installing Tuxedo, and refer to the chapter “Configuring the Application Server” for the details on configuring the application server.

12. On the Services dialog, make sure the PeopleSoft service is selected, and click Start.
13. Use the Process Monitor to verify that the Process Scheduler Server is running. You can also use Task Manager to verify that the executables involved with the service are running.

For the Process Scheduler, make sure that the `psprcsrv.exe` is running. If you have customized the name of `psprcsrv.exe`, make sure the appropriate executable is running.

Task 11A-6: Configuring the Process Scheduler for Word for Windows (Optional)

Some applications process documents using Word for Windows. Here is how to configure Word to work with the Process Scheduler.

Note. Microsoft Word must already be installed on the server; it is not included with the PeopleSoft PeopleTools install.

To configure Process Scheduler for Word for Windows:

1. Locate the Process Scheduler configuration file `psprcs.cfg` in `PS_CFG_HOME\appserv\prcs\<database_name>` directory and open it for editing.
2. In the [Process Scheduler] section, edit the WINWORD entry so that it points to the directory where `winword.exe` is installed—for example, “WINWORD=C:\Program Files\Microsoft Office\OFFICE 11”.
3. If spaces exist in the WINWORD path in the Process Scheduler configuration file (`psprcs.cfg`), Word for Windows reports will fail. You will need to modify the Process Type Definition and add quotes around the entry in the Command Line field, for example “%%WINWORD%%\winword.exe”.
4. Change the Microsoft Word macro security to allow macros to be run.

Start Microsoft Word and select Tools, Macro, Security. Select the *Low* security setting and click OK.

5. If you are running on Microsoft Windows 2008, modify your macros to include the following line:

```
Application.AutomationSecurity=msoAutomationSecurityLow
```

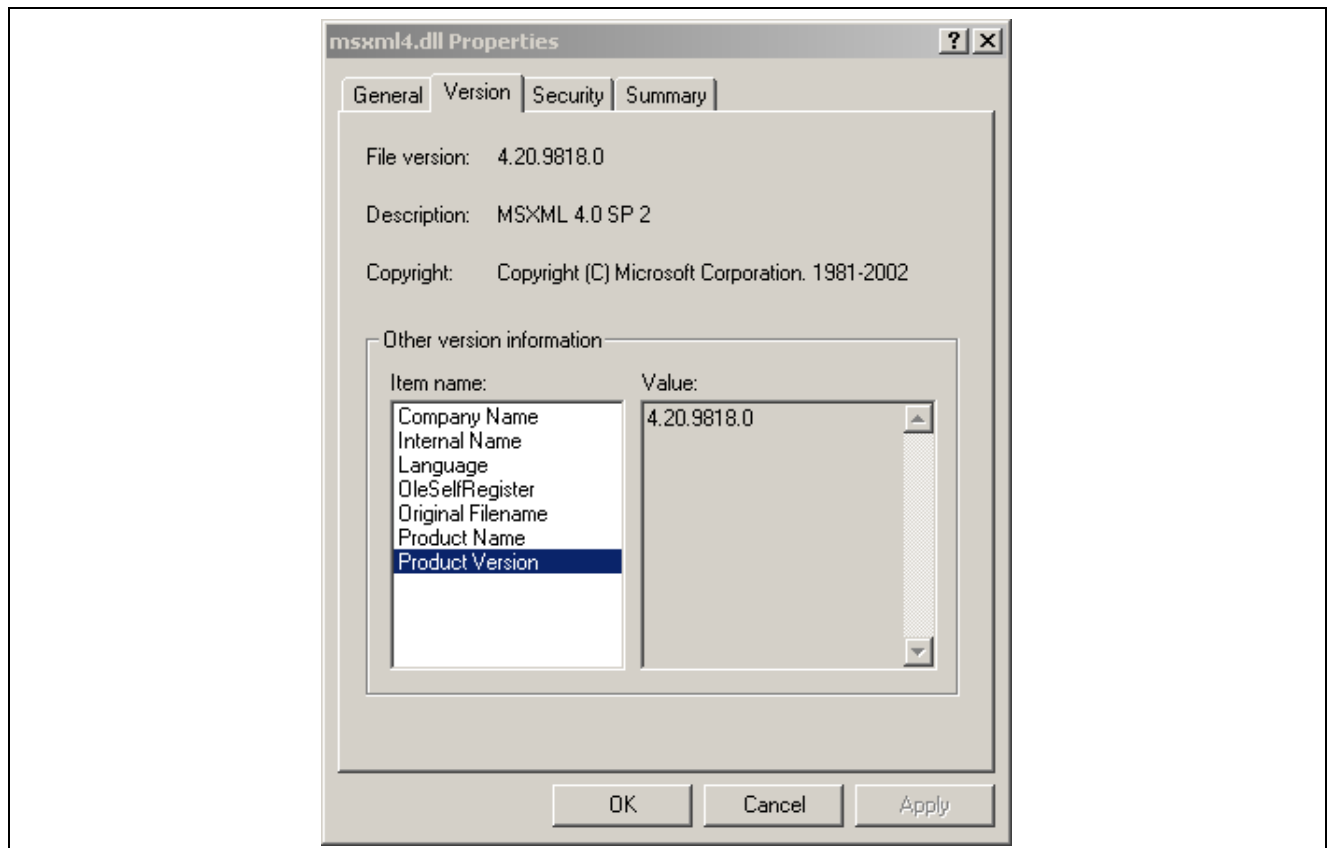
You can see an example by viewing the macros in `PS_HOME\winword\Wordsamp.doc`.

Task 11A-7: Configuring Setup Manager

Before you can use Setup Manager, you must fulfill these requirements:

- To use the Excel to CI template-generation feature of Setup manager, the Process Scheduler must be PSNT. That is, Process Scheduler must be installed on a Microsoft Windows machine.
- Process Scheduler must be running.
- Any Process Scheduler environment variables (especially %PS_FILEDIR%) must be specified.
- Microsoft Office 2003 must be present on the process scheduler server, and Microsoft Excel must be installed.
- The MSXML COM object for Microsoft Excel, msxml4.dll, must be present on the system.

For confirmation, navigate to %SystemRoot%\system32\msxml4.dll. Right-click and select Properties, Versions, Product Version. The version number must be 4.20 or above.



msxml4.dll Properties dialog box

See Also

Enterprise PeopleTools 8.50 PeopleBook: Setup Manager

Microsoft support, support.microsoft.com

Task 11A-8: Setting Up PS/nVision

This section discusses:

- Understanding the PS/nVision Setup

- Associating the AppID for Microsoft Excel
- Modifying the DCOMCNFG Settings
- Modifying the Process Scheduler Configuration File

Understanding the PS/nVision Setup

If you are running Process Scheduler on Microsoft Windows Server 2008, complete the tasks in this section before using PS/nVision. These settings are needed to use Microsoft Excel with PS/nVision.

Note. Exercise caution when making changes to the Microsoft Windows registry. It is a good idea to make a back up file before making changes.

Task 11A-8-1: Associating the AppID for Microsoft Excel

Use the following steps to associate the AppID for *Microsoft Office Excel Application* to its Class ID under the Wow6432Node registry node:

Warning! Using the Registry Editor incorrectly can cause serious problems that may require you to reinstall the Windows operating system. Use Registry Editor at your own risk. It is strongly advised that you make a backup copy of the registry files (System.dat and User.dat on Win9x computers) before you edit the registry.

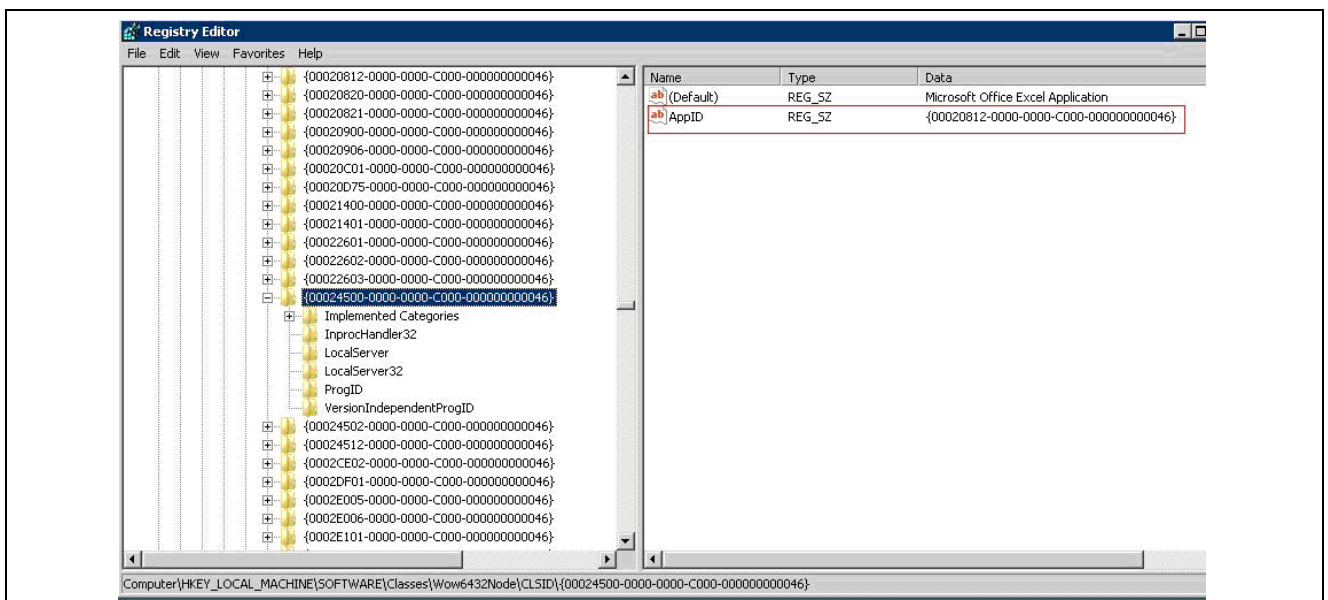
1. Create a new String Value with the name *AppID* under the following registry key:

HKEY_LOCAL_MACHINE\SOFTWARE\Classes\Wow6432Node\CLSID\{00024500-0000-0000-C000-000000000046}

2. Insert the following string into the *Value* data field of AppID:

{00020812-0000-0000-C000-000000000046}

The following example shows the Registry Editor with the added value:

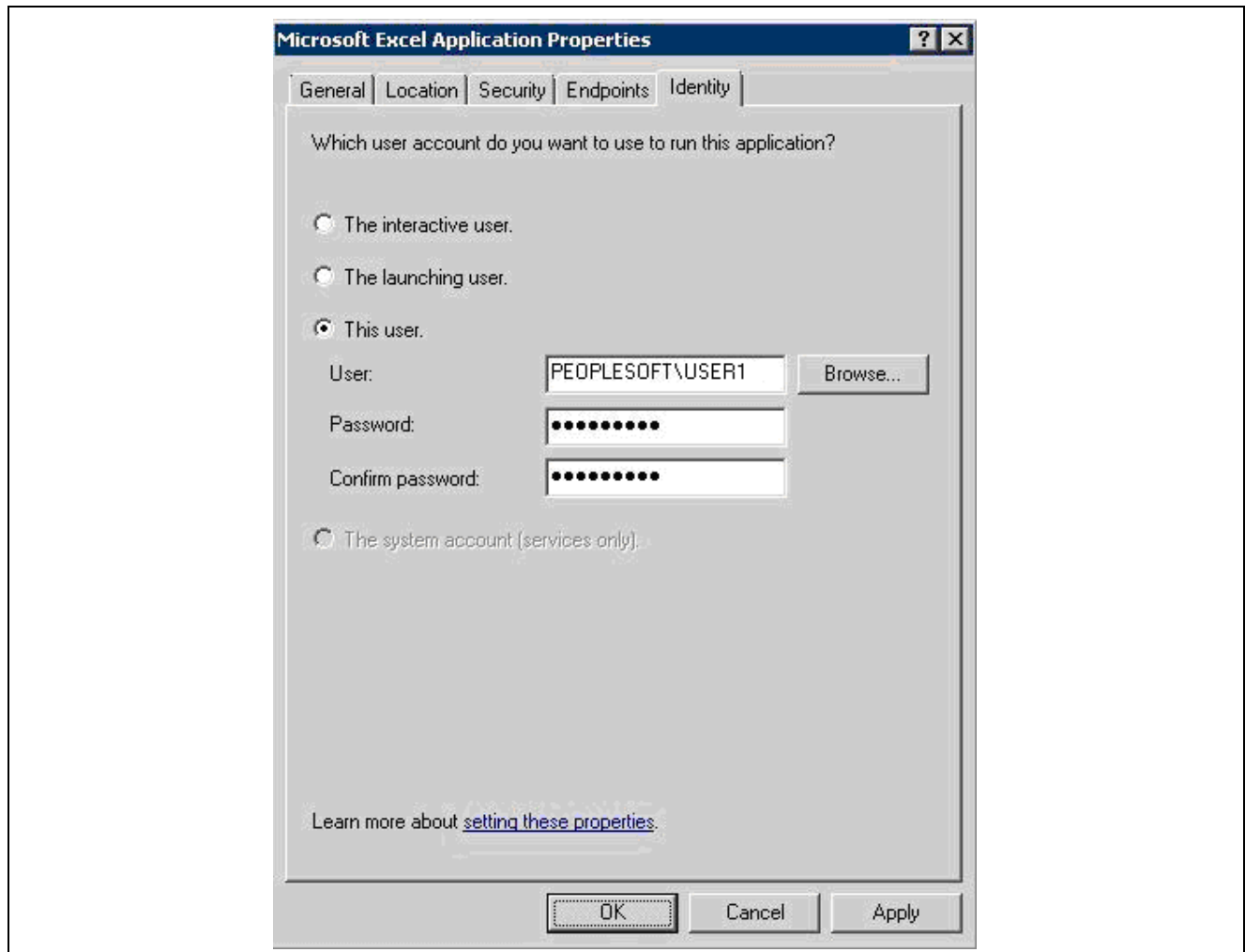


Adding the AppID Value

Task 11A-8-2: Modifying the DCOMCNFG Settings

You must modify the DCOMCNFG settings for Microsoft Excel to run Microsoft Excel under a specific user account. You can select any user account. To modify the settings:

1. Select Start, Run, and enter DCOMCNFG in the Run dialog box.
2. Select Component Services, Computers, My Computer, DCOM Config.
3. Find Microsoft Excel Application and open its properties dialog box.
4. Select the Identity tab.
5. Select the option This user and enter the user name and password, as shown in this example:



Microsoft Excel Application Properties dialog box

6. Click OK.

Task 11A-8-3: Modifying the Process Scheduler Configuration File

To modify the Process Scheduler configuration file:

1. Go to `<PS_CFG_HOME>\appserv\prcs\<domain_name>`.

2. Open pspres.cfg in a text editor.
3. Locate the portion of the file with settings for nVision.
4. Ensure that the paths for DrillDownDir and LayoutDir are specified as UNC paths.

If the paths DrillDownDir and LayoutDir are specified with mapped drive designations (for example, F:\PT850\NVISION\LAYOUT), modify them and save the file. This requirement does not apply to the other paths in this section.

The modified lines are displayed in bold font in this example:

```
[nVision]
;=====
; General settings for nVision
;=====
DrillDownDir=\\server1\PT850\NVISION\LAYOUT\DRILLDN
InstanceDir=%PS_SERVDIR%\NVISION\INSTANCE
LayoutDir=\\server1\PT850\NVISION\LAYOUT
MacroDir=%PS_HOME%\EXCEL
StyleDir=%PS_HOME%\EXCEL\STYLESHEETS
TemplateDir=%PS_HOME%\EXCEL
EnableDrillDownForFile=0
EnablePollDialogs=0
PollDialogSeconds=30
TraceLevel=4
SaveTempFile=0
```


CHAPTER 11B

Setting Up Process Scheduler on UNIX

This chapter discusses:

- Prerequisites
- Setting Up Process Scheduler Security
- Setting Up Process Scheduler to Transfer Reports and Logs to the Report Repository
- Setting Up Process Scheduler Server Agent

Prerequisites

If your database runs on z/OS, you need to set up a Windows batch environment on a Windows application server or on a dedicated Windows workstation for Windows-specific batch processes, such as Crystal Reports, nVision reports, Microsoft Word, or Cube Manager. These processes are Windows-specific applications that cannot be executed by the Process Scheduler on z/OS.

Before setting up your Process Scheduler, you must:

- Install Tuxedo (except for z/Linux).
See "Installing Additional Components."
- Install database connectivity to be able to communicate with your database server (Process Scheduler requires a direct connection to the database).
See "Preparing for Installation."
- Set up the web server with the PeopleSoft Pure Internet Architecture, as described in the previous chapter. This is required to set up the Process Scheduler to transfer reports or log files to the Report Repository.
- Have both your application server and the PeopleSoft Pure Internet Architecture started. In this chapter, you must modify security options of the designated PeopleSoft user ID that will be used to boot up Process Scheduler. This requires that the user ID's profile be modified through the User Security component. Please refer to earlier chapters for the details on starting the application server and the PeopleSoft Pure Internet Architecture.

In PeopleSoft PeopleTools 8.50, the configuration and log files for Process Scheduler server domains reside in *PS_CFG_HOME*. If you do not set a *PS_CFG_HOME* environment variable before beginning the application server configuration, the system installs it in a default location based on the current user's settings, as follows:

```
$HOME/psft/pt/<peopletools_version>
```

See "Preparing for Installation," Defining Server Domain Configurations.

See *Enterprise PeopleTools 8.50 PeopleBook: System and Server Administration*, "Working with Server Domain Configurations."

See Also

Enterprise PeopleTools 8.50 Hardware and Software Requirements

Enterprise PeopleTools 8.50 PeopleBook: PeopleSoft Process Scheduler

My Oracle Support, Certifications

Task 11B-1: Setting Up Process Scheduler Security

This section discusses:

- Understanding Process Scheduler Security
- Granting Process Scheduler Administrative Rights

Understanding Process Scheduler Security

This task—in which you set up the PeopleSoft User ID that will be used to boot Process Scheduler server so it has administrative rights to both Process Scheduler and Report Manager—guarantees that security is set up properly within your PeopleSoft database.

You must carry out this task to start Process Scheduler successfully.

Task 11B-1-1: Granting Process Scheduler Administrative Rights

To grant Process Scheduler administrative rights:

1. Log onto your PeopleSoft database through the PeopleSoft Pure Internet Architecture.
2. Select PeopleTools, Security, User Profiles.
3. Select the User Profiles component. Use the Search dialog to select the PeopleSoft User ID you plan to use to boot the Process Scheduler server.
4. Click the Roles tab, click the plus icon to insert a new row, and there enter the *ProcessSchedulerAdmin* role to grant the user ID with administrative rights in the Process Scheduler components.

General

ID

Roles

Workflow

Audit

Links

User ID Queries

User ID: VP1

Description: VP of Corporate Planning

Customize

Find

View All

First

1-10 of 10

Last

Role Name	Description	Dynamic		View Definition		
Coordinator	Coordinator	☐	Route Control	View Definition	+	-
PAPP_USER	Enterprise Portal User	☐	Route Control	View Definition	+	-
Packaging	Env. Mgmt. Packaging	☐	Route Control	View Definition	+	-
PeopleSoft Administra	PeopleSoft Admin Privileges	☐	Route Control	View Definition	+	-
PeopleSoft User	PeopleSoft User	☐	Route Control	View Definition	+	-
PeopleTools	PeopleTools	☐	Route Control	View Definition	+	-
ProcessSchedulerAdm	Process Scheduler Admin	☐	Route Control	View Definition	+	-
ReportDistAdmin	Report Distribution Admin	☐	Route Control	View Definition	+	-
UPG_ALLPANLS	ALLPANLS	☐	Route Control	View Definition	+	-
UPG_APPSRVR	Can start application server	☐	Route Control	View Definition	+	-

Process Scheduler window: Roles tab

- Repeat the instructions in step 4 to add the role *ReportDistAdmin*. This will grant the user ID administrative rights to the Report Manager component.
- Click Save to save your changes.
- Select the General tab and jot down the Permission List name assigned to the Process Profile field.
- From the Portal menu, choose PeopleTools, Security, Permissions & Roles, Permission Lists.
- In the Search dialog, enter the Permission List you noted in step 7.
- Select the Can Start Application Server check box.
- Click Save to save your changes.

Task 11B-2: Setting Up Process Scheduler to Transfer Reports and Logs to the Report Repository

This section discusses:

- Understanding Report Distribution
- Setting Up Single Signon to Navigate from PIA to Report Repository
- Determining the Transfer Protocol
- Starting the Distribution Agent
- Setting Up the Report Repository
- Setting Up the Distribution for Your Process Scheduler Server

- Setting Up Sending and Receiving of Report Folders in the Report Manager

Understanding Report Distribution

The PeopleSoft PeopleTools Report Distribution lets you access reports and log files generated from process requests run by a Process Scheduler Server Agent. Using the PeopleSoft Pure Internet Architecture, you can view reports and log files from the web browser through the Report Manager or Process Monitor Detail page. Report Distribution enables you to restrict access to these reports to authorized users based either on user ID or role ID.

This product also includes the Distribution Agent component, which runs on the same server as the Process Scheduler Server Agent. The Distribution Agent, a process that runs concurrently with the Process Scheduler Server Agent, transfers to the Report Repository files generated by process requests initiated by the Process Scheduler Server Agent.

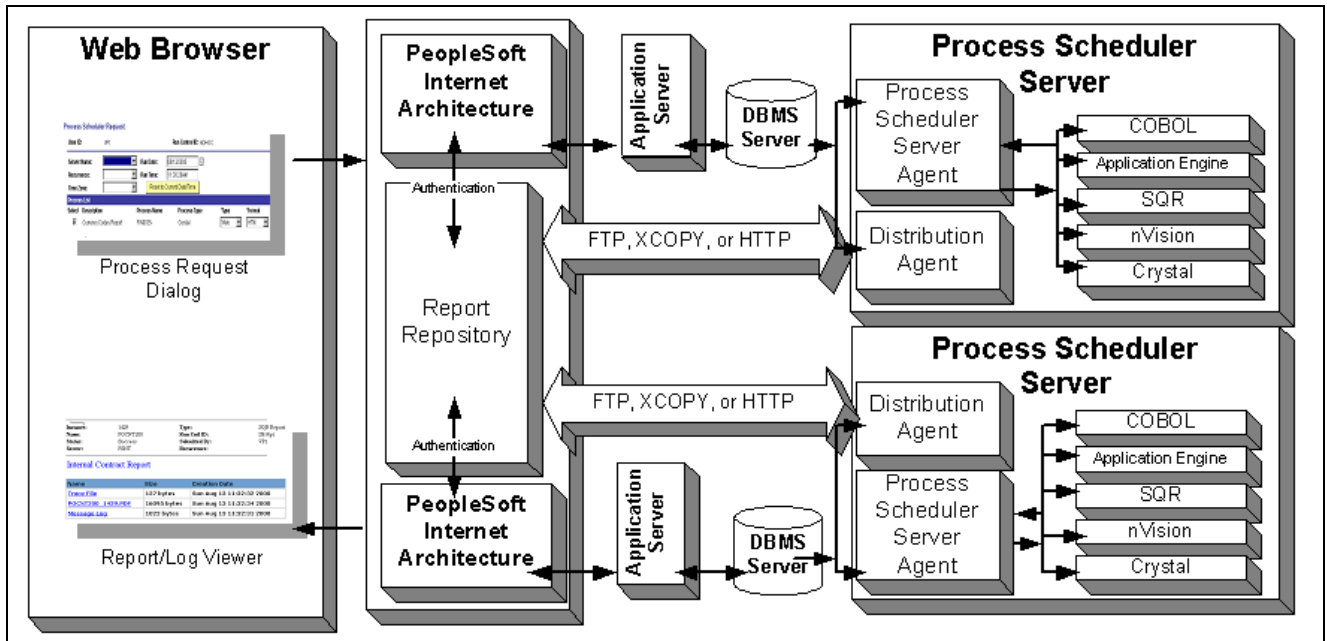
The Distribution Agent transfers files to the Report Repository when one of these criteria is true:

- The Process Scheduler Server Agent is set up in the *Server Definition* to transfer all log files to the Report Repository.
- The process request output destination type is *Web/Window*.

In either case, the Process Scheduler Server Agent inserts a row in the Report List table (PS_CDM_LIST). The server agent then updates the distribution status for a process request to *Posting* upon completion of the program associated with the process request. The distribution status of Posting signals the Distribution Status that the files for the process request are ready for transfer to the Report Repository. The Distribution Agent is notified by Process Scheduler for any process requests that are ready for transferring. As part of the process to transfer files to the Report Repository, the Distribution Agent performs the following steps:

- *Transfer files to the Report Repository.* All the report and log files are transferred to the Report Repository. For each process request transferred, a directory is created in the Report Repository using the following format: \<database name>\<date yyymmdd>\<report id>. All the files for a process request are stored in this directory.
- *Delete the directory from the Process Scheduler Agent's Log/Output directory.* When the output destination type specified for a process request is Web/Window, all the files and directory associated with the process request are deleted from the Process Scheduler Log/Output directory after the files are transferred to the Report Repository.

The following diagram illustrates the Process Scheduler and Report Repository architecture.



Process Scheduler and Report Repository Architecture

Note. The PeopleSoft Pure Internet Architecture must be installed for Process Scheduler to be able to transfer reports to the Repository.

Note. Before users can view a report, they are authenticated against the PeopleSoft database.

Note. You should set up single signon if you do not want users to have to log on an additional time to view reports in the Report Repository. For the details on setting up single signon, consult the security PeopleBook.

See *Enterprise PeopleTools 8.50 PeopleBook: Security Administration*.

Task 11B-2-1: Setting Up Single Signon to Navigate from PIA to Report Repository

To view reports (log files or system files) from Report Repository, you need to pass the authentication. Report Repository should be treated as a separate PeopleSoft application. To navigate from PeopleSoft Pure Internet Architecture (PIA) to Report Repository, you need to set up single signon to avoid getting a prompt for a second signon. Here are some considerations for setting up single signon to navigate from PIA to Report Repository:

If Report Repository resides on the same web server as the PeopleSoft Pure Internet Architecture, make sure your Local Message Node is set up to be a "trusted" node for single signon for your system.

If Report Repository resides on a different web server than PeopleSoft Pure Internet Architecture, do the following:

- Make sure your Local Message Node is set up to be a "trusted" node for single signon for your system.
- Use a fully qualified domain name when addressing the web server for both PIA and Report Repository. For example, enter `http://<machineName>.peoplesoft.com/<site_name>/signon.html` instead of `http://<machineName>/<site_name>/signon.html`.

- Specify the Authentication Domain for your application during installation. If you have multiple applications, and you want them to employ single signon, it is important to specify the same Authentication Domain for all applications.

See *Enterprise PeopleTools 8.50 PeopleBook: Security Administration*, "Implementing Single Signon."

- Set up single signon with a password, like this:
 - Choose PeopleTools, Integration Broker, Integration Setup, Nodes.
 - Click Search and then select the node marked as Default Local Node.
 - Select *Password* for the Authentication Option.
 - Enter a password of your choice.
 - Enter the password again in the Confirm Password field.
 - Enter the user ID for which you are setting up single signon in the Default User ID field.
 - Save the Node Definition.
 - Sign off of PIA.
 - Reboot your application server.

See Also

Enterprise PeopleTools 8.50 PeopleBook: Security Administration

Task 11B-2-2: Determining the Transfer Protocol

We recommend using HTTP as your transfer protocol.

Before transferring the files to the Report Repository, you need to determine which transfer protocol to use. If you have a Windows Process Scheduler and a Windows web server, you can use either an XCOPY, FTP, or HTTP/HTTPS. (If FTP information is not specified, Process Scheduler will perform an XCOPY.) If you have any other combination of servers (such as a Windows or z/OS Process Scheduler and a UNIX web server), you must use FTP or HTTP/HTTPS.

Note. If you are using FTP, the FTP daemon must be set up in your web server.

Note. If you are on DB2 z/OS, you need to have JRE set up on your Process Scheduler server.

Task 11B-2-3: Starting the Distribution Agent

The Distribution Agent is automatically started as another Oracle Tuxedo server when a Process Scheduler Server is booted. If a Process Scheduler Server was set up without specifying a Distribution Node in the *Server Definition* page, the Process Scheduler server will have a status in Process Monitor of "Running with No Report Node." Once a node is defined for the Process Scheduler server and in the next cycle the Process Scheduler server checks the state of the system, the Distribution Agent dynamically sets up its environment.

Task 11B-2-4: Setting Up the Report Repository

This section discusses:

- Defining ReportRepositoryPath
- Defining the Report Node to Use HTTP/HTTPS

- Defining the Report Node to Use FTP

Defining ReportRepositoryPath

The ReportRepositoryPath specifies the location of a directory for the Report Repository. You can specify the location for the Report Repository Path on the General page of the Web Profile during installation. If you do not set the location in the Web Profile, the location given by ReportRepositoryPath in the configuration.properties file is used for the default location. Note that the value entered for Report Repository Path in the Web Profile overrides any entry in the configuration.properties file.

See *Enterprise PeopleTools 8.50 PeopleBook: PeopleTools Portal Technology*, "Configuring the Portal Environment."

Use the following formats to enter the name for the directory that you want to use for the ReportRepositoryPath. The examples below give the default values. Note that you must use a forward slash (/) in both cases:

- *Windows*: ReportRepositoryPath=c:/psreports
- *UNIX*: ReportRepositoryPath=<user_home>/PeopleSoft Internet Architecture/psreports
For <user_home> substitute the home directory for the current user.

Defining the Report Node to Use HTTP/HTTPS

To define the report node to use HTTP/HTTPS:

1. Select PeopleTools, Process Scheduler, Report Nodes.
2. Select the Add a New Value link and enter the Report node name.
The Report Node Definition page appears. You are on the Http Distribution Node page.
3. Verify that the Http Information option is selected.

Report Node Definition page for HTTP

4. Enter the *URL* of the web server using the following format:

`http://<machine name>:<port number>/psreports/<site name>`

Replace <machine name> with the name of your machine. Use the fully qualified host name for your web server. If you are using an http port other than 80, you need to specify the port number.

Note. If you specify the Authentication Token Domain name during the PeopleSoft Pure Internet Architecture installation, you must include a fully qualified domain name for the URL instead of the IP address.

- *Description:* Enter a description of the server (optional).
 - *Operating System:* Select the web server operating system.
5. Enter the following Connection Information:
 - *http/https:* Select the http option if you are *not* using SSL (default). Select the https option if you are using SSL. Note that if you are using SSL you need to have Client Certificates installed on your web server.
 - *URI Host:* Enter the machine name for the report repository.

Note. In a basic setup, the machine name for the report repository will match the machine name of the web server URL. However, under certain circumstances—for example, if you are using a reverse proxy server—the URL and URI Host may have different machine names.

- *URI Port:* Enter the port number, which must match the port number of your web server (defaults are http = 80, https = 443). If you change a port number you will lose the default values for both protocols.

- *URI Resource:* Enter SchedulerTransfer/<site name>.

Note. The setup of basic authentication is optional, but is recommended for security of the Report Repository when using the HTTP to transfer files. For detailed instructions on setting up basic authentication on the web server where the Report Repository resides, refer to the appendix “Securing the Report Repository for HTTP.”

- *Login ID:* Enter the Login ID. This is not required, unless basic authentication has been set up on the web server by the Web Administrator.
- *Password:* Enter the password for the user ID specified in the Login ID field. This is not required, unless basic authentication has been set up on the web server by the Web Administrator.
- *Confirm Password:* Enter the password a second time as a confirmation. This is not required, unless basic authentication has been set up on the web server by the Web Administrator.

6. Click Save to save your entries.

7. To add additional report nodes, select Add to return to the Search page.

The following fields are shared between the FTP/XCOPY Distribution Node page and the Http Distribution page:

- URL
- Description
- Operating System
- Login ID
- Password
- Confirm Password.

When you enter the information on one page, the information is also displayed on the shared fields of the other page but the fields are grayed out.

Note. If you complete the information for one protocol and then change your selection to another protocol, the shared fields will become active on the other page and grayed out on the original page. When you save, the system automatically clears the fields that are not shared.

Defining the Report Node to Use FTP

If you use FTP the following parameters must be configured: URL, Home Directory, Operating System, FTP Address, FTP ID, Password, Confirm Password. In addition, if your FTP server is a Windows server, you may have to set up the FTP service.

Note. The Distribution Agent will perform a validation after FTP has transferred files into the Report Repository by sending a query request to the web server. For this task to be accomplished, it is critical that the following setup is done:

The value entered in the URL must be accurate. Verify that the machine name, port number, and site number are correct.

If this setup is not completed, the process request will get a status of NOT POSTED in the Process Monitor Detail page and will log the message "Unable to verify files posted."

To define the report node to use FTP:

1. Select PeopleTools, Process Scheduler, Report Nodes.
2. Select Add a New Value, enter the Report node name, and click Add.
3. Select the FTP/XCopy option.

The FTP/XCopy Distribution node page appears.

Report Node Definition page for FTP

4. Enter the URL of the web server using this format:

`http://<machine name>:<port number>/psreports/<site name>`

Replace *<machine name>* with the name of your web server. If you are using an http port other than 80, you need to specify the port number. The variable *<site name>* refers to the directory where you installed the PIA files; this will default to ps for the first installation.

Note. If you specify the Authentication Token Domain name during the PeopleSoft Pure Internet Architecture installation, you must include a fully qualified domain name for the URL instead of the IP address.

Note. If you installed the web server software with the default TCP port of 80, you do not need to specify the port number in the URL path. However, if you installed the web server to some other port, you must specify the port number in the URL path.

5. Enter the following additional parameters:

- *Home Directory*: Enter the directory specified during the installation of PeopleSoft Pure Internet Architecture as the Report Repository. The FTP user ID must have write access to this directory. Note that this is not a required field for HTTP transfer, as the system uses the Report Repository directory specified at install time or the current directory assigned to ReportRepositoryPath in configuration.properties. Note that the value you enter for the Report Repository Path in the Web Profile at install time overrides any entry for ReportRepositoryPath in configuration.properties.

For UNIX, the default directory is <user_home>/PeopleSoft Internet Architecture/psreports/.

- *Description*: Enter a description of the server (optional).
 - *Operating System*: Select the operating system of the Report Repository.
 - *FTP Address*: Enter the machine name or the IP address of the Report Repository. If the name of the machine is used, it must be included on a DNS server.
 - *FTP ID*: FTP user ID.
 - *Password*: Enter the password for the user ID specified in the FTP ID field.
 - *Confirm Password*: Enter the password a second time as a confirmation.
6. Select Save to save your entries.
 7. To add additional report nodes, select Add to return to the Search page.

Task 11B-2-5: Setting Up the Distribution for Your Process Scheduler Server

To set up the Distribution Settings for your Process Scheduler Server:

1. Choose PeopleTools, Process Scheduler, Servers.
2. Enter the Server Name (such as PSUNIX). The Server Definition page appears.
3. Select the Distribution tab.

Server Definition **Distribution** Operation Notification Daemon

Server Name: PSUNIX

Server Distribution Details

Distribution Node Name:

Maximum Transfer Retries:

Interval for Transfer Attempt: seconds

Transfer System Files to Report Repository ☐

Save
 Return to Search
 Notify
 Add
 Update/Display

[Server Definition](#) |
 [Distribution](#) |
 [Operation](#) |
 [Notification](#) |
 [Daemon](#)

Server Definition page: Distribution tab

4. Click the lookup button to display the report node names and select the name of the required report node.
5. Enter a number for the Maximum Transfer Retries. This is the maximum number of times the server can try to send a report before it errors out.
6. Enter the number of seconds for the Interval for Transfer Attempt field. This is the interval between attempts to send the report.
7. Select the check box Transfer Log Files to Report Repository if you want to transfer all log and trace files from processes that do not generate reports.
8. Click Save to save your entries.
9. If Process Scheduler is running, you must reboot for any new settings to take effect.

To view reports (log files or system files) from Report Repository, you need to pass the authentication. Report Repository should be treated as a separate PeopleSoft Application. To navigate from PIA to Report Repository, you need to setup single signon in order to avoid getting prompt for second signon.

Task 11B-2-6: Setting Up Sending and Receiving of Report Folders in the Report Manager

To be able to view reports in the Report Manager Explorer and List pages, you need to set up the sending and receiving of report folders in the Report Manager by activating the domain on which a sending and receiving server resides. Consult the documentation covering the PeopleSoft Integration Broker to learn how to activate the sending and receiving server domain.

See *Enterprise PeopleTools 8.50 PeopleBook: PeopleSoft Integration Broker*, "Using the Service Operations Monitor."

Task 11B-3: Setting Up Process Scheduler Server Agent

This section discusses:

- Understanding Process Scheduler Server Agent
- Changing the Default Operating System
- Creating and Configuring a Process Scheduler Server
- Reconfiguring a Process Scheduler Server
- Verifying the Process Scheduler Server Status

Understanding Process Scheduler Server Agent

For installation purposes, you can use predefined server names and other definitions. The predefined name that you might use is as follows:

Server Name	Operating System
PSUNIX	UNIX

To test this, use processes already defined in your PeopleSoft database. To set up a new server definition in your PeopleSoft database, refer to the Process Scheduler PeopleBook.

See *Enterprise PeopleTools 8.50 PeopleBook: PeopleSoft Process Scheduler*

Note. When creating multiple Process Scheduler Servers for the same database, each server must have a unique server name. For example, two Process Scheduler Servers, both named PSNT, cannot run against the same database.

Task 11B-3-1: Changing the Default Operating System

By default, Process Scheduler is set up to run a process request from a Process Scheduler Server Agent started in a Windows server when the value of the *ServerName* field in the Process Request Dialog page is left blank. If you plan to run all processes other than Windows-based programs (that is, nVision or Crystal Reports) from UNIX, you must change the default operating system.

Note. If you do not change the default operating system from Windows to UNIX and you do not plan to set up a Process Scheduler Server Agent in Windows, process requests that are created will be directed to a Windows-based operating system and will remain in the "Queued" status.

To change the default operating system for process requests that were not assigned a Process Scheduler Server Name:

1. Select PeopleTools, Process Scheduler, System Settings.
2. Under *Primary Operating System*, choose *UNIX* from the drop-down list.
3. Click on the *System Purge Options* tab. Enter the date for the next purge of process requests in the *Next Purge Date* field.
4. Enter the time for the next purge of process requests in the *Next Purge Time* field. The default time is 12:00:00AM.

5. Enter a *Recurrence* if you want to set a regular purging basis.
6. Choose *Save*.

Task 11B-3-2: Creating and Configuring a Process Scheduler Server

This section describes how to create and configure a Process Scheduler server.

Note. You can set Process Scheduler configuration parameters either by using PSADMIN, which provides an interactive dialog, or by editing the configuration file `psprcs.cfg` located in the `PS_CFG_HOME/appserv/prcs/database name` directory. The following steps assume you are using PSADMIN to specify parameter settings.

Note. If you use the configuration file `psprcs.cfg`, be aware that in the PeopleSoft PeopleTools 8.49 release and later, the section [Output Dest Exceptions] has been modified to trap metastring exceptions not only in the output destination but in other process parameters as well. In this section the entry `OUTDEST_EXCEPT01=%ANYMETASTRING%` has been changed to `PARAMETER_EXCEPT01=%ANYMETASTRING%`.

To create and configure a Process Scheduler Server:

1. From `PS_HOME/appserv` on the batch server, type `psadmin` and press ENTER to access the PeopleSoft Server Administration menu.
2. Select 2 to access the Process Scheduler submenus.

```
-----
PeopleSoft Server Administration
-----
1) Application Server
2) Process Scheduler
3) Search Server
q) Quit
```

Command to execute (1-3 q): 2

3. Select 4 from the PeopleSoft Process Scheduler Administration menu.

```
-----
PeopleSoft Process Scheduler Administration
-----
1) Start a Process Scheduler Server
2) Stop a Process Scheduler Server
3) Configure a Process Scheduler Server
4) Create a Process Scheduler Server Configuration
5) Delete a Process Scheduler Server Configuration
6) Edit a Process Scheduler Configuration File
7) Import an existing Process Scheduler Configuration
8) Show Status of a Process Scheduler Server
9) Kill a Process Scheduler Server
10) Clean IPC resources of a Process Scheduler Domain
```

q) Quit

Command to execute (1-9, q) : 4

4. When prompted for the name of the database that your server will access, enter the name of the database and press ENTER:

Please enter name of Database that server will access :

5. After the system creates the domain, you see the prompt

Would you like to configure this Process Scheduler Server now? (y/n) [y] :

Choose y; you'll see a Quick-configure menu something like this:

Quick-configure menu -- Scheduler for Database: HRDMO

Features =====	Settings =====
1) Master Schdlr : Yes	5) DBNAME : [HRDMO]
2) App Eng Server : Yes	6) DBTYPE : [DB2ODBC]
	7) PrcsServer : [PSUNIX]
	8) UserId : [QEDMO]
	9) UserPswd : [QEDMO]
	10) ConnectID : [people]
	11) ConnectPswd: [peop1e]
	12) ServerName : []
	13) Log/Output Dir: [%PS_SERVDIR%/log_output]
	14) SQRBIN : [%PS_HOME%/bin/sqr/ODB/bin]
	15) AddToPATH : [%PS_HOME%/cblbin]
Actions =====	
3) Load config as shown	
4) Custom configuration	
h) Help for this menu	
q) Return to previous menu	

HINT: Enter 5 to edit DBNAME, then 3 to load

Enter selection (1-15, h, or q):

6. If you need to modify any of these settings, enter the number next to the parameter name, type the new value, and press ENTER.

Parameter	Description
Master Schdlr	Flag to enable the Master Scheduler Server (PSMSTPRC). Default is to enable the server. See Enterprise PeopleTools 8.50 PeopleBook: PeopleSoft Process Scheduler.

Parameter	Description
App Eng Server	Flag to initiate Application Engine programs through the AE Tuxedo Server (PSAESRV). Default is set to run AE using PSAESRV. See Enterprise PeopleTools 8.50 PeopleBook: PeopleSoft Process Scheduler.
Load config as shown	Load the selections you made in the Quick Configure menu.
Custom configuration	Make custom selections in PSADMIN, using options that are not available in the Quick Configure menu.
DBNAME	Specify the database name that is associated with a PeopleSoft Process Scheduler Server Agent, such as HRDMO, FSDMO, SADMO, and so on.
DBTYPE	Specify the database type: DB2ODBC (for DB2 UDB for z/OS).
PrsServer	Specify the process server name. This must match the name defined in the Server Definition table, such as <i>PSNT</i> or <i>PSUNIX</i> .
UserId	Enter the user ID. For Enterprise Resource Planning (ERP), this is typically <i>VPI</i> , and for Human Resources (HR) it's <i>PS</i> .
UserPswd	Enter the user password. For Enterprise Resource Planning, this is typically <i>VPI</i> , and for Human Resources it's <i>PS</i> .
ConnectID	Enter the connect ID. This value is required.
ConnectPswd	Enter the connect password. This value is required.
ServerName	This value is required for Sybase users.
Log/Output Dir	Specify the directory in which files that are generated by the program are written. When PeopleSoft Process Scheduler initiates a process request, it creates a subdirectory in the format <Process Type ID>_<Program Name>_<Process Instance> that contains the generated files. For instance, the SQR program XRFWIN that ran with process instance 20 has all reports, trace, and log files in the subdirectory SQR_XRFWIN_20. It is also the optional directory used with the Output Destination field when scheduling a request. This variable (%%OutputDirectory%%) can be used in the File/Printer field of the Process Scheduler Request dialog box.
SQRBIN	Enter the path to the SQR executables.
AddToPATH	(Optional for Tuxedo) Specify an additional directory that is appended to the PATH environment variable.
DBBIN	Enter the path to the database drivers; that is, your connectivity software.

For descriptions of the PSADMIN options that do not appear in the Quick-configure menu, consult the following. For a basic install, in most cases you can accept the defaults.

See *Enterprise PeopleTools 8.50 PeopleBook: PeopleSoft Process Scheduler*.

7. When you have updated the settings as needed, choose *3, Load config as shown*, from the Quick-Configure menu to save your settings to the Process Scheduler configuration file, `pstuxcfg`.
8. To start Process Scheduler, choose *1* and select the item number corresponding to your database to start.
9. If you want to stop Process Scheduler Server, choose *2, Stop a Process Scheduler Server*, from the PeopleSoft Process Scheduler Administration menu, and then enter the number corresponding to the name of the appropriate database.

Note. If you see the following message, then the server is already down:

```
Command to execute (1-2, q) [q]: 1
Loading command line administration utility ...
tmadmin - Copyright (c) 2007-2008, Oracle.
Portions * Copyright 1986-1997 RSA Data Security, Inc.
All Rights Reserved.
Distributed under license by Oracle.
Tuxedo is a registered trademark.
No bulletin board exists. Entering boot mode.
> TMADMIN_CAT:111: ERROR: No such command.
```

Task 11B-3-3: Reconfiguring a Process Scheduler Server

If you create and then immediately configure a Process Scheduler server, you can use the Quick-configure menu. However, if you want to update the configuration of an existing domain, or carry out a number of other administrative tasks, this handy shortcut is not available. Instead you can use PSADMIN as follows. Feel free to skip this procedure if you have already created and configured your Process Scheduler Server using the Quick-configure menu and want to move forward with your installation.

Note. If you want to configure the Process Scheduler Server while it is running, you need to stop and restart the server to load the new settings.

To reconfigure a Process Scheduler Server:

1. Go to `PS_HOME/appserv` and enter:


```
psadmin
```
2. Select *2* for Process Scheduler in the PeopleSoft Server Administration menu.
3. In the PeopleSoft Process Scheduler Administration menu, select *3* for Configure a Process Scheduler.
4. Select the database for which the Process Scheduler needs to be configured.
5. At the prompt

```
Do you want to change any config values (y/n)? [n]:
```

Specify *y* to start an interactive dialog that lets you examine or change parameter values.

6. Now you specify configuration parameters one by one. Configuration parameters are grouped into sections. At each section, you are asked whether to change any parameters—for example:

```
Values for config section - Startup
DBName=
DBType=
UserId=
```

```

UserPswd=
ConnectId=
ConnectPswd=
ServerName=
Do you want to change any values (y/n)? [n]:

```

- Specify *y* to change any parameter values for the current section. You are prompted for each parameter value. Either specify a new value or press ENTER to accept the default. After you press ENTER, you are positioned at the next parameter in that section. When you are done with that section, you are again asked whether you want to re-edit any of the values you changed.
- If you do not want to change any values, specify *n* and you are prompted for the next configuration section.

7. Once you have selected all your parameters, you see this message

You will need to shut down and start up the server to read the new settings.

For descriptions of the Process Scheduler options in the PSADMIN, consult the following. In most cases you can accept the defaults.

See *Enterprise PeopleTools 8.50 PeopleBook: PeopleSoft Process Scheduler*.

Task 11B-3-4: Verifying the Process Scheduler Server Status

At this stage it is a good idea to verify the Process Scheduler Server status.

To verify the Process Scheduler Server status:

1. From the PeopleSoft Process Scheduler Administration menu, select option 8.

```

-----
PeopleSoft Process Scheduler Administration
-----
1) Start a Process Scheduler Server
2) Stop a Process Scheduler Server
3) Configure a Process Scheduler Server
4) Create a Process Scheduler Server Configuration
5) Delete a Process Scheduler Server Configuration
6) Edit a Process Scheduler Configuration File
7) Import an existing Process Scheduler Configuration
8) Show Status of a Process Scheduler Server
9) Kill a Process Scheduler Server
10) Clean IPC resources of a Process Scheduler Domain

q) Quit

Command to execute (1-10, q) : 8

```

2. To verify the status of the Process Scheduler Server for a specific database, type the number corresponding to the appropriate database.

For example:

Database list:

1) HRDMO

Select item number to start: 1

will verify the status of the Process Scheduler Server for the database HRDMO.

Loading command line administration utility ...

tmadmin - Copyright (c) 2007-2008 Oracle.

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Distributed under license by Oracle.

Tuxedo is a registered trademark.

> Prog Name	Queue Name	Grp Name	ID	RqDone	Load	Done	Current	Service
DDL	46845	pt-ibm20	0	9	450	(	IDLE	)
PSMONITORSRV	MONITOR	MONITOR	1	0	0	(	IDLE	)
PSAESRV	00101.00001	AESRV	1	0	0	(	IDLE	)
PSAESRV	00101.00002	AESRV	2	0	0	(	IDLE	)
PSAESRV	00101.00003	AESRV	3	0	0	(	IDLE	)
PSPRCSRV	SCHEDQ	BASE	101	0	0	(	IDLE	)
PSMSTPRC	MSTRSCHQ	BASE	102	0	0	(	IDLE	)
PSDSTSRV	DSTQ	BASE	103	0	0	(	IDLE	)

> Prog Name	Queue Name	# Serve	Wk Queued	#Queued	Ave. Len	Machine
PSDSTSRV	DSTC	1	-	0	-	pt-ibm20

>

Note. You can also do this using the following command line argument:

`psadmin -p status -d <DBNAME>`

Note. You can also verify the status of the Process Scheduler Server from Process Monitor in PeopleSoft Pure Internet Architecture. To verify the Process Scheduler Server status from the Process Monitor page, go to PeopleTools, Process Scheduler, Process Monitor, and select *Server List*.

CHAPTER 11C

Setting Up Process Scheduler on z/OS

This chapter discusses:

- Prerequisites
- Granting Required Authorization in DB2 and UNIX System Services
- Setting Up Process Scheduler Security
- Setting Up Process Scheduler to Transfer Reports and Logs to the Report Repository
- Setting Up Process Scheduler Server Agent

Prerequisites

If your database runs on z/OS, you need to set up a Windows batch environment on a Windows application server or on a dedicated Windows workstation for Windows-specific batch processes, such as Crystal Reports, nVision reports, Microsoft Word, or Cube Manager. These processes are Windows-specific applications that cannot be executed by the Process Scheduler on z/OS.

Before setting up your Process Scheduler, you must:

- Install database connectivity to be able to communicate with your database server (Process Scheduler requires a direct connection to the database).
The Process Scheduler running on z/OS USS uses the DB2 ODBC component to connect to DB2. DB2 ODBC must be installed by your DB2 systems programmer; installation details are available in the IBM DB2 Installation Guide.
- Set up the web server with the PeopleSoft Pure Internet Architecture, as described in the previous chapter. This is required to set up the Process Scheduler to transfer reports or log files to the Report Repository.
- Set up your COBOL batch environment if you need to run COBOL processes through Process Scheduler. COBOL is no longer required to start a Process Scheduler Server Agent because the program for Process Scheduler has been rewritten in C++. If the PeopleSoft modules purchased do not contain any COBOL modules, the COBOL run time libraries are not required. Also, COBOL is not required for applications that contain no COBOL programs. Consult My Oracle Support for the details on whether your application requires COBOL.

See "Preparing for Installation," Planning Your Initial Configuration.

- Install JDK/JRE 1.6.0 (z/OS Java 2 kit) on z/OS.
- Apply all the required IBM patches listed in the document "Important PTFs for the PeopleSoft on DB2 for z/OS."

See "Important PTFs for the PeopleSoft on DB2 for z/OS," My Oracle Support (search for the article name).

- Set up your database connectivity to access the PeopleSoft database from UNIX System Services with ODBC for z/OS.
- Install IBM's system stored procedure DSNUTILS. This is only required if you intend to run %UPDATESTAT meta-SQL coded in Application Engine, COBOL and Process Scheduler. If you do not have DSNUTILS installed, make sure you set the DBFLAGS parameter in the Process Scheduler Configuration file to "1" to disable performing this statistics within.

See "Creating a Database," Planning Your Installation.

- Have both your application server and the PeopleSoft Pure Internet Architecture started. In this chapter, you must modify security options of the designated PeopleSoft user ID that will be used to boot up Process Scheduler. This requires that the user ID's profile be modified through the User Security component. Please refer to earlier chapters for the details on starting the application server and the PeopleSoft Pure Internet Architecture.
- PeopleSoft binaries are compiled and linked with IBM's XPLINK (Extra option Linkage) option enabled. In order for all PeopleSoft executables to successfully run from UNIX System Services (USS), it is recommended to include the IBM Language Environment Run Time library CEE.SCEERUN2 dataset concatenated into your system library using IBM's LNKLIST utility. This IBM library CEE.SCEERUN2 may have been renamed in your system. It will be the dataset containing the CELHV003 load module.

In PeopleSoft PeopleTools 8.50, the configuration and log files for Process Scheduler server domains reside in *PS_CFG_HOME*. If you do not set a *PS_CFG_HOME* environment variable before beginning the application server configuration, the system installs it in a default location based on the current user's settings, as follows:

```
%USERPROFILE%\psft\pt\<peopletools_version>
```

See "Preparing for Installation," Defining Server Domain Configurations.

See *Enterprise PeopleTools 8.50 PeopleBook: System and Server Administration*, "Working with Server Domain Configurations."

See Also

Enterprise PeopleTools 8.50 Hardware and Software Requirements

Enterprise PeopleTools 8.50 PeopleBook: PeopleSoft Process Scheduler

My Oracle Support, Certifications

Task 11C-1: Granting Required Authorization in DB2 and UNIX System Services

This section discusses:

- Setting UNIX System Services Authorization
- Setting DB2 Authorization

Task 11C-1-1: Setting UNIX System Services Authorization

This section discusses:

- Providing Read/Write Access to the Designated Log/Output Directory

- Providing Access to TSO and USS

Providing Read/Write Access to the Designated Log/Output Directory

All processes released by Process Scheduler will create and write files to an Hierarchical File System (HFS) directory in UNIX System Services (USS). This HFS directory is designated by the *Log/Output Directory* parameter found in the *Process Scheduler* section of the Process Scheduler Configuration file. By default the log/output directory will be

```
$PS_HOME/appserv/prcs/<database name>/log_output
```

JCL's generated by Process Scheduler to submit COBOL or SQR include step(s) that will copy the log file(s) and reports (for SQR) to the Log/Output directory in USS. If the JCL job card includes the USER/PASSWORD parameter, the user ID specified in the USER parameter must also be given read/write access to this HFS directory. In this case, where multiple mainframe ID's will be writing to this directory, you need to set up a group ID (GID) in RACF and assign the mainframe user ID to this GID. Once you have established this in RACF, make sure the group ID is the owning group of the log/output directory.

As an example, HRASB and PSOFT IDs are required to write to the log/output directory. A DBAUNIX group ID is set up so both HRASB and PSOFT are connected to this group in RACF. For the group to have read/write access, the mode of the directory is changed (using the UNIX command `chmod`) so UID and GID have read/write access.

```
$ ls -l
total 152
drwxrwx--- 11 HRASB DBAUNIX 8192 Dec 5 17:43 log_output
```

Providing Access to TSO and USS

All mainframe user IDs involved in submitting a JCL in TSO or Process Scheduler and Application Engine in USS must be set up in RACF to have access to both TSO and USS environments. Certain procedures in Process Scheduler will perform a OCOPY (from a JCL) or OPUT as a TSO command in USS to transfer files from a PDS into an HFS directory. These procedures are triggered when posting reports and log files from a COBOL and/or SQR. The Distribution Agent will temporarily copy the files from a partitioned dataset (PDS) or sequential file into a designated HFS directory before posting the files to the repository.

To verify that the mainframe ID has all the proper authorization to perform the transfer, you can issue this test from USS.

To verify the mainframe ID's authorization:

1. Log in to the USS with the user ID that will be used to boot Process Scheduler
2. Enter the following command in USS:

```
tso OPUT "'<Partitioned data set(member)>' '<HFS file>'"
```

As an example:

```
$ tso OPUT "'FS.FS840A8.JCLLIB(SQRSAMP)' '/tmp/test.txt'"
OPUT 'FS.FS840A8.JCLLIB(SQRSAMP)' '/tmp/test.txt'
IGD103I SMS ALLOCATED TO DDNAME SYS00001
```

In this example, the PDS member SQRSAMP is copied into the HFS file /tmp/test.txt.

See Also

IBM publications available at: <http://www-1.ibm.com/servers/eserver/zseries/zos/unix/bpxa1pub.html>

Systems Planning Guide (SA22-7800)

User's Guide (SA22-7801)

Task 11C-1-2: Setting DB2 Authorization

This section discusses:

- Setting Authorization for DB2 Plan for ODBC for OS390
- Setting Authorization for DB2 Plans for COBOL
- Setting Authorization for DB2 Plan for SQR

Setting Authorization for DB2 Plan for ODBC for OS390

The privilege to execute the DB2 plan for the CLI/ODBC package DSNAOCLI must be given to the mainframe ID used to login to UNIX System Services to start Process Scheduler Server Agent. When Process Scheduler or Application Engine program connects to the DB2 database, CLI/ODBC authenticates the connection based on the user ID that initiates the program from UNIX System Services.

```
Grant EXECUTE on PLAN <PLAN for CLI Package DSNAOCLI> To <Unix Service Login ID>
```

Setting Authorization for DB2 Plans for COBOL

Enter the following command to set authorization for DB2 Plans for COBOL:

```
Grant EXECUTE on PLAN <SQLRT Plan PTPSQLRA and PTPSQLRE> To <Access-Id> or=>  
<Ownerid>;
```

The <SQLRT Plan PTPSQLRA and PTPSQLRE > refers to the plans created here:

See "Creating a Database," Binding DB2 Plans.

Setting Authorization for DB2 Plan for SQR

Enter the following command to set authorization for DB2 Plan for SQR:

```
Grant EXECUTE on PLAN <SQR PLAN> To <Access-Id> or <Ownerid>;
```

The <SQR PLAN> refers to the plan created when installing SQR for z/OS.

Task 11C-2: Setting Up Process Scheduler Security

This section discusses:

- Understanding Process Scheduler Security
- Granting Process Scheduler Administrative Rights

Understanding Process Scheduler Security

This task—in which you set up the PeopleSoft User ID that will be used to boot Process Scheduler server so it has administrative rights to both Process Scheduler and Report Manager—guarantees that security is set up properly within your PeopleSoft database.

You must carry out this task to start Process Scheduler successfully.

Task 11C-2-1: Granting Process Scheduler Administrative Rights

To grant Process Scheduler administrative rights:

1. Log onto your PeopleSoft database through the PeopleSoft Pure Internet Architecture.
2. Select PeopleTools, Security, User Profiles.
3. Select the User Profiles component. Use the Search dialog to select the PeopleSoft User ID you plan to use to boot the Process Scheduler server.
4. Click the Roles tab, click the plus icon to insert a new row, and there enter the *ProcessSchedulerAdmin* role to grant the user ID with administrative rights in the Process Scheduler components.

General		ID	Roles	Workflow	Audit	Links	User ID Queries
User ID:	VP1						
Description:	VP of Corporate Planning						
Role Name		Description	Dynamic	View Definition			
Coordinator	Coordinator	☐	Route Control	View Definition	+	-	
PAPP_USER	Enterprise Portal User	☐	Route Control	View Definition	+	-	
Packaging	Env. Mgmt. Packaging	☐	Route Control	View Definition	+	-	
PeopleSoft Administra	PeopleSoft Admin Privileges	☐	Route Control	View Definition	+	-	
PeopleSoft User	PeopleSoft User	☐	Route Control	View Definition	+	-	
PeopleTools	PeopleTools	☐	Route Control	View Definition	+	-	
ProcessSchedulerAdm	Process Scheduler Admin	☐	Route Control	View Definition	+	-	
ReportDistAdmin	Report Distribution Admin	☐	Route Control	View Definition	+	-	
UPG_ALLPANLS	ALLPANLS	☐	Route Control	View Definition	+	-	
UPG_APPSRVR	Can start application server	☐	Route Control	View Definition	+	-	

Process Scheduler window: Roles tab

5. Repeat the instructions in step 4 to add the role *ReportDistAdmin*. This will grant the user ID administrative rights to the Report Manager component.

Note. When setting up Process Scheduler on UNIX or Windows, you must have the right user ID to start an application server. This authorization is not required to bring up Process Scheduler in z/OS UNIX System Services because Process Scheduler is not booted through Tuxedo in this platform.

Task 11C-3: Setting Up Process Scheduler to Transfer Reports and Logs to the Report Repository

This section discusses:

- Understanding Report Distribution
- Setting Up Single Signon to Navigate from PIA to Report Repository
- Determining the Transfer Protocol
- Starting the Distribution Agent
- Setting Up the Report Repository
- Setting Up the Distribution for Your Process Scheduler Server
- Setting Up Sending and Receiving of Report Folders in the Report Manager

Understanding Report Distribution

The PeopleSoft PeopleTools Report Distribution lets you access reports and log files generated from process requests run by a Process Scheduler Server Agent. Using the PeopleSoft Pure Internet Architecture, you can view reports and log files from the web browser through the Report Manager or Process Monitor Detail page. Report Distribution enables you to restrict access to these reports to authorized users based either on user ID or role ID.

This product also includes the Distribution Agent component, which runs on the same server as the Process Scheduler Server Agent. The Distribution Agent, a process that runs concurrently with the Process Scheduler Server Agent, transfers to the Report Repository files generated by process requests initiated by the Process Scheduler Server Agent.

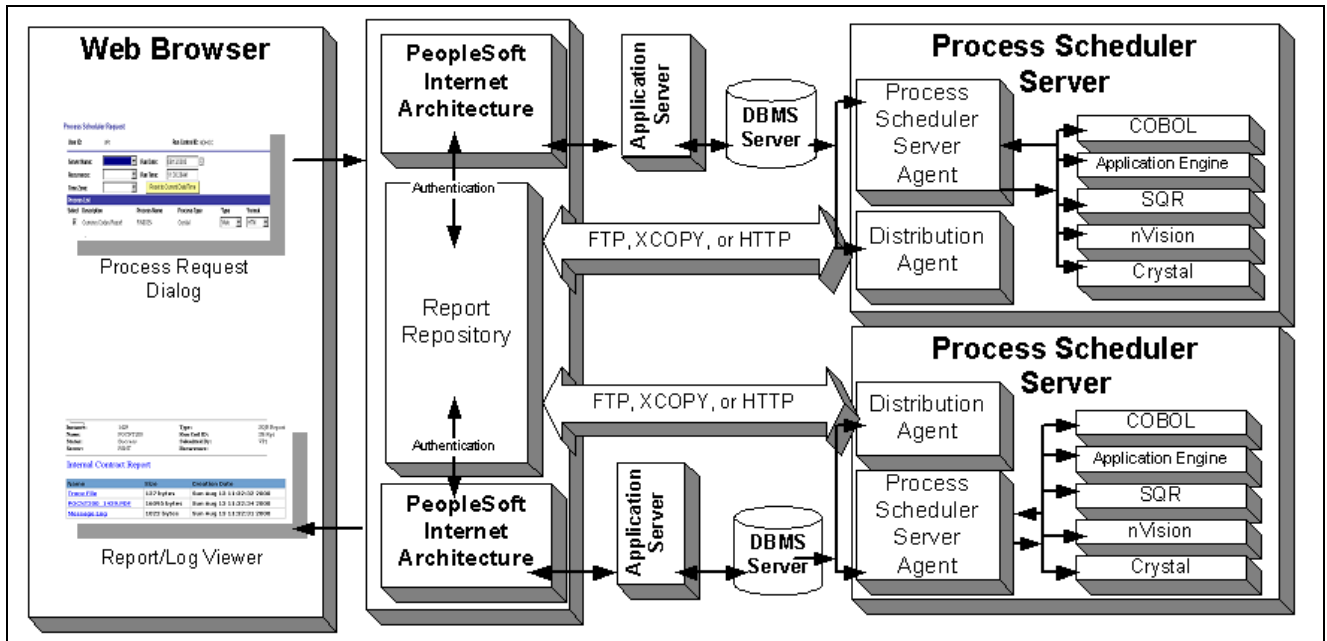
The Distribution Agent transfers files to the Report Repository when one of these criteria is true:

- The Process Scheduler Server Agent is set up in the *Server Definition* to transfer all log files to the Report Repository.
- The process request output destination type is *Web/Window*.

In either case, the Process Scheduler Server Agent inserts a row in the Report List table (PS_CDM_LIST). The server agent then updates the distribution status for a process request to *Posting* upon completion of the program associated with the process request. The distribution status of Posting signals the Distribution Status that the files for the process request are ready for transfer to the Report Repository. The Distribution Agent is notified by Process Scheduler for any process requests that are ready for transferring. As part of the process to transfer files to the Report Repository, the Distribution Agent performs the following steps:

- *Transfer files to the Report Repository.* All the report and log files are transferred to the Report Repository. For each process request transferred, a directory is created in the Report Repository using the following format: \<database name>\<date yyymmdd>\<report id>. All the files for a process request are stored in this directory.
- *Delete the directory from the Process Scheduler Agent's Log/Output directory.* When the output destination type specified for a process request is Web/Window, all the files and directory associated with the process request are deleted from the Process Scheduler Log/Output directory after the files are transferred to the Report Repository.

The following diagram illustrates the Process Scheduler and Report Repository architecture.



Process Scheduler and Report Repository Architecture

Note. The PeopleSoft Pure Internet Architecture must be installed for Process Scheduler to be able to transfer reports to the Repository.

Note. Before users can view a report, they are authenticated against the PeopleSoft database.

Note. You should set up single signon if you do not want users to have to log on an additional time to view reports in the Report Repository. For the details on setting up single signon, consult the security PeopleBook.

See *Enterprise PeopleTools 8.50 PeopleBook: Security Administration*.

Task 11C-3-1: Setting Up Single Signon to Navigate from PIA to Report Repository

To view reports (log files or system files) from Report Repository, you need to pass the authentication. Report Repository should be treated as a separate PeopleSoft application. To navigate from PeopleSoft Pure Internet Architecture (PIA) to Report Repository, you need to set up single signon to avoid getting a prompt for a second signon. Here are some considerations for setting up single signon to navigate from PIA to Report Repository:

If Report Repository resides on the same web server as the PeopleSoft Pure Internet Architecture, make sure your Local Message Node is set up to be a "trusted" node for single signon for your system.

If Report Repository resides on a different web server than PeopleSoft Pure Internet Architecture, do the following:

- Make sure your Local Message Node is set up to be a "trusted" node for single signon for your system.
- Use a fully qualified domain name when addressing the web server for both PIA and Report Repository. For example, enter `http://<machineName>.peoplesoft.com/<site_name>/signon.html` instead of `http://<machineName>/<site_name>/signon.html`.

- Specify the Authentication Domain for your application during installation. If you have multiple applications, and you want them to employ single signon, it is important to specify the same Authentication Domain for all applications.

See *Enterprise PeopleTools 8.50 PeopleBook: Security Administration*, "Implementing Single Signon."

- Set up single signon with a password, like this:
 - Choose PeopleTools, Integration Broker, Integration Setup, Nodes.
 - Click Search and then select the node marked as Default Local Node.
 - Select *Password* for the Authentication Option.
 - Enter a password of your choice.
 - Enter the password again in the Confirm Password field.
 - Enter the user ID for which you are setting up single signon in the Default User ID field.
 - Save the Node Definition.
 - Sign off of PIA.
 - Reboot your application server.

See Also

Enterprise PeopleTools 8.50 PeopleBook: Security Administration

Task 11C-3-2: Determining the Transfer Protocol

We recommend using HTTP as your transfer protocol.

Before transferring the files to the Report Repository, you need to determine which transfer protocol to use. If you have a Windows Process Scheduler and a Windows web server, you can use either an XCOPY, FTP, or HTTP/HTTPS. (If FTP information is not specified, Process Scheduler will perform an XCOPY.) If you have any other combination of servers (such as a Windows or z/OS Process Scheduler and a UNIX web server), you must use FTP or HTTP/HTTPS.

Note. If you are on DB2 z/OS, you need to have JRE set up on your Process Scheduler server.

Task 11C-3-3: Starting the Distribution Agent

The Distribution Agent is automatically started as another Oracle Tuxedo server when a Process Scheduler Server is booted. If a Process Scheduler Server was set up without specifying a Distribution Node in the *Server Definition* page, the Process Scheduler server will have a status in Process Monitor of "Running with No Report Node." Once a node is defined for the Process Scheduler server and in the next cycle the Process Scheduler server checks the state of the system, the Distribution Agent dynamically sets up its environment.

Task 11C-3-4: Setting Up the Report Repository

This section discusses:

- Defining ReportRepositoryPath
- Defining the Report Node to Use HTTP/HTTPS
- Defining the Report Node to Use FTP

Defining ReportRepositoryPath

The ReportRepositoryPath specifies the location of a directory for the Report Repository. You can specify the location for the Report Repository Path on the General page of the Web Profile during installation. If you do not set the location in the Web Profile, the location given by ReportRepositoryPath in the configuration.properties file is used for the default location. Note that the value entered for Report Repository Path in the Web Profile overrides any entry in the configuration.properties file.

See *Enterprise PeopleTools 8.50 PeopleBook: PeopleTools Portal Technology*, "Configuring the Portal Environment."

Use the following formats to enter the name for the directory that you want to use for the ReportRepositoryPath. The examples below give the default values. Note that you must use a forward slash (/) in both cases:

- *Windows*: ReportRepositoryPath=c:/psreports
 - *UNIX*: ReportRepositoryPath=<user_home>/PeopleSoft Internet Architecture/psreports
- For <user_home> substitute the home directory for the current user.

Defining the Report Node to Use HTTP/HTTPS

To define the report node to use HTTP/HTTPS:

1. Select PeopleTools, Process Scheduler, Report Nodes.
2. Select the Add a New Value link and enter the Report node name.

The Report Node Definition page appears. You are on the Http Distribution Node page.

3. Verify that the Http Information option is selected.
4. Enter the *URL* of the web server using the following format:

`http://<machine name>:<port number>/psreports/<site name>`

Replace <machine name> with the name of your machine. Use the fully qualified host name for your web server. If you are using an http port other than 80, you need to specify the port number.

Note. If you specify the Authentication Token Domain name during the PeopleSoft Pure Internet Architecture installation, you must include a fully qualified domain name for the URL instead of the IP address.

- *Description*: Enter a description of the server (optional).
 - *Operating System*: Select the web server operating system.
5. Enter the following Connection Information:
 - *http/https*: Select the http option if you are *not* using SSL (default). Select the https option if you are using SSL. Note that if you are using SSL you need to have Client Certificates installed on your web server.
 - *URI Host*: Enter the machine name for the report repository.

Note. In a basic setup, the machine name for the report repository will match the machine name of the web server URL. However, under certain circumstances—for example, if you are using a reverse proxy server—the URL and URI Host may have different machine names.

- *URI Port:* Enter the port number, which must match the port number of your web server (defaults are http = 80, https = 443). If you change a port number you will lose the default values for both protocols.
- *URI Resource:* Enter SchedulerTransfer/<site name>.

Note. The setup of basic authentication is optional, but is recommended for security of the Report Repository when using the HTTP to transfer files. For detailed instructions on setting up basic authentication on the web server where the Report Repository resides, refer to the appendix “Securing the Report Repository for HTTP.”

- *Login ID:* Enter the Login ID. This is not required, unless basic authentication has been set up on the web server by the Web Administrator.
- *Password:* Enter the password for the user ID specified in the Login ID field. This is not required, unless basic authentication has been set up on the web server by the Web Administrator.
- *Confirm Password:* Enter the password a second time as a confirmation. This is not required, unless basic authentication has been set up on the web server by the Web Administrator.

6. Click Save to save your entries.

7. To add additional report nodes, select Add to return to the Search page.

The following fields are shared between the FTP/XCOPY Distribution Node page and the Http Distribution page:

- URL
- Description
- Operating System
- Login ID
- Password
- Confirm Password.

When you enter the information on one page, the information is also displayed on the shared fields of the other page but the fields are grayed out.

Note. If you complete the information for one protocol and then change your selection to another protocol, the shared fields will become active on the other page and grayed out on the original page. When you save, the system automatically clears the fields that are not shared.

Defining the Report Node to Use FTP

If you use FTP the following parameters must be configured: URL, Home Directory, Operating System, FTP Address, FTP ID, Password, Confirm Password. In addition, if your FTP server is a Windows server, you may have to set up the FTP service.

Note. The Distribution Agent will perform a validation after FTP has transferred files into the Report Repository by sending a query request to the web server. For this task to be accomplished, it is critical that the following setup is done:

The value entered in the URL must be accurate. Verify that the machine name, port number, and site number are correct.

If this setup is not completed, the process request will get a status of NOT POSTED in the Process Monitor Detail page and will log the message "Unable to verify files posted."

To define the report node to use FTP:

1. Select PeopleTools, Process Scheduler, Report Nodes.
2. Select Add a New Value, enter the Report node name, and click Add.
3. Select the FTP/XCopy option.

The FTP/XCopy Distribution node page appears.

4. Enter the URL of the web server using this format:

`http://<machine name>:<port number>/psreports/<site name>`

Replace *<machine name>* with the name of your web server. If you are using an http port other than 80, you need to specify the port number. The variable *<site name>* refers to the directory where you installed the PIA files; this will default to ps for the first installation.

Note. If you specify the Authentication Token Domain name during the PeopleSoft Pure Internet Architecture installation, you must include a fully qualified domain name for the URL instead of the IP address.

Note. If you installed the web server software with the default TCP port of 80, you do not need to specify the port number in the URL path. However, if you installed the web server to some other port, you must specify the port number in the URL path.

5. Enter the following additional parameters:
 - *Home Directory:* Enter the directory specified during the installation of PeopleSoft Pure Internet Architecture as the Report Repository. The FTP user ID must have write access to this directory. Note that this is not a required field for HTTP transfer, as the system uses the Report Repository directory specified at install time or the current directory assigned to ReportRepositoryPath in configuration.properties. Note that the value you enter for the Report Repository Path in the Web Profile at install time overrides any entry for ReportRepositoryPath in configuration.properties.
 - *Description:* Enter a description of the server (optional).
 - *Operating System:* Select the operating system of the Report Repository.
 - *FTP Address:* Enter the machine name or the IP address of the Report Repository. If the name of the machine is used, it must be included on a DNS server.
 - *FTP ID:* FTP user ID.
 - *Password:* Enter the password for the user ID specified in the FTP ID field.
 - *Confirm Password:* Enter the password a second time as a confirmation.

6. Select Save to save your entries.
7. To add additional report nodes, select Add to return to the Search page.

Task 11C-3-5: Setting Up the Distribution for Your Process Scheduler Server

To set up the Distribution Settings for your Process Scheduler Server:

1. Choose PeopleTools, Process Scheduler, Servers.
2. Enter the Server Name (such as PSOS390). The Server Definition page appears.
3. Select the Distribution tab.

Server Name: PSOS390

Server Distribution Details

Distribution Node Name:

Maximum Transfer Retries:

Interval for Transfer Attempt: seconds

Transfer System Files to Report Repository ☐

[Save](#)
[Return to Search](#)
[Notify](#)
[Add](#)
[Update/Display](#)

[Server Definition](#) | [Distribution](#) | [Operation](#) | [Notification](#) | [Daemon](#)

Server Definition page: Distribution tab

4. Click the lookup button to display the report node names and select the name of the required report node.
5. Enter a number for the Maximum Transfer Retries. This is the maximum number of times the server can try to send a report before it errors out.
6. Enter the number of seconds for the Interval for Transfer Attempt field. This is the interval between attempts to send the report.
7. Select the check box Transfer Log Files to Report Repository if you want to transfer all log and trace files from processes that do not generate reports.
8. Click Save to save your entries.
9. If Process Scheduler is running, you must reboot for any new settings to take effect.

To view reports (log files or system files) from Report Repository, you need to pass the authentication. Report Repository should be treated as a separate PeopleSoft Application. To navigate from PIA to Report Repository, you need to setup single signon in order to avoid getting prompt for second signon.

Task 11C-3-6: Setting Up Sending and Receiving of Report Folders in the Report Manager

To be able to view reports in the Report Manager Explorer and List pages, you need to set up the sending and receiving of report folders in the Report Manager by activating the domain on which a sending and receiving server resides. Consult the documentation covering the PeopleSoft Integration Broker to learn how to activate the sending and receiving server domain.

See *Enterprise PeopleTools 8.50 PeopleBook: PeopleSoft Integration Broker*, "Using the Service Operations Monitor."

Task 11C-4: Setting Up Process Scheduler Server Agent

This section discusses:

- Understanding Process Scheduler Server Agent
- Changing the Default Operating System
- Setting Up Your Environment
- Validating and Editing the ODBC Initialization File
- Creating and Configuring a Process Scheduler Server
- Configuring Process Scheduler Server
- Working with Shell JCL Templates
- Starting a Process Scheduler Server
- Verifying the Process Scheduler Server Status
- Stopping the Process Scheduler Server

Understanding Process Scheduler Server Agent

For installation purposes, you can use predefined server names and other definitions. The predefined name that you might use is as follows:

Server Name	Operating System
PSOS390	z/OS

To test this, use processes already defined in your PeopleSoft database. To set up a new server definition in your PeopleSoft database, refer to the Process Scheduler PeopleBook.

See *Enterprise PeopleTools 8.50 PeopleBook: PeopleSoft Process Scheduler*

Note. When creating multiple Process Scheduler Servers for the same database, each server must have a unique server name. For example, two Process Scheduler Servers, both named PSNT, cannot run against the same database.

Task 11C-4-1: Changing the Default Operating System

By default, Process Scheduler is set up to run a process request from a Process Scheduler Server Agent started in a Windows server when the value of the *ServerName* field in the Process Request Dialog page is left blank. If you plan to run all processes other than Windows-based programs (that is, nVision or Crystal Reports) from z/OS, you must change the default operating system.

Note. If you do not change the default operating system from Windows to z/OS and you do not plan to set up a Process Scheduler Server Agent in Windows, process requests that are created will be directed to a Windows-based operating system and will remain in the "Queued" status.

To change the default operating system for process requests that were not assigned a Process Scheduler Server Name:

1. Select PeopleTools, Process Scheduler, System Settings.
2. Under *Primary Operating System*, choose *OS390* from the drop-down list.
3. Click on the *System Purge Options* tab. Enter the date for the next purge of process requests in the *Next Purge Date* field.
4. Enter the time for the next purge of process requests in the *Next Purge Time* field. The default time is 12:00:00AM.
5. Enter a *Recurrence* if you want to set a regular purging basis.
6. Choose *Save*.

Task 11C-4-2: Setting Up Your Environment

Alternatively, make sure the following environment variables are set in the profile file in the user's home directory:

Run `psconfig.sh` file from *PS_HOME*:

```
. ./psconfig.sh
```

Task 11C-4-3: Validating and Editing the ODBC Initialization File

The PeopleSoft Batch Transfer program generates the ODBC initialization file based on the parameters entered in the PeopleSoft Server Transfer panel. The ODBC initialization file is written to:

```
$PS_HOME/appserv/odbc.ini
```

The ODBC initialization file contains the following key information:

- DB2 subsystem name
- Plan name for the DSNAOCLI CLI package
- Method used to attach to DB2 (default is RRSAPF)

Here is an example of an initialization file for a DB2 subsystem called DSNW with DB2 plan DSNACLI:

```

[COMMON]
MVSDEFAULTSSID=DSNW
APPLTRACE=0
APPLTRACEFILENAME=
MULTICONTEXT=1
CONNECTTYPE=1

; Set up the DB2 Subsystem Definition
[DSNW]
MVSATTACHTYPE=RRSAF
PLANNAME=DSNACLI

```

Verify that all the information contained in this file is accurate. If you plan to set up multiple Process Scheduler Server Agents for different instances of a PeopleSoft database and these databases reside in different DB2 subsystems, you must create a different ODBC initialization file for each DB2 subsystem.

Task 11C-4-4: Creating and Configuring a Process Scheduler Server

This section describes how to create a Process Scheduler server.

Note. You can set Process Scheduler configuration parameters either by using PSADMIN, which provides an interactive dialog, or by editing the configuration file `psprcs.cfg` located in the `PS_CFG_HOME/appserv/prcs/database name` directory. The following steps assume you are using PSADMIN to specify parameter settings.

Note. If you use the configuration file `psprcs.cfg`, be aware that in the PeopleSoft PeopleTools 8.49 release and later, the section [Output Dest Exceptions] has been modified to trap metastring exceptions not only in the output destination but in other process parameters as well. In this section the entry `OUTDEST_EXCEPT01=%ANYMETASTRING%` has been changed to `PARAMETER_EXCEPT01=%ANYMETASTRING%`.

To create a Process Scheduler Server:

1. From `PS_HOME/appserv` on the batch server, type `psadmin` and press ENTER to access the PeopleSoft Server Process Scheduler Administration menu.
2. Select 4 from the PeopleSoft Process Scheduler Administration menu.

```

-----
PeopleSoft Process Scheduler Administration
-----
1) Start a Process Scheduler Server
2) Stop a Process Scheduler Server
3) Configure a Process Scheduler Server
4) Create a Process Scheduler Server Configuration
5) Delete a Process Scheduler Server Configuration
6) Edit a Process Scheduler Configuration File
7) Import an existing Process Scheduler Configuration
8) Show Status of a Process Scheduler Server
9) Kill a Process Scheduler Server

```

10) Edit a Shell JCL
q) Quit

Command to execute (1-10, q) : 4

- When prompted for the name of the database that your server will access, enter the name of the database and press ENTER:

Please enter name of Database that server will access :

You see screen messages like these:

Process Scheduler Configuration templates:

1) os390

Selecting the only Process Scheduler Configuration template available...

Creating Process Scheduler Server for Database HRDMO...

Copying Process Scheduler Server configuration file(s)...

Copying Process Scheduler JCL template files...

Process Scheduler Shell JCL template files copied.

Process Scheduler Server configuration created.

At this point, you'll be returned to the PeopleSoft Process Scheduler Administration menu.

Task 11C-4-5: Configuring Process Scheduler Server

This section discusses:

- Configuring a Process Scheduler Server
- Using [Startup]
- Using [OS390]
- Using [Process Scheduler]
- Using [Application Engine]

Note. The section may not mention certain PSADMIN sections, if you do not need to change any of their defaults. For more in depth descriptions of the Process Scheduler options in the PSADMIN, consult the Process Scheduler PeopleBook.

See *Enterprise PeopleTools 8.50 PeopleBook: PeopleSoft Process Scheduler*, "Using the PSADMIN Utility."

Configuring a Process Scheduler Server

To configure a Process Scheduler Server:

- The PeopleSoft Process Scheduler Server Administration interface should already be on your screen from the last step, but if it is not, go to *PS_HOME*/appserv and enter:

psadmin

- From the PeopleSoft Process Scheduler Administration menu, select option 3:

```
-----
PeopleSoft Process Scheduler Administration
-----
```


- 1) Start a Process Scheduler Server
- 2) Stop a Process Scheduler Server
- 3) Configure a Process Scheduler Server
- 4) Create a Process Scheduler Server Configuration
- 5) Delete a Process Scheduler Server Configuration
- 6) Edit a Process Scheduler Configuration File
- 7) Import an existing Process Scheduler Configuration
- 8) Show Status of a Process Scheduler Server
- 9) Kill a Process Scheduler Server
- 10) Edit a Shell JCL

q) Quit

Command to execute (1-10, q) : 3

3. Select the database for which the Process Scheduler needs to be configured.

Database list:

- 1) HRDMO

Select item number to configure:

4. At the prompt

Do you want to change any config values (y/n):

Specify y to start an interactive dialog to change or examine parameter values, as described in the next step. Specify n if you have already edited psprcs.cfg.

See *Enterprise PeopleTools 8.50 PeopleBook: PeopleSoft Process Scheduler*.

Using [Startup]

When using PSADMIN to configure a Process Scheduler Server Agent, you first encounter the Startup section:

Values for config section - Startup

```
DBName=
DBType=DB2ODBC
UserId=
UserPswd=
ConnectId=
ConnectPswd=
ServerName
```

Do you want to change any values (y/n)? [n]: y

The following table describes each value in the Startup section:

Value	Description
DBName	Specify the database name associated with a particular Process Scheduler Server Agent, such as HRDMO, FSDMO, SADM, and so on.
DBType	Specify the database type. The default for DB2 UDB for z/OS is DB2ODBC.
UserId	Enter the user ID.
UserPswd	Enter the user password.
ConnectId	Enter the connect ID. This value is required.
ConnectPswd	Enter the connect password. This value is required.
ServerName	For DB2 UDB for z/OS, ignore this item.

When you change the UserPswd or ConnectPswd field, you are prompted for an option to encrypt the value entered for the password field:

Do you want to encrypt this password? [y]:y

Enter y if you want the password stored in encrypted form in the Process Scheduler configuration file. (The default is to encrypt the password.)

Using [OS390]

The OS390 section contains OS/390-specific values:

```

Values for config section - OS390
  ODBC Initialization File=%PS_HOME%/appserv/odbc.ini
  Shell JCL Library=%PS_SERVDIR%/shelljcl
  High Level Qualifier for System Datasets=
  High Level Qualifier for Log Datasets=
  Plan name for PTPSQLRT with CAF=
  Plan name for PTPSQLRT with TS0=
  DB2 Sub-System=
  VIO eligible unit group=SYSDA
  Enable Parallel Processing=0
DECIMAL=PERIOD
TS0 Character Set=cp037

```

Do you want to change any values (y/n)? [n]:

The following table describes each parameter in the OS390 section.

Parameter	Description
ODBC Initialization File	File containing ODBC setting to connect to the DB2 subsystem where the PS database is created.
Shell JCL Library	The subdirectory containing all JCL templates used for submitting COBOL or SQR in native z/OS.
High Level Qualifier for System Datasets	Datasets to which PeopleSoft installations are copied during batch transfer. For example, PT.PT810TA.

Parameter	Description
High Level Qualifier for Log Datasets	Datasets that represent the high level qualifier for all logs and reports generated from processes submitted through Process Scheduler.
Plan name for PTPSQLRT with CAF	DB2 plan used to run COBOL called within an Application Engine program via Remote Call
Plan name for PTPSQLRT with TSO	DB2 plan used to run COBOL from TSO via JCL created from the COBOL shell JCL template (SHECBL.JCT)
DB2 Sub-System	DB2 subsystem name where your database resides—for example, DSND
VIO eligible unit group	DASD volume group used by Remote COBOL invoked by an Application Engine program
Enable Parallel Processing	A Y/N flag which sets the Parallel processing parameter in the COBOL shell JCL template (SHECBL.JCT)
DECIMAL	The value should reflect the setting for the DECIMAL parameter found in the ZPARM of the DB2 subsystem where the database resides. Valid values are DECIMAL or COMMA.
TSO Character Set	The codepage for the TSO environment. The default value is CP037 (IBM037: Latin1 code page).

Using [Process Scheduler]

After you have set your Trace values, the Process Scheduler section allows you to set all of the environment variables associated with the Process Scheduler.

Values for config section - Process Scheduler

```

PrCs Job Name=
PrCs Job Account=
PrCsServerName=PS0S390
PS Configuration File=%PS_HOME%/psconfig.sh
Max Reconnect Attempt=12
Reconnection Interval=300
Authentication Timeout=5
TOOLBIN=%PS_HOME%/bin
Log/Output Directory=%PS_SERVDIR%/log_output
LogFence=5
DEFAULTPRINTER=

```

Do you want to change any values (y/n)? [n]:

The following table describes the parameters you'll need to update in the Process Scheduler section:

Parameter	Description
Prs Job Name	Job name assigned to the Process Scheduler program. This is set in USS using the __BPX_JOBNAME environment variable setting.
Prs Job Account=	Job Account assigned to the Process Scheduler program. This is set in USS using the __BPX_ACCT_DATA environment variable setting.

Using [Application Engine]

This section contains Application Engine values:

Values for config section - Application Engine

AE Job Name=%JOBNAME%%SFX%

AE Job Account=%JOBACCT%

Do you want to change any values (y/n)? [n]:

The following table describes each parameter in the *Application Engine* section:

Parameter	Description
AE Job Name	Job name assigned to an Application Engine program. This is set in USS using the __BPX_JOBNAME environment variable setting.
AE Job Account	Account assigned to an Application Engine program. This is set in USS using the __BPX_ACCT_DATA environment variable setting.

Note. After you complete your changes in PSADMIN, you must shut down and restart the server to put the new settings into place.

Task 11C-4-6: Working with Shell JCL Templates

This section discusses:

- Understanding Shell JCL Templates
- Editing a Shell JCL Template
- Customizing the Process Scheduler's Shell JCL Template

Understanding Shell JCL Templates

When starting a Process Scheduler Server, shell JCL template files are read once and stored into memory as part of the initialization procedure. Process Scheduler will generate a JCL for COBOL and SQR based on the JCL stored in memory. If you have modified any of the shell JCL templates after the Process Scheduler Server was started, Process Scheduler will refresh the JCL stored in memory before submitting the next COBOL or SQR request.

The PeopleSoft Server Transfer program creates a directory *PS_HOME/appserv/prcs/shelljcl* in UNIX Services to store a master copy of the shell JCL templates. When you create a Process Scheduler Server Configuration, it copies this shell JCL templates into the *<PS_HOME>/appserv/prcs/<database_name>/shelljcl* directory. This includes all the JCLs used for running COBOL and SQR through Process Scheduler.

See “Creating a Database.”

The following table lists the shell JCL templates used in Process Scheduler:

JCL	Description
SHELCBL.JCT	Invoked by Process Scheduler when user requests to run a COBOL program
SHELSQRF.JCT	Invoked by Process Scheduler when user requests to run an SQR program and specifies from the Process Scheduler page to route the output to a file, web or email.
SHELSQRP.JCT	Invoked by Process Scheduler when user requests to run an SQR program and specifies from the Process Scheduler panel to route the output to a printer.
SHELSQROUTP.JCT	Used in conjunction with SHELSQRP.JCT or SHELSQRF.JCT. This template contains the file definition for creating a partitioned data set for SQR report files. Process Scheduler will use this template when the SQR output format is one of the following: • Acrobat Reader (PDF) • Post Script (PS) • Line Printer (HP) • HP format
SHELSQROUTS.JCT	Used in conjunction with SHELSQRP.JCT or SHELSQRF.JCT. This template contains the file definition for creating a sequential data set for SQR report files. Process Scheduler will use this template when the SQR output format is one of the following: HTM SPF

These shell JCL templates need to be modified to comply with your site standards.

Note. Process Scheduler does not use a JCL to submit an Application Engine program. Instead, Process Scheduler will fork another (child) process in UNIX System Services and run Application Engine in this new process. This schema is similar to Windows or UNIX operating system.

Editing a Shell JCL Template

To edit a shell JCL template:

1. To edit a shell JCL template, select option *10* from the PeopleSoft Process Scheduler Administration menu:

```

-----
PeopleSoft Process Scheduler Administration
-----
1) Start a Process Scheduler Server
2) Stop a Process Scheduler Server
3) Configure a Process Scheduler Server
4) Create a Process Scheduler Server Configuration
5) Delete a Process Scheduler Server Configuration
6) Edit a Process Scheduler Configuration File
7) Import an existing Process Scheduler Configuration
8) Show Status of a Process Scheduler Server

```

- 9) Kill a Process Scheduler Server
- 10) Edit a Shell JCL
- q) Quit

Command to execute (1-10, q) : 10

2. Select the database for which the Process Scheduler needs to be configured.

Database list:

- 1) HRDMO

Select item number to edit: 1

3. Select the JCL from the list you intend to modify. This will open the JCL in a vi editor screen.

JCL list:

- 1) shelcbl.jct
- 2) shelsqrf.jct
- 3) shelsqroutp.jct
- 4) shelsqrouts.jct
- 5) shelsqrp.jct

Select JCL file to edit: 1

4. Modify the JCL using vi commands
5. Save your changes by using the vi command :wq

If you are not familiar with the vi editor and would prefer to edit the JCLs using ISPF editor, you can use the TSO *oedit* command in the TSO session. IBM's TSO *oedit* command allows you to modify any files residing in UNIX System Services from a TSO session. You can edit any of the shell JCL templates found in `<PS_HOME>/appserv/prcs/<database_name>/shelljcl` directory as shown below. Consult your z/OS system administrator for using the *oedit* command at your site.

```

----- EDIT - ENTRY PANEL -----
Command ==>

Directory      ==> /u/data007/pt812rc7/appserv/prcs/HRDMO/shelljcl

Filename       ==> shelcbl.jct

Profile name   ==>

Initial macro  ==>

```

Editing a shell JCL template

Customizing the Process Scheduler's Shell JCL Template

All the Process Scheduler's shell JCLs use meta-strings to pass data stored in the database or Process Scheduler configuration files. Process Scheduler takes advantage of meta-strings to generate the JCL based on one of these sources:

- User's profile who initiated the request
- Parameters defined in the Process Scheduler Configuration file.
- Parameters defined in the Process Type Definition Page or Process Definition Page

A good example of data that can be passed includes job account and job name. To enter the values of some of these variables you need to identify the Process Profile being used. Choose PeopleTools, Security, User Profiles, User Profiles. Then search on the ID used to log on to the PeopleSoft Pure Internet Architecture. Make note of the Process Profile Name. Then choose PeopleTools, Security, Permissions & Roles, Permission Lists and select the Process Profile Name that was identified. Select Process tab, Process Profile Permissions.

The shell JCL templates are tunable and should be changed according to your site-specific standards. The table below identifies all the available meta-strings you can use in a shell JCL template.

If you create a new JCL template, you must be aware of the following:

- The Shell ID is restricted to three characters.
- The Shell ID is associated with the Process Type Definition.

Meta-Strings	Description
%JOBNAME%	Specifies the value entered in z/OS Job Controls Name field of the Process Profile Permission page for the Permission Lists specified as the User ID's Process Profile. The Process Profile for a User ID can be set using the User Profiles page in the Maintain Security component.
%JOBACCT%	Specifies the value entered in z/OS Job Controls Account field of the Process Profile Permission page.
%OUTDEST%	Specifies the output destination based on the value entered in the Server Destinations File or Printer fields of the Process Profile Permission page.
%SFX%	A one-character code issued by Process Scheduler. The system will randomly assign a value from A to Z.
%OPRID%	The user ID used to submit the request from Process Scheduler.
%PRCSLOGFILE%	The name of the log file Process Scheduler used to redirect all data written to output for Application Engine or SYSOUT in COBOL or SQR
%PRCSLOGDIR%	The directory where all log files or reports are written to in UNIX System Services for a process.
%ACCESSID%	The access ID assigned for a user ID defined in PSOPRDEFN.
%INSTANCE%	The process instance number assigned to a process request.
%RUNID%	The run control ID used to submit the process request.
%OWNERID%	The owner ID for the PeopleSoft database.

Meta-Strings	Description
%PRCSNAME%	The program name as defined in the Process Definition page.
%DB2SUB%	The name of the DB2 subsystem specified in the <i>DB2 Sub-System</i> parameter of the <i>OS390</i> section found in the Process Scheduler Configuration file.
%PERFSTAT%	The flag used to set the Performance Statistic option in the COBOL shell JCL. This is set to 'Y' when the bit value of 128 is assigned to the TraceSQL parameter of the <i>Trace</i> section found in the Process Scheduler Configuration file.
%DYNEXPLN%	The flag used to set the Dynamic Explain option in the COBOL shell JCL. This is set to 'Y' when the bit value of 256 is assigned to the TraceSQL parameter of the <i>Trace</i> section found in the Process Scheduler Configuration file.
%PARALLEL%	The flag used to set the Dynamic Explain option in the COBOL shell JCL. This is based on the flag set in the <i>Enable Parallel Processing</i> parameter of the <i>OS390</i> section found in the Process Scheduler Configuration file.
%"%TSOPLAN%	The DB2 plan name subsystem specified in the <i>Plan name for PTPSQLRT with TSO</i> parameter of the <i>OS390</i> section found in the Process Scheduler Configuration file.
%PSHLQ%	The high level qualifier of the PeopleSoft dataset specified in <i>High Level Qualifier for Datasets</i> parameter of the <i>OS390</i> section found in the Process Scheduler Configuration file.

Here is a sample job control card in one of the shell JCLs:

```
//%JOBNAME%SFX% JOB %JOBACCT%, 'PS-PRCS ', CLASS=E, MSGCLASS=X,
//          NOTIFY=%OPRID%
```

If you choose not to use meta-strings, you can also update the job cards to remove all these variables and replace them with actual values.

In the SHELL JCL for SQR, OUTNODE denotes either a z/OS partitioned data set (PDS) or sequential data set. The PDS is a requirement for SQR output. If the SQR report XRFPANEL were directed to file output, the following substitution would occur:

The following line in SHELSQRF.JCT

```
//          OUTNODE= '%OUTDEST%'
```

would be changed to:

```
//          OUTNODE= 'HR.H800RAB',
```

If an SQR process were directed to print, the following substitutions would occur:

SQR:

```
//          OUTNODE= 'DEST=U3',    OPTIONAL:USER-DEF OUTPUT
```



```

..
//*****
//* Main portion of JCL Shell
*
//*****
..
//SQROUTP DD SYSOUT=*,DEST=U3

```

z/OS Job Controls:

z/OS job controls specify the z/OS job name you want assigned to each process submitted. This value can be up to seven characters. Do not use lowercase letters or any quotation marks. If you included the %SFX% meta-string as part of your job name, Process Scheduler will append a one-character alphabetical suffix to this name (A through Z, chosen randomly), before job submission.

For example, if you entered USRMVS1, the assigned job name would become USRMVS1A through USRMVS1Z. After you enter the z/OS job name, enter the job account number used in your installation. Specify an account code to be inserted as the JCL accounting code.

Task 11C-4-7: Starting a Process Scheduler Server

Once you have configured the Process Scheduler Server, you are ready to start it.

To start a Process Scheduler Server:

1. Select option 1.

```

-----
PeopleSoft Process Scheduler Administration
-----
1) Start a Process Scheduler Server
2) Stop a Process Scheduler Server
3) Configure a Process Scheduler Server
4) Create a Process Scheduler Server Configuration
5) Delete a Process Scheduler Server Configuration
6) Edit a Process Scheduler Configuration File
7) Import an existing Process Scheduler Configuration
8) Show Status of a Process Scheduler Server
9) Kill a Process Scheduler Server
10) Edit a Shell JCL
    q) Quit

```

Command to execute (1-10, q) : 1

2. To start the Process Scheduler Server for a specific database, type the number corresponding to the appropriate database.

For example (to start Process Scheduler Server for the database HRDMO):

Database list:

- 1) HRDMO

Select item number to start: 1

This will launch the Process Scheduler program.
 Starting Process Scheduler Server PS0S390 for Database HRDMO ...
 PeopleSoft Process Scheduler Started Normally

Task 11C-4-8: Verifying the Process Scheduler Server Status

At this stage it is a good idea to verify the Process Scheduler Server status.

To verify the Process Scheduler Server status:

1. From the PeopleSoft Process Scheduler Administration menu, select option 8.

```
-----
PeopleSoft Process Scheduler Administration
-----
  1) Start a Process Scheduler Server
  2) Stop a Process Scheduler Server
  3) Configure a Process Scheduler Server
  4) Create a Process Scheduler Server Configuration
  5) Delete a Process Scheduler Server Configuration
  6) Edit a Process Scheduler Configuration File
  7) Import an existing Process Scheduler Configuration
  8) Show Status of a Process Scheduler Server
  9) Kill a Process Scheduler Server
 10) Edit a Shell JCL

  q) Quit

Command to execute (1-10, q) : 8
```

2. To verify the status of the Process Scheduler Server for a specific database, type the number corresponding to the appropriate database.

For example:

Database list:

- 1) HRDMO

Select item number to start: 1

will verify the status of the Process Scheduler Server for the database HRDMO.
 Process Scheduler Server PS0S390 for Database PT84x is currently running

Process Agents	PID
-----	----
Process Scheduler	1144
Distribution Agent	35163243

Note. You can also verify the status of the Process Scheduler Server from Process Monitor in PeopleSoft Pure Internet Architecture. To verify the Process Scheduler Server status from the Process Monitor page, go to PeopleTools, Process Scheduler, Process Monitor, and select *Server List*.

Note. If you have not configured z/OS with a Distribution Node, the Distribution Agent will not be started. You must execute that task before the Distribution Agent will be booted with the Process Scheduler server. See Validating and Editing the ODBC Initialization File.

Task 11C-4-9: Stopping the Process Scheduler Server

You can stop the Process Scheduler Server as follows.

To stop the Process Scheduler Server:

1. From the PeopleSoft Process Scheduler Administration menu, select option 2.

```
-----
PeopleSoft Process Scheduler Administration
-----
1) Start a Process Scheduler Server
2) Stop a Process Scheduler Server
3) Configure a Process Scheduler Server
4) Create a Process Scheduler Server Configuration
5) Delete a Process Scheduler Server Configuration
6) Edit a Process Scheduler Configuration File
7) Import an existing Process Scheduler Configuration
8) Show Status of a Process Scheduler Server
9) Kill a Process Scheduler Server
10) Edit a Shell JCL
q) Quit
```

Command to execute (1-10, q) : 2

2. To stop the Process Scheduler Server for a specific database, type the number corresponding to the appropriate database.

Example (to stop Process Scheduler Server for the database HRDMO):

Database list:

- 1) HRDMO

Select item number to stop: 1

Command sent to stop Process Scheduler Server PSOS390 for Database HRDMO. The⇒
Server will stop the next time that it wakes up.

CHAPTER 12

Installing and Configuring Software for Crystal Reports

This chapter discusses:

- Understanding Crystal Reports Software Installation and Configuration
- Determining the Crystal Reports Runtime Environment
- Obtaining BusinessObjects Enterprise and Crystal Reports Files from E-Delivery
- Installing Crystal Reports 2008
- Installing BusinessObjects Enterprise XI 3.1
- Migrating your BusinessObjects Enterprise XI 3.1 Installation to a New Version of PeopleTools
- Administering and Using BusinessObjects Enterprise XI 3.1
- Removing the Integrated BusinessObjects Enterprise XI 3.1 Installation
- Converting Crystal Reports

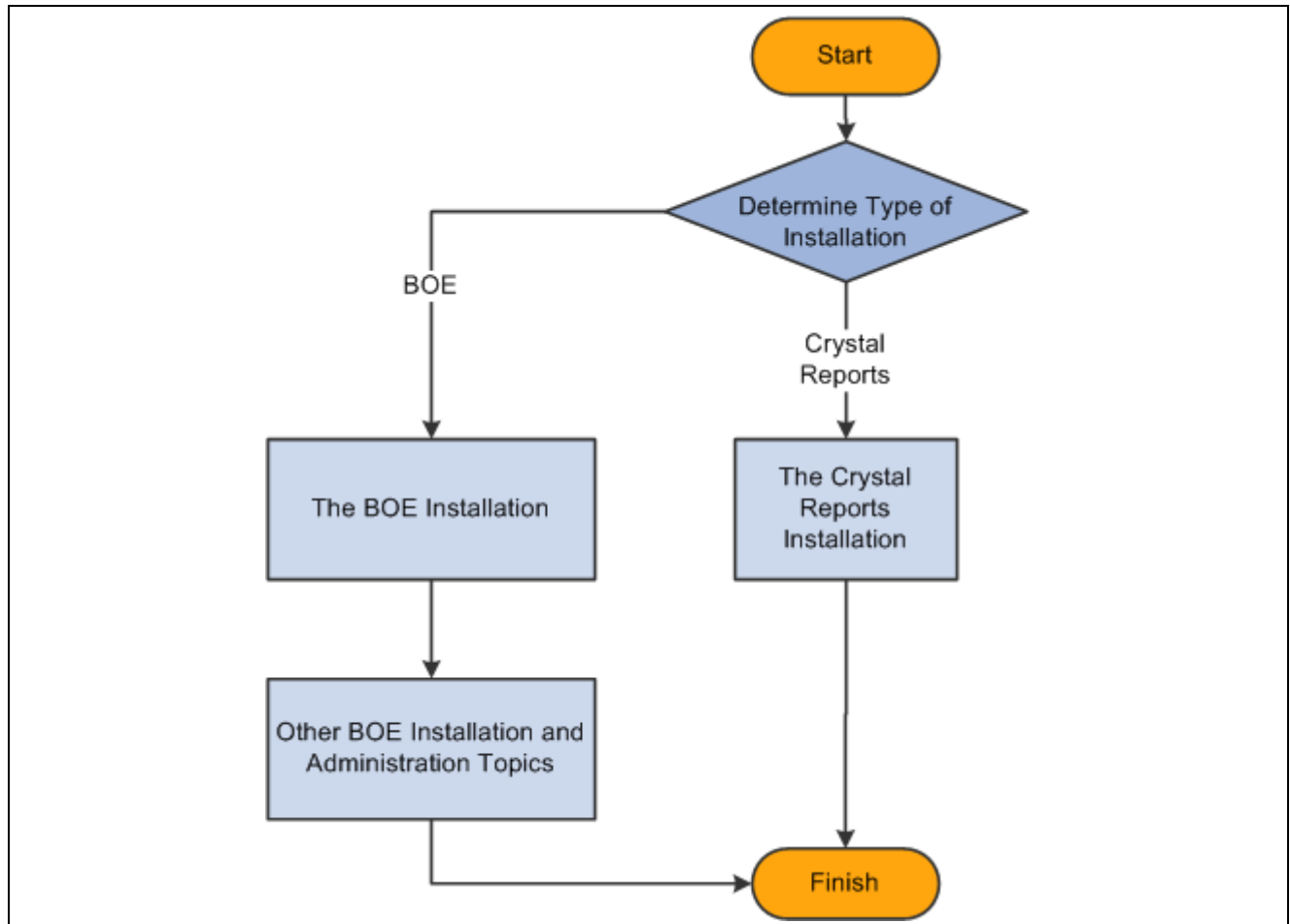
Understanding Crystal Reports Software Installation and Configuration

This chapter addresses the installation and administration of your Crystal Reports environment. Depending on the type of installation that you have, some parts of this chapter may not be relevant to you.

The chapter is divided into sections. Within each section are parts that provide informative background information or describe installation and administration tasks.

The following flowchart describes how to use the information in this chapter to install and configure the software that you need to run Crystal Reports on your PeopleSoft system:

Note. In this flowchart, “BOE” refers to BusinessObjects Enterprise XI 3.1, and “Crystal Reports” refers to Crystal Reports 2008 SP1.



Using this chapter to install the software for Crystal Reports

See Also

Enterprise PeopleTools 8.50 PeopleBook: Crystal Reports for PeopleSoft

My Oracle Support, Certifications

Task 12-1: Determining the Crystal Reports Runtime Environment

PeopleSoft applications are delivered to work with the Crystal Reports 2008 SP1 runtime environment. Process Scheduler report definitions are configured to use the Crystal Reports 2008 SP1 print engine, and the Crystal Report definition files delivered with the PeopleSoft installation are in the Crystal Reports 2008 SP1 format. You use the Crystal Reports 2008 SP1 product to create and edit report definitions.

If you are using PeopleSoft PeopleTools 8.50 *and* are using PeopleSoft applications at Release 9 or higher, you can optionally use the BusinessObjects Enterprise XI 3.1 runtime environment to run and view your reports. You use the Crystal Reports 2008 SP1 product to create and edit report definitions.

For any particular PeopleSoft application you must use either Crystal Reports 2008 SP1 or BusinessObjects Enterprise XI 3.1—you cannot run a “mixed” environment where some reports are run using Crystal 2008 and some reports are run using BusinessObjects Enterprise XI 3.1.

If you decide to use BusinessObjects Enterprise XI 3.1, you can run a PeopleSoft-supplied conversion program to convert report definitions from Crystal 9 format to Crystal Reports 2008 format.

The advantages of BusinessObjects Enterprise XI 3.1 (compared to Crystal Reports 2008 SP1) are:

- Runs on other operating systems (AIX, Linux, Solaris) besides Microsoft Windows
- Runs on a scalable server platform; that is, you can scale across machines
- Users can view interactive reports over the web (such as search, filter, or table of contents).

The restrictions of the PeopleSoft Integration with BusinessObjects Enterprise XI 3.1 are:

- The PeopleSoft Process Scheduler that you use to run reports on the BusinessObjects Enterprise XI 3.1 server can run only on one of the operating systems that BusinessObjects Enterprise XI 3.1 runs on.
- You need to convert all your reports from Crystal 9 format to Crystal 2008 format to run them using BusinessObjects Enterprise XI 3.1.
- The PeopleSoft Integration does not support some platforms that a standalone BusinessObjects Enterprise XI 3.1 installation supports.

That is, not all platforms that BusinessObjects Enterprise XI 3.1 runs on were tested in the integrated BusinessObjects Enterprise XI 3.1/PeopleSoft solution. For example, while standalone BusinessObjects Enterprise XI 3.1 supports Tomcat as a web server, the integrated BusinessObjects Enterprise XI 3.1/PeopleSoft solution does not.

The advantages of using the Crystal Reports 2008 SP1 runtime are:

- Works the same as previous releases of PeopleSoft PeopleTools
- Requires little configuration and administration
- Run to Crystal Reports 2008 SP1 from Windows Query Designer is available
- Does not require a database management system for report management
- Report output is smaller in size compared to BusinessObjects Enterprise XI 3.1, as the latter contains more internal information about the report.

The observed difference in tests indicates that report output generated from BusinessObjects Enterprise XI 3.1 will be 30 to 40% larger. This may vary by report and by the amount of business data in the report.

One restriction on Crystal Reports 2008 SP1 is that it runs only on Microsoft Windows.

Task 12-2: Obtaining BusinessObjects Enterprise and Crystal Reports Files from E-Delivery

You can obtain the BusinessObjects Enterprise XI 3.1 and Crystal Reports 2008 sp1 installation software from the Oracle E-Delivery site. At this point you should have already downloaded the necessary files. This section includes additional information on finding and using the files for BusinessObjects Enterprise XI 3.1 and Crystal Reports 2008 sp1.

See "Preparing for Installation," Using E-Delivery.

To obtain the installation software for BusinessObjects Enterprise XI 3.1 or Crystal Reports 2008 sp1:

1. After logging in to Oracle E-Delivery, on the Media Search Pack page, select *PeopleSoft Enterprise* from the Select a Product Pack drop-down list.

Select the operating system you are running on from the Platform drop-down list, and click Go.

Note that you must extract (unzip) the file on the platform for which it is intended. For example, if you download the zip file for Solaris, you must unzip it on Solaris to avoid problems. If you unzip the file to a staging directory on a Microsoft Windows computer and copy the staging directory to a Solaris, the stage area files may be corrupt.

2. Select the radio button for the PeopleSoft Enterprise - PeopleTools 8.50 Media Pack and click Continue.
3. Determine the necessary files, and click Download. Save the zip files to a temporary directory on your local system.

The available installation software includes BusinessObjects Enterprise XI 3.1, the BusinessObjects Enterprise integration kit for PeopleSoft, Crystal Reports 2008 sp1, and Fix Pack 1.6. Be sure to obtain all the necessary files for your installation.

The directory where you save the zip file is referred to in this documentation as *BOE_INSTALL*.

4. Extract the files into *BOE_INSTALL*.
5. After you download the installation files from Oracle E-Delivery, if it is necessary to transfer the files to a UNIX computer using FTP, you must change the permissions to make them executable, for example using the `chmod +x` command.

Task 12-3: Installing Crystal Reports 2008

This section discusses:

- Understanding the Crystal Reports 2008 SP1 Installation
- Installing Crystal Reports 2008 SP1

Understanding the Crystal Reports 2008 SP1 Installation

The Crystal Reports 2008 SP1 installation is required for Windows-based workstations (also referred to as the PeopleTools Development Environment) where reports will be designed. Process Scheduler servers do not need Crystal Reports 2008 SP1 to be installed. Upon configuration of a Process Scheduler domain, the standalone Crystal runtime is automatically installed to support the running of Crystal Reports processes.

Note. Although some versions of Crystal Reports include web server applications such as Web Component Server, they are not tested, certified, or supported by Oracle for the PeopleSoft installation.

You can install Crystal Reports 2008 SP1 locally on a workstation where reports will be designed. You can also install Crystal Reports to a network file server; typically it would be installed to a subdirectory of the *PS_HOME* directory. If you install Crystal Reports to a network file server, you need to run a Crystal Reports setup on each Windows-based workstation or batch server where Crystal Reports will be designed. To do so, make sure to select the Complete installation when running the setup program.

Note. For additional instructions on installing Crystal Reports 2008 SP1, see the Crystal installation documentation. You can find this in the *BOE_INSTALL\docs* directory as *install.pdf*.

Note. To install Crystal on a local machine but run it from the network, consult the Crystal documentation.

See Also

Enterprise PeopleTools 8.50 PeopleBook: Crystal Reports for PeopleSoft, "Using Crystal Reports 2008"

Task 12-3-1: Installing Crystal Reports 2008 SP1

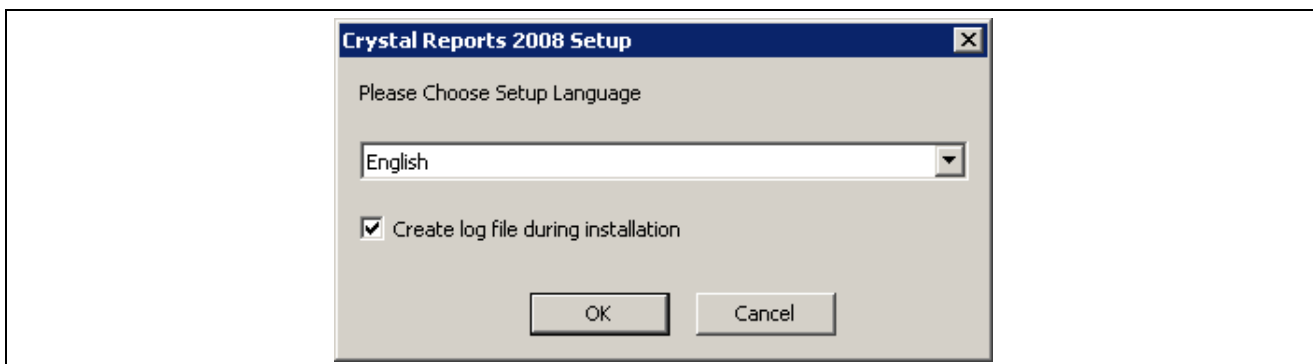
The installation files for Crystal Reports 2008 SP1 are included on Oracle E-Delivery in the PeopleSoft PeopleTools 8.50 media pack, as previously discussed.

See Obtaining BusinessObjects Enterprise and Crystal Reports Files from Oracle E-Delivery.

To install Crystal Reports 2008 SP1:

1. Change directory to *BOE_INSTALL* and run *setup.exe*.
2. Select the setup language.

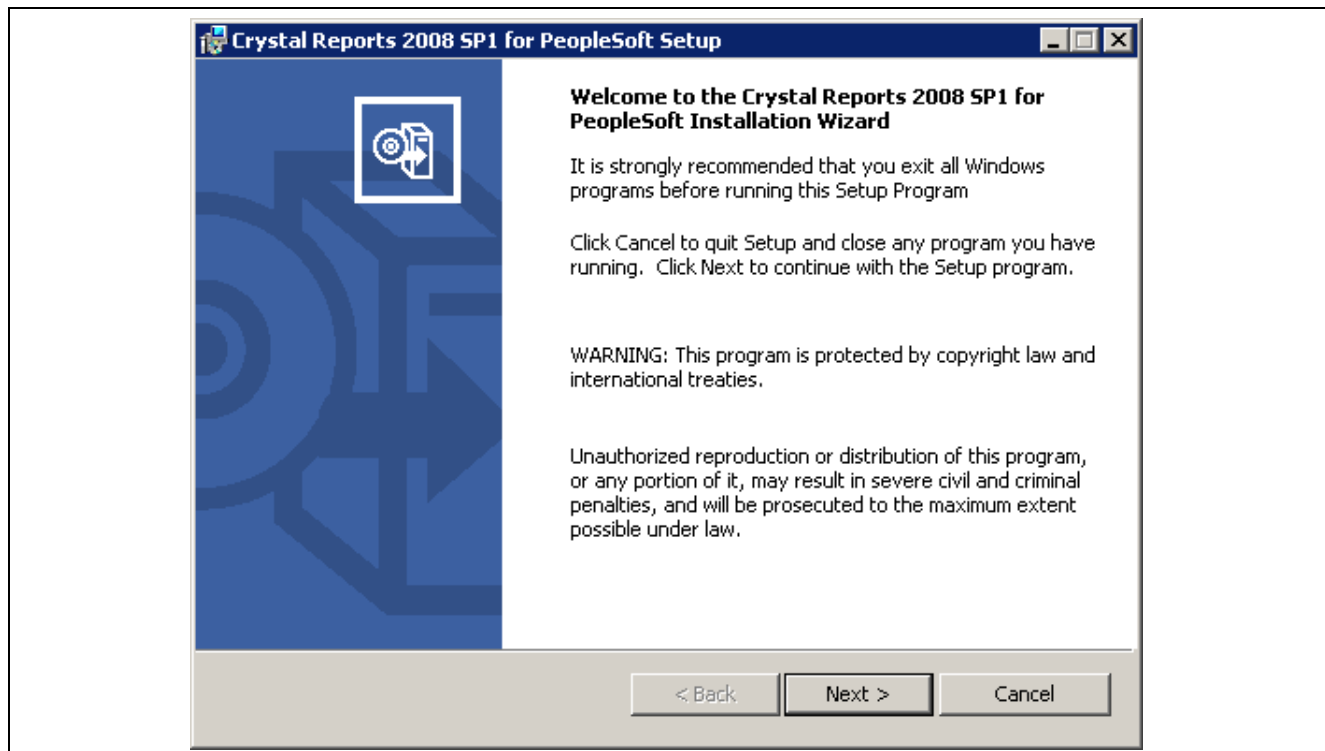
Select the option to Create a log file during installation if desired.



Crystal Reports 2008 Setup dialog box

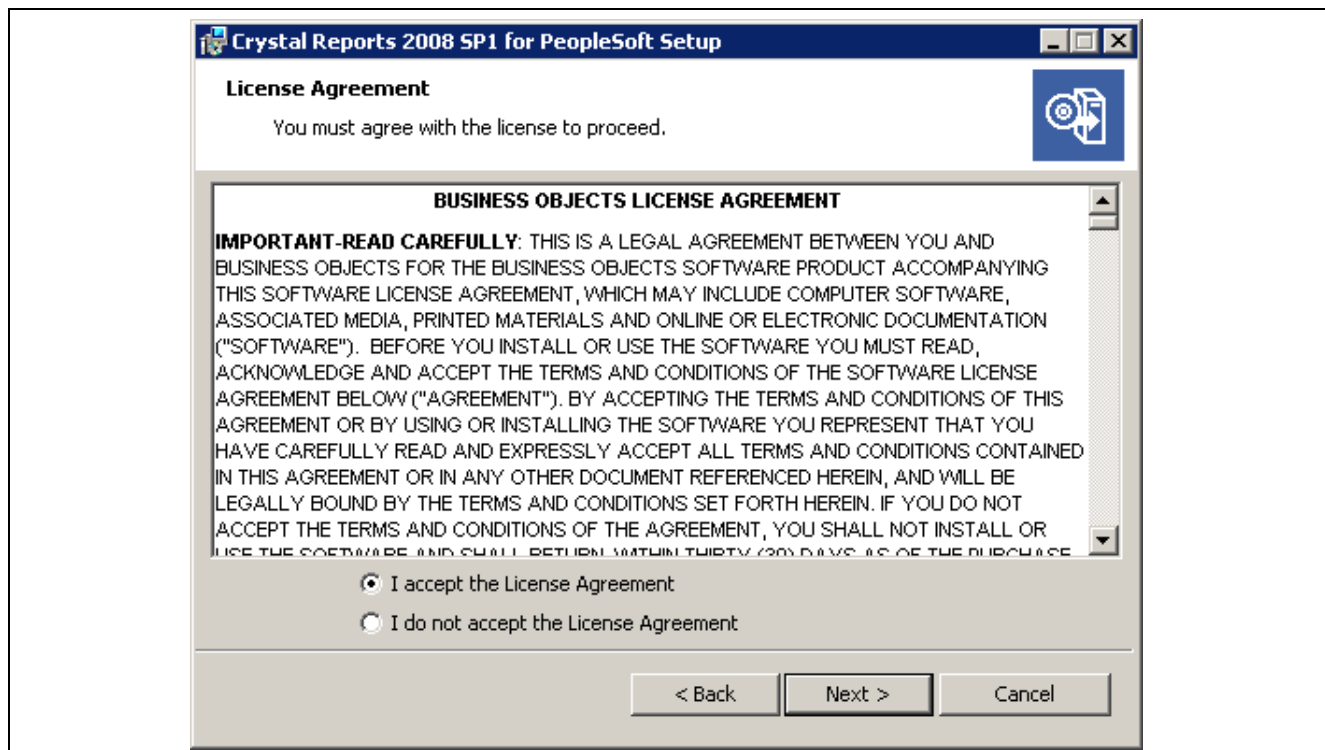
The Welcome window appears.

3. Click Next.



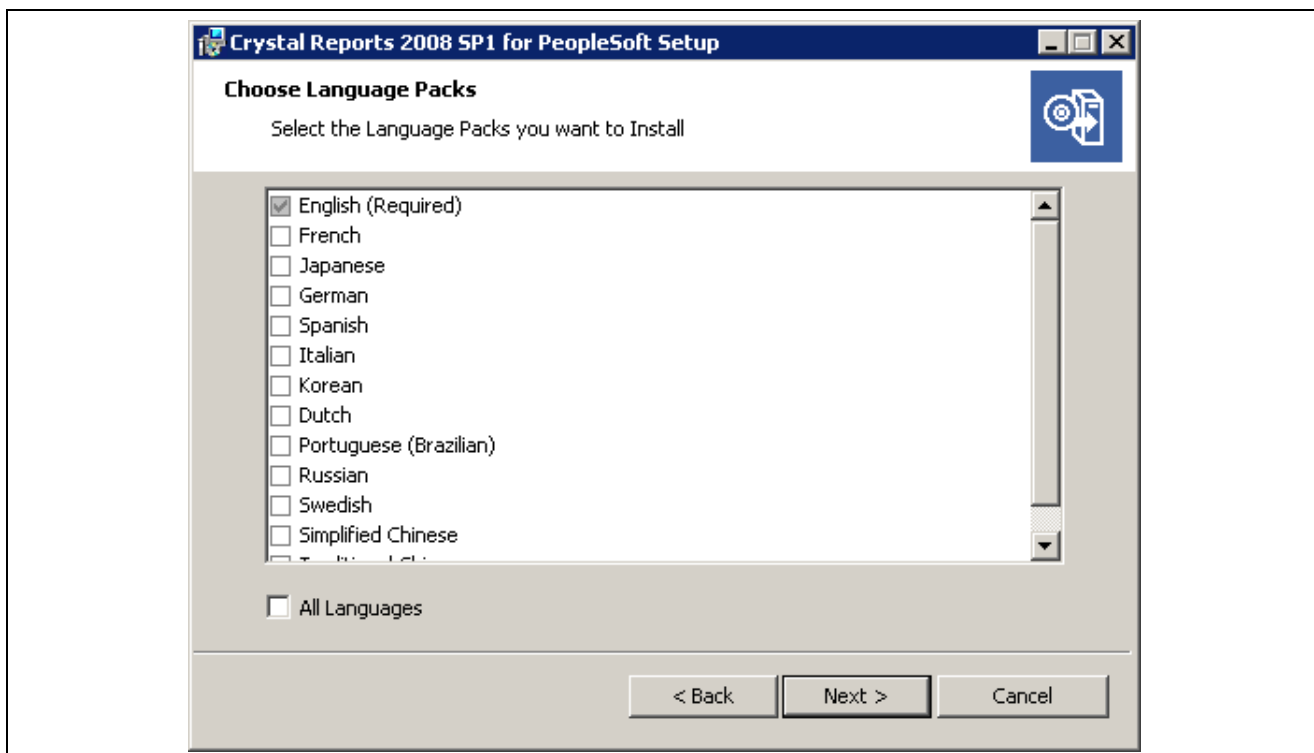
Crystal Reports 2008 SP1 Welcome window

4. Select the I accept the License Agreement radio button and click Next.



Crystal Reports 2008 SP1 License Agreement

5. Select the languages that you want to install and click Next.

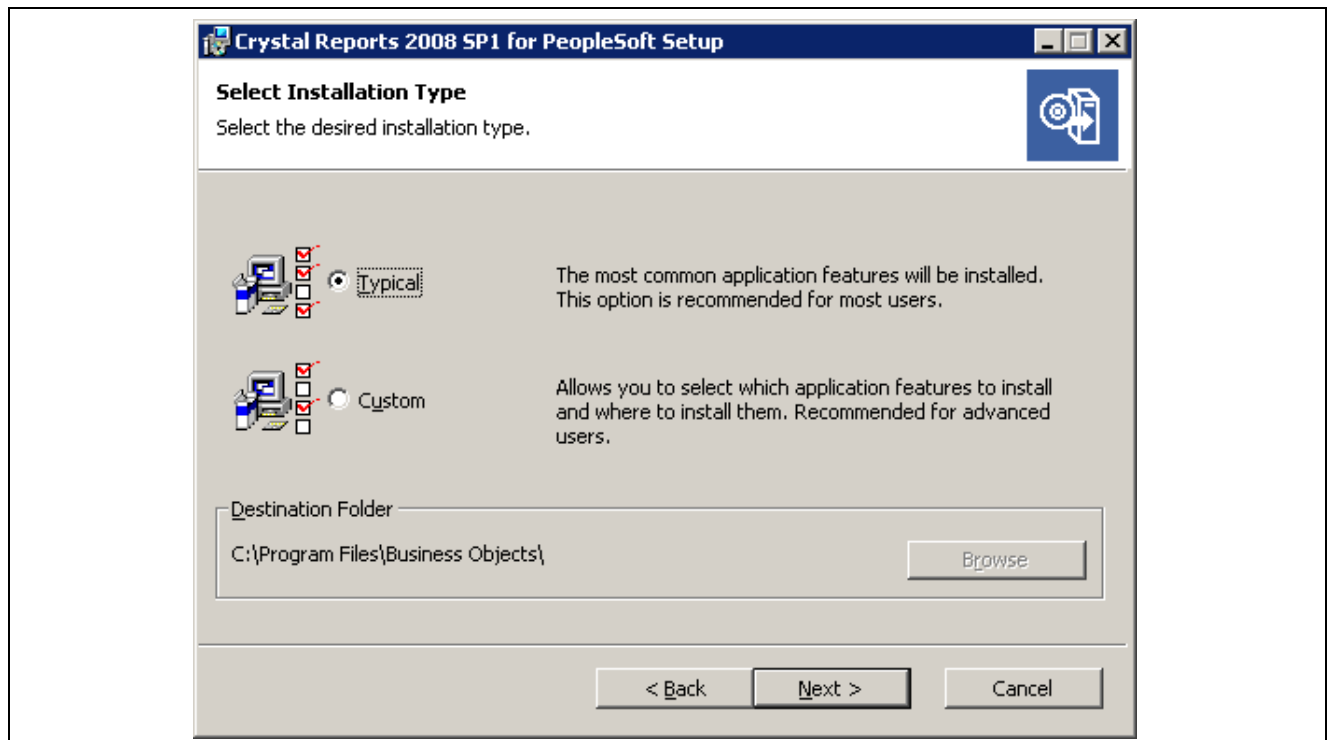


Crystal Reports 2008 SP1 Choose Language Packs window

6. Select the Typical option.

If necessary, use the Browse button to set your destination folder.

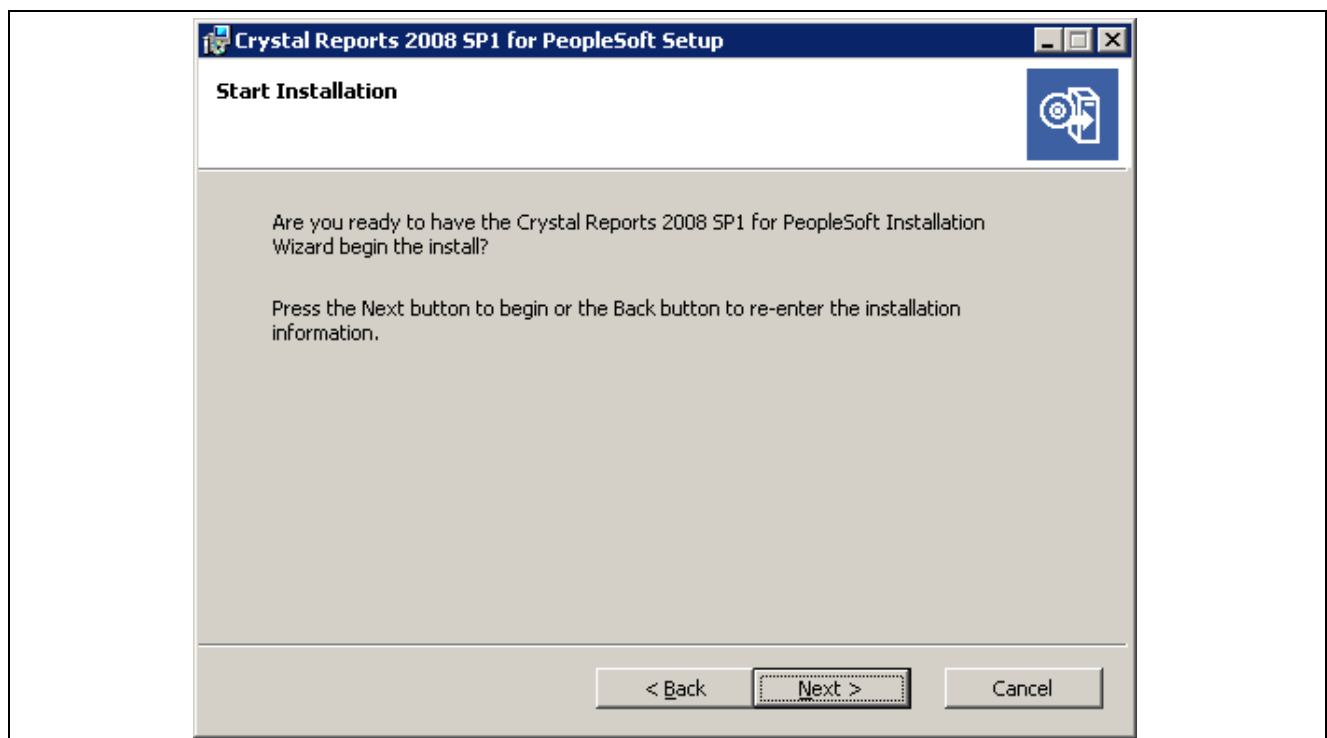
Note. If a Business Objects product is already installed, the destination folder will point to that and cannot be changed.



Crystal Reports 2008 SP1 Select Installation Type window

7. Click Next to begin the installation.

Click Back to go to a previous window to change the installation information.



Crystal Reports 2008 SP1 Start Installation window

8. Click Finish to exit the installation window.

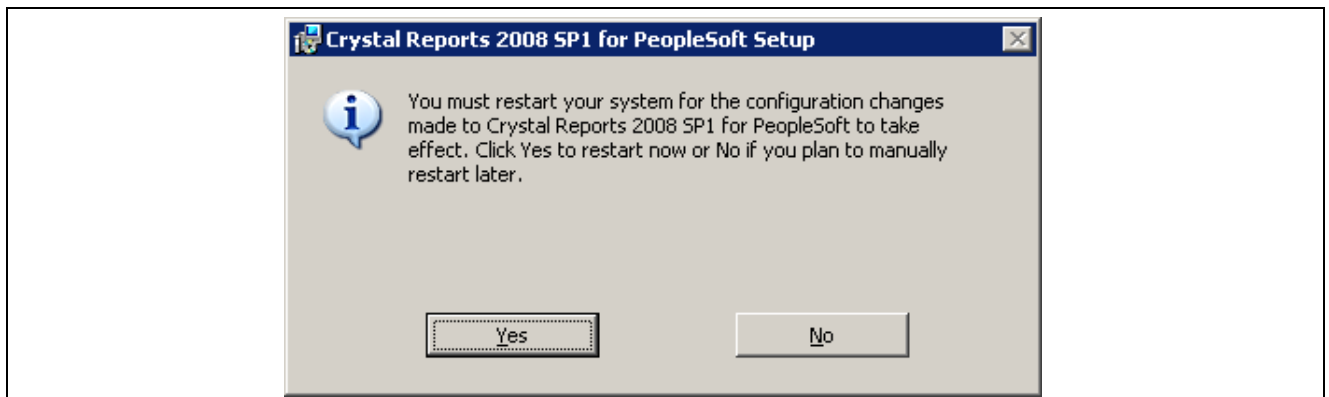
Select or clear the option to Check for product updates.

You must reboot your machine to complete the installation.



Crystal Reports 2008 SP1 for PeopleSoft has been successfully installed

9. Click Yes or No when asked whether to restart your machine.



Crystal Reports 2008 SP1 restart message

Note. You will need to convert all your existing custom Crystal Reports to the Crystal Reports 2008. See the section Converting Crystal Reports in this chapter for additional information and tasks.

See Also

Configuring Crystal Reports 2008 SP1 for BusinessObjects Enterprise XI 3.1

Task 12-4: Installing BusinessObjects Enterprise XI 3.1

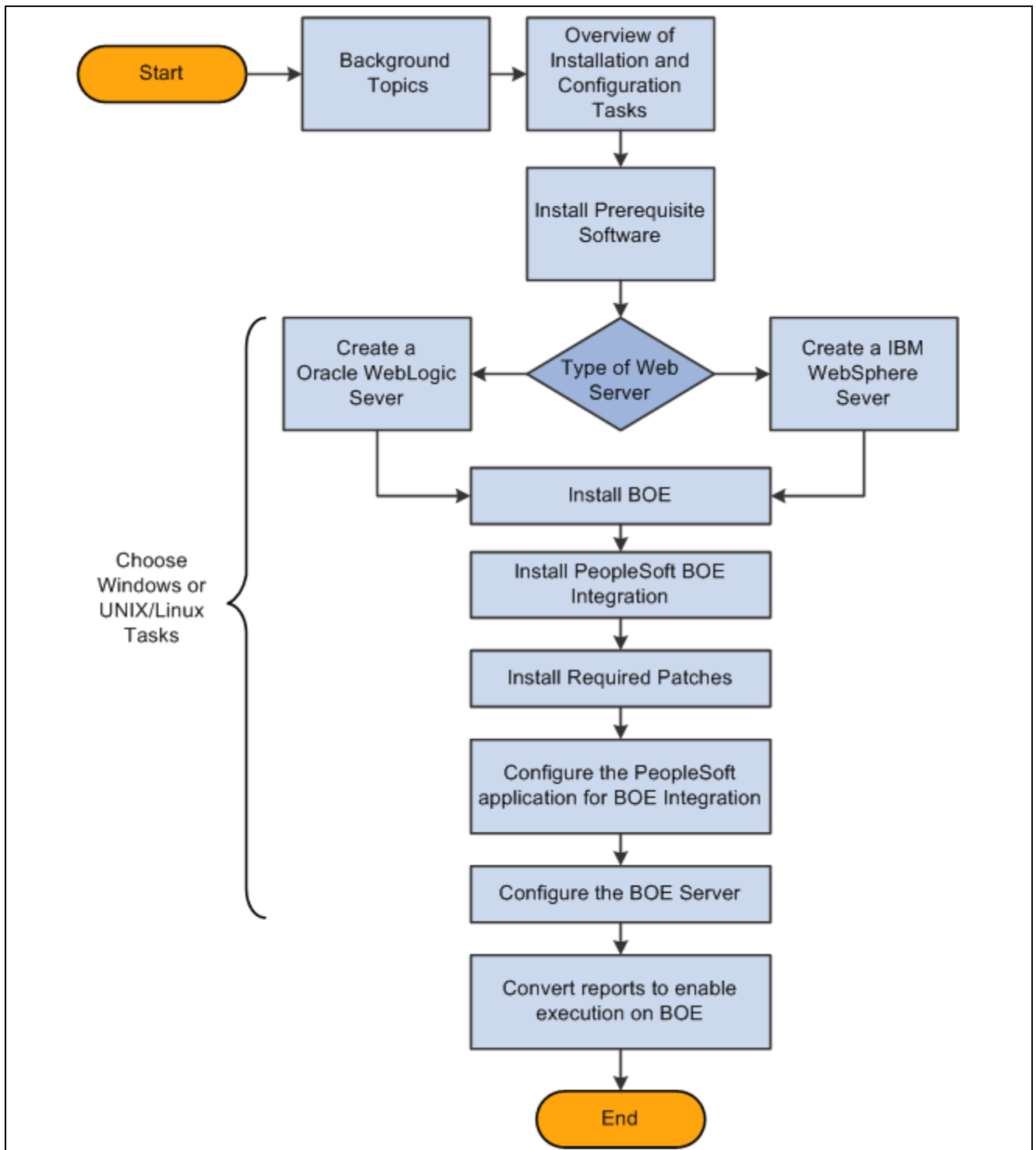
This section discusses:

- Understanding the BusinessObjects Enterprise XI 3.1 Installation
- Understanding Integration Between BusinessObjects Enterprise XI 3.1 and PeopleSoft Enterprise
- Understanding Query Access Services
- Reviewing Key BusinessObjects Enterprise XI 3.1 Components
- Planning your BusinessObjects Enterprise XI 3.1 Integration
- Installing the PeopleSoft Application Environment
- Installing Required at Installation Patches
- Creating a Web Server for BusinessObjects Enterprise XI 3.1 on Windows
- Installing BusinessObjects Enterprise XI 3.1 on Windows
- Installing BusinessObjects Integration Kit for PeopleSoft on Windows
- Installing Fix Pack 1.6 on Windows
- Installing TrueType Fonts on Windows
- Creating a Web Server for BusinessObjects Enterprise XI 3.1 on UNIX or Linux
- Installing BusinessObjects Enterprise XI 3.1 on UNIX or Linux
- Installing BusinessObjects Integration Kit for PeopleSoft on UNIX or Linux
- Installing Fix Pack 1.6 on UNIX or Linux
- Installing TrueType Fonts in UNIX or Linux
- Confirming Access to the BusinessObjects Enterprise XI 3.1 Administration and Central Management Console
- Configuring the PeopleSoft Application for BusinessObjects Enterprise XI 3.1 Integration
- Importing Security Certificate to the Oracle WebLogic Server
- Importing Security Certificate to the IBM WebSphere Server
- Configuring the BusinessObjects Enterprise XI 3.1 Server
- Configuring Crystal Reports 2008 for BusinessObjects Enterprise XI 3.1
- Verifying the PeopleSoft to BusinessObjects Enterprise XI 3.1 Integration

Understanding the BusinessObjects Enterprise XI 3.1 Installation

Use the following three flowcharts to understand which parts of this section are relevant to your particular circumstances. The first flowchart is an overview of the entire process. After the step to install the prerequisite software, there is a decision point, and the process continues on the second and third flowcharts, and then returns to conclude on the first flowchart. The second flowchart displays the steps for the installation on Windows, and the third flowchart illustrates the steps for the installation on UNIX or Linux.

Note. In the following flowchart, “BOE” refers to BusinessObjects Enterprise XI 3.1.

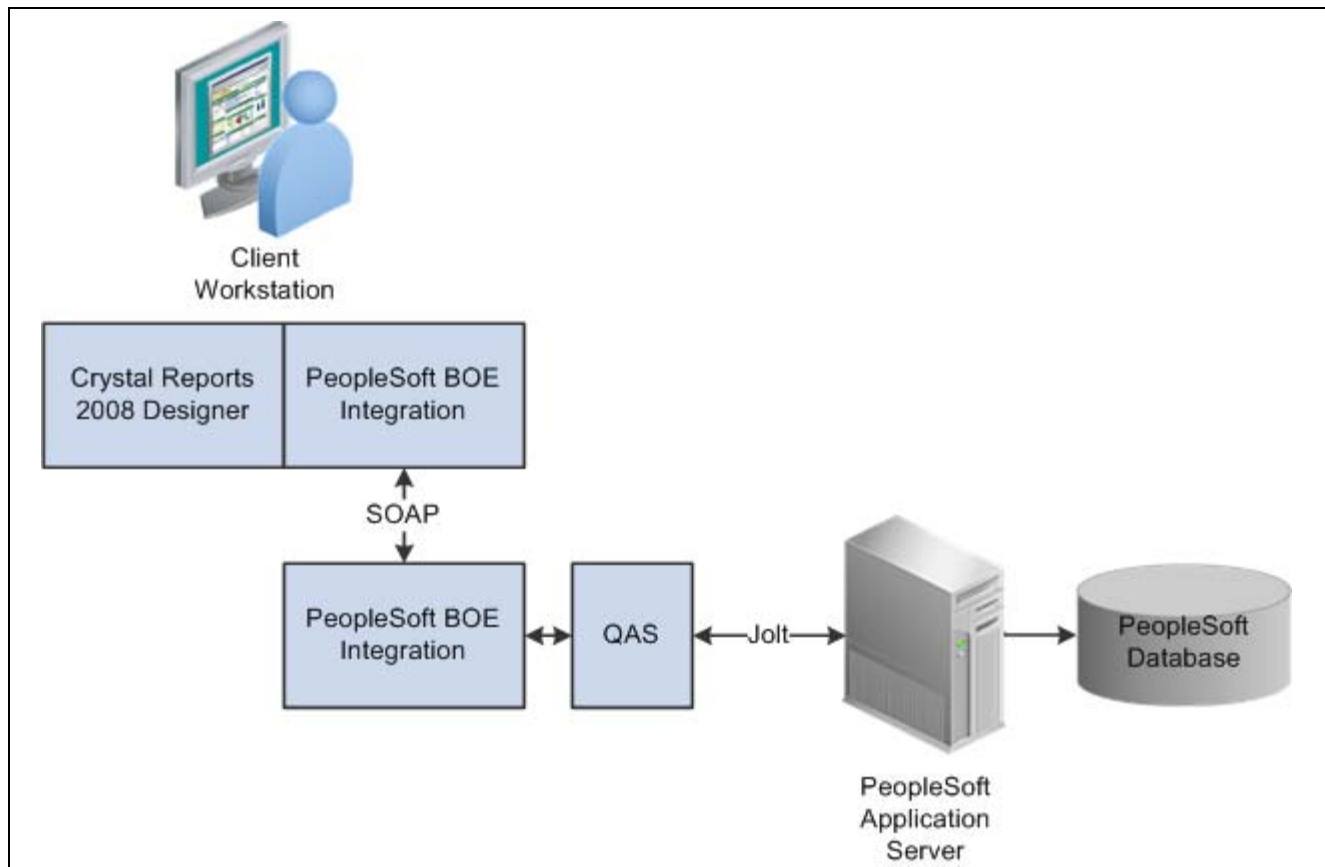


Navigating the BOE Installation and Configuration

Understanding Integration Between BusinessObjects Enterprise XI 3.1 and PeopleSoft Enterprise

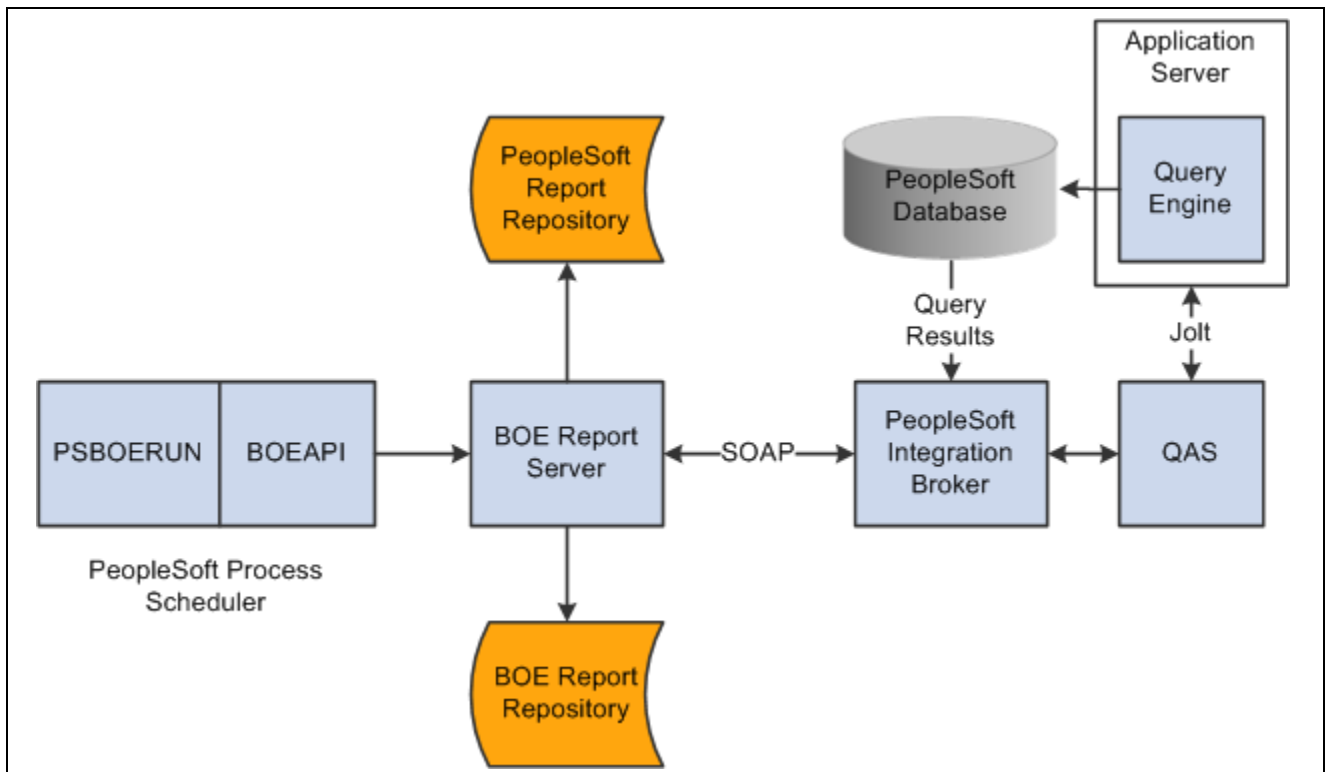
PeopleSoft Enterprise, together with Business Objects, provides a robust suite of reporting tools to be used with PeopleSoft products. The diagrams in this section illustrate how BusinessObjects Enterprise XI 3.1 integrates with PeopleSoft Enterprise.

The following diagram illustrates the process by which the PeopleSoft BusinessObjects Enterprise integration communicates with the PeopleSoft Integration Broker, Application Server, and the database, when a user designs a report.



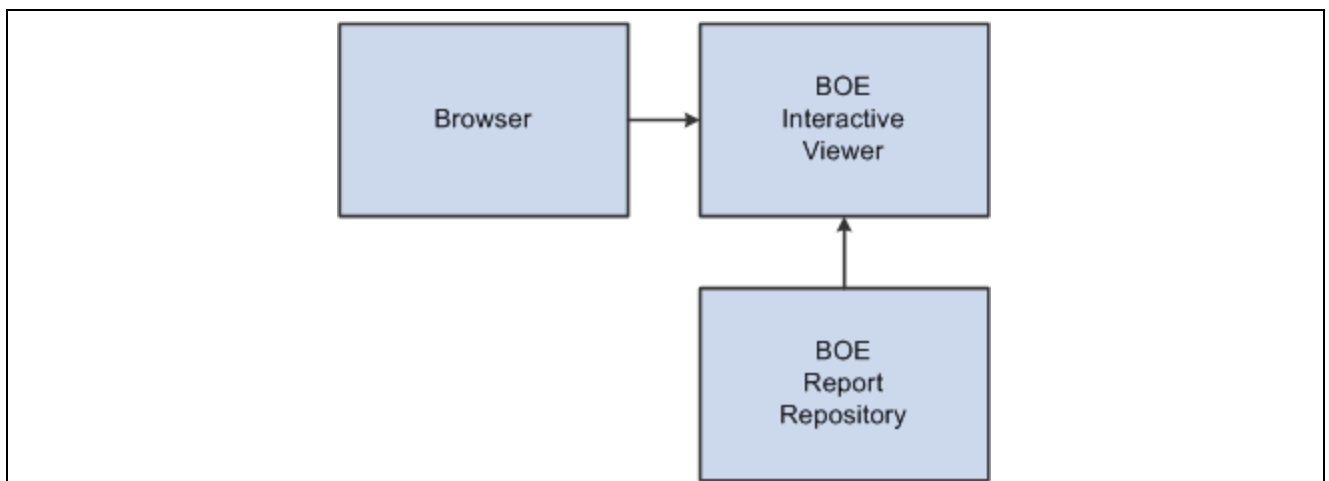
Design a report with the PeopleSoft BusinessObjects Enterprise XI 3.1 integration

The following diagram illustrates the process by which the BusinessObjects Enterprise integration works with PeopleSoft Process Scheduler and PeopleSoft Integration Broker to run a report.



Run a report with the PeopleSoft BusinessObjects Enterprise XI 3.1 integration

The following diagram illustrates the interaction between the end-user browser, the BusinessObjects Enterprise Interview Viewer, and the BusinessObjects Enterprise report repository in displaying a report.



View a report stored in the BusinessObjects Enterprise XI 3.1 Repository

Implementation of this integration requires:

- installation of BusinessObjects Enterprise XI 3.1 server
- installation of PeopleSoft-specific components on the BusinessObjects Enterprise XI 3.1 server
- configuration tasks in your PeopleSoft database
- configuration tasks in your BusinessObjects Enterprise XI 3.1 server
- conversion of Crystal report definitions from Crystal 9 format to Crystal 2008 format.

BusinessObjects Enterprise XI 3.1 for PeopleSoft Enterprise interacts with PeopleSoft Enterprise security server using a plug-in. This integration provides single signon and ensures the synchronization of users and roles between PeopleSoft Enterprise and BusinessObjects Enterprise XI 3.1. Using a data driver that calls the Query Access Services, BusinessObjects Enterprise XI 3.1 receives data from PS Query and builds a report using Report Application Server (RAS) API.

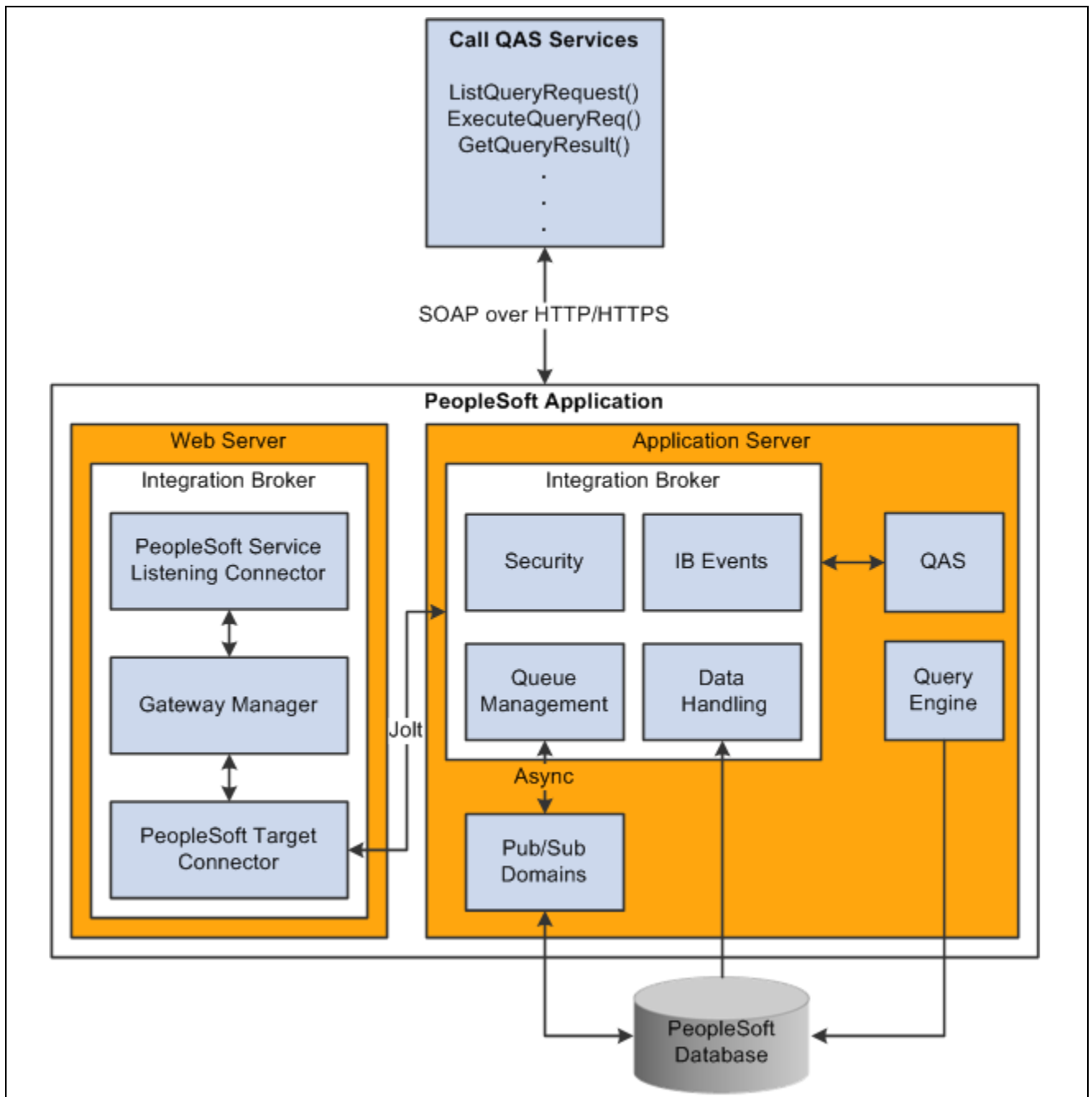
Understanding Query Access Services

Query Access Services (QAS) provides PeopleSoft query results to BusinessObjects Enterprise over the web to create Crystal reports.

QAS plays the following roles in BusinessObjects Enterprise XI 3.1 for PeopleSoft Enterprise:

- Provides a mechanism for the BusinessObjects Enterprise XI 3.1 to access Query metadata so that users can design Crystal Reports based on the queries.
- Provides a mechanism for the BusinessObjects Enterprise XI 3.1 to obtain results for a query to be used in report definitions.

The following diagram illustrates the QAS architecture and the relationship of the QAS components to the PeopleSoft servers and BusinessObjects Enterprise. The components are described in detail immediately following the diagram:



QAS interaction with PeopleSoft application

The following sections describe the components in the Query Access Services architecture:

- BusinessObjects Enterprise XI 3.1

When BusinessObjects Enterprise XI 3.1 makes a request to obtain XML data from Integration Broker, the request is authenticated and sent to the Integration Gateway.

- Web Server

The Integration Gateway is a component of PeopleSoft Integration Broker, and resides on a PeopleSoft web server that generates the URL to navigate inside BusinessObjects Enterprise. The Integration Gateway receives every SOAP request coming from BusinessObjects Enterprise over HTTP/HTTPS, and forwards the request to the integration engine running on the application server.

- Application Server

PeopleCode running on the application server implements most of the QAS services and generates the required response. Several components on the application server are involved in the query and responses, including the Integration Broker integration engine, the QAS query engine, and the application server publish/subscribe domains.

When a query execution request arrives, it is executed and the requested data returned as a message or as the URL of an XML file. The query execution is carried out in one of three ways:

- Synchronous Request/Response
- Asynchronous Request/Asynchronous Response
- Synchronous Request/Synchronous Poll with chunked response

Reviewing Key BusinessObjects Enterprise XI 3.1 Components

BusinessObjects Enterprise involves the interaction of the following components:

- Central Management Console (CMC)

The Central Management Console (CMC) enables you to perform administrative tasks. Administrative tasks include authenticating users, granting rights to groups, adding domains, mapping PeopleSoft roles with BusinessObjects Enterprise roles, and adding users.

- Security Plugin

The Central Management Server uses the BusinessObjects Enterprise XI 3.1 security plug-in to verify the user name and password against the system database. In the context of BusinessObjects Enterprise for PeopleSoft Enterprise, the security plug-in enables you to map user accounts and groups from PeopleSoft into BusinessObjects Enterprise XI 3.1. The user names and passwords are authenticated against the BusinessObjects Enterprise XI 3.1 user list that is synchronized with the users and roles in the PeopleSoft database.

Task 12-4-1: Planning your BusinessObjects Enterprise XI 3.1 Integration

This section discusses:

- Installing Prerequisite Software
- Understanding BusinessObjects Enterprise XI 3.1 License Keys
- Configuring Environment Variables

Note. These are steps that should be done prior to starting the installation and configuration of PeopleSoft PeopleTools and BusinessObjects Enterprise XI 3.1. Completing these tasks will make the installation and configuration process proceed smoothly.

Installing Prerequisite Software

Several different alternative software packages are supported for BusinessObjects Enterprise XI 3.1. These alternatives are listed in the PeopleSoft PeopleTools hardware and software guide. Additional detailed information on specific release levels supported is available online on My Oracle Support.

Note. The versions of the prerequisite software required for proper installation of BusinessObjects Enterprise XI 3.1 may differ from the versions required for PeopleSoft PeopleTools. Take care in noting the versions required.

See *Enterprise PeopleTools 8.50 Hardware and Software Requirements*.

See My Oracle Support, Certifications.

- Operating System

In order for the integration between PeopleSoft software and BusinessObjects Enterprise XI 3.1 to work, the PeopleSoft Process Scheduler must be installed on an operating system that BusinessObjects Enterprise XI 3.1 supports. This is because PSBOERUN.EXE, the PeopleSoft process that calls BusinessObjects Enterprise XI 3.1, uses Business Objects-supplied APIs.

- Database Software

BusinessObjects Enterprise XI 3.1 requires a relational database, which stores report definitions as well as report output. Oracle, DB2 LUW, Microsoft SQL Server, and Sybase are all supported database platforms.

The database server software can run on a different machine in the same network as your installation of BusinessObjects Enterprise XI 3.1.

Before you begin to install BusinessObjects Enterprise XI 3.1, you should identify the database server that you want to use. Make note of the database or schema name, user account name, and password for the database, as you will need this information to complete the BusinessObjects Enterprise XI 3.1 installation. A database must exist, which will become the Central Management Server database.

Note. MySQL is not a supported database platform for the integration between PeopleSoft PeopleTools and BusinessObjects Enterprise XI 3.1.

- Database Connectivity Software

BusinessObjects Enterprise XI 3.1 runs under a web server and requires a database, which stores report definitions as well as report output. In order for BusinessObjects Enterprise XI 3.1 to communicate with the database software, the appropriate database client connectivity software must be installed on the server running BusinessObjects Enterprise XI 3.1.

Before you begin to install BusinessObjects Enterprise XI 3.1, install the appropriate database connectivity software on the server where BusinessObjects Enterprise XI 3.1 will reside.

- Java SDK

If your web application server software does not automatically install the Java SDK as part of its installation process, you must install the J2SE SDK first. Ensure that your machine's PATH environment variable includes the Java SDK bin directory.

- Web Application Server Software

BusinessObjects Enterprise XI 3.1 runs under a web application server, either Oracle WebLogic 10.1 or IBM WebSphere 6.1. Before you begin to install BusinessObjects Enterprise XI 3.1, install the appropriate web server software on the server where BusinessObjects Enterprise XI 3.1 will reside.

Note that the Business Objects web server support differs from the PeopleSoft PeopleTools 8.50 support. PeopleSoft PeopleTools 8.50 supports Oracle WebLogic 10.3.1 and IBM WebSphere 7.0; BusinessObjects Enterprise XI 3.1 supports Oracle WebLogic 10.1 and IBM WebSphere 6.1. Obtain and install the software and license from Oracle and IBM before beginning this procedure.

Note. You must install BusinessObjects Enterprise XI 3.1 with the same user account as that used to install the web server software.

See "Installing Web Server Products."

- **Application Server Domains**

In PeopleSoft PeopleTools 8.50, you can configure more than one PeopleSoft application to run with a single BusinessObjects Enterprise XI 3.1 server. For example, if your environment includes both an application server domain on a Financials database, and another on an HRMS database, you can configure both with the same BusinessObjects Enterprise XI 3.1 server, and the state of one PeopleSoft application (running or not running) does not adversely impact the ability of the other PeopleSoft application to run reports on the BusinessObjects Enterprise XI 3.1 server.

Thus when you generate reports from the Financials domain, as long as the Financial domain is up and running, you will be able to access the reports even if the HRMS domain is down.

The instructions in this section assume BusinessObjects Enterprise XI 3.1 is installed on one server machine that is separate from the machine on which you have installed (or will install) the PeopleSoft software. The BusinessObjects Enterprise XI 3.1 installation documentation includes instructions for other installation configurations.

Understanding BusinessObjects Enterprise XI 3.1 License Keys

There are two types of license keys relevant to BusinessObjects Enterprise XI 3.1:

- **Named Users licenses**

Named users licenses allow a specific user access to BusinessObjects Enterprise XI 3.1. If you are a named user, you have access to BusinessObjects Enterprise XI 3.1 regardless of how many other users are connected to the system.

- **Concurrent Access licenses**

Concurrent access licenses allow a certain number of unspecified users access to BusinessObjects Enterprise XI 3.1 from a pool of users. If you are a concurrent user, you have access to BusinessObjects Enterprise XI 3.1 only if there are Concurrent Access Licenses that are not being used by other concurrent users.

During the BusinessObjects Enterprise XI 3.1 configuration, you must specify one license key.

The OEM license keys delivered by Oracle for the integration between PeopleSoft and BusinessObjects Enterprise allow for:

- 1 Named User license
- 5 Concurrent Access licenses

In the context of PeopleSoft applications integrated with BusinessObjects Enterprise XI 3.1, the one Named User License is reserved for use by Process Scheduler to schedule reports to be run by BusinessObjects Enterprise XI 3.1.

In the context of PeopleSoft applications integrated with BusinessObjects Enterprise XI 3.1, Concurrent Access licenses are used in these ways:

- when a user views a report using the BusinessObjects Enterprise XI 3.1 Interactive Viewer
- when a user logs into the BusinessObjects Enterprise XI 3.1 Central Management Console (CMC) directly using a user id set up as a concurrent user

After a user is done viewing the report in either scenario, the Concurrent Access license is then free to be used by another user.

Note. Viewing a report in Adobe Acrobat (pdf) format or in viewers other than the BusinessObjects Enterprise XI 3.1 Interactive Viewer does not use a Concurrent Access License.

A relatively small number of concurrent access licenses can support a large number of users. The number of users that it will support depends on how many reports users view and how long they view them.

It is likely that you will want to purchase additional Concurrent Access licenses to provide greater access for more users. You can do so by contacting your Oracle sales representative.

When you purchase more Concurrent Access licenses, you will be provided a license code. You will need to add this license code to your BusinessObjects Enterprise XI 3.1 installation. To add license keys, use the procedure in the section Configuring the BusinessObjects Enterprise XI 3.1 Server.

Configuring Environment Variables

To configure environment variables for UNIX platforms:

1. Set the `JAVA_HOME` environment variable:

```
JAVA_HOME= java_installDirectory; export JAVA_HOME
```
2. Set the `LC_ALL` environment variable to include a UTF-8 locale in your login environment.
3. Run the `locale -a` command to verify that all of the related locale environment variables were properly set by `LC_ALL`.

Note. If the `locale` command does not return the correct values, contact your system administrator to set the values properly.

Task 12-4-2: Installing the PeopleSoft Application Environment

Install PeopleSoft PeopleTools and your PeopleSoft application environment as you normally would. There are special configuration steps that you will have to perform later in order to complete the integration of the PeopleSoft system with BusinessObjects Enterprise XI 3.1. The machine with the PeopleSoft PeopleTools and PeopleSoft application installation must also include the BusinessObjects Integration Kit for PeopleSoft and Crystal 2008. The machine with the BusinessObjects Enterprise XI 3.1 installation must include web server software in addition to the BusinessObjects Enterprise XI 3.1 software.

Task 12-4-3: Installing Required at Installation Patches

There may be patches for BusinessObjects Enterprise XI 3.1 as well as the PeopleSoft Integration for BusinessObjects Enterprise XI 3.1 that must be installed at installation.

Log onto My Oracle Support, Patches and Downloads. Select the Required for Install or Upgrade link, and search for required patches for your release. Read any documentation included with the patches. You can search using the following criteria:

Product Line	PeopleTools
Product	PeopleTools
Release	the release of PeopleSoft PeopleTools that you are using

Task 12-4-4: Creating a Web Server for BusinessObjects Enterprise XI 3.1 on Windows

This section discusses:

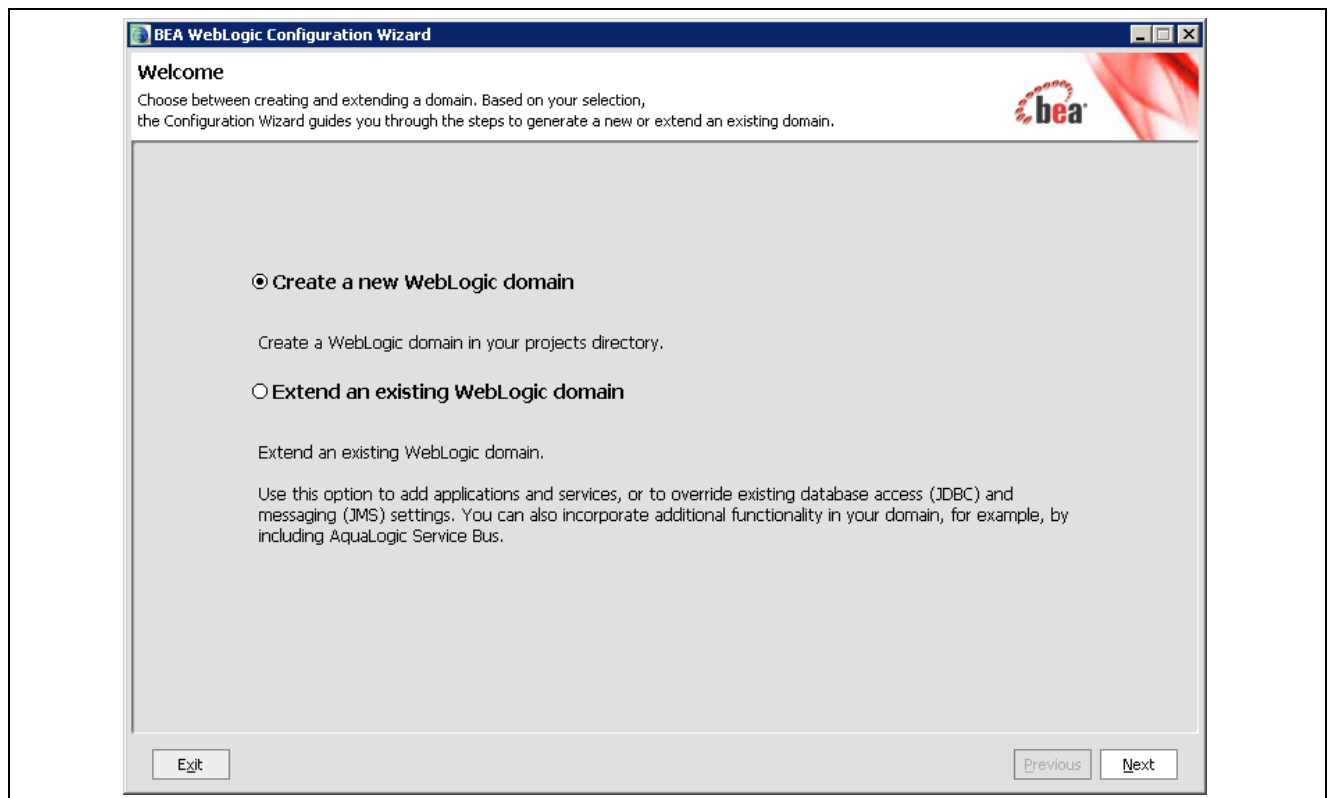
- Creating an Oracle WebLogic Server on Windows
- Creating an IBM WebSphere Server on Windows

Creating an Oracle WebLogic Server on Windows

Before beginning this procedure, you must have installed Oracle WebLogic 10.1 on the server where BusinessObjects Enterprise XI 3.1 is installed.

Note. BusinessObjects Enterprise XI 3.1 requires a different version of Oracle WebLogic than does PeopleSoft PeopleTools 8.50.

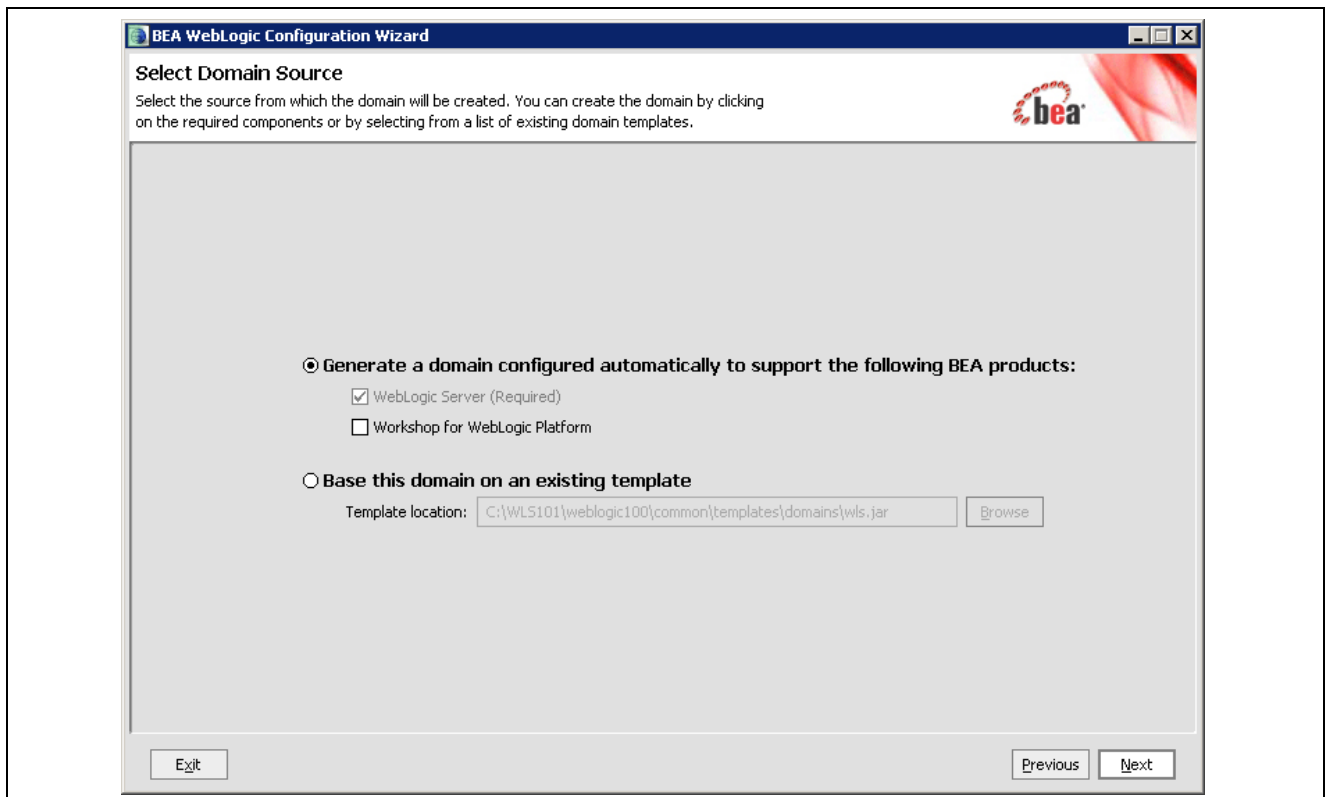
1. Select Start, Programs, BEA Products, Tools, Configuration Wizard to launch the Configuration Wizard.
2. Verify that Create a new WebLogic domain is selected and click Next.



BEA WebLogic Configuration Wizard Welcome window

The Select Domain Source window appears.

3. Select Generate a domain configured automatically to support the following BEA products:
When you select this option, the check box for WebLogic Server (Required) is selected.

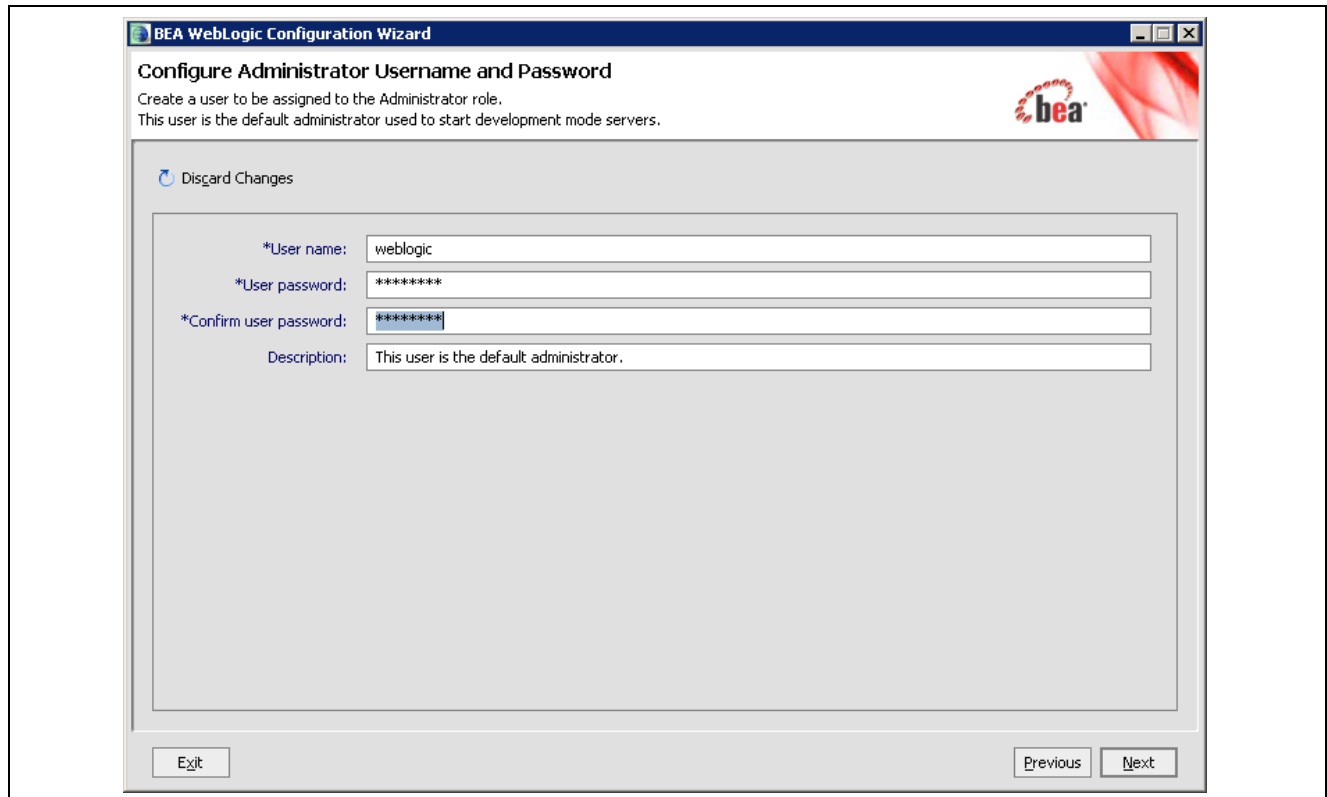


Select Domain Source window

4. Enter a password, confirm the password, and click Next.

In the following example, *weblogic* is entered for the user name.

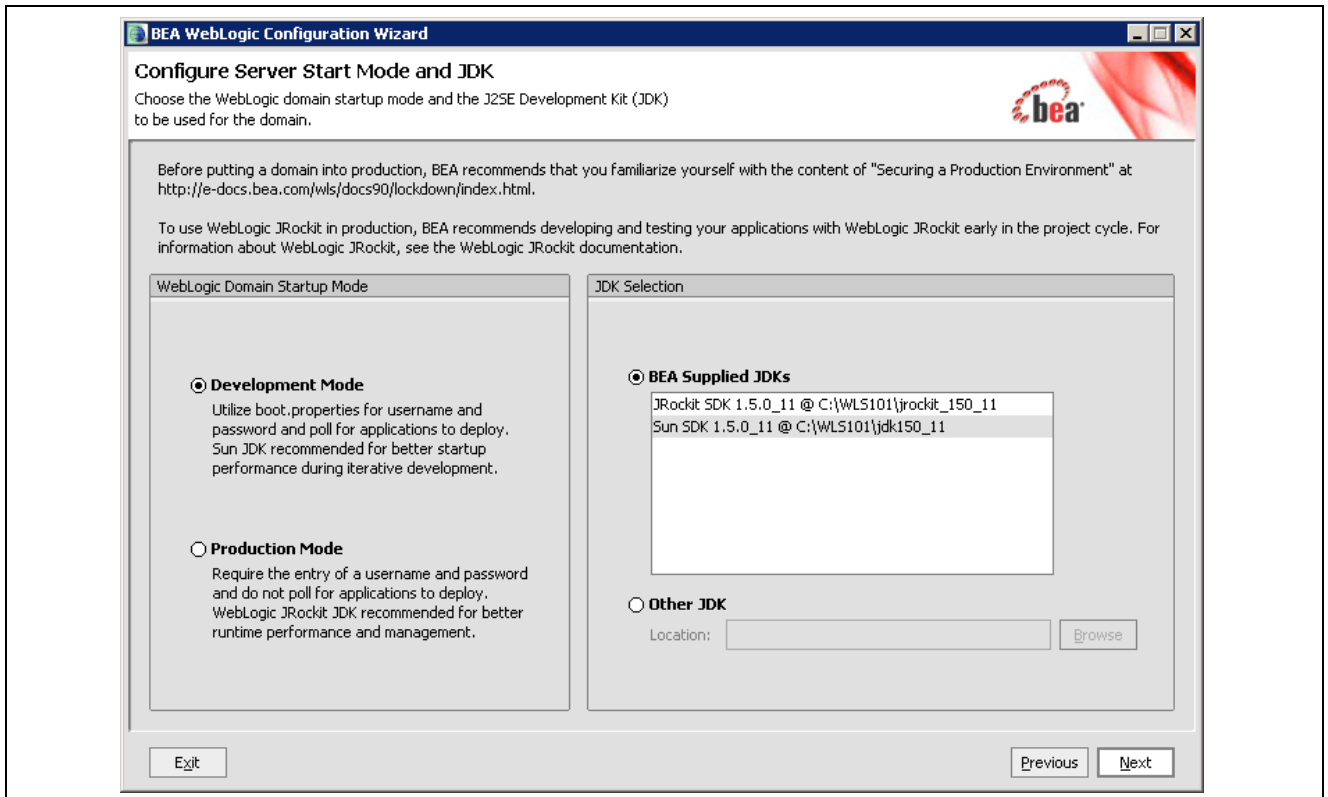
Note. For testing, *password* is often used as the password.



Configure Administrator Username and Password window

The Configure Server Start Mode and JDK window appears.

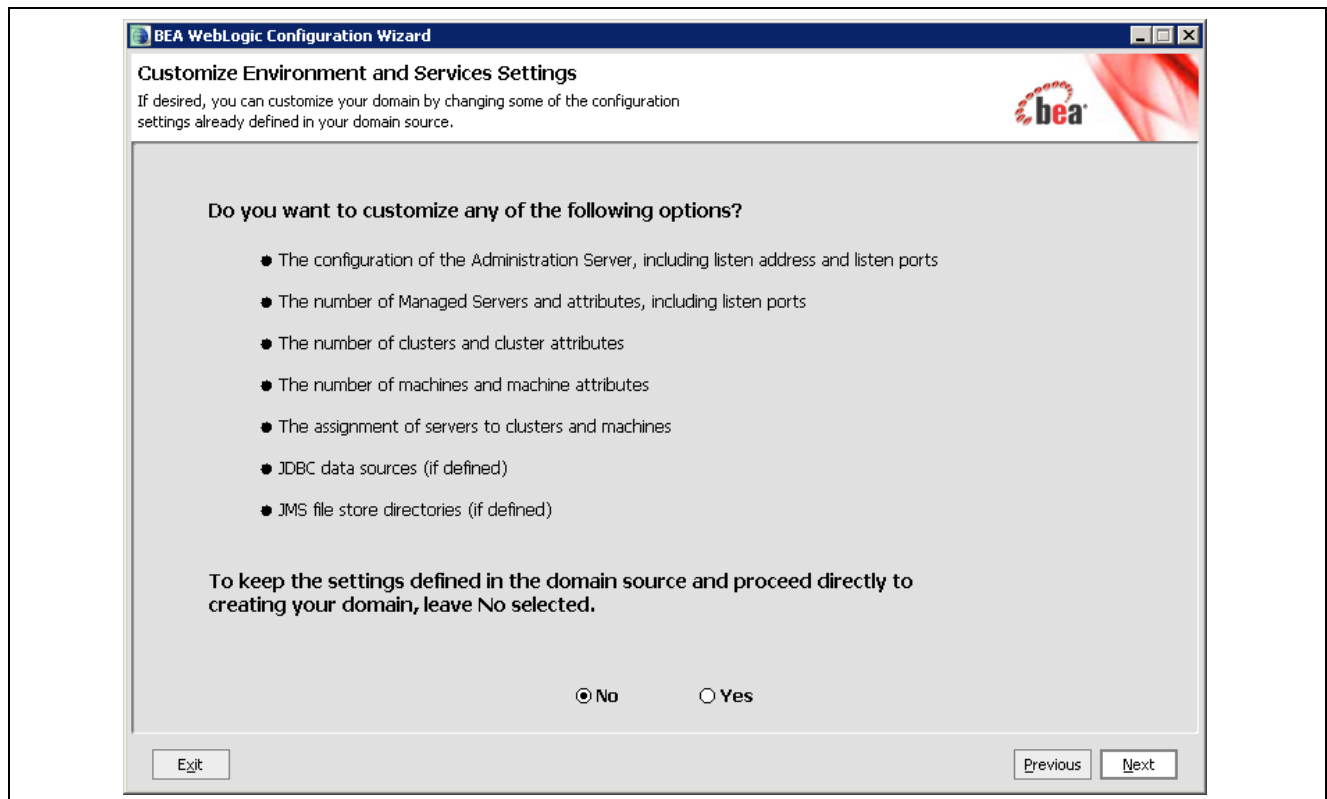
5. Select the Development Mode option and any supported JDK you installed, and click Next.



Configuring the Server Start Mode and JDK window

6. On the Customize Environment and Services Settings window, accept No, the default option, and click Next.

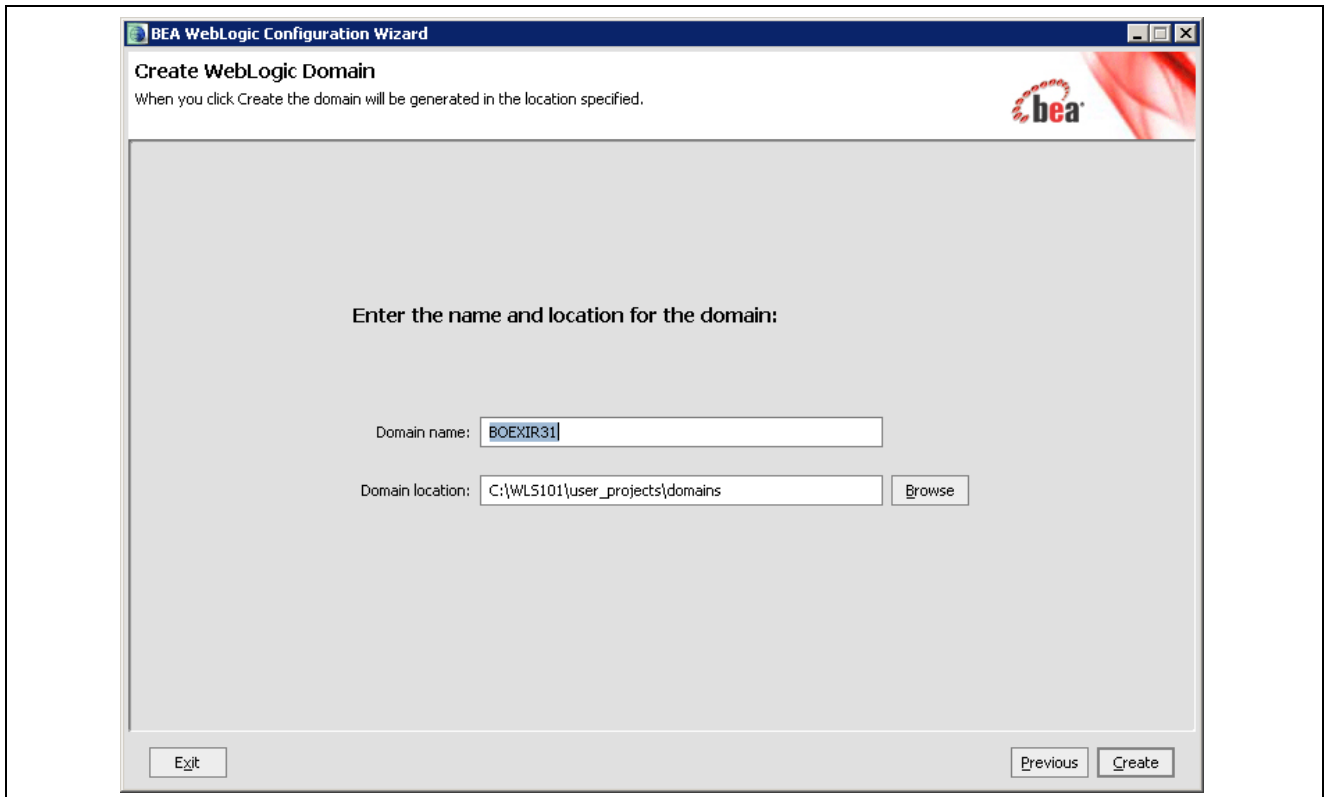
Note. If you want to change the default port number, or other settings, select Yes and complete the screens that follow.



Customize Environment and Service Settings window

7. Enter a meaningful domain name, select the location of the domain and click Create.

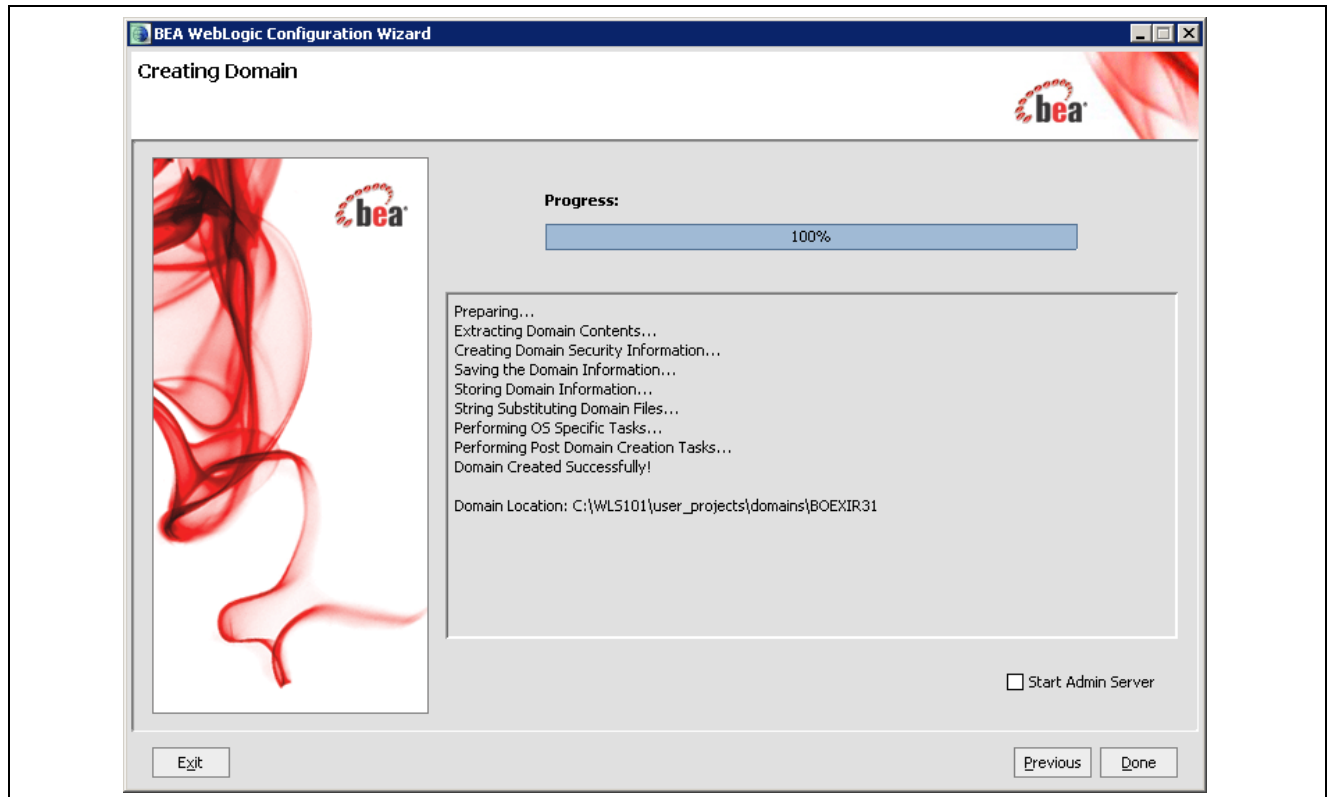
In the following example, the domain name is *BOEXIR31*, and the domain location is *C:\WLS101\user_projects\domains*.



Create WebLogic Domain window

8. Select Done to complete the wizard.

You have now created a web server at the default port 7001.



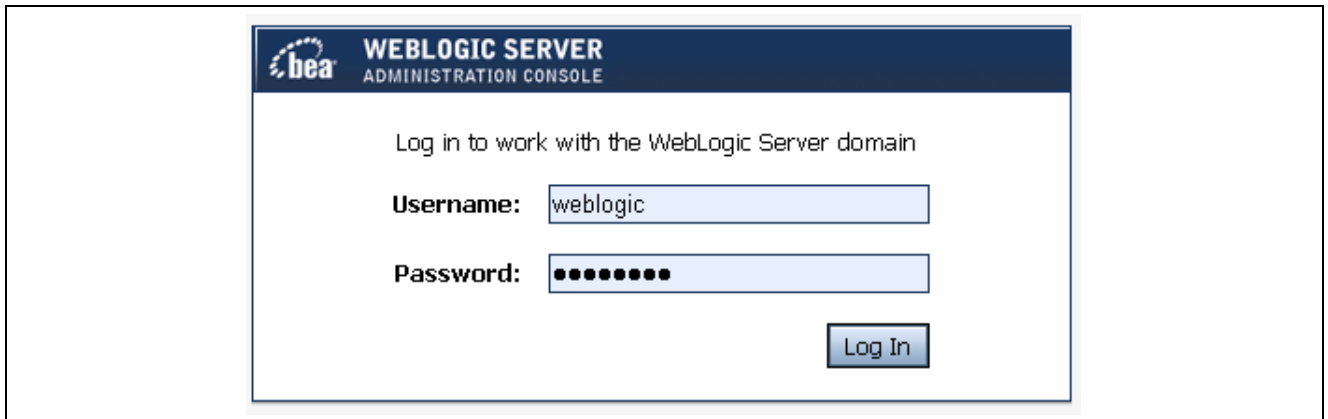
Creating Domain window

9. To start the web server, select Start, Programs, BEA Products, User Projects, *domain_name*, Start Admin Server for WebLogic Server Domain.

An MS-DOS window opens. Wait until a message containing the phrase “Server started in RUNNING mode” appears, indicating that the web server is active.

Note. You perform this step to start the web server. You will need to perform this step after you reboot the machine or close down the Oracle WebLogic web server.

10. To confirm that you can log in to the web server, enter this URL in a browser:
`http://machine_name:7001/console`
11. In the login window, enter the user name and password for the Oracle WebLogic administrator that you entered during your installation of Oracle WebLogic.
In the following example, the user name is *weblogic*.
Click Log In.



Oracle WebLogic Server Administration Console Login Window

12. If you are logged in, this verifies that your Oracle WebLogic server setup was successful.

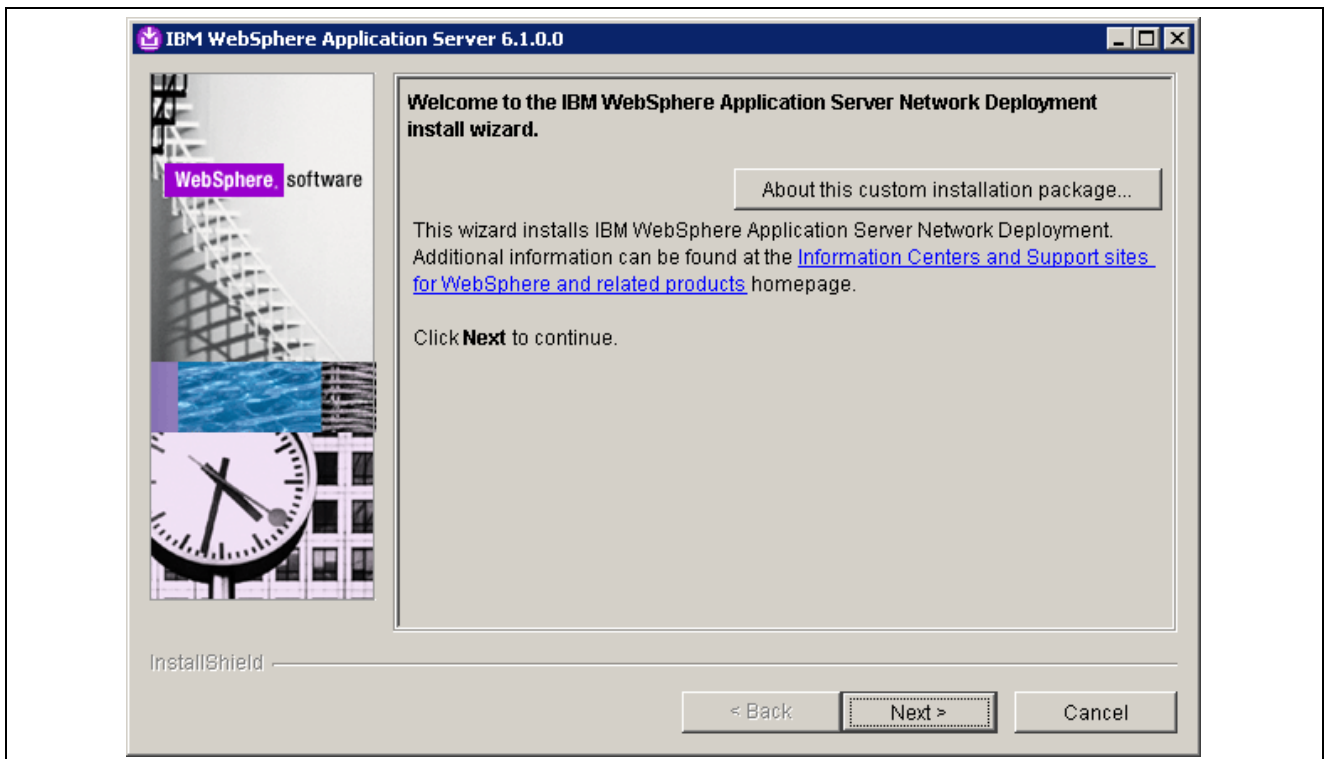
Creating an IBM WebSphere Server on Windows

Before beginning this procedure, you must have installed IBM WebSphere 6.1 on the server where BusinessObjects Enterprise XI 3.1 is installed.

Note. BusinessObjects Enterprise XI 3.1 requires a different version of IBM WebSphere than does PeopleSoft PeopleTools 8.50.

1. Run installWAS.bat from the WebSphere installation.

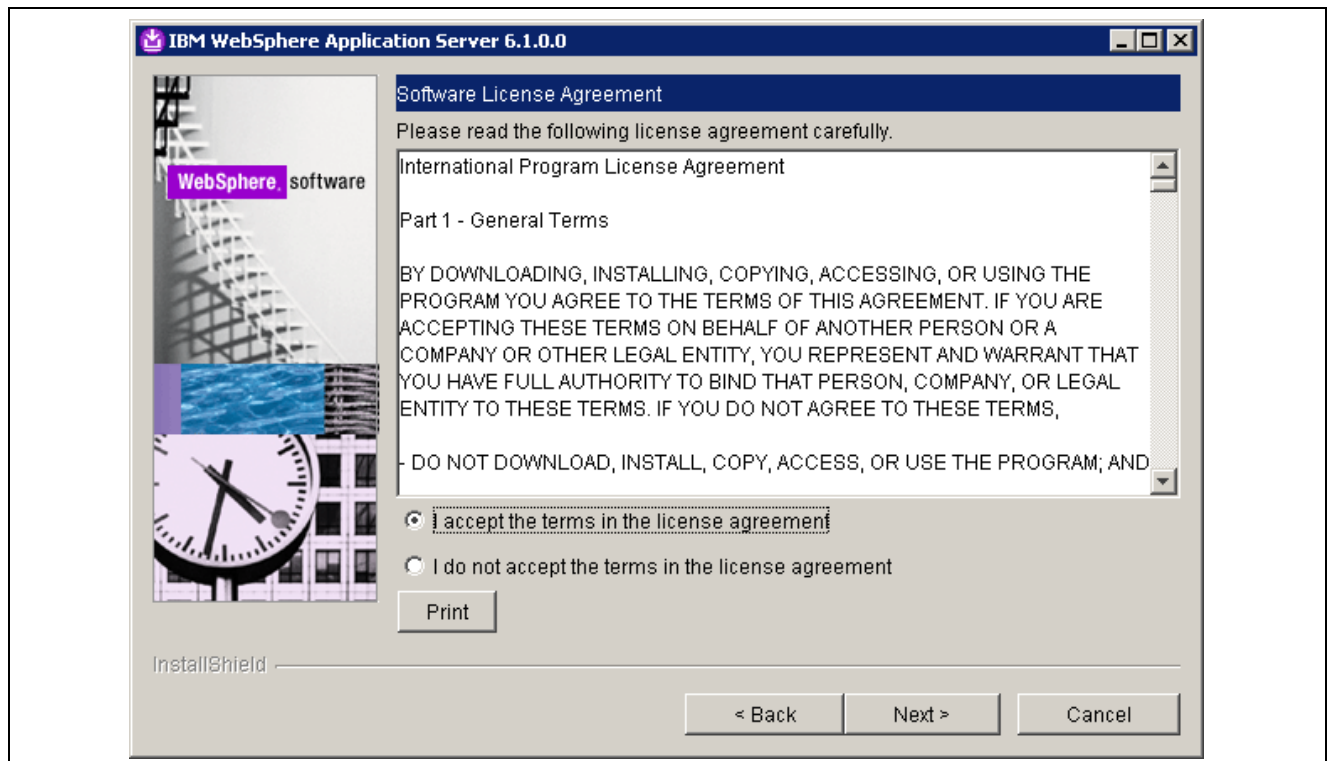
A welcome window appears.



IBM WebSphere Application Server welcome window

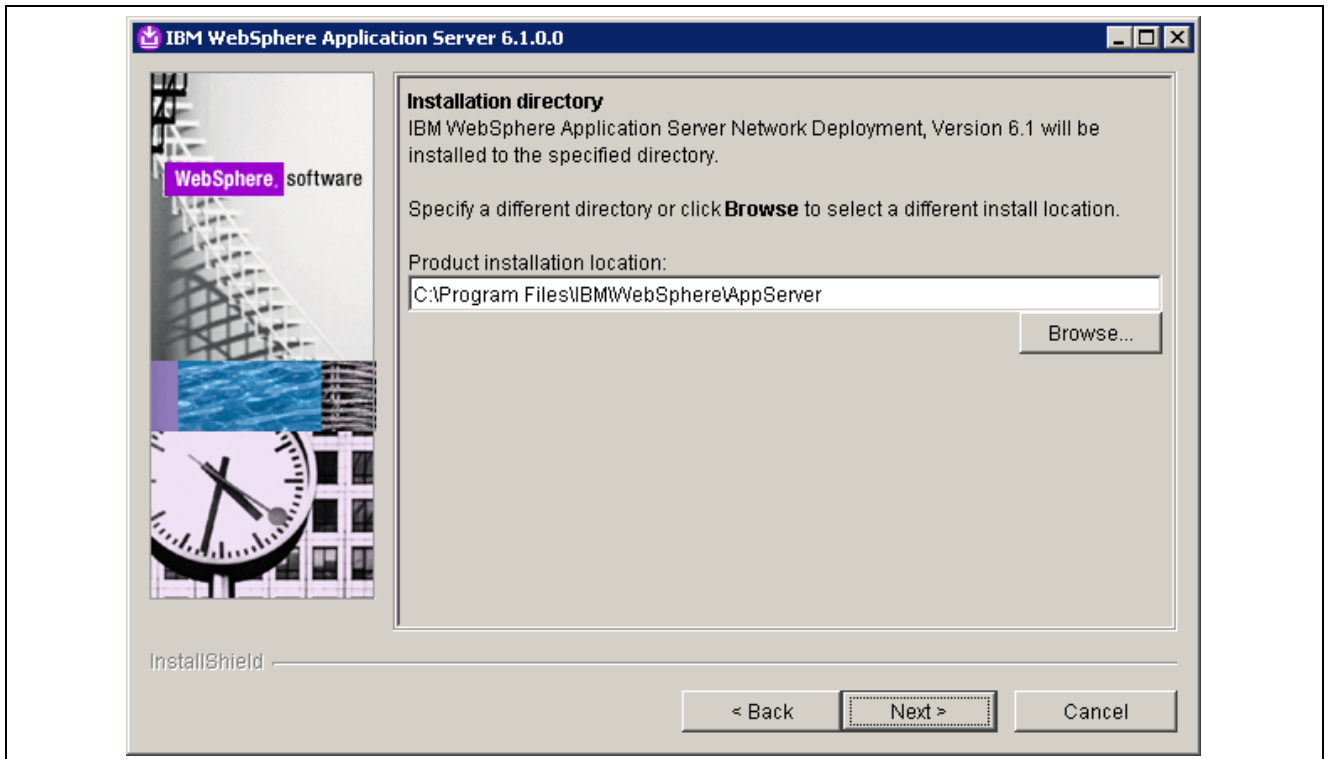
2. Click Next.

3. Accept the license agreement and click Next.



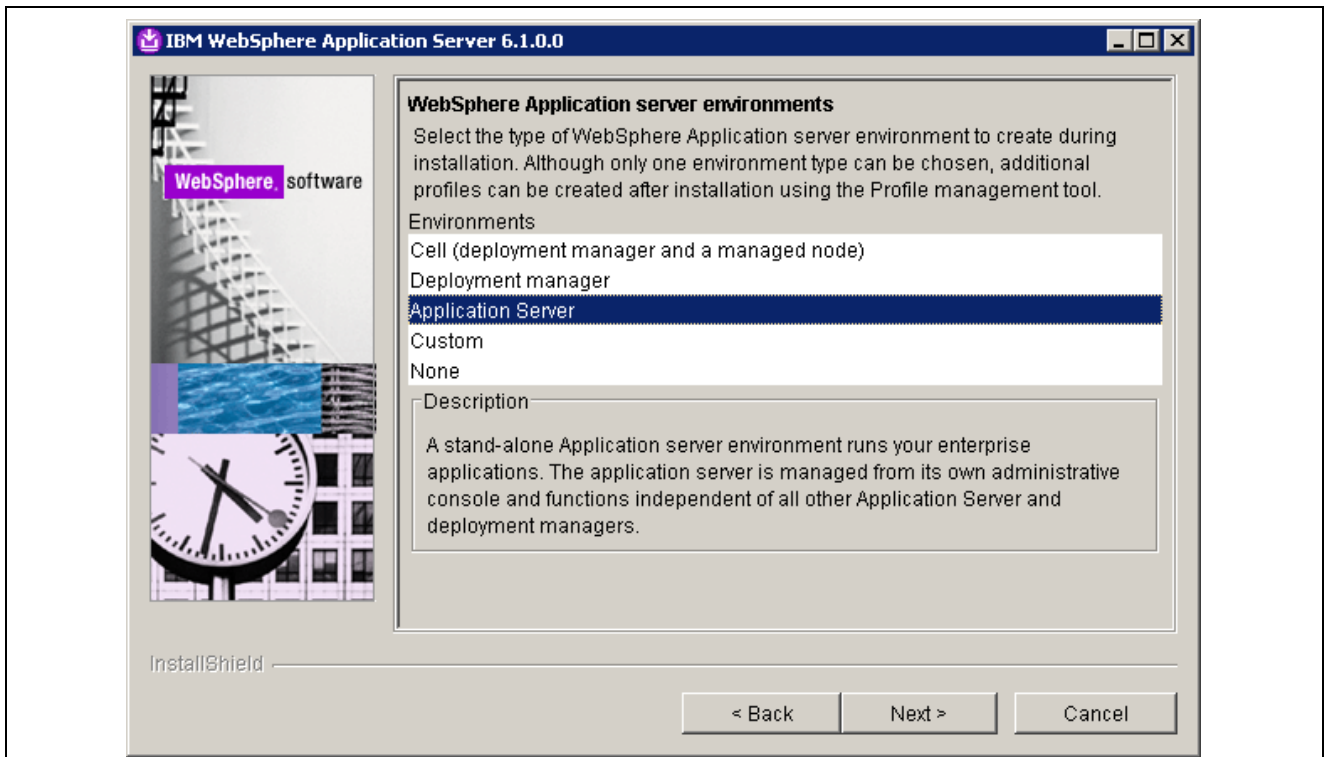
IBM WebSphere Application Server License Agreement window

4. The IBM WebSphere installer carries out a system check and displays an error message if your system does not meet the prerequisites.
5. Select an installation location and click Next.



IBM WebSphere Application Server Installation directory window

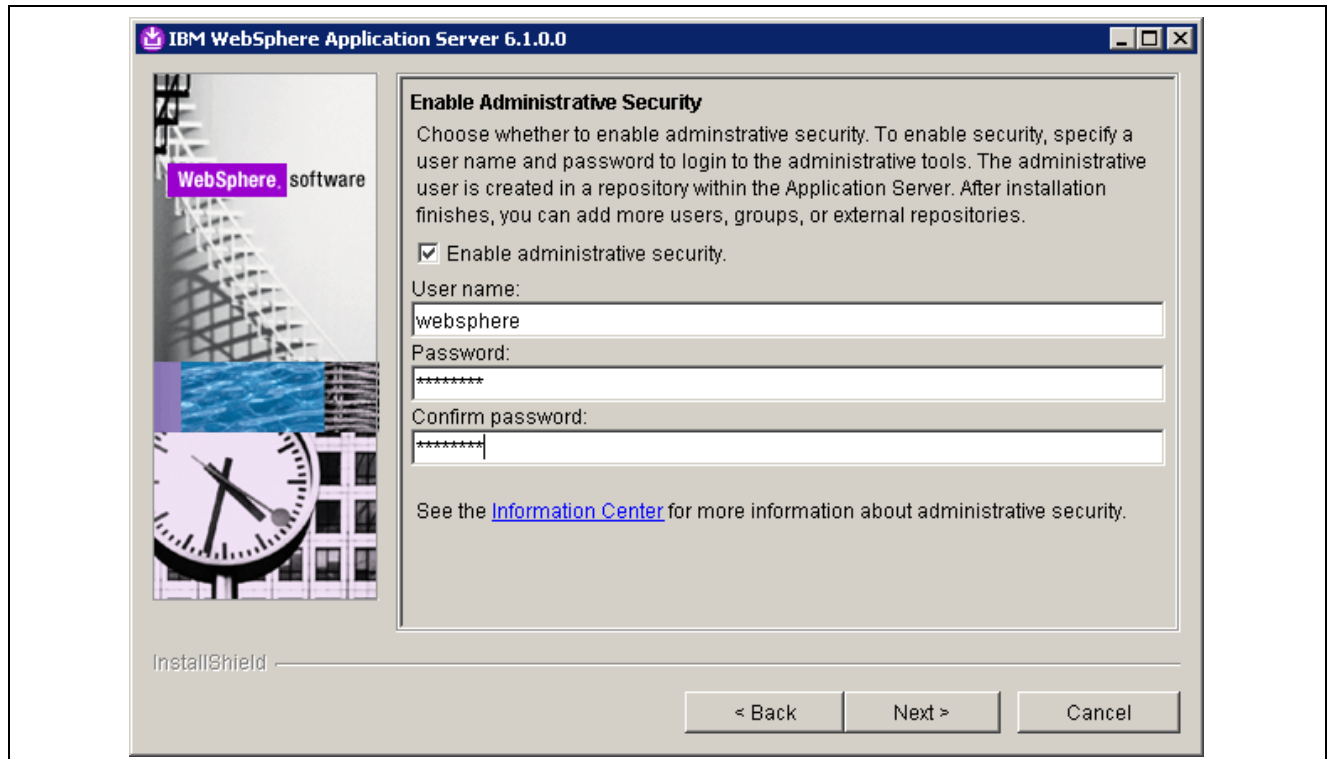
6. On the WebSphere Application server environment window, select *Application Server* from the list of environments.



IBM WebSphere Application Server environments window

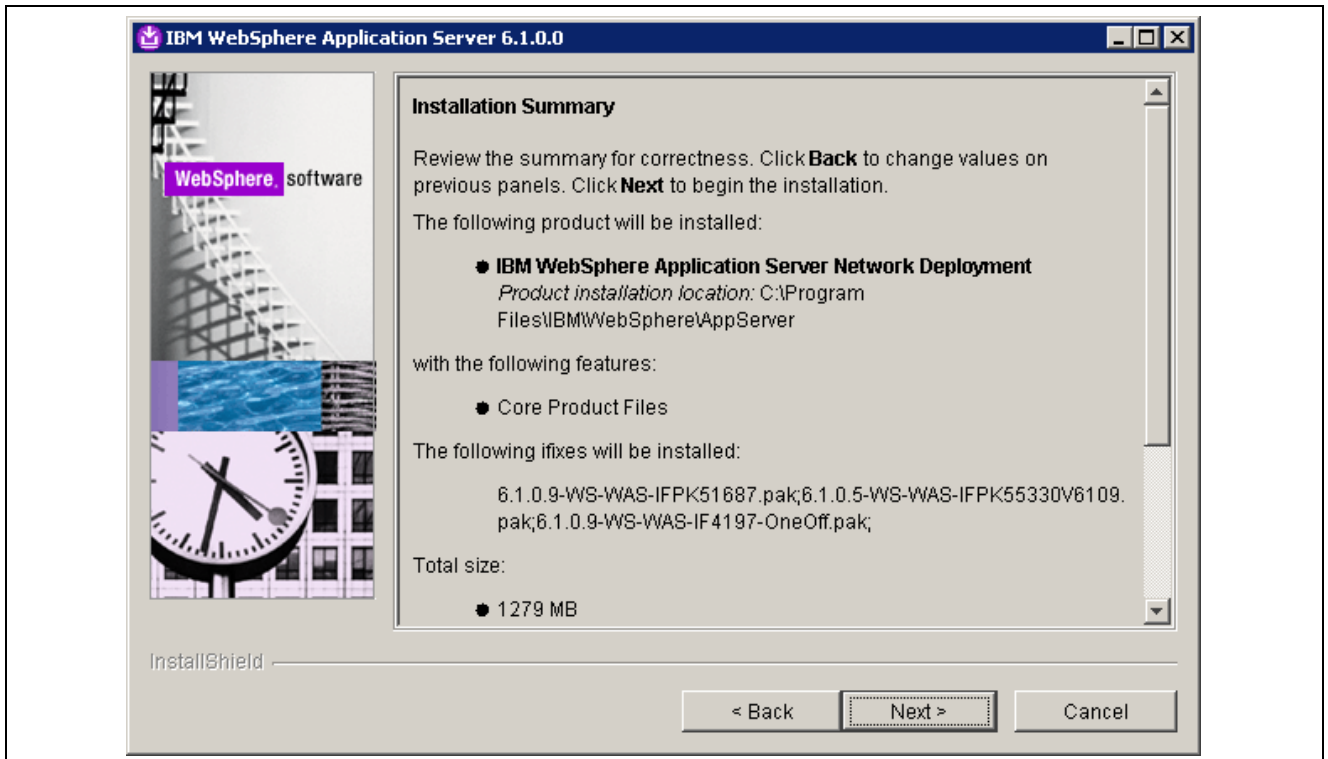
7. Select the default profile and click Next.

8. Enter the user name and password for the Administrator user; for example websphere and password. Select the Enable Administrative security check box.



Enable Administrative Security window

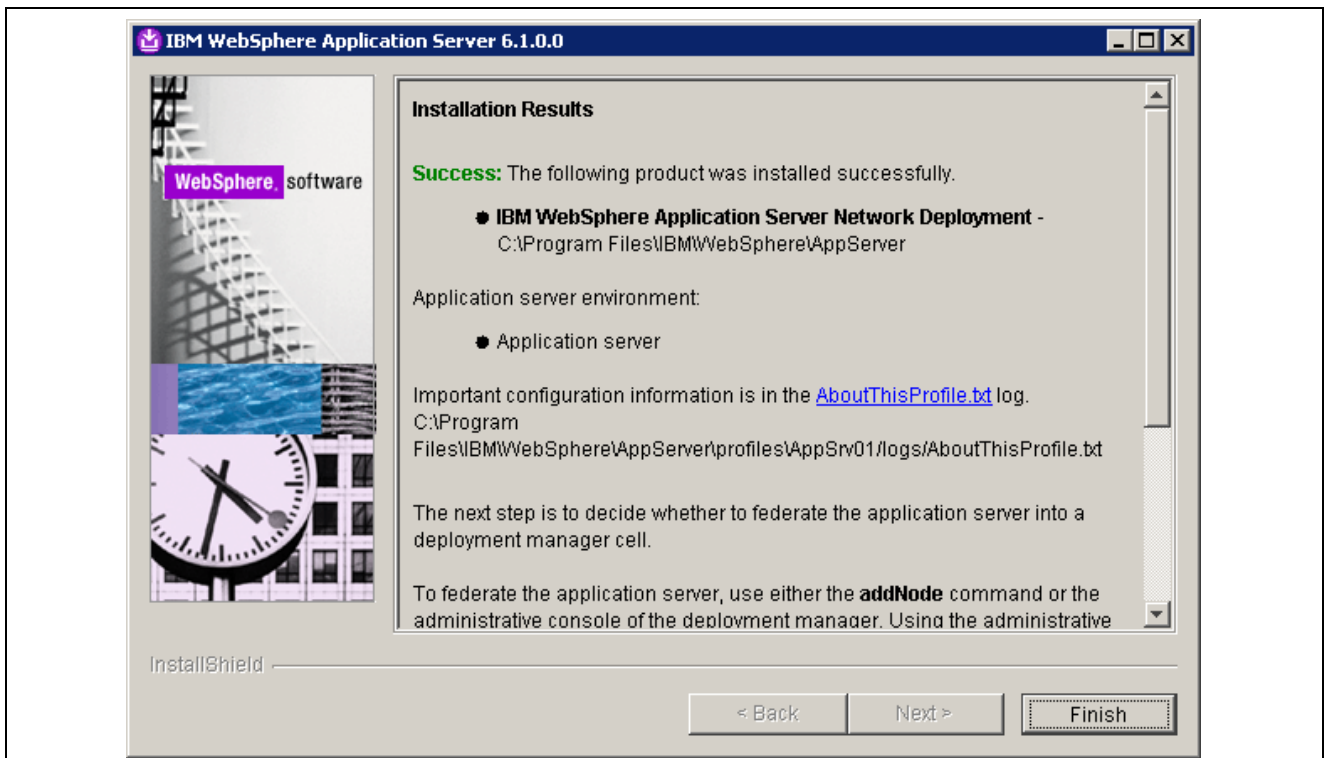
9. Review the installation summary and click Next to begin the installation.



Installation Summary window

10. When the installation completes successfully, you see the installation results window.

Click Finish to open the First Steps dialog box. If you don't want to open the First Steps dialog box, clear the option Launch First Steps.



Installation Results window

11. To start the server after the installation is complete, select Start, Programs, IBM WebSphere, Application Server Network Deployment V6.1, Profiles, AppSrv01, Start the Server.

Task 12-4-5: Installing BusinessObjects Enterprise XI 3.1 on Windows

The installation files for BusinessObjects Enterprise XI 3.1 are included on Oracle E-Delivery. Download the files as described earlier and save them in a convenient directory, referred to here as *BOE_INSTALL*.

You must log on to the Windows machine as a user included in the Administrator group.

To install BusinessObjects Enterprise XI 3.1:

1. Change directory to *BOE_INSTALL* and run *setup.exe*.

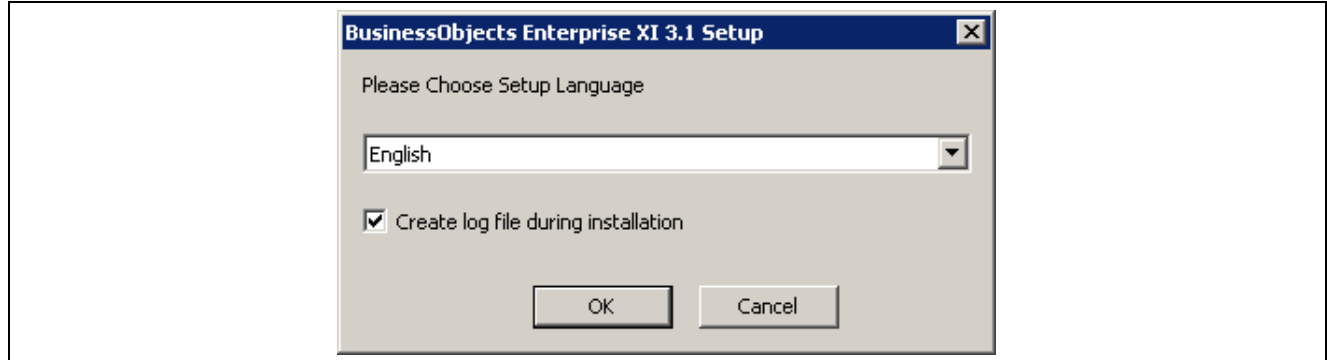
Note. If you are installing from a network, you must run *setup.exe* from the network location.

The install program searches for any previous version of BusinessObjects Enterprise XI 3.1 and then presents a Welcome message. Click OK.

2. Choose a Setup language and click OK.

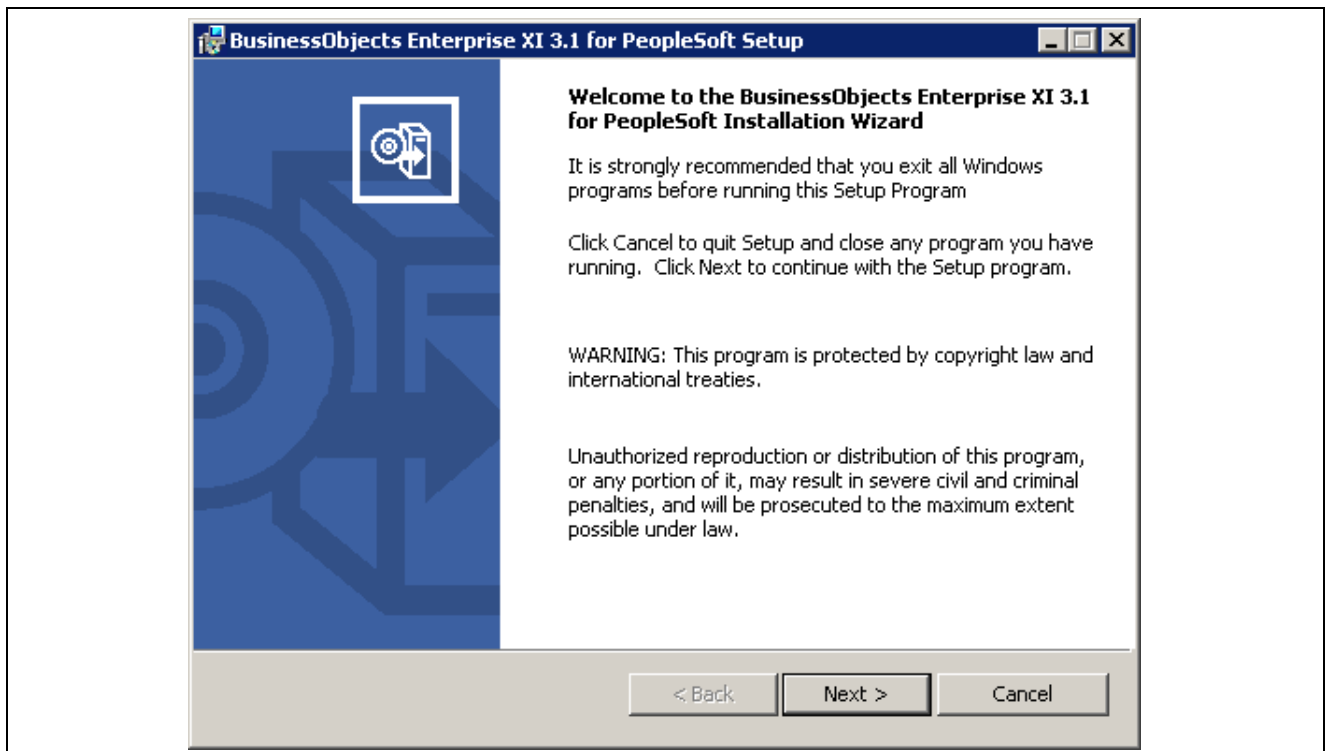
The example shows English as the Setup language.

If you don't want the installer to create a log file, clear the option Create log file during installation. If you accept the default to create the log file, it is created in *BOE_HOME*, the directory where you install BusinessObjects Enterprise XI 3.1 as *BOE_HOME\BusinessObjects Enterprise 12.0\Logging\BOEInstall_X.log*.



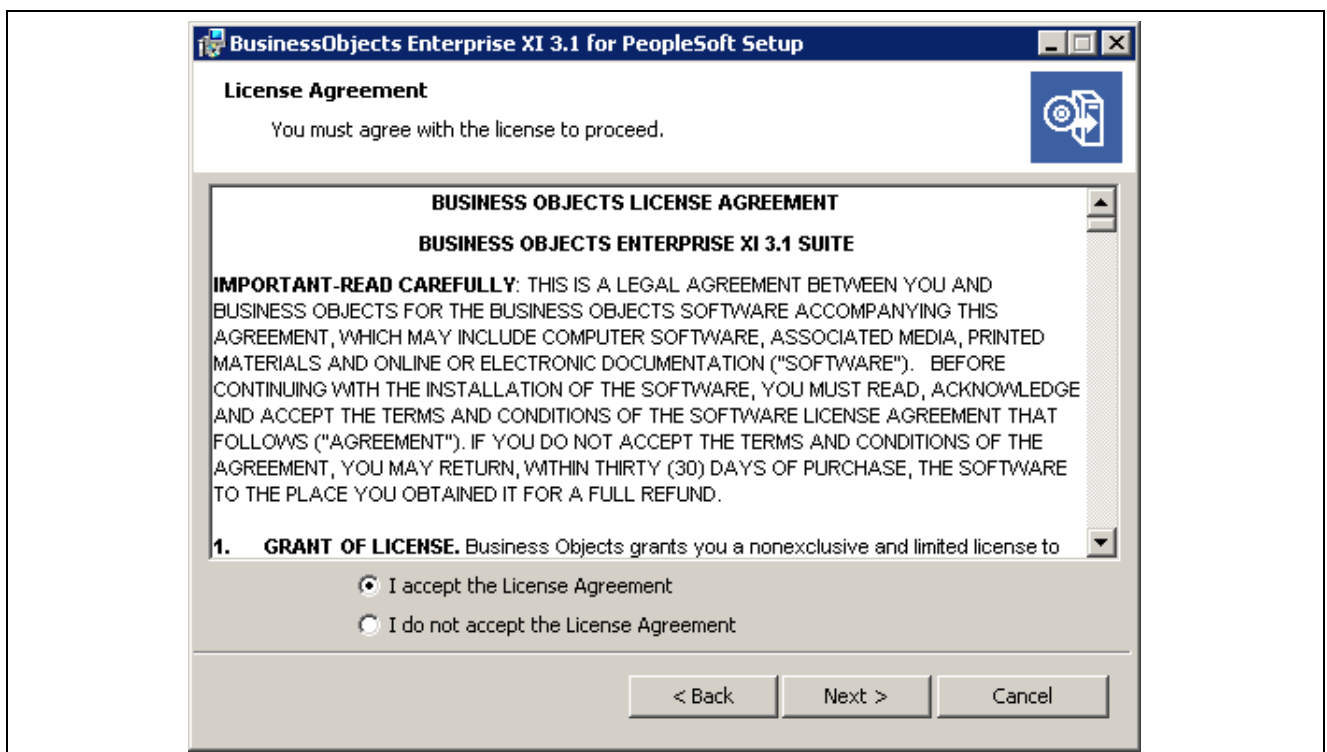
Choosing setup language

3. Click Next on the welcome window.



BusinessObjects Enterprise XI 3.1 for PeopleSoft Setup welcome window

4. Read the license agreement and select I accept the License Agreement.

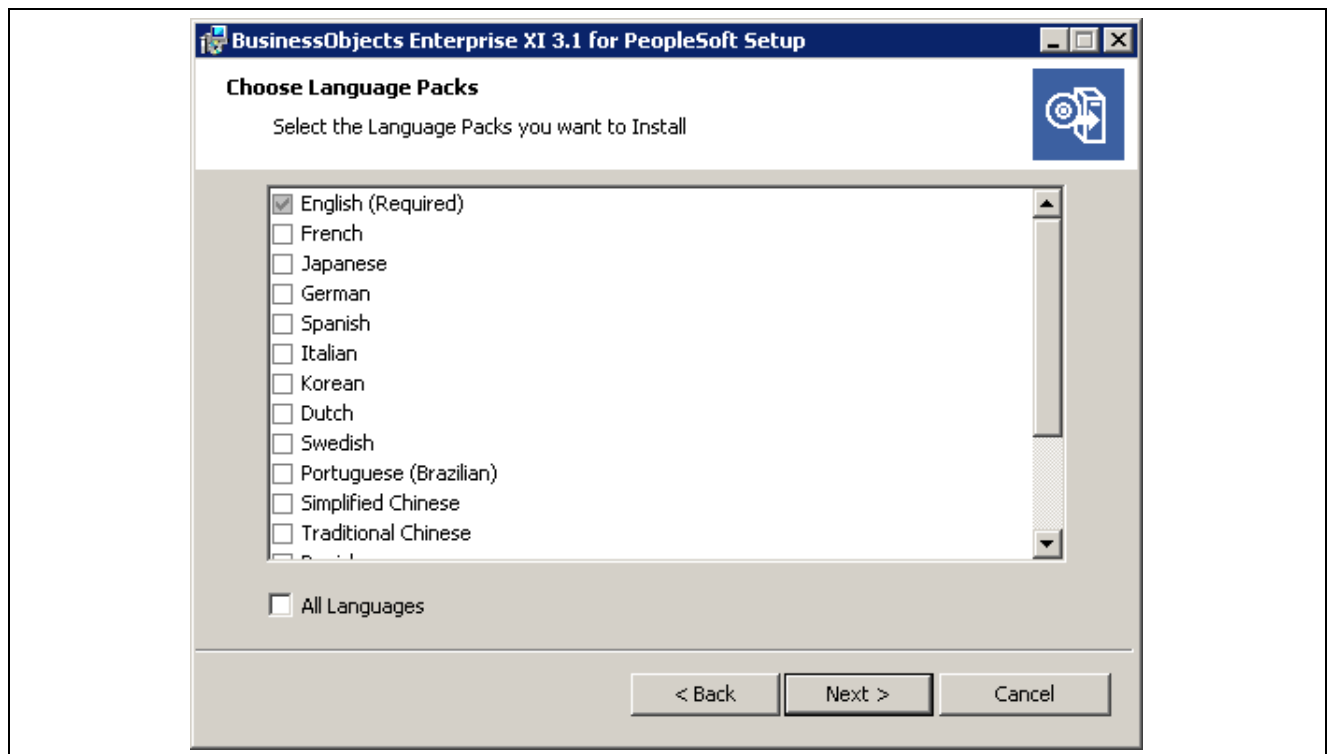


License Agreement window

Click Next. The User Information window appears.

5. Select a language pack on the Choose Language Pack window and click Next to continue.

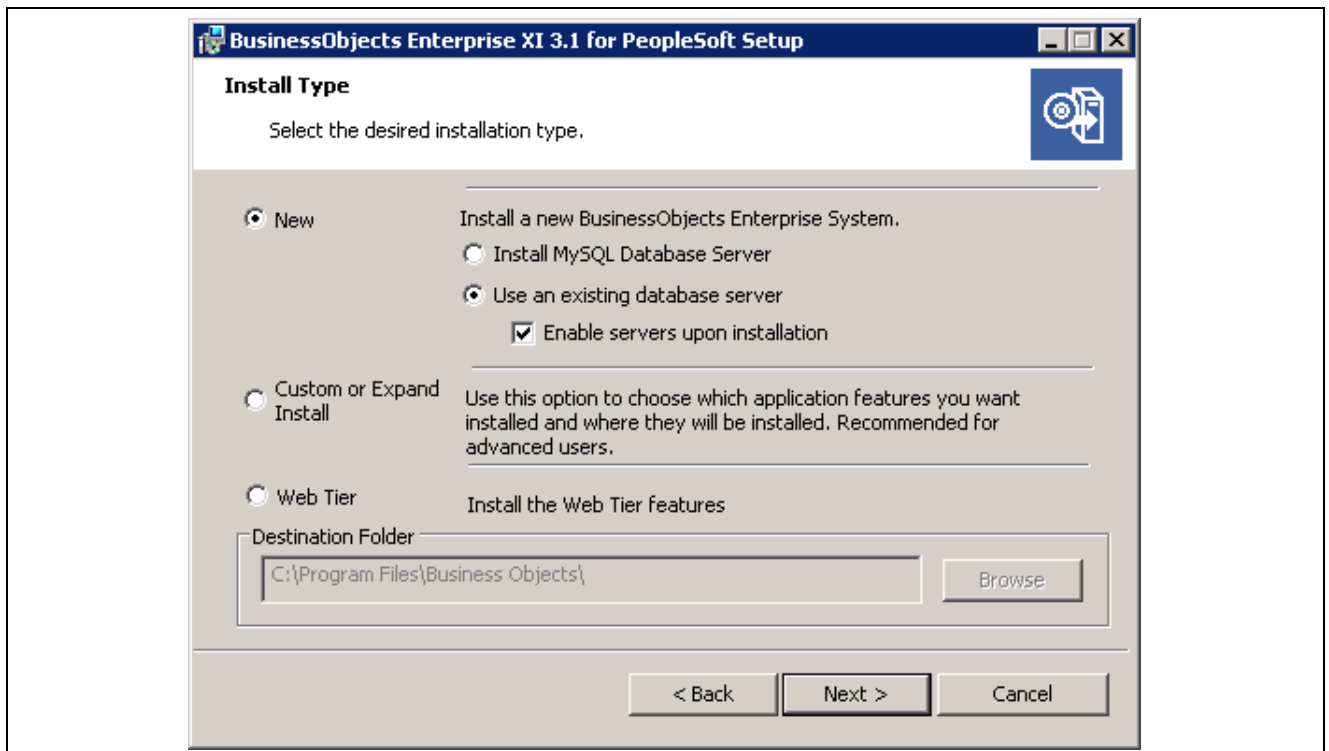
Note. English is mandatory because it is used as a backup language in case of a problem with a language pack. The check box for English cannot be cleared.



Choose Language Packs window

The Install Type window appears.

6. Select New as the installation type.



Install Type window

Select one of the following options:

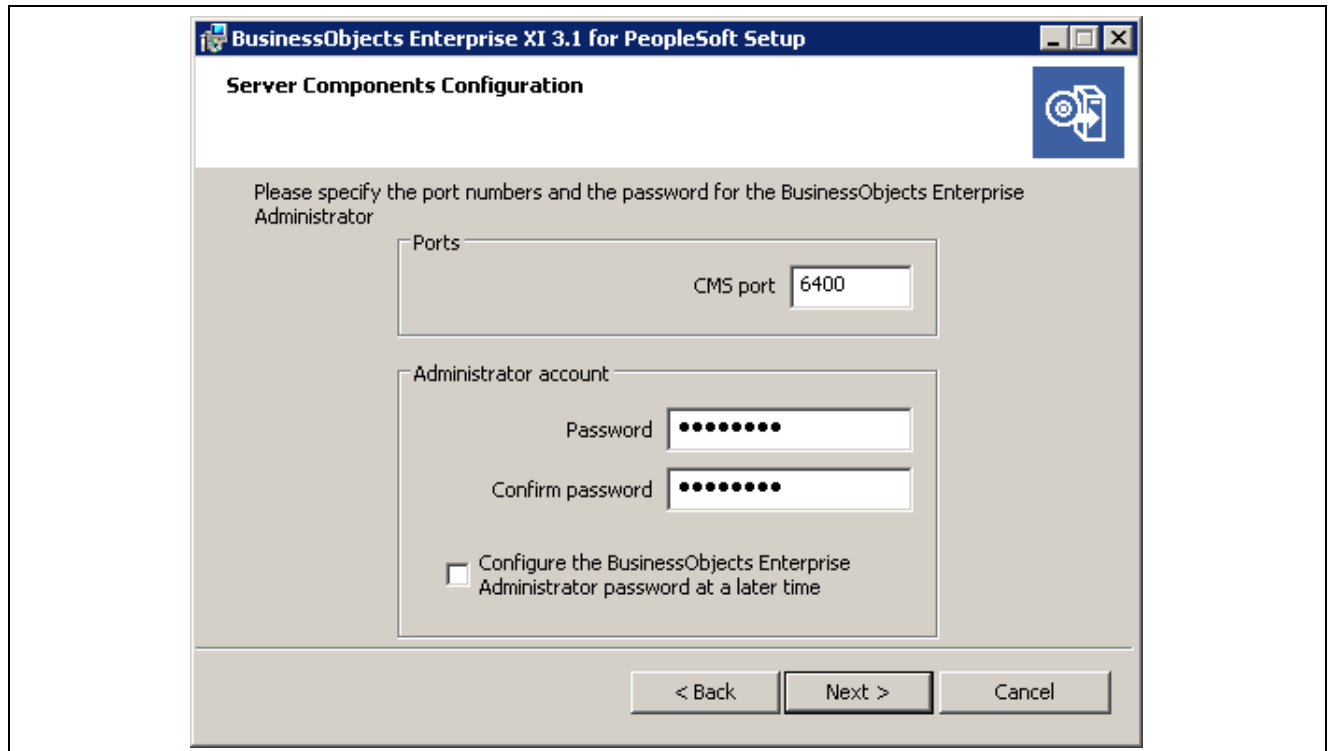
- Select Use an existing database server if you want to use an existing database server.
- Select Enable servers upon installation if you want to launch BusinessObjects Enterprise when the installation process finishes.
- Specify where to install the BusinessObjects Enterprise XI 3.1 components in the Destination Folder field.

The installation directory is referred to in this documentation as *BOE_HOME*. In this example the installation directory is C:\Program Files\Business Objects.

7. Click Next.

The Server Components Configuration window appears.

8. Specify the following information:



Server Components Configuration window

- CMS port

The default Central Management Server (CMS) port number is 6400. The CMS will communicate with other BusinessObjects Enterprise servers through the specified port. If the port you specified is unavailable, you will be requested to specify another port number.

Use this port number with your machine name to log in from the Central Configuration Manager later in this section.

- Password

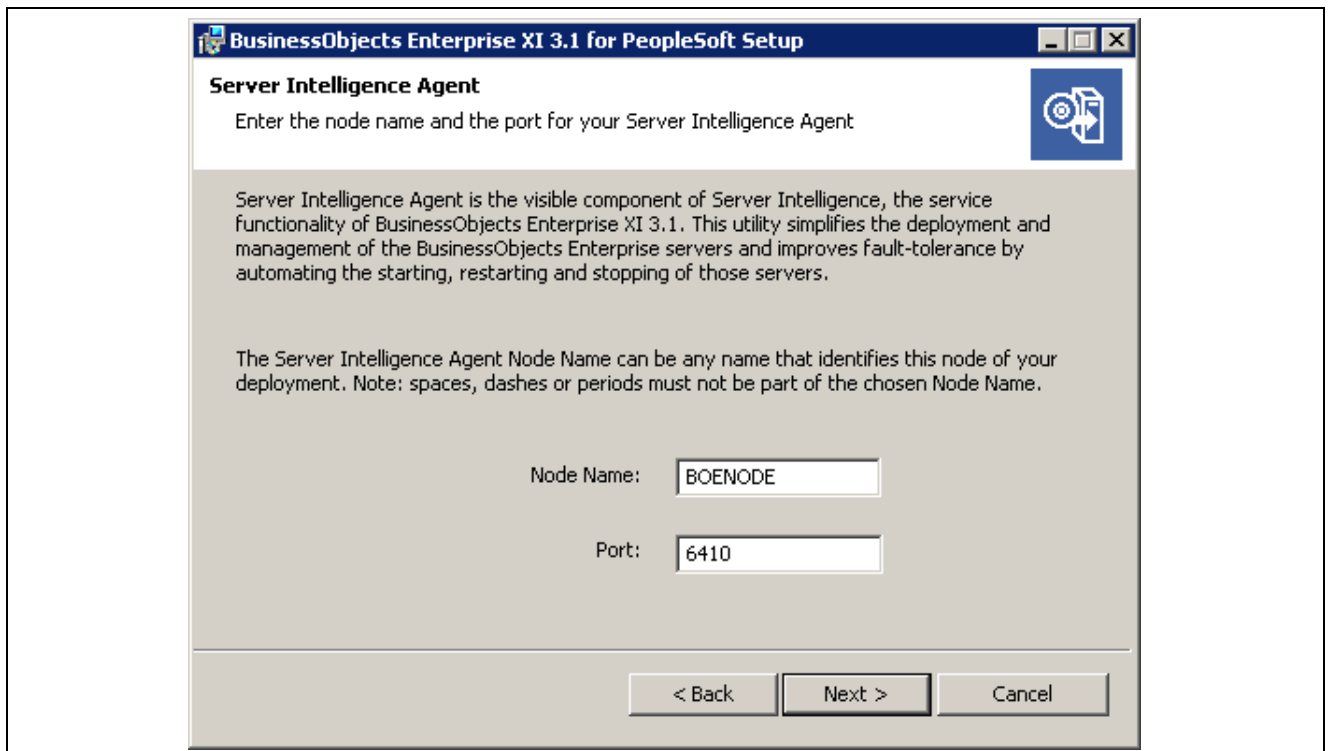
Specify a secure password for the CMS administrator account in the Password and Confirm password fields.

Use this password with user name *Administrator* to log in from the Central Configuration Manager later in this section. You will also need it during the setup process for the BusinessObjects Enterprise XI 3.1 integration kit.

9. Click Next.

The Server Intelligence Agent (SIA) window appears.

10. Specify the following information:



Server Intelligence Agent window

- *Node Name*

Provide a unique name to identify the SIA node.

Note. Do not use spaces or non-alphanumeric characters in a SIA node name.

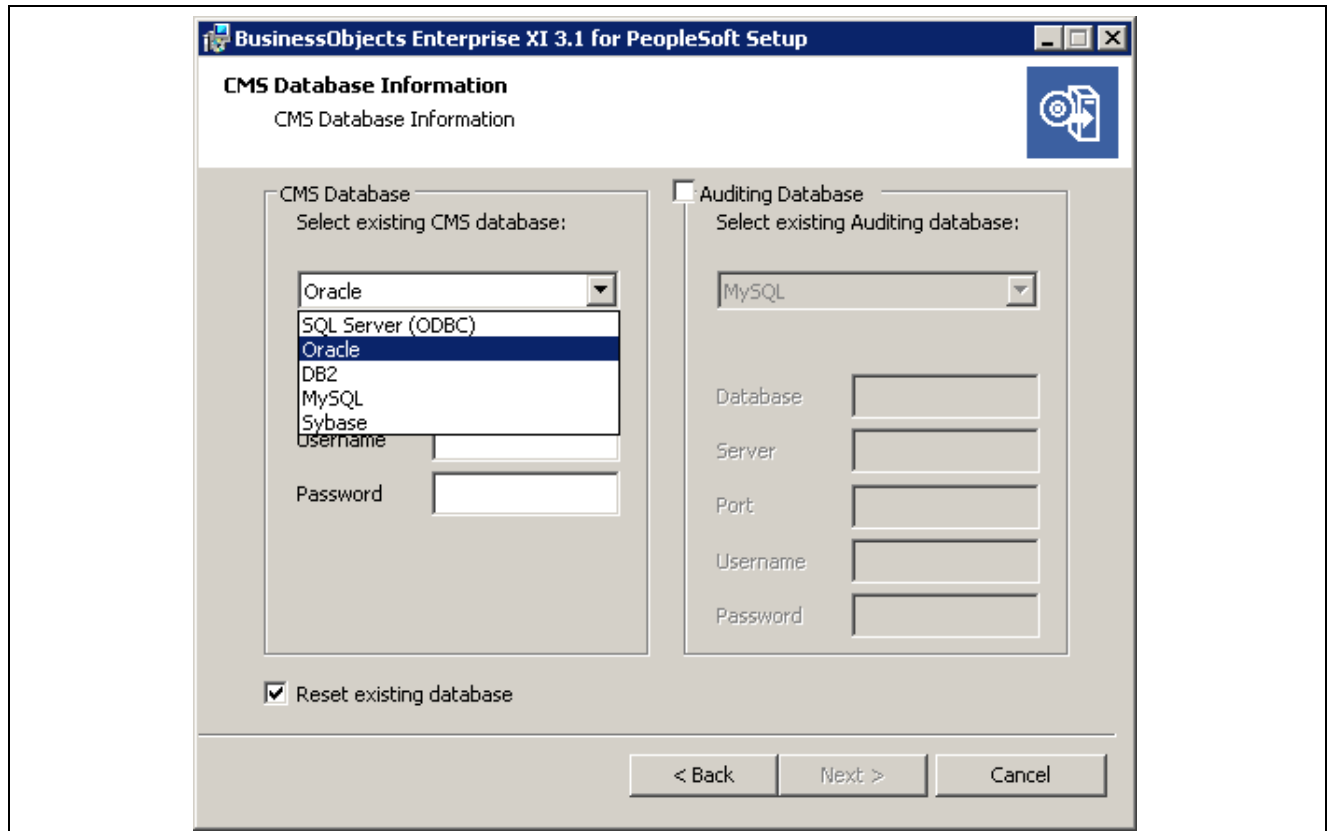
- *Port*

Specify a port number for the SIA. The default is 6410. This port will be used by the Server Intelligence Agent to communicate with the Central Management Server.

After you enter the SIA information, the port number will be validated. A warning will appear if the port you specify is not available. After the port is validated, you can proceed to configure the CMS database for your installation.

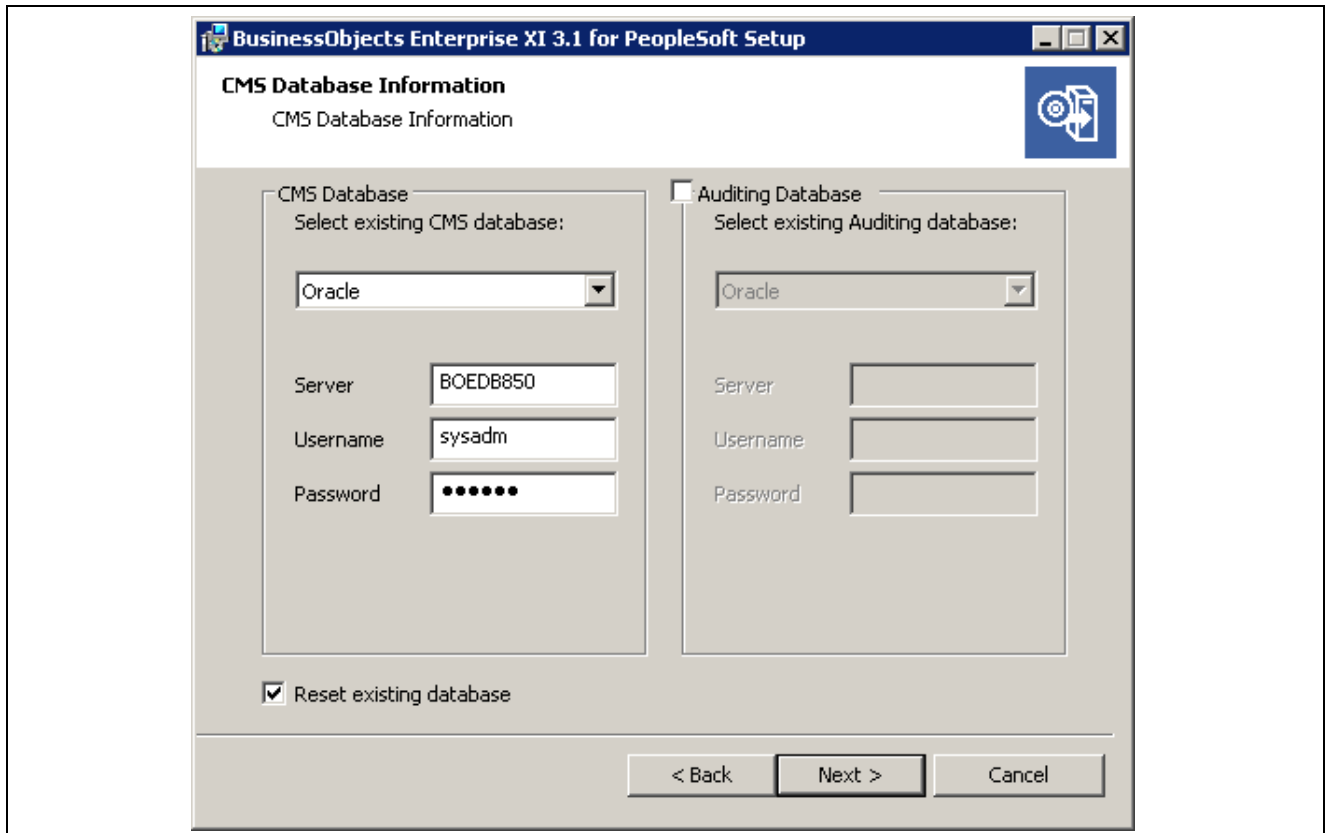
11. Click Next.

The CMS Database Information window appears.



CMS Database Information window

12. If you chose the option to use an existing database server, enter connection and authentication details for the database as follows:



CMS Database Information for an Oracle database

- Select a database type from the Select existing CMS database drop-down list in the CMS Database pane. Depending on your database server selection, corresponding input fields are displayed in the CMS Database pane.

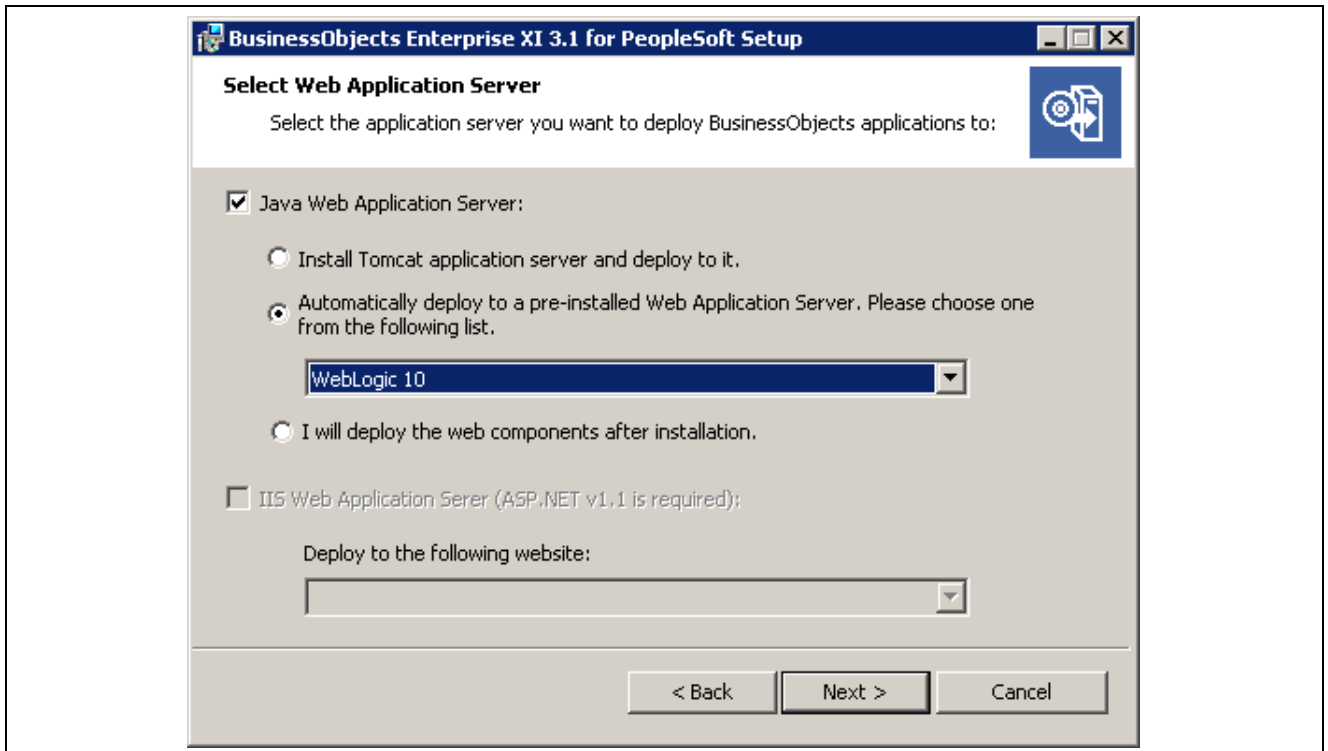
- Provide all the required information for the database in the fields provided in the CMS Database pane. The table below summarizes all the information required for each database type:

Database Platform	Required Information
DB2 LUW	• Server: DB2 LUW database alias • User name for login • Password for login
Microsoft SQL Sever (ODBC)	ODBC DSN This is specified in Windows Control Panel's Data Sources (ODBC) applet.
Oracle	• Server: tnsnames connect identifier • User name for login • Password for login
Sybase	• Server: Sybase Server Name The Sybase server name is a combination of the host name and the port number which is set by your database administrator in the file sql.ini. • User name for login The user name should be a default user for the BusinessObjects Enterprise XI 3.1 database. • Password for login

- Select the Reset existing database box to delete all current tables and entries in existing database CMS and auditing databases.

13. Click Next to continue with the installation.

The Select Web Application Server window appears. This screen only appears if a connection is established with the database configuration you provided.



Select Web Application Server window with WebLogic 10

14. Select Java Web Application Server option, and select one of the options for the web server software from the drop-down list under Automatically deploy to a pre-installed Web Application Server:

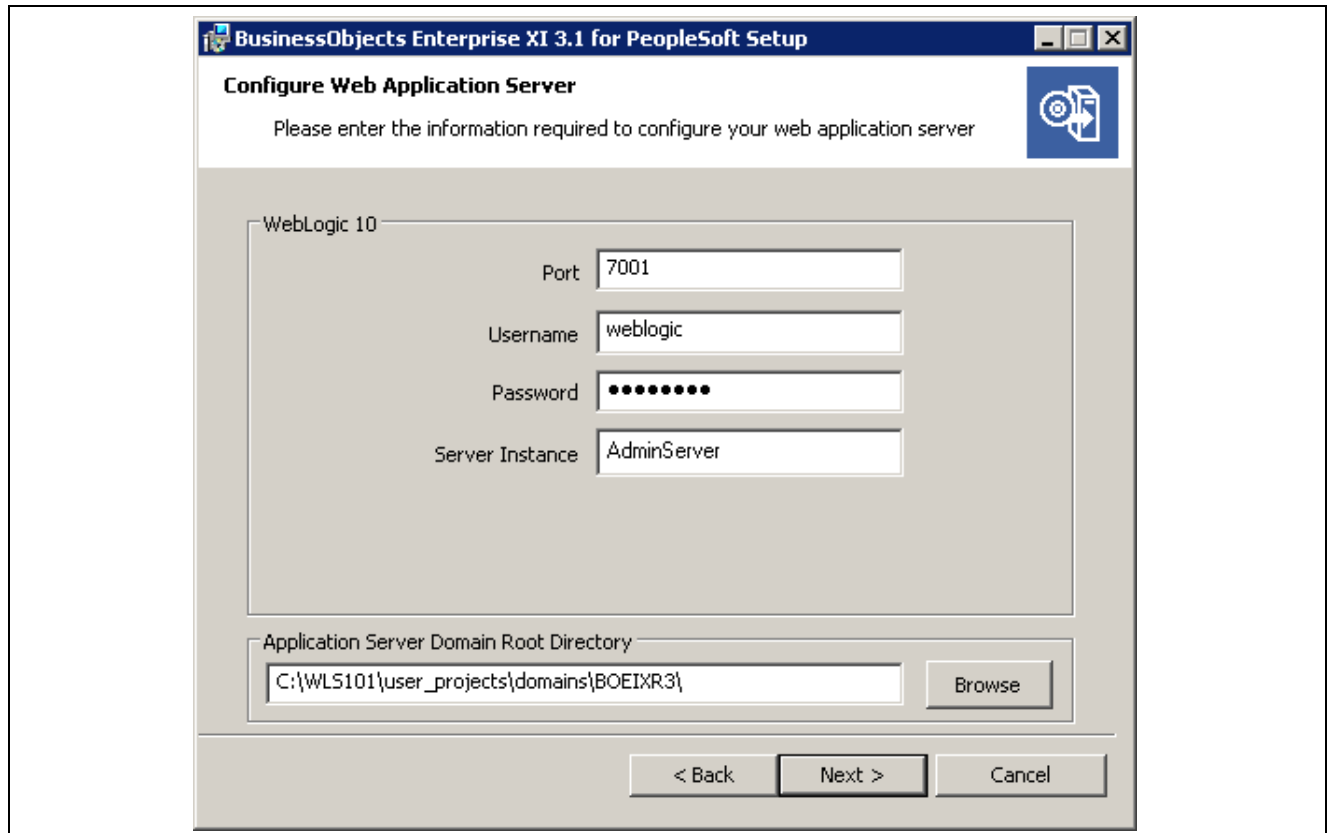
Note. Tomcat and IIS web application servers are not supported by Oracle for PeopleSoft installations.

- WebLogic 10
- WebSphere 6.1

15. Click Next.

The options on the screen that appears next depend upon which web application server you select.

16. If you selected the option WebLogic 10, the following Configure Web Application server window appears:



Configure Web Application Server window for Oracle WebLogic

Enter the following information for an Oracle WebLogic web server:

See Creating an Oracle WebLogic Server

- *Port*

Enter the application port of the web application server; in this example, the port is *7001*.

- *Username*

Enter the name for the user with administration rights to the web application server; in this example, the user name is *weblogic*.

- *Password*

Enter the password for the administrator user account.

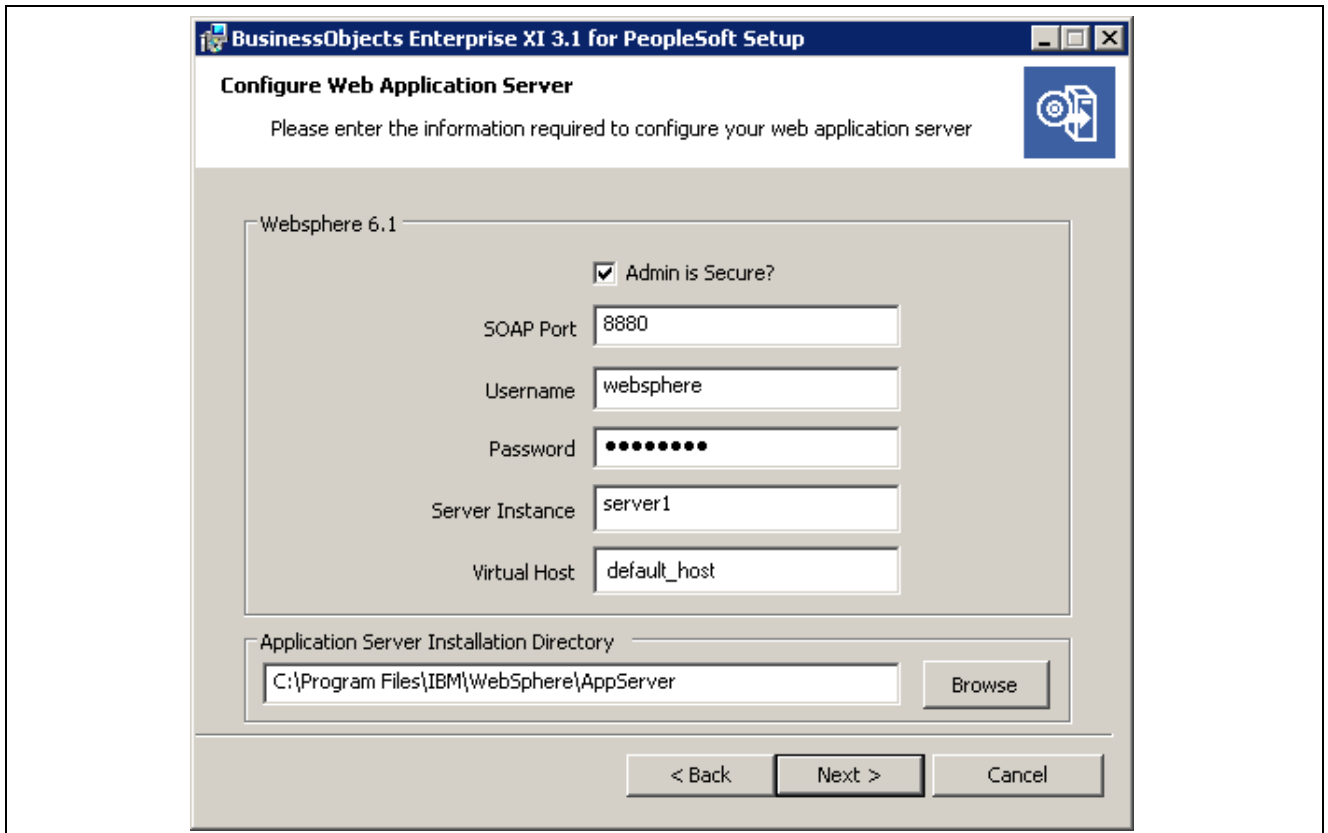
- *Server Instance*

Enter the name for the current web application server instance. The default is *AdminServer*.

- *Application Server Domain Root Directory*

The root directory for the web server domain; in this example, the directory is *C:\WLS101\user_domains\BOEIXR3*.

17. If you selected the option WebSphere 6.1, the following Configure Web Application server window appears:



Configure Web Application Server window for IBM WebSphere

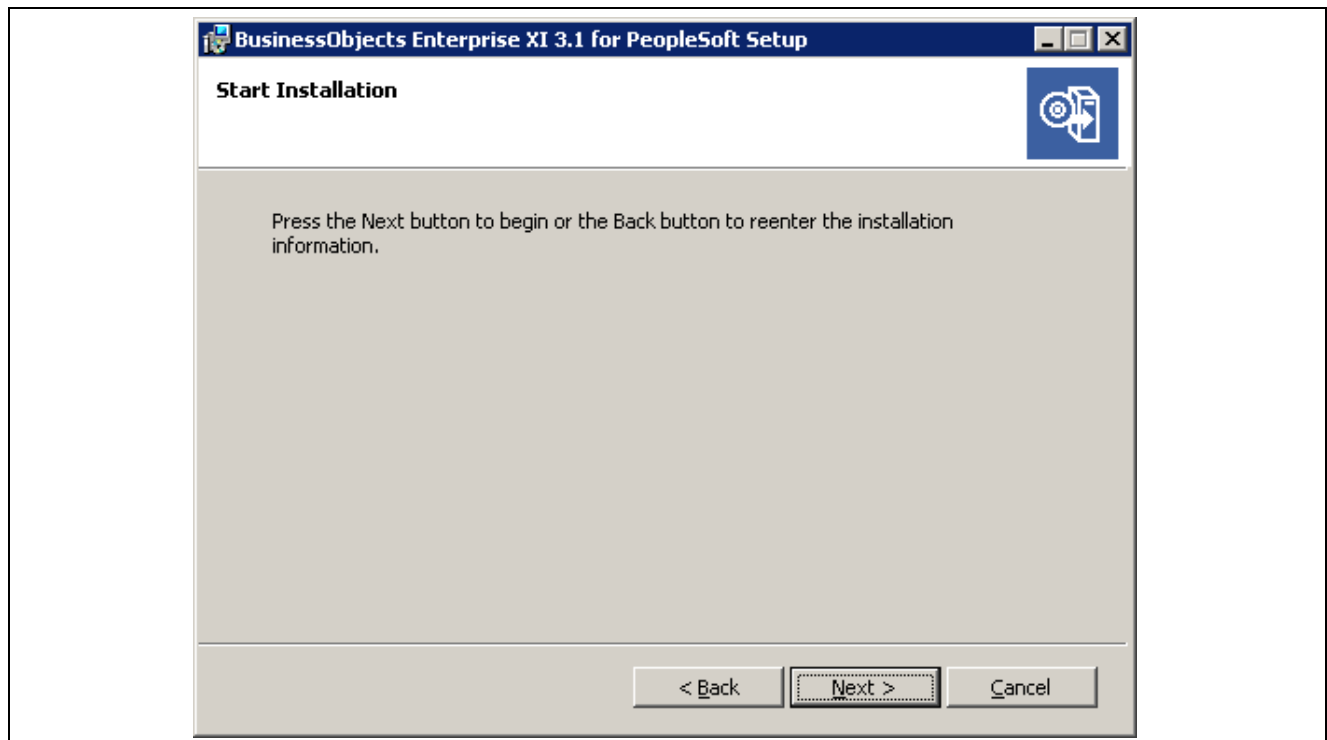
Enter the following information for an IBM WebSphere web server:

- *SOAP port*
The SOAP Connector Port of the application server (the default is 8880).
- *Admin login*
User name with administration rights to the WebSphere application server; for example, websphere.
- *Admin password*
Password for account with administration rights to the application server; for example, password.
- *Instance to install to*
Name of the current web application server instance. The default is server1.
- *Virtual host*
The virtual host to which the application must be bound. The default is default_host.
- *Admin is secure?*
Select this option to enable security requiring administrative access credentials to the application.

Note. Values for Admin login and password must be set when Admin is Secure is enabled.

- *Application server installation directory*
The directory where the web application server is installed (for example, C:\Program Files\IBM\WebSphere\AppServer).

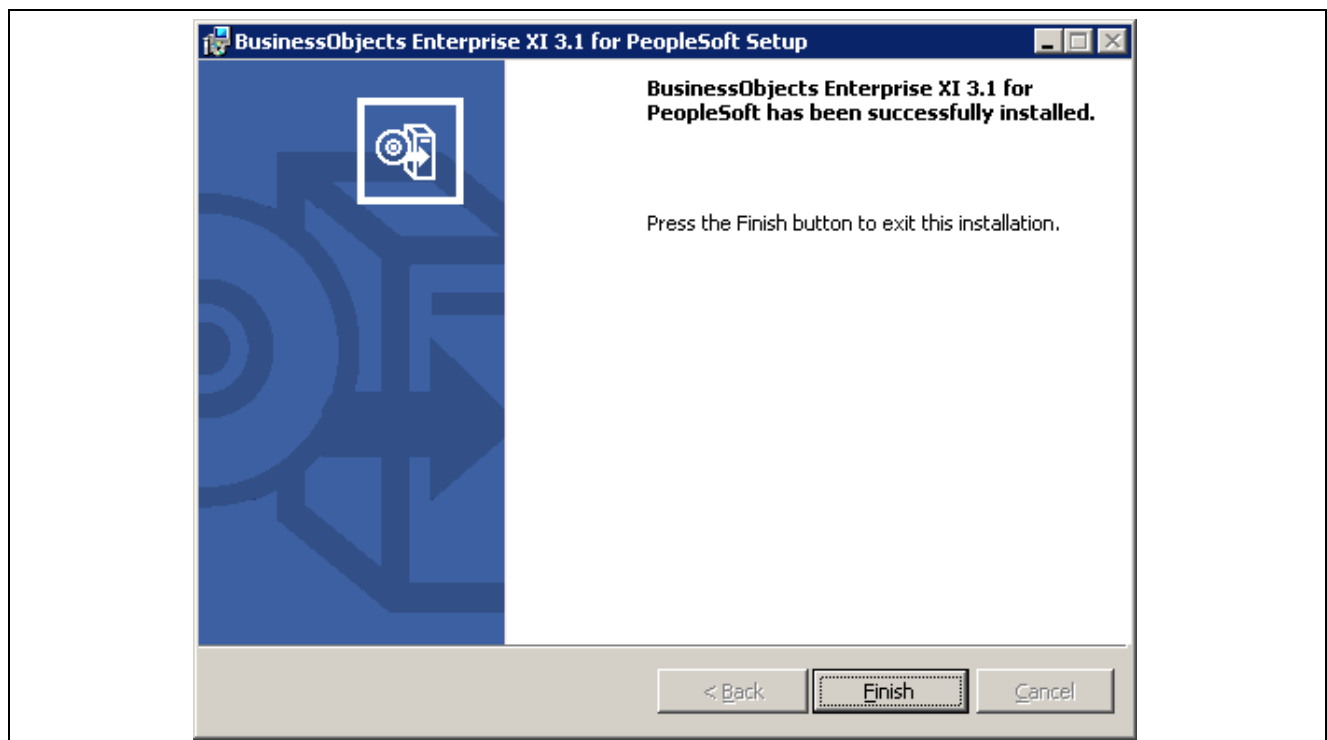
18. Click Next to start the installation process.



Start Installation window

19. Click Finish when the installation is complete.

Reboot your machine.

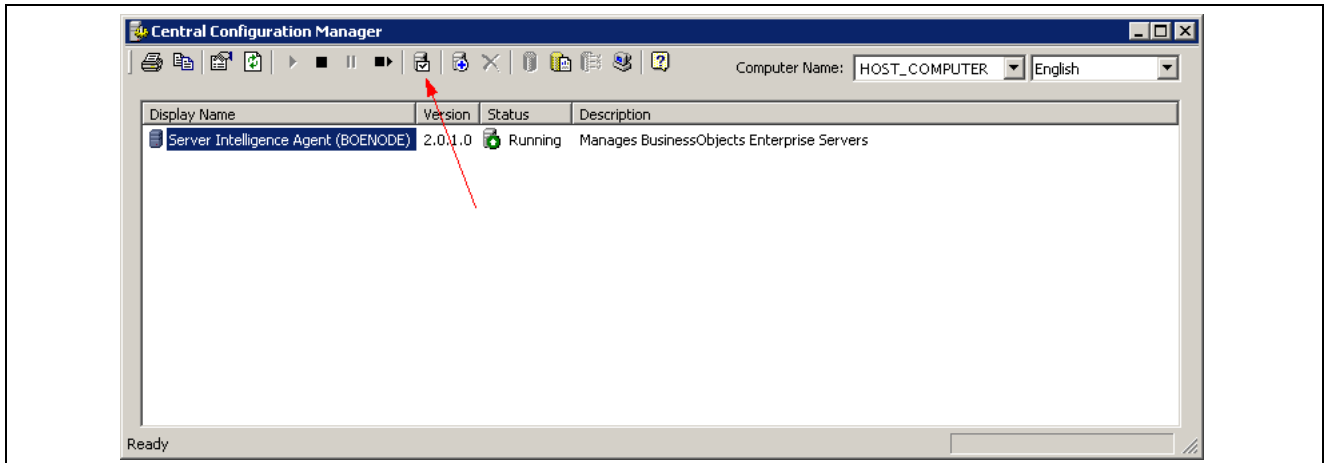


Successful installation window

20. Select Start, Programs, BusinessObjects XI 3.1, BusinessObjects Enterprise, Central Configuration Manager.

The Central Configuration Manager appears.

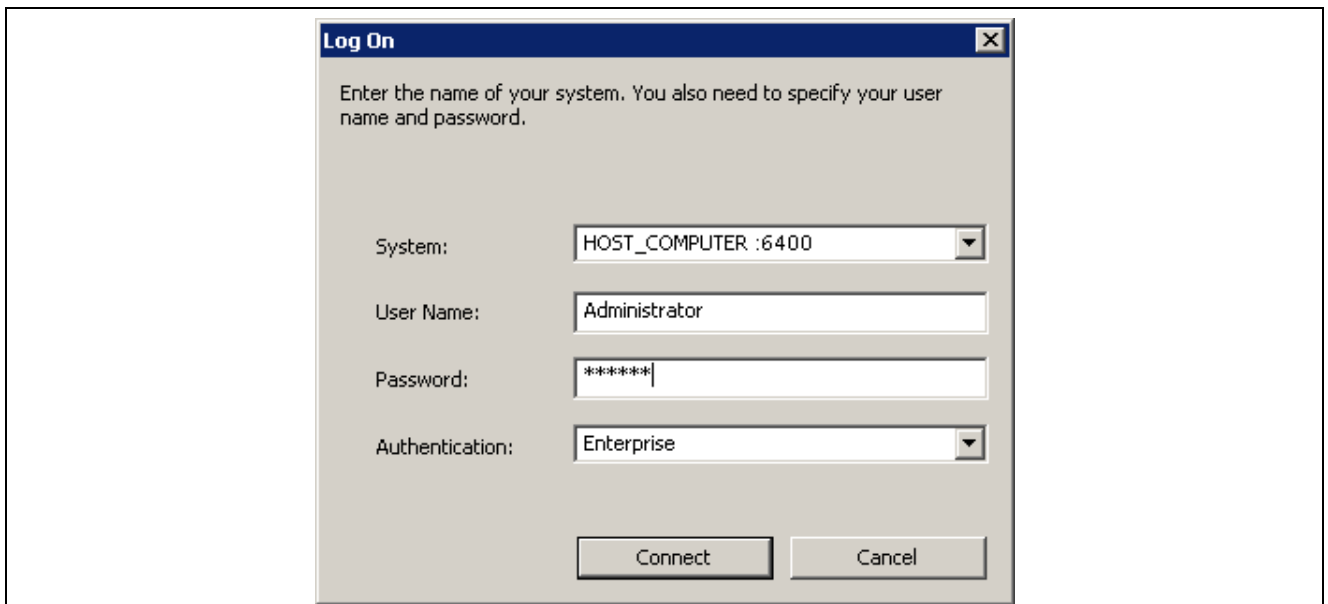
21. Click the Manage Servers icon, indicated by the red arrow in the example below.



Central Configuration Manager dialog box

The Log On dialog box appears.

22. Enter the following information to log on:



Log on dialog box

- *System*

Enter the node name and port, separated by a colon. The default name is the machine name, and the default port is 6400.

- *User Name*

Enter the CMS administrator user name; the default is Administrator.

- *Password*

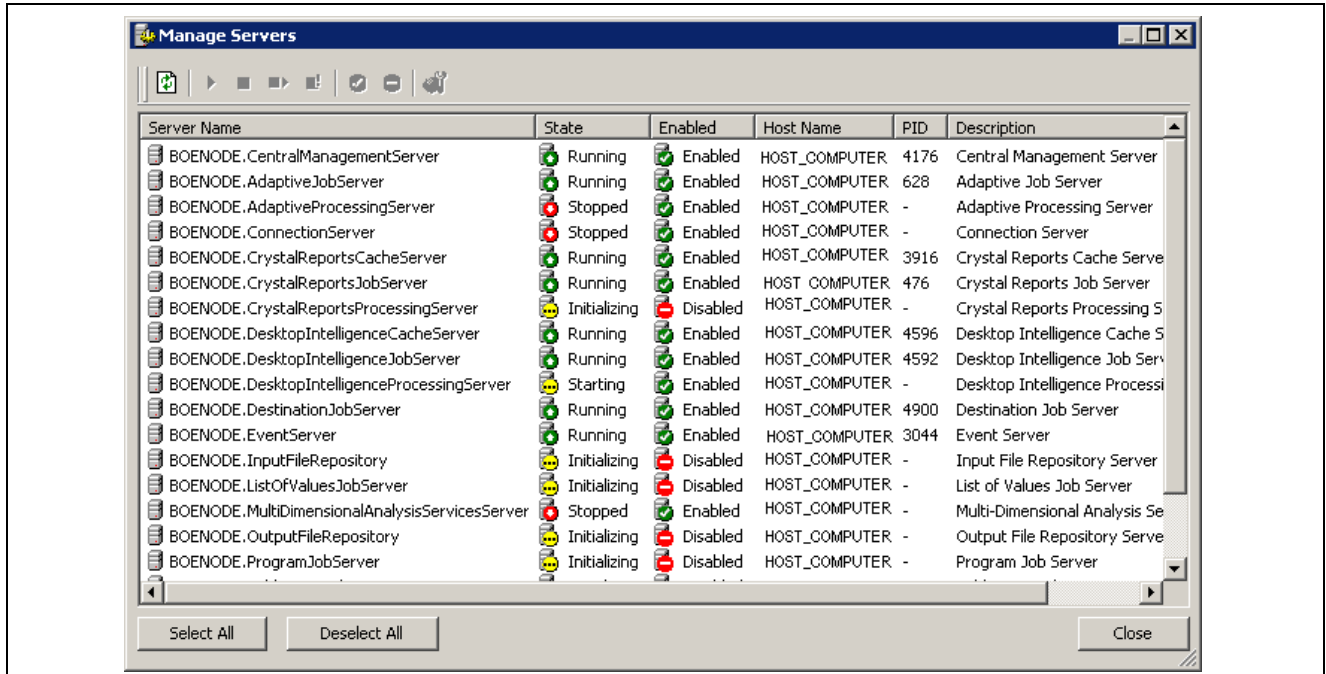
Enter the CMS administrator password, as you specified on the Server Components Configuration window above.

- *Authentication*

Select *Enterprise* from the drop-down list.

23. Click Connect.

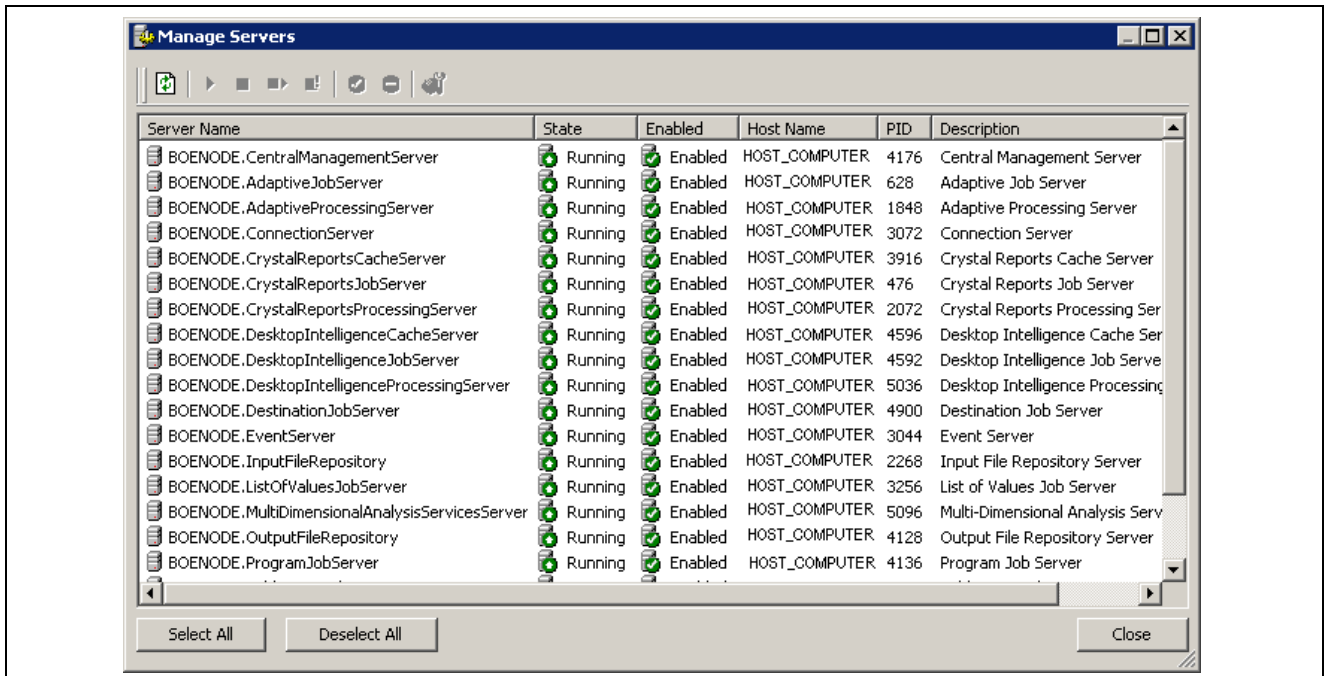
The Manage Servers dialog box appears with all servers and their state. The servers take a couple of minutes to start up. The listing is not refreshed unless the refresh button is clicked.



Manage Servers dialog box before refreshing

Ensure all servers are started, as indicated by the status Running in the State column.

Note. After each machine reboot, you have to restart the Server Intelligence Agent in the Central Configuration Manager.



Manage Servers dialog box after refreshing

24. Set the following environment system variables after the BusinessObjects Enterprise XI 3.1 installation is complete:

Important! If these system variables are not set, the deployment of the BusinessObjects Enterprise web applications will fail as they are dependent on these environment settings.

Note. *BOE_HOME* refers to the folder in which you installed BusinessObjects Enterprise XI 3.1 (for example, C:\Program Files\BusinessObjects\). Substitute your path in the following.

The PATH environment system variable should include:

BOE_HOME\BusinessObjects Enterprise 12.0\win32_x86

25. Reboot your machine.

Task 12-4-6: Installing BusinessObjects Integration Kit for PeopleSoft on Windows

Before you begin, ensure that:

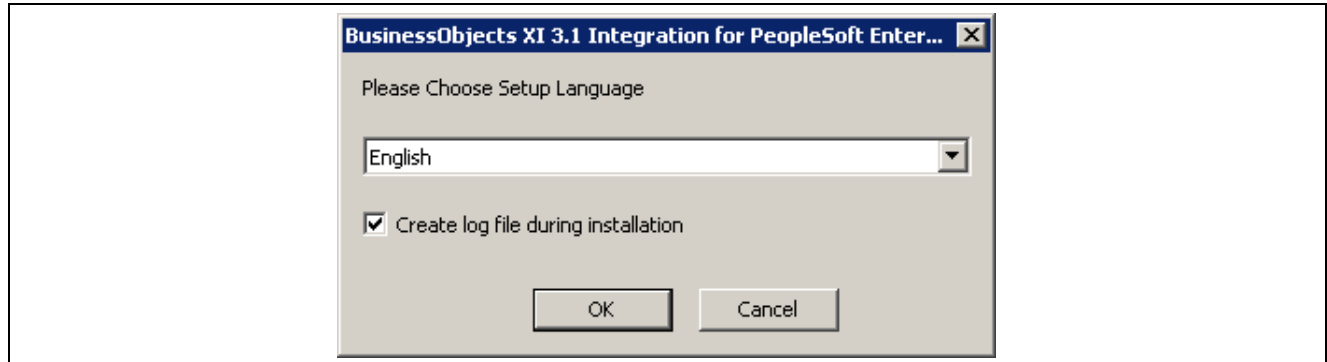
- The Central Management Server (CMS) and web server are running.
- You know the logon credentials for the BusinessObjects Enterprise Administrator account and for the web server. You will be prompted for administrator logon details for the CMS machine and the web server.
- You have downloaded the installation files for the BusinessObjects Enterprise XI 3.1 Integration kit from Oracle E-Delivery and extracted them into a convenient directory, referred to here as *BOE_INTEG_INSTALL*.

Carry out this procedure on the machine where BusinessObjects Enterprise XI 3.1 is installed.

To install the integration kit:

1. Run *BOE_INTEG_INSTALL\setup.exe*.
2. Choose the setup language and click OK.

Note. This is the language in which you want to perform the installation.



Choosing the setup language for BusinessObjects XI Integration

The Welcome window appears.

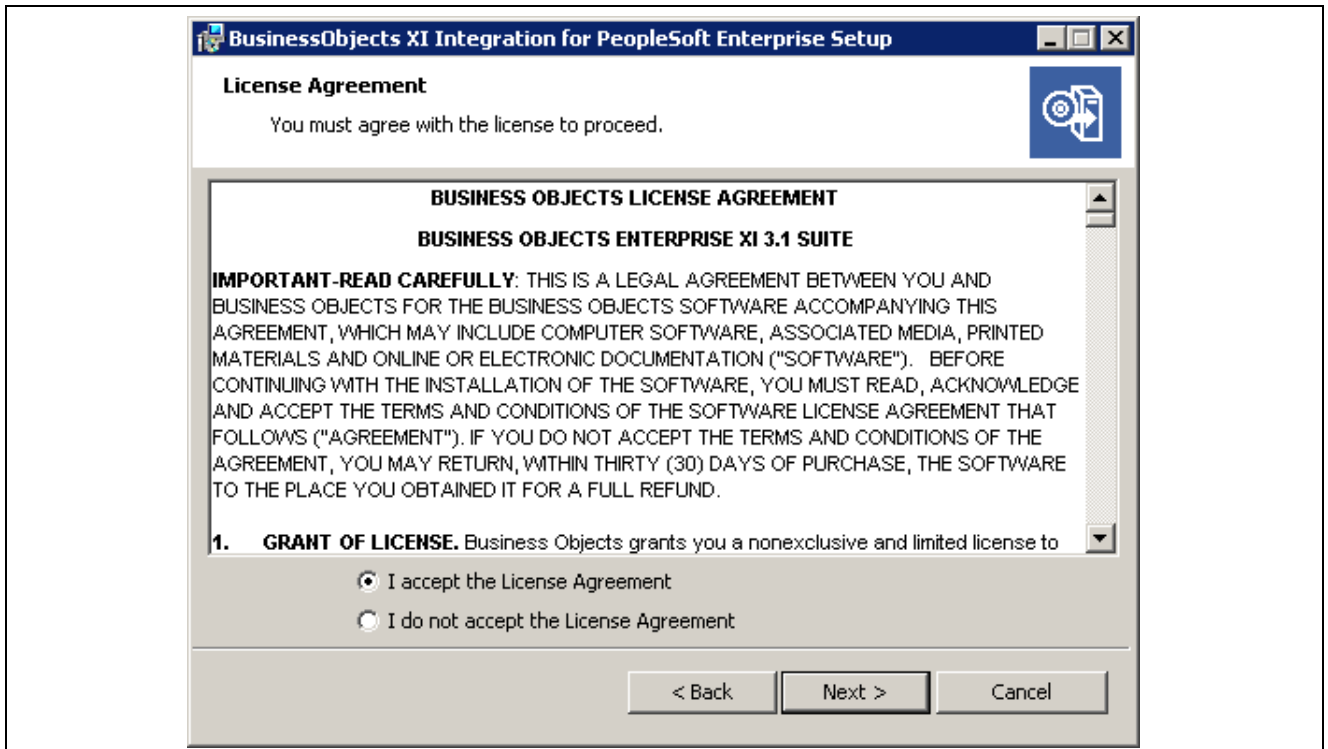
3. Read the recommendation message and click next



BusinessObjects XI Integration for PeopleSoft Enterprise Setup Welcome window

The License Agreement dialog box appears.

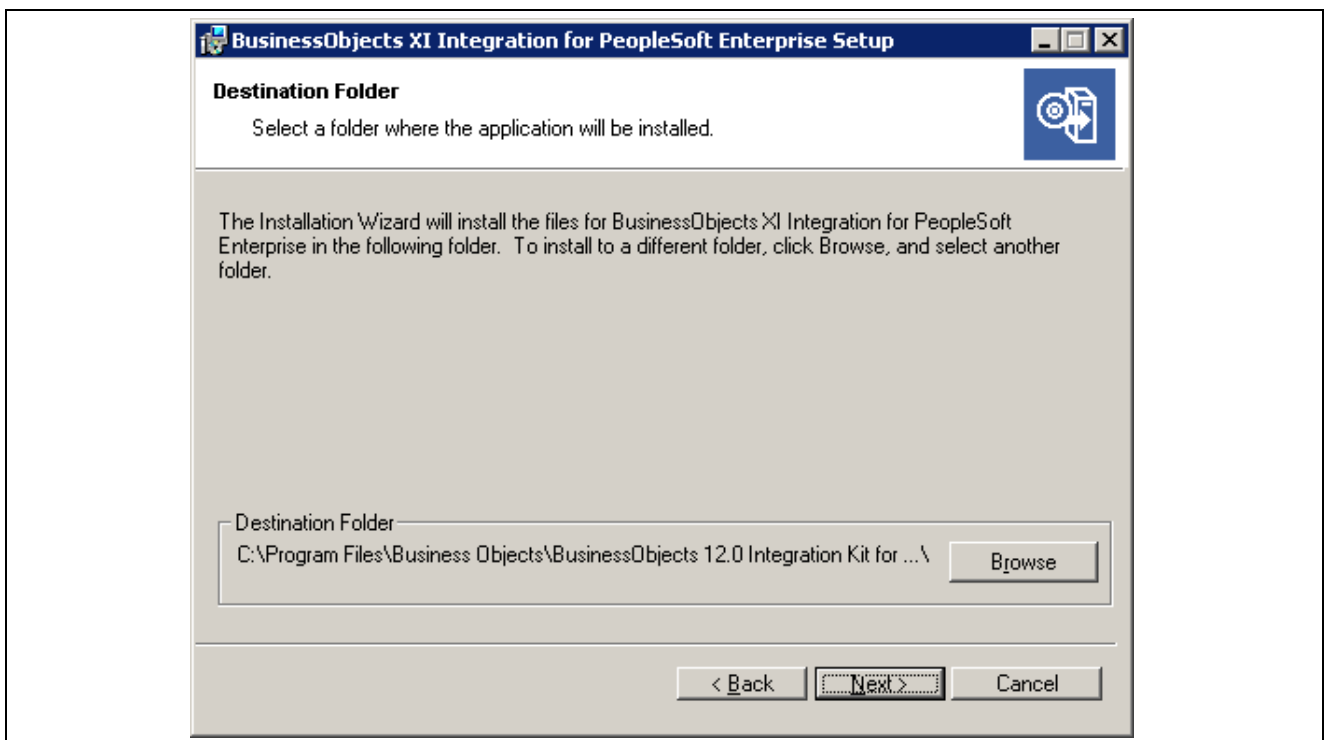
4. To continue the installation, you must accept the license agreement and click Next.



Business Objects License Agreement

The Destination Folder window appears.

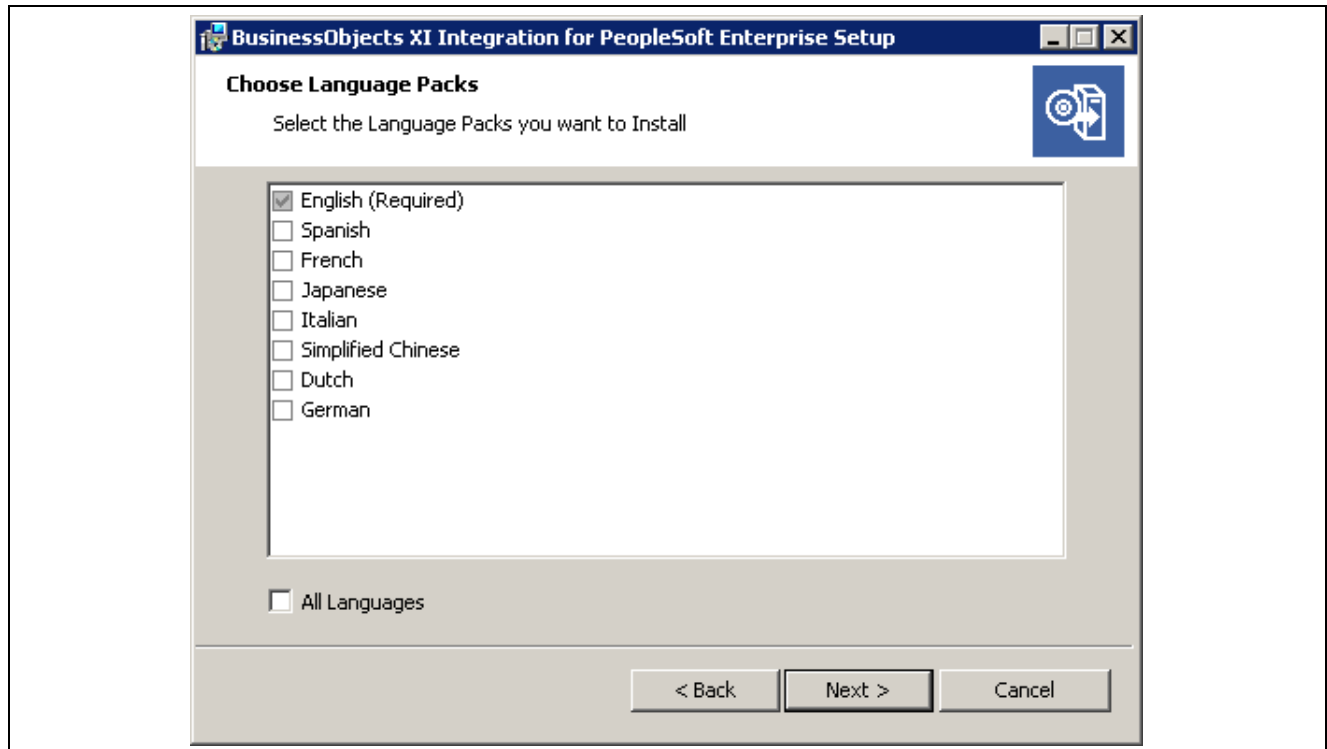
5. Specify the folder where you want the integration product files to be installed, or accept the default, and click Next.



Destination Folder window

The Choose Language Pack window appears.

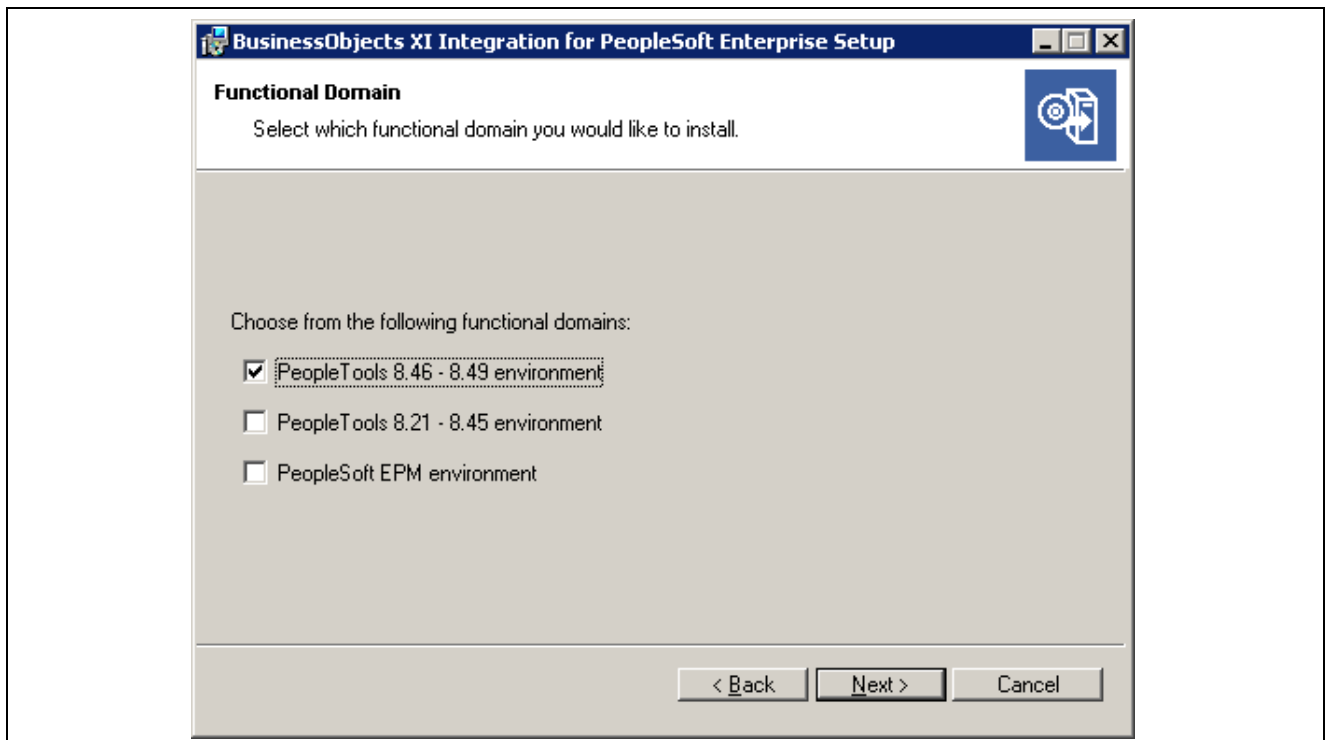
6. Choose the language pack you want to install and click Next.



Choosing Language Packs

The Functional Domain window appears.

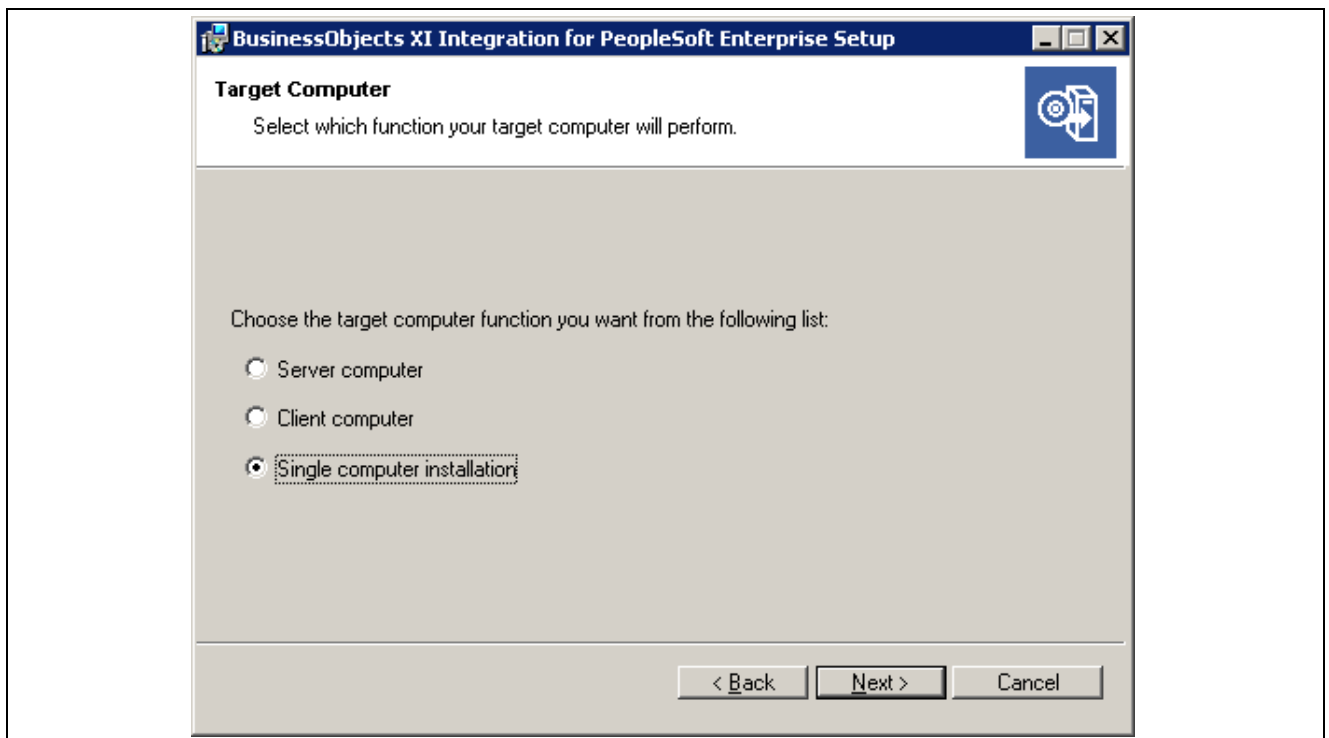
7. Select the first option PeopleTools 8.46-8.49 environment and click Next



Functional Domain window

The Target Computer window appears.

8. Choose Server computer, Client computer, or Single Computer, as follows:



Target Computer window

- If only BusinessObjects Enterprise is installed, select the Server computer type.

- If only Crystal Reports or Business View Manager or Publishing Wizard is installed, select the Client computer type.
- If both BusinessObjects Enterprise and Crystal Reports or Business View Manager or Publishing Wizard are installed, select the Single computer type.

9. Click Next.

The BusinessObjects Central Management Server window appears.

BusinessObjects Central Management Server window

Enter the following information:

- *System*

Enter the name of the computer on which you installed BusinessObjects Enterprise XI 3.1.

- *Port*

Enter the CMS port number you entered on the Server Components Configuration window when installing BusinessObjects Enterprise XI 3.1.

- *User Name*

When you enter the System and Port, the user name Administrator is populated.

- *Password*

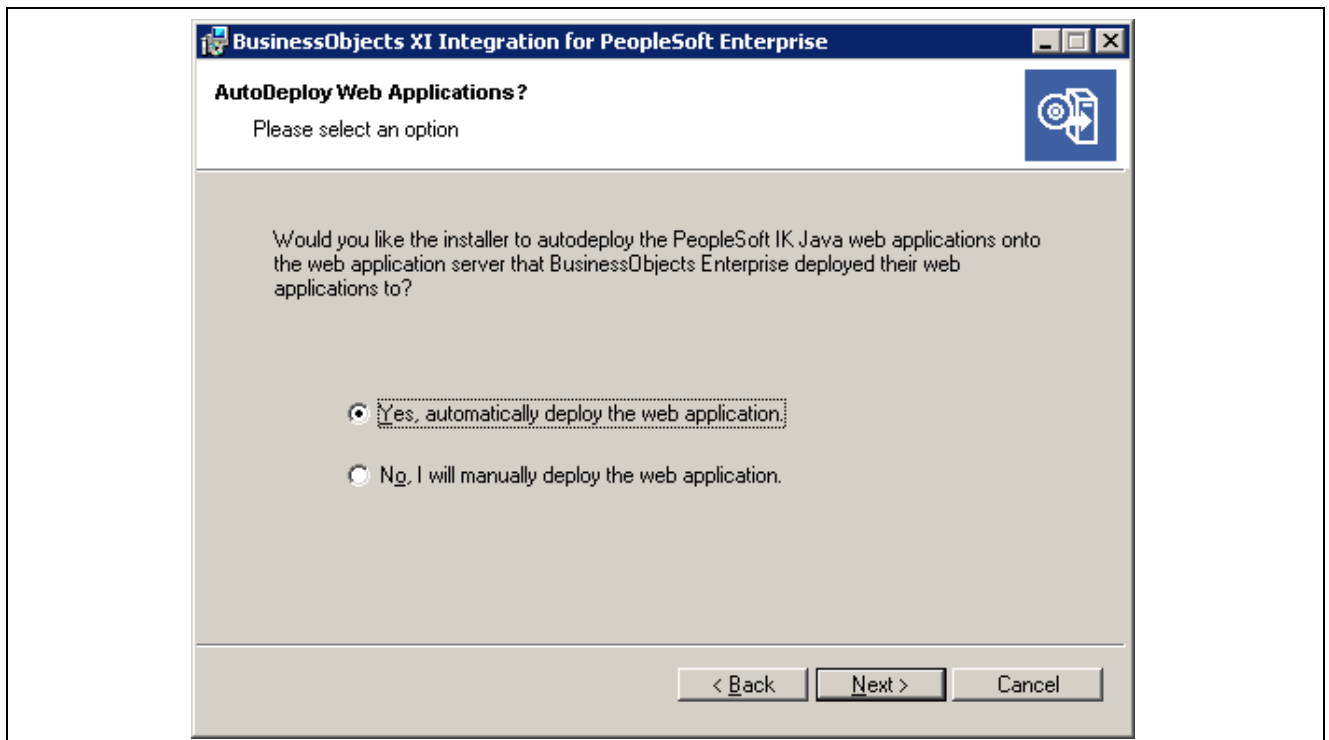
Enter the password for the CMS Administrator account that you entered on the Server Components Configuration window.

- *Authentication*

When you fill out the above fields, and click Next, this field is populated with Enterprise.

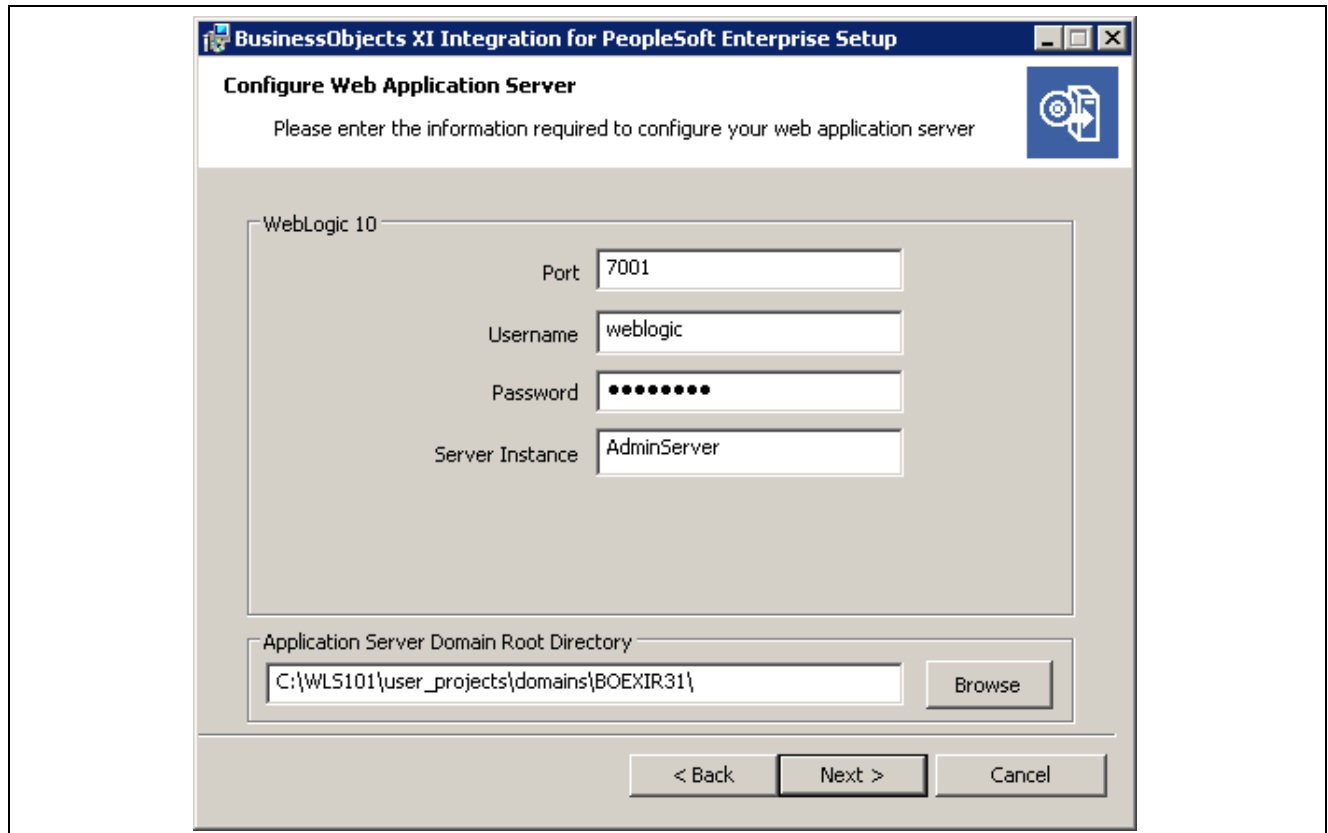
10. Click Next.

The AutoDeploy Web Applications window appears.



AutoDeploy Web Applications window

11. Select the first option, Yes automatically deploy the web application, and click Next.
12. If your web server is Oracle WebLogic, the following Configure Web Application Server Window appears:



Configure Web Application Server window with Oracle WebLogic

Enter the following information for the web application server that you created before you installed BusinessObjects Enterprise XI 3.1:

- *Port*

Enter the listening port for the web application server. In this example, the port is 7001.

- *Username*

Enter the administrator user name that you entered when installing the web application software. In this example, for Oracle WebLogic, the user name is weblogic.

- *Password*

Enter the administrator password that you entered for the web application software.

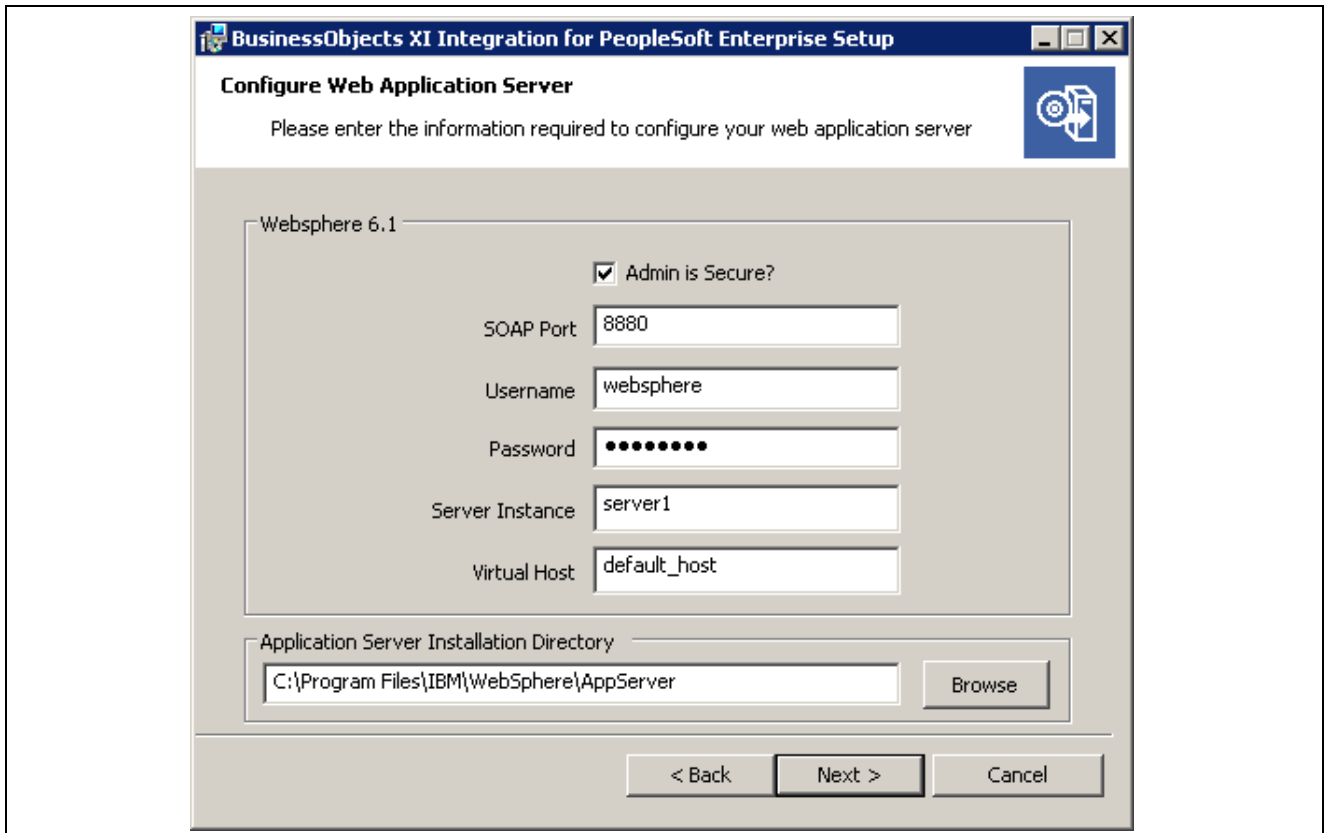
- *Server Instance*

Enter the server instance. For Oracle WebLogic, this is AdminServer.

- *Application Server Domain Root Directory*

Browse to find the directory of the domain you created for the web server. In this example, the directory is C:\WLS101\user_projects\domains\BOEXIR31.

13. If you created your web server on IBM WebSphere, the following Configure Web Application Server Window appears:



Configure Web Application Server window with IBM WebSphere

Enter the following information for the web application server that you created before you installed BusinessObjects Enterprise XI 3.1:

- *SOAP Port*

SOAP Connector Port of the application server (for example, 8880).

- *Admin login*

User name with administration rights to the IBM WebSphere application server (for example, websphere).

- *Admin password*

Password for account with administration rights to the application server.

- *Instance to install to*

Name of the current web application server instance (for example, server1).

- *Virtual host*

The virtual host to which the application must be bound (for example, default_host).

- *Admin is secure?*

Select this option to enable security requiring administrative access credentials to the application.

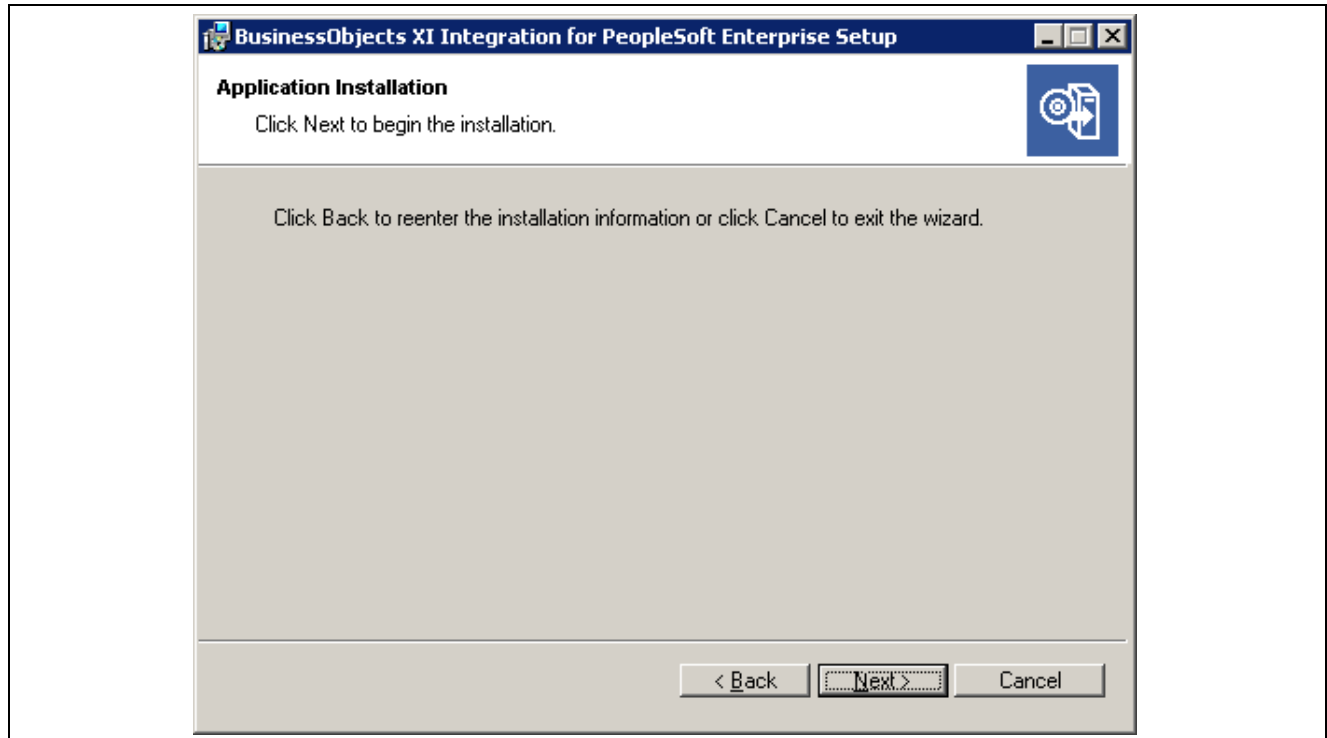
Note. Values for the user name and password parameters must be set when Admin is Secure is enabled.

- *Application server installation directory*

The directory where the web application server is installed (for example C:\Program Files\IBM\Web Sphere\AppServer).

14. Click Next.

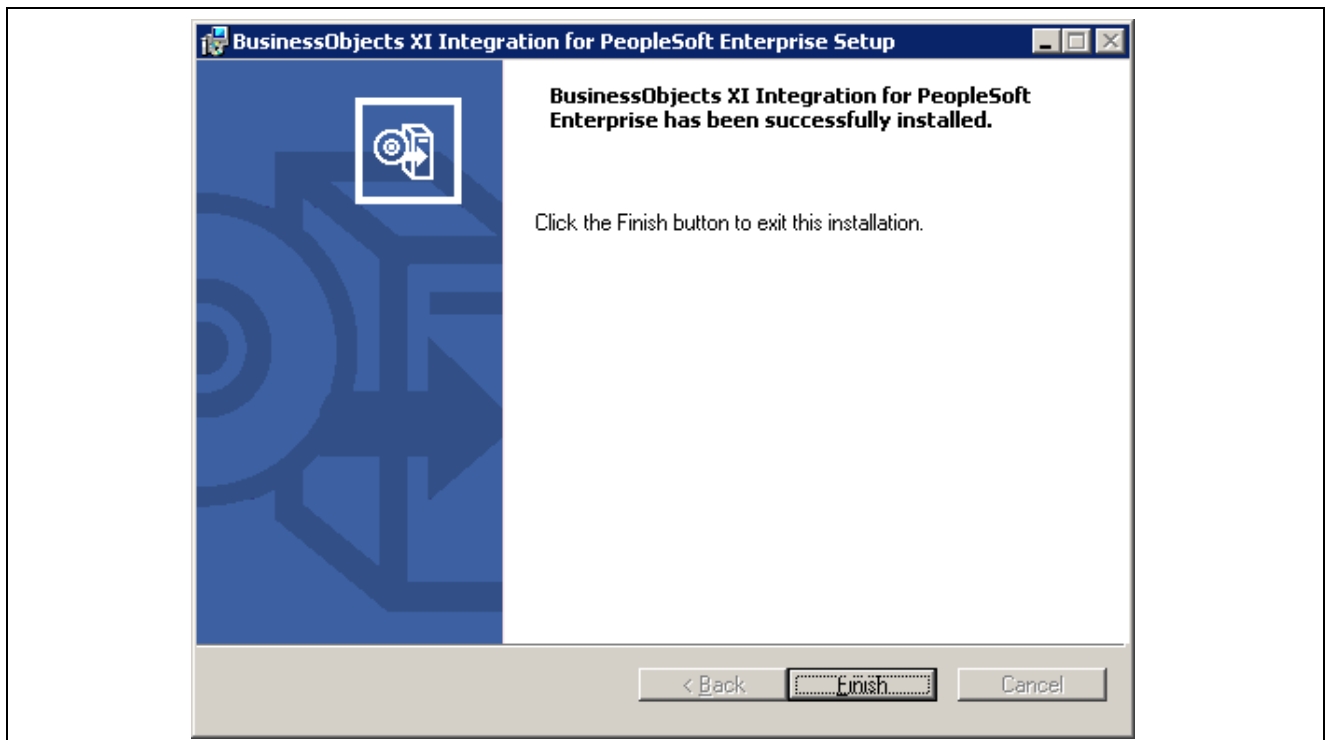
The Application Installation dialog box appears.



Application Installation window

15. Click Next to begin the installation.

When the installation is complete, click Finish.



Successful installation window

Task 12-4-7: Installing Fix Pack 1.6 on Windows

After completing the basic installation of BusinessObjects Enterprise XI 3.1 and the BusinessObjects integration kit for PeopleSoft, you must install fix pack version 1.6 for each.

Use these instructions to apply each fix pack:

1. Go to the local directory where you downloaded and extracted the fix pack.
2. Launch the installation by running setup.exe.
 - If you see the following error message:

The install has detected that a recommended Microsoft patch is not present on this machine. If you continue, the following error message might be displayed: "Error 1718. File was rejected by digital signature policy". To prevent any error messages during installation, please refer to Microsoft kbbase article ID 925336.

See the information in this Microsoft web site: <http://support.microsoft.com/kb/925336>.

- If you see the following error message:

This patch only applies to BusinessObjects Enterprise XI 3.1. Setup will now⇒
exit.

Locate the setup.ini file in the directory where you downloaded the fix pack installation files. Open it in a text editor, and add “for PeopleSoft” as shown in the following examples:

Original:

```
[Bootstrap]
ProductName=BusinessObjects XI 3.0
Msi=package\BusinessObjects.msp
Transform=package\
TempFilePrefix=B0E_SP1FP6_Install_
CheckLargePackage=Yes
PatchForTargetMSI={5418F914-1D31-4849-822C-314AC28B06BF};12.1.0;Business⇒
Objects Enterprise XI 3.1
PatchDispName=FP1.6
```

Modified:

```
[Bootstrap]
ProductName=BusinessObjects XI 3.0
Msi=package\BusinessObjects.msp
Transform=package\
TempFilePrefix=B0E_SP1FP6_Install_
CheckLargePackage=Yes
PatchForTargetMSI={5418F914-1D31-4849-822C-314AC28B06BF};12.1.0;Business⇒
Objects Enterprise XI 3.1 for PeopleSoft
PatchDispName=FP1.6
```

3. Click Next on the Welcome window.
4. Click Next on the License Agreement window.
5. Enter the same CMS information that you entered during the BusinessObjects Enterprise XI 3.1 installation:
 - System
Enter the name of the computer on which you installed BusinessObjects Enterprise XI Release.
 - CMS port
Enter the CMS port number you entered on the Server Components Configuration window when installing BusinessObjects Enterprise XI 3.1.
 - Password
Enter the password for the CMS Administrator account that you entered on the Server Components Configuration window.
6. Select Yes, automatically re-deploy the web applications.
7. If you created the web server on Oracle WebLogic, enter the same values that you entered during the BusinessObjects Enterprise XI 3.1 installation for the following:
 - Port
 - User name

- Password
 - Server instance
 - Application server domain root directory
8. If you created the web server on IBM WebSphere, enter the same web server information that you entered during the BusinessObjects Enterprise XI 3.1 installation for the following:
 - SOAP port
 - Admin login
 - Admin password
 - Instance
 - Virtual host
 - Administrative security option
 - Application server installation directory
 9. Click Next to begin the installation.

Task 12-4-8: Installing TrueType Fonts on Windows

To run certain reports you may need special fonts that do not normally come with BusinessObjects Enterprise XI 3.1. The PeopleSoft system packages and installs two such TrueType fonts in its directory structure:

- MICR____.ttf: MICR font for check printing
- B39R00.ttf: 3of9 barcode font

You can copy and install them on your machine where BusinessObjects Enterprise XI 3.1 is installed to make them available to that application.

To install TrueType fonts on Microsoft Windows:

1. Copy the *PS_HOME\FONTS\Truetype* folder to your BusinessObjects Enterprise XI 3.1 machine (the *C:\Windows\FONTS* folder is a good place to copy it to).
2. Select Start, Settings, Control Panel.
3. Double-click the Fonts directory to display its contents.
4. Select File, Install New Font.
5. Locate the fonts you want to install:
 - In the Drives list, select the drive that contains the fonts you want to install.
 - In the Folders list, select the folder that contains the fonts you want to install.The fonts in the folder appear under List of Fonts.
6. Select the fonts to install.

To select more than one font, hold down the CTRL key and click each font.
7. To copy the fonts to the Fonts folder, make sure the Copy fonts to Fonts folder check box is selected
8. Click OK to install the fonts.

Task 12-4-9: Creating a Web Server for BusinessObjects Enterprise XI 3.1 on UNIX or Linux

This section discusses:

- Creating an Oracle WebLogic Server on UNIX or Linux
- Creating an IBM WebSphere Server on UNIX or Linux

Creating an Oracle WebLogic Server on UNIX or Linux

Before beginning this procedure, you must have installed Oracle WebLogic 10.1 on the server where BusinessObjects Enterprise XI 3.1 is installed. You must use the same user account to install Oracle WebLogic and BusinessObjects Enterprise XI 3.1.

To create a Oracle WebLogic server on UNIX:

1. Start the Configuration Wizard by running `config.sh` from the `WLS_HOME/weblogic100/common/bin` directory.
2. Select 1, Create a new WebLogic domain and press Enter.
3. Select 1, Choose WebLogic Platform components and press Enter.
4. Accept the default template, WebLogic Server (Required).
5. Enter the Administrator user name and user password.

The default values are *weblogic* and *password*. Press Enter.

6. At the Domain Mode Configuration prompt, choose *Development Mode* and press Enter.
7. Select the Java SDK that you installed and press Enter.
8. Accept all the default settings until you reach the Edit Domain Information prompt.
9. At the Edit Domain prompt replace `base_domain` with a meaningful domain name, like *BOEXI*, and press Enter.

The web server has been created at the default port 7001.

10. If you want to use a port other than the default port of 7001, follow the steps below.

This may be useful if you want to run both a PeopleSoft Pure Internet Architecture web server and the BusinessObjects Enterprise XI 3.1 web server on the same machine.

- a. Edit the file: `<WLS_HOME>/user_projects/domains/<my_domain>/config.xml`.
- b. Find the text 7001 and replace it with the port number you want.
- c. Save the config.xml file and exit.

WLS_port will be used to refer to the port number that you are now using. Substitute your specific port number as needed in the following steps.

11. Start the web server by running `startWebLogic.sh` from `<WLS_HOME>/user_projects/domains/<my_domain>`.

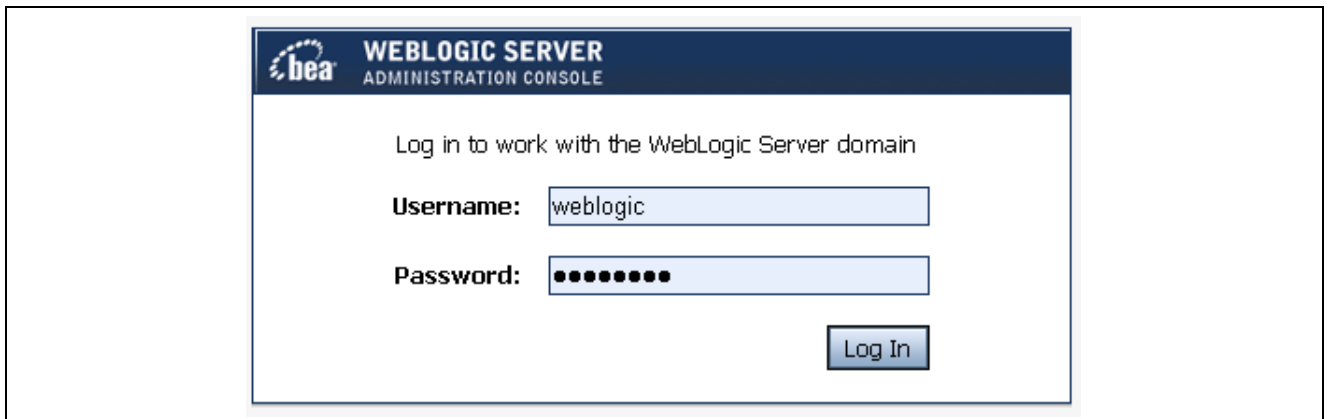
Wait until a message containing “listening on port `<WLS_port>`” appears. The web server is now started.

12. Enter the following URL in a browser to confirm that you are able to log in to the web server:

`http://<machine_name>:<WLS_port>/console`

13. At the login page, enter the user name and password for the Oracle WebLogic administrator that you entered during the Oracle WebLogic installation.

For example, *weblogic/password*. Then click the Sign In button. If you are able to log in then it verifies that your Oracle WebLogic Server is set up correctly.



Oracle WebLogic Server Administration Console Log In window

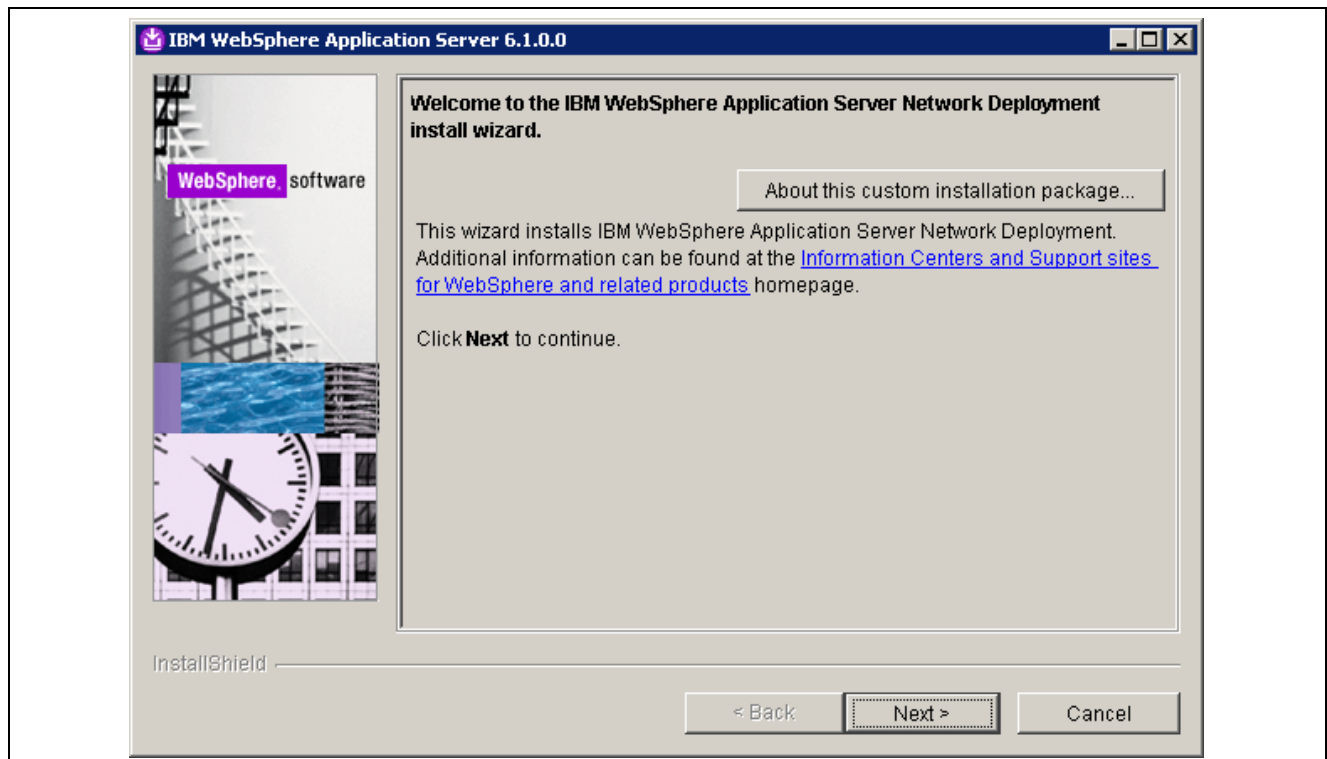
Creating an IBM WebSphere Server on UNIX or Linux

Before beginning this procedure, you must have installed IBM WebSphere 6.1 on the server where BusinessObjects Enterprise XI 3.1 is installed. You must use the same user account to install IBM WebSphere and BusinessObjects Enterprise XI 3.1.

Note. Only IBM WebSphere 6.1 is supported by BusinessObjects Enterprise XI 3.1.

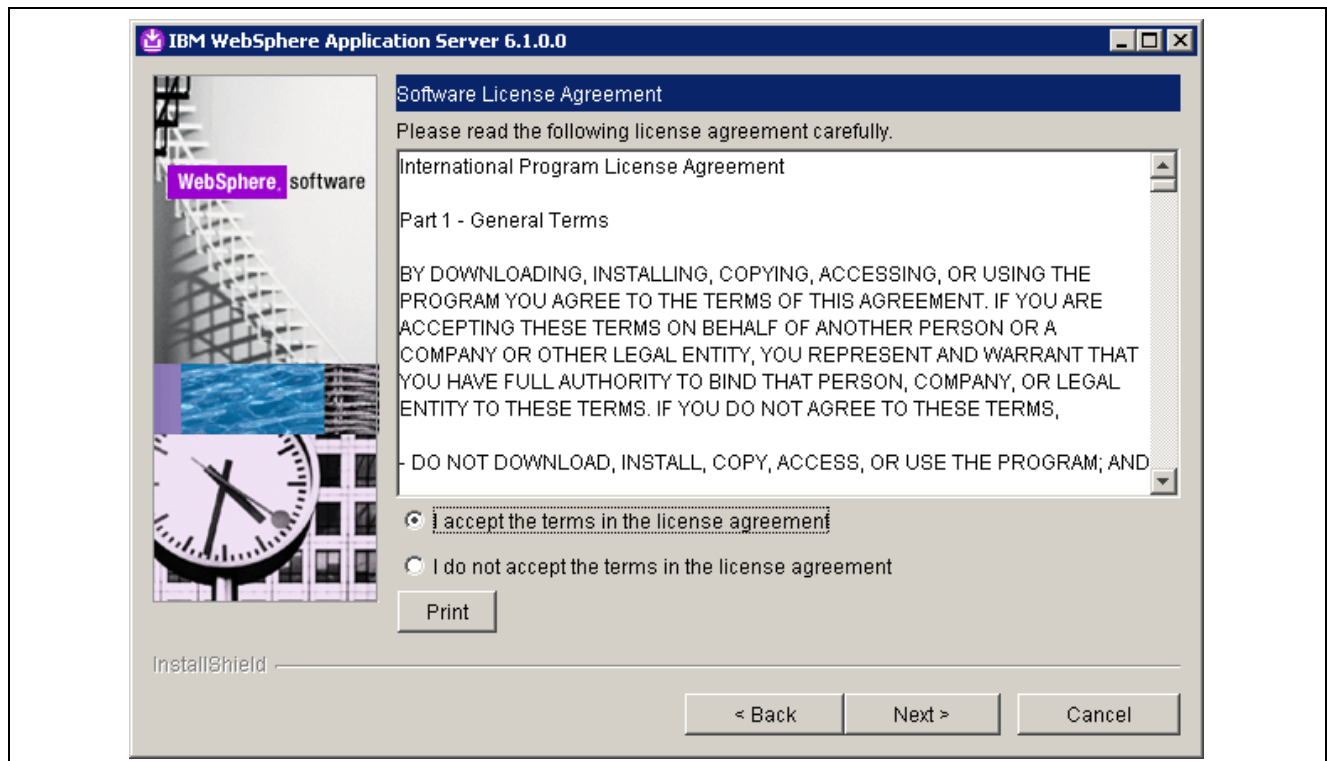
To install on UNIX or Linux you must have a X-Windows terminal emulation program such as Xmanager, Cygwin and so on.

1. Run `installWAS.sh` from the WebSphere installation.
A welcome window appears.



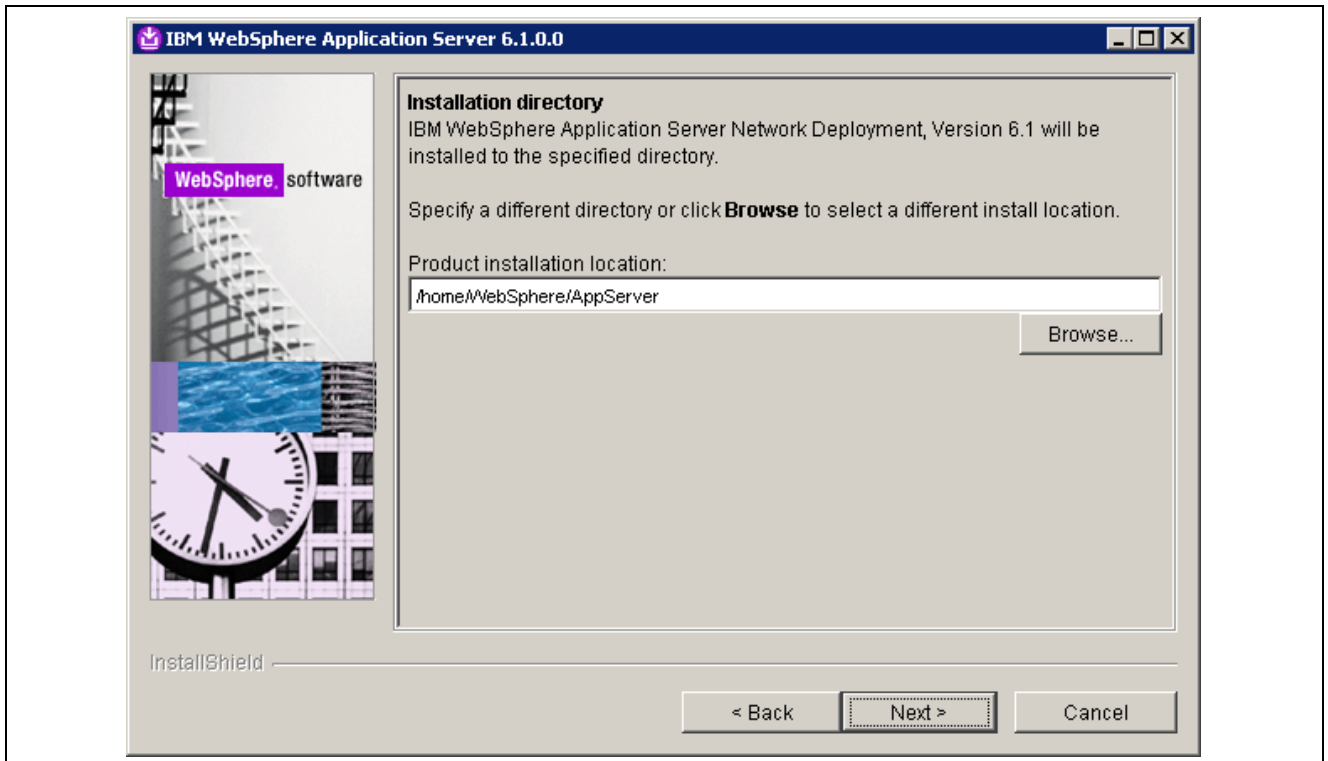
IBM WebSphere Application Server welcome window

2. Click Next.
3. Accept the license agreement and click Next.



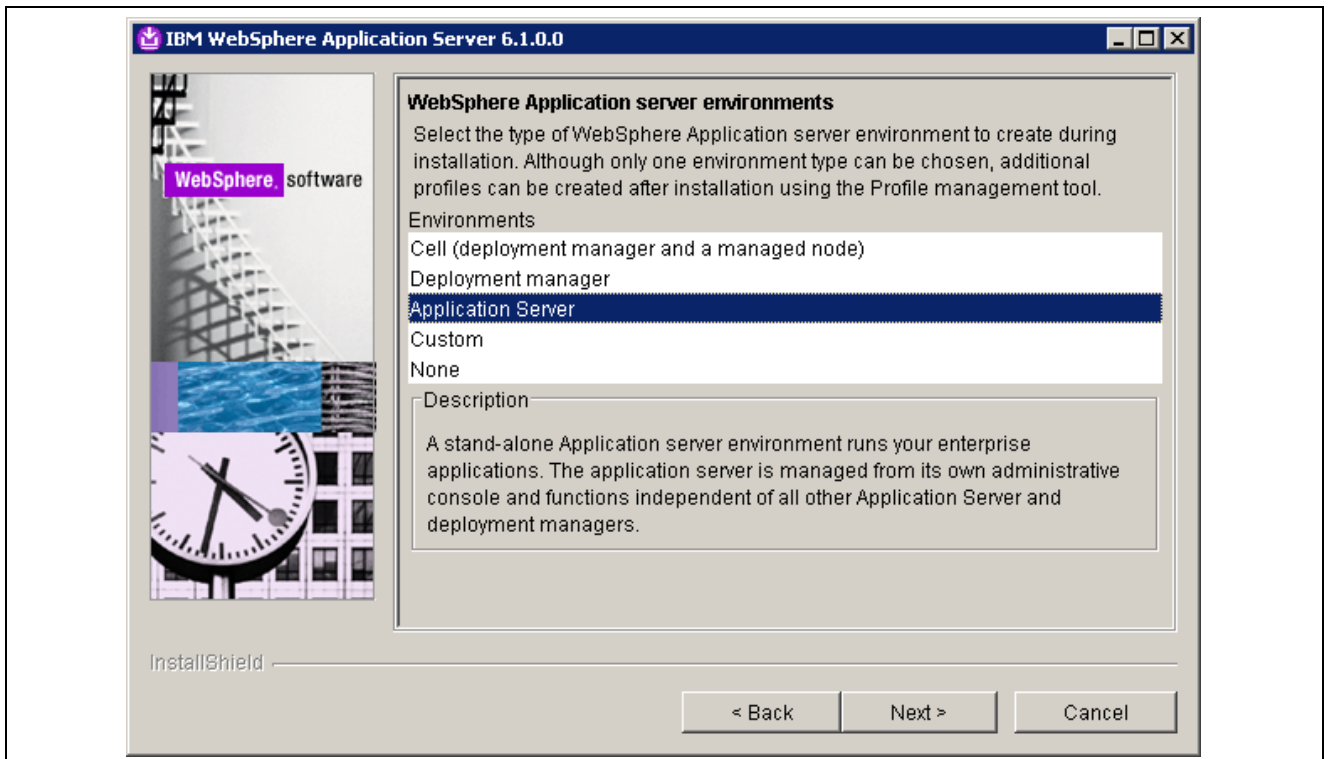
IBM WebSphere Application Server License Agreement window

4. Select an installation location, referred to as *WAS_HOME* in this documentation, and click Next.



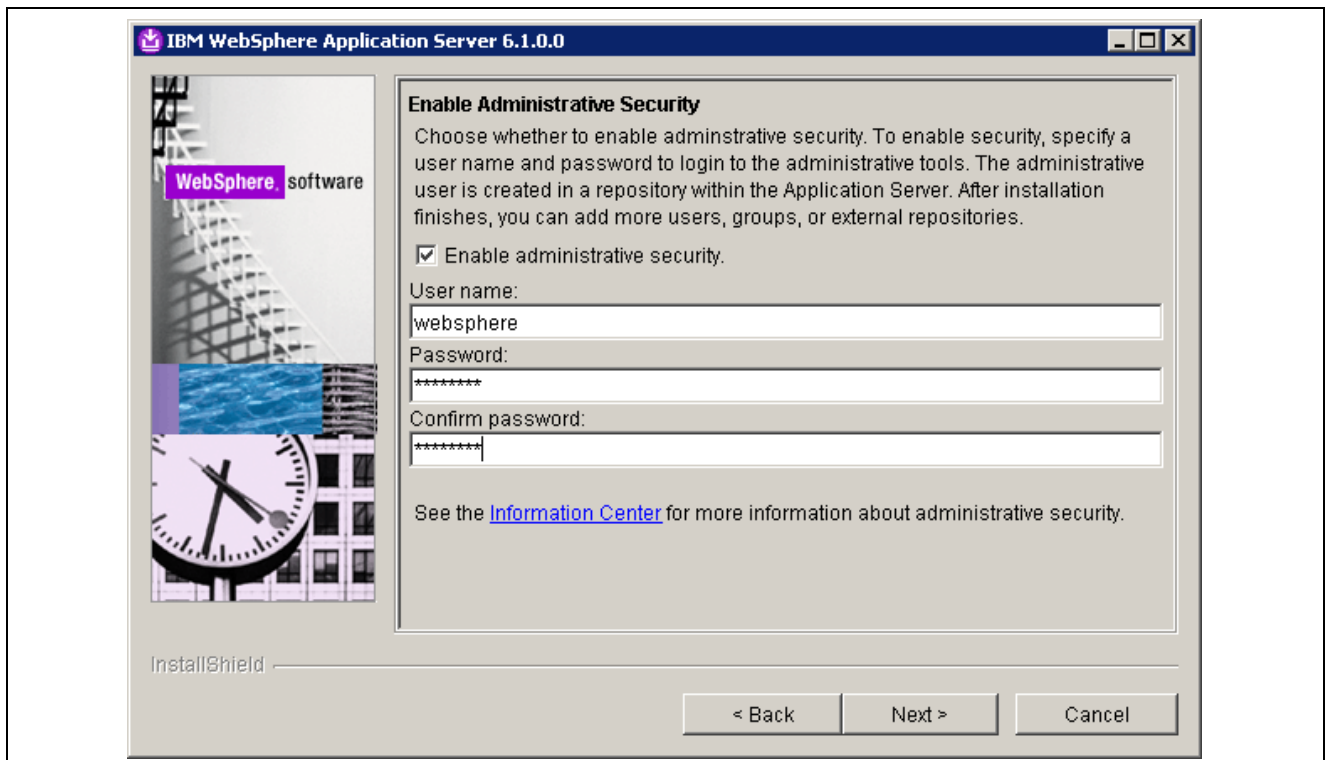
IBM WebSphere Application Server Installation directory window

5. On the WebSphere Application server environment window, select *Application Server* from the list of environments.



IBM WebSphere Application Server environments window

6. Accept the default profile and click Next.
7. Provide the Administrator user (websphere) and password (password).
Select the Enable Administrative Security option.



IBM WebSphere Enable Administrative Security window

8. Click Next to begin the installation.
9. To start the server after the installation is complete, enter the following command, where *<WAS_HOME>* is the installation location you specified above; *<profile_name>* is the default profile, AppSrv01; *<admin_userid>* is the WebSphere Administrator user name, and *<admin_password>* is the password for the WebSphere Administrator:

```
<WAS_HOME>/profiles/<profile_name>/bin/startServer.sh server1 -username <admin_userid> -password <admin_password>
```

For example:

```
/home/WebSphere/AppServer/profiles/AppSrv01/bin/startServer.sh server1 ->
username websphere -password password
```

Task 12-4-10: Installing BusinessObjects Enterprise XI 3.1 on UNIX or Linux

The installation files for BusinessObjects Enterprise XI 3.1 are included on Oracle E-Delivery. Download the files as described earlier and save them in a convenient directory, referred to here as *BOE_INSTALL*.

To install BusinessObjects Enterprise XI 3.1 on UNIX or Linux do the following:

Note. You can perform this installation from the server console or with X Windows terminal emulation software such as Cygwin. Telnet and ssh clients, such as Putty, will not allow you to install the software properly.

1. If you are running on HP-UX PA-RISC, you must edit three environment variables before beginning the installation.

Determine the directory where you will install BusinessObjects Enterprise XI 3.1, referred to in this documentation as *BOE_HOME*, and add the following to the beginning of the *SHLIB_PATH*, *LIBPATH* and *LD_LIBRARY_PATH* environment variables:

BOE_HOME/bobje/enterprise120/hpux_pa-risc

2. Go to the *BOE_INSTALL* directory and run `./install.sh`.
3. Select a language in which to carry out the installation and press Enter.
4. Read the Business Objects License Agreement.
Type *Y* to agree to the terms and continue with the setup program.
5. At the Installation Directory prompt, enter your own path for the installation directory, or press Enter to accept the default one, which is your current directory.
6. At the Choose Language Pack prompt, select the languages that you want to install.
English is the default. Select any additional language packs that you want to install.
7. Choose User Install at the Install Option prompt.
8. At the Installation Type prompt, select New Installation.
Verify that the Enable Servers after Installation option is selected. Press Enter.
9. At the Enter the information for your new CMS prompt, type the CMS port number (default 6400).
10. Type the same password under Administrator Password and Confirm Password and press Enter.
11. Select Use an existing database and press Enter.
12. Choose the type of database (Oracle, DB2 or Sybase) from the list and press Enter.

Provide all the required information for the database. The table below summarizes all the information required for each database type:

Database Platform	Required Information
DB2 LUW	• Server: DB2 LUW database alias • User name for login • Password for login
Microsoft SQL Sever (ODBC)	ODBC DSN This is specified in Windows Control Panel's Data Sources (ODBC) applet.

Database Platform	Required Information
Oracle	• Server: tnsnames connect identifier • User name for login • Password for login
Sybase	• Server: Sybase Server Name The Sybase server name is a combination of the host name and the port number which is set by your database administrator in the file sql.ini. • User name for login The user name should be a default user for the BusinessObjects Enterprise XI 3.1 database. • Password for login

13. At the Enter Server Intelligence Agent (SIA) information prompt, type a name in the Server Intelligence Agent Node field.

Do not use spaces or non-alphanumeric characters in a SIA node name.

14. Type a valid port number under Server Intelligence Agent Port (default 6410).
15. Select Use an existing Java application server, deploy web applications, and press Enter.
16. Select your web server, Oracle WebLogic or IBM WebSphere.
17. If you selected WebLogic 10, provide the following information:
- *Port*
Enter the application port of the web application server.
 - *Username*
Enter the name for the user with administration rights to the web application server.
 - *Password*
Enter the password for the administrator user account.
 - *Server instance*
Enter the name for the current web application server instance; the default is AdminServer.
 - *Application server domain root directory*
Enter the root directory for the web server domain.
18. If you selected WebSphere 6.1, provide the following information:
- *SOAP port*
The SOAP Connector Port of the application server; for example, 8880.
 - *Admin login*
The user name with administration rights to the WebSphere application server.
 - *Admin password*
The password for the account with administration rights to the application server.

- *Instance to install to*

The name of the current web application server instance. The default is `server1`.

- *Virtual host*

The virtual host to which the application must be bound. The default is `default_host`.

- *Admin is secure?*

Select this option to enable security requiring administrative access credentials to the application.

Note. Values for the username and password parameters must be set when this option is enabled.

- *Application server installation directory*

The directory where the web application server is installed, for example, `/opt/websphere/appserver`.

19. Press Enter to begin the installation.

The installation program validates your system and installs BusinessObjects Enterprise XI 3.1 in the specified directory. When the new installation is finished, the setup program starts the servers as daemons and then enables each server that is registered with the CMS.

If you are running on AIX, and your webserver is IBM WebSphere, you must complete an additional step. Use the option `deployall` as described in the section Using Manual Deployment to deploy all war files manually. After completing the manual deployment, continue with the installation.

See Administering and Using BusinessObjects Enterprise XI 3.1, Using Manual Deployment.

Task 12-4-11: Installing BusinessObjects Integration Kit for PeopleSoft on UNIX or Linux

Before beginning this procedure, ensure that:

- The CMS is running.
- You know the credentials for the BusinessObjects Enterprise Administrator account. You will be prompted for the Administrator user name and password on the CMS machine.
- You have downloaded the installation files for the BusinessObjects Enterprise XI 3.1 Integration kit from Oracle E-Delivery and extracted them into a convenient directory, referred to here as *BOE_INTEG_INSTALL*.

Carry out this procedure on the machine where BusinessObjects Enterprise XI 3.1 is installed.

To install the integration kit:

1. Run *BOE_INTEG_INSTALL/install.sh*.
2. Select the language in which you want to perform the installation.

Note. Use the arrow keys on your keyboard to make your selection. Use the U and D keys to scroll up and down. Press ENTER to continue.

3. Read the license agreement and press *Y* to accept it.
4. Specify the directory where BusinessObjects Enterprise XI 3.1 is installed, referred to in this documentation as *BOE_HOME*.

The integration files are installed in the peoplesoft sub-directory in the location that you specify.

For example, if *BOE_HOME* is */home/user/install/bobje*, the integration files are saved in */home/user/install/bobje/peoplesoft*.

5. Select the language packs you want to install.
Use the arrow keys and the space bar to choose the language packs you want, and then press ENTER.
6. Select *1 - PeopleTools 8.46-8.59 environment* and press ENTER.
7. Select Server computer, Client computer, or Single computer installation, as follows:
 - If only BusinessObjects Enterprise is installed, select the Server computer type
 - If only Crystal Reports or Business View Manager or Publishing Wizard is installed, select the Client computer type.
 - If both BusinessObjects Enterprise and Crystal Reports, Business View Manager, or Publishing Wizard are installed, select the Single computer type.
8. Specify the following information for the Central Management Server and press ENTER.
 - *System*
Enter the name of the computer on which you installed BusinessObjects Enterprise XI 3.1.
 - *Port*
Enter the CMS port number that you entered when installing BusinessObjects Enterprise XI 3.1.
 - *Password*
Enter the password for the CMS Administrator account that you entered when installing BusinessObjects Enterprise XI 3.1.
9. At the prompt for autodeploy web applications, enter *1*, Automatically deploy the web application.
10. If you installed on Oracle WebLogic, enter the same values for the web application server that you entered when you installed BusinessObjects Enterprise XI 3.1:
 - *Port*
 - *Username*
 - *Password*
 - *Server Instance*
 - *Application Server Domain Root Directory*
11. If you installed on IBM WebSphere, enter the same values for the web application server that you entered when you installed BusinessObjects Enterprise XI 3.1:
 - *SOAP Port*
 - *Admin login*
 - *Admin password*
 - *Instance to install to*
 - *Virtual host*
 - *Admin is secure*
 - *Application server installation directory*
12. Press ENTER to begin the installation.

If you are running on AIX, and your webserver is IBM WebSphere, you must complete an additional step to deploy the war files manually. After completing the manual deployment, continue with the installation.

Use the instructions in the section Using Manual Deployment to undeploy and deploy the war files in the following order:

1. undeploy InfoViewApp
2. deploy InfoViewApp
3. undeploy CmcApp
4. deploy CmcApp
5. undeploy OpenDocument
6. deploy OpenDocument
7. deploy PartnerPlatformService
8. deploy bobjpsenterprise

See Administering and Using BusinessObjects Enterprise XI 3.1, Using Manual Deployment.

Task 12-4-12: Installing Fix Pack 1.6 on UNIX or Linux

After completing the basic installation of BusinessObjects Enterprise XI 3.1 and the BusinessObjects integration kit for PeopleSoft, you must install fix pack version 1.6 for each.

Use these instructions to apply each fix pack:

1. Go to the local directory where you downloaded and extracted the fix pack.
2. Launch the installation by running the following command, where BOE_HOME is the directory where you installed BusinessObjects Enterprise XI 3.1:

```
./install.sh BOE_HOME
```
3. Enter *y* in response to the License Agreement prompt.
4. Enter CMS port and password that you entered during the BusinessObjects Enterprise XI 3.1 installation.
5. Select Yes, automatically re-deploy the web applications.
6. If you created the web server on Oracle WebLogic, enter the same values that you entered during the BusinessObjects Enterprise XI 3.1 installation for the following:
 - Port
 - User name
 - Password
 - Server instance
 - Application server domain root directory
7. If you created the web server on IBM WebSphere, enter the same web server information that you entered during the BusinessObjects Enterprise XI 3.1 installation for the following:
 - SOAP port
 - Admin login
 - Admin password

- Instance
- Virtual host
- Administrative security option
- Application server installation directory

8. Verify the installation directory, and press ENTER to start the installation.

If you are running on AIX, and your webserver is IBM WebSphere, you must complete an additional step to manually deploy the war files, using the instructions in the section Using Manual Deployment. After completing the manual deployment, continue with the installation.

- After installing Fix Pack 1.6 for the BusinessObjects Enterprise XI 3.1 base installation, undeploy all war files, then deploy all war files.
- After installing Fix Pack 1.6 for the BusinessObjects Integration Kit for PeopleSoft, undeploy and deploy the war files in the following order:
 - a. undeploy InfoViewApp
 - b. deploy InfoViewApp
 - c. undeploy CmcApp
 - d. deploy CmcApp
 - e. undeploy OpenDocument
 - f. deploy OpenDocument
 - g. undeploy PartnerPlatformService
 - h. deploy PartnerPlatformService
 - i. undeploy bobjpsenterprise
 - j. deploy bobjpsenterprise

See Administering and Using BusinessObjects Enterprise XI 3.1, Using Manual Deployment.

If your web server is Oracle WebLogic, you may get an error message saying either BusinessProcessBI or dswsbobje failed to deploy. In this case, complete the following additional steps after installing the fix pack for the BusinessObjects Enterprise XI 3.1 base installation:

1. Delete the following directories:
 - `<WLS_HOME>/user_projects/domains/<domain_name>/servers/AdminServer/stage/dswsbobje/dswsbobj`
 - `<WLS_HOME>/user_projects/domains/<domain_name>/servers/AdminServer/stage/BusinessProcessBI/BusinessProcessBI`
2. Restart the web server.
3. Manually deploy dswsbobje and BusinessProcessBI using the wdeploy tool.

See Administering and Using BusinessObjects Enterprise XI 3.1, Using Manual Deployment.

Task 12-4-13: Installing TrueType Fonts in UNIX or Linux

To install a custom TrueType supported font in BusinessObjects Enterprise XI 3.1 on supported UNIX and Linux platforms, copy the font from the `PS_HOME/FONTS/Truetype` directory to the following directory:

`<BOE_HOME>/bobje/enterprise120/<platform>/crpe/fonts`

Depending on the operating system, substitute `<platform>` with the appropriate value from the following list:

- `solaris_sparc` (Solaris)
- `aix_rs6000` (AIX)
- `hpux_pa-risc` (HP-UNIX)
- `linux_x86` (Linux)

Keep the following points in mind while working with special fonts in UNIX or Linux:

- The Japanese version of Enterprise XI 3.1 for UNIX does not support True Type Collection (TTC) fonts. However, you can split your TTC fonts into two or three TTF fonts using a font conversion tool (such as FontLab). Alternatively, your font vendor may be able to provide TTF versions of your required fonts.
- To refer to a font name in its native language, the 'mainwin' locale must be set to that language. For example, to refer to a Japanese font by its Japanese name, the locale must be set to Japanese.
- Too many installed fonts may cause slow performance. To improve performance, delete unused fonts from your `/crpe/fonts` directory.
- If a font or font size contained in a report cannot be found on the system where the report processing is occurring (that is, the server with `Crpe32.dll` installed), the processing engine will attempt to approximate the font in the generated output.

For more information on the use of supported fonts in Crystal Reports and PeopleSoft software, search the Business Objects documentation.

Task 12-4-14: Confirming Access to the BusinessObjects Enterprise XI 3.1 Administration and Central Management Console

After you have completed the installations, you should confirm that you can access the Business Objects Central Management console. Use this procedure for both the Windows and UNIX/Linux installations.

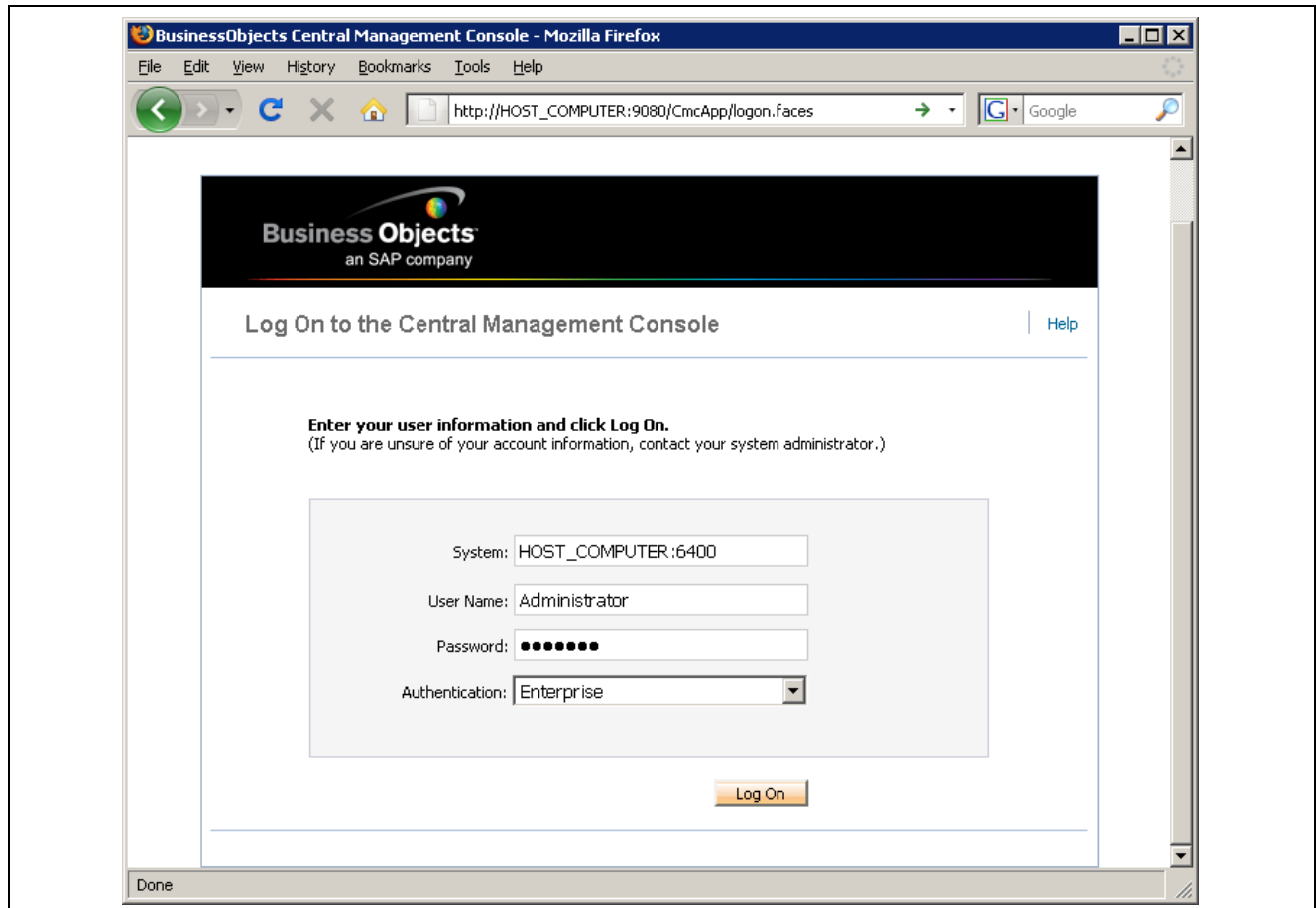
Before beginning this task, start the web server software under which you installed BusinessObjects Enterprise XI 3.1.

1. In a new browser window, enter the following URL for the Central Management Console (where `<machine_name>` is the computer name and `<port>` is the web server port).

`http://<machine_name>:<port>/CmcApp`

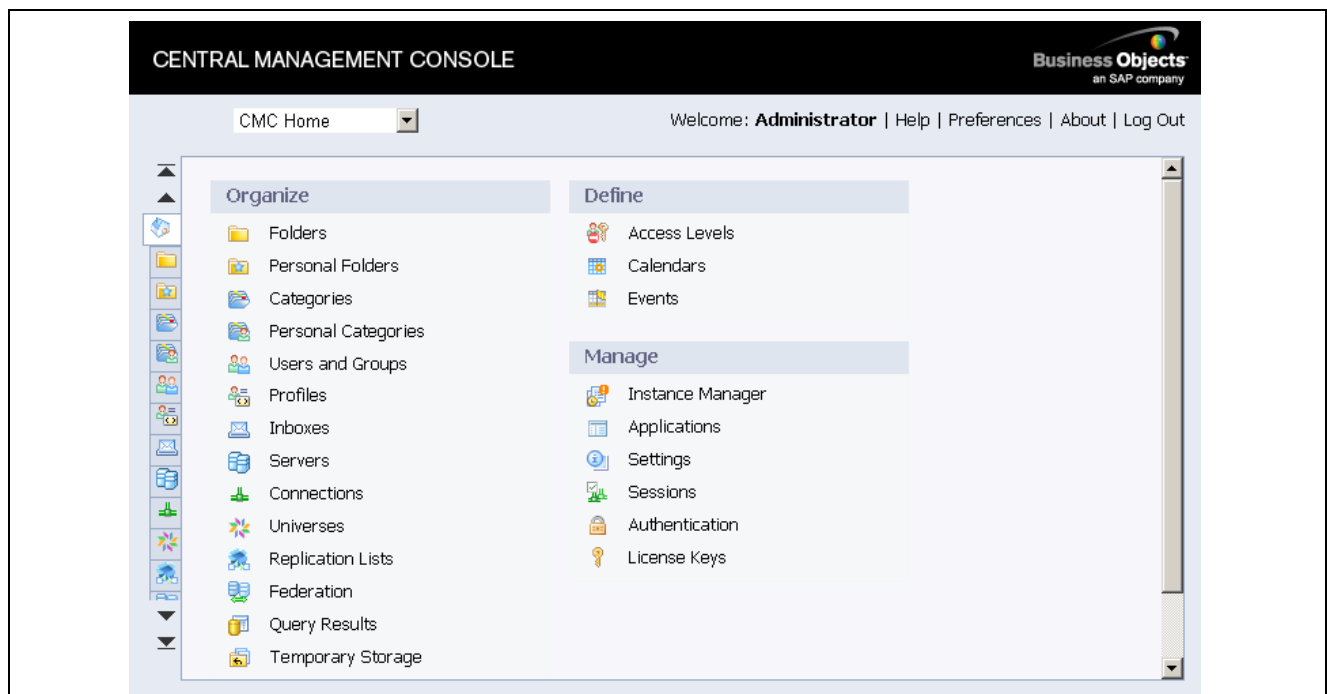
For Oracle WebLogic, the default port is 7001.

For IBM WebSphere, this is the HTTP port, not the SOAP port; the default is 9080. You can view this value in the file `WAS_HOME\profiles\AppSrv01\logs\AboutThisProfile.txt`. The following example shows the default port for IBM WebSphere.



Central Management Console Logon window

2. Enter the following information to confirm that you can log in:



Central Management Console home page

- System — Enter *machine_name:6400*, the name of the system where you installed BusinessObjects Enterprise XI 3.1, followed by a colon and the CMS port, 6400.
- Username — Enter Administrator.
- Password — Enter the password for the CMS Administrator account that you entered during the BusinessObjects Enterprise XI 3.1 installation.

Note. Remember that before you can use BusinessObjects Enterprise XI 3.1, you must complete additional installation and configuration procedures

Task 12-4-15: Configuring the PeopleSoft Application for BusinessObjects Enterprise XI 3.1 Integration

This section discusses:

- Preparing the PeopleSoft Application to Integrate with BusinessObjects Enterprise XI 3.1
- Configuring the PeopleSoft Application Server
- Configuring the PeopleSoft Pure Internet Architecture
- Identifying the Local Default Node in Your System
- Running the Data Mover Script and Database Project
- Adding PeopleSoft Users and Roles
- Verifying Process Scheduler Server Definition
- Updating the PeopleSoft Integration Broker Gateway

Preparing the PeopleSoft Application to Integrate with BusinessObjects Enterprise XI 3.1

In the PeopleSoft applications that you wish to integrate with BusinessObjects Enterprise XI 3.1, you will have to configure settings in the following areas:

- PeopleSoft Application Server
- PeopleSoft Web Server
- PeopleSoft Integration Broker
- Query Access Services (QAS)

If the computer hosting the Process Scheduler is different from the computer where BusinessObjects Enterprise XI 3.1 is installed, ensure that the machine name of the Process Scheduler computer can be pinged from the BusinessObjects Enterprise XI 3.1 server box and vice versa. If not, add the full machine name and the IP address of the Process Scheduler computer to the host file of the computer where BusinessObjects Enterprise XI 3.1 is installed.

Note. Carry out the steps in this section for each PeopleSoft application domain that you want to integrate with the BusinessObjects Enterprise XI 3.1 server.

Configuring the PeopleSoft Application Server

To configure the application server:

1. Make sure that your PeopleSoft application server is down.

2. Access the PSADMIN Quick-Configure menu by launching `psadmin.exe` from the `PS_HOME\appserv` directory.

Select the domain to configure.

See "Configuring the Application Server on Windows."

3. Confirm that Pub/Sub Servers (Feature 1) and Jolt (Feature 4) are turned on (set to Yes).

Note. To change a feature from Yes to No, type the feature number and press ENTER.

```
-----
Quick-configure menu -- domain: HR850
-----
```

Features =====	Settings =====
1) Pub/Sub Servers : Yes	15) DBNAME : [HR850]
2) Quick Server : No	16) DBTYPE : [MICROSFT]
3) Query Servers : No	17) UserId : [HRDM0]
4) Jolt : Yes	18) UserPswd : [HRDM0]
5) Jolt Relay : No	19) DomainId : [TESTSERV]
6) WSL : No	20) AddToPATH : [c:\oracle\product\10.2.0\db_1⇒ \BIN
7) PC Debugger : No	21) ConnectID : [people]
8) Event Notification : No	22) ConnectPswd : [people]
9) MCF Servers : No	23) ServerName : []
10) Perf Collator : No	24) WSL Port : [7000]
11) Analytic Servers : No	25) JSL Port : [9000]
12) Domains Gateway : No	26) JRAD Port : [9100]

```

      Actions
      =====
13) Load config as shown
14) Custom configuration
    h) Help for this menu
    q) Return to previous menu

```

Enter selection (1-26, h, or q):

4. Open `psappsrv.cfg`, the PeopleSoft Application Server configuration file, from the `<PS_CFG_HOME>\appserv\<DOMAIN>` directory.
5. Change the MIN Instances and MAX Instances for the Application Server to be greater than 1.

These settings allow multiple instances of the application server to execute. Suggested settings are 2 and 25 for MIN and MAX, respectively. Of course, the MAX setting should be no less than the MIN setting.

```
[PSAPPSRV]
;=====
; Settings for PSAPPSRV
;=====

;-----
```

```
; UBBGEN settings
Min Instances=2
Max Instances=25
```

6. Save and exit.
7. Re-start the application server.

Configuring the PeopleSoft Pure Internet Architecture

To ensure that single sign-on works properly in the integration between the PeopleSoft installation and BusinessObjects Enterprise XI 3.1, you must configure the Authentication Token Domain in the PeopleSoft Pure Internet Architecture and set the PeopleSoft Integration Gateway properties.

1. Run *PS_HOME\setup\PsmPIAInstall\setup.bat*.
2. Enter a value for the Authentication Token Domain.

In the following example, the authentication token domain is *.peoplesoft.com*.

See "Setting Up the PeopleSoft Pure Internet Architecture in GUI Mode," Using Authentication Domains in the PeopleSoft Pure Internet Architecture Installation.

Specifying the Authentication Domain

Identifying the Local Default Node in Your System

After you identify the Local default node, use it in the next procedure.

1. Select PeopleTools, Integration Broker, Integration Setup, Nodes.
2. Click the Search button to display a list of all nodes defined in the system.

There should be one (and only one) node designated as the Default Local Node. You can sort on the Default Local Node column header to quickly find the proper node. Look for the node that has a “Y” in the Default Local Node column in the search results (Indicated in red in the following example.)

Node Name	Description	Status	Default Local Node	Category
PSFT_EM_INBOUND	eSettlements 3rd Party Inbound	0	N	External
PSFT_EP	PS FDM - Local Node	0	N	PIA
PSFT_FQ	PS FQ - Front Office Node	0	N	PIA
PSFT_GF	PS BP - Local Node	0	N	PIA
PSFT_HR	PS HRMS - Local Node	1	Y	PIA
PSFT_IM	PS EIM - Local Node	0	N	PIA
PSFT_LM	PS ELM - Local Node	0	N	PIA
PSFT_LS	PS LS - Local Node	0	N	PIA
PSFT_OWS	Oracle Workforce Scheduling	0	N	External
PSFT_PA	PS PA - Local Node	0	N	PIA
PSFT_PF	PS EPM - Local Node	0	N	PIA
PSFT_TAX	3rd Party Tax Integration Node	0	N	External
PSFT_XINBND	InBound Node	0	N	External
PSFT_XOUTBND	Outbound Node	0	N	External
PT_CDB_UPDATE	Dashboard Data Updates	0	N	External
PT_CDB_WEB_SERVICE	Dashboard Web Service	0	N	External
PT EMC_GETMAIL	Get Mail Node	0	N	External
PT_LDAP	message node	0	N	PIA
PT_LOCAL	PT_LOCAL	0	N	PIA
QAS_REMOTE	Remote Node Accessing QAS	0	N	External
SA	Portal Node - SA	0	N	PIA
SAHA	Portal node - SAHA HTMLAccess	0	N	External
SSR_CS_ASYNC	Class Scheduling Remote Node	0	N	PIA
SUPP	Portal Node - SUPP	0	N	PIA
VAN	Portal Node - VAN	0	N	External
WSDL_NODE	Used internally by IB system.	0	N	External

Nodes search results

- Copy the node name to a text editor, as you will use it in a later step.

See Adding the Local Default Node as a Message Node to your Gateway.

Running the Data Mover Script and Database Project

The PeopleSoft database as delivered is configured to run reports using Crystal Reports. In order to use BusinessObjects Enterprise XI 3.1 you need to run a Data Mover script and use the Copy Project from File functionality with the project CRTOBOE.

This will add pertinent roles and change the Crystal process types to use the BusinessObjects Enterprise XI 3.1 executable.

- Launch Data Mover and run the Data Mover script *PS_HOME\scripts\CRTOBOE.dms*.
- Launch Application Designer and sign on to your database.
- Select Tools, Copy Project, From File.
- In the resulting dialog box, change the import directory to *PS_HOME\projects*, select CRTOBOE from the list of projects, and click Select.

Adding PeopleSoft Users and Roles

BusinessObjects Enterprise XI 3.1 requires two users, BOE_Admin and BOE_Viewing.

To add user BOE_Admin:

- Log in to the PeopleSoft application.

2. Select PeopleTools, Security, User Profiles, User Profiles.
3. Select Find an Existing Value and search for *BOE_Admin*.

User Profiles

Enter any information you have and click Search. Leave fields blank for a list of all values.

[Find an Existing Value](#)
[Add a New Value](#)

Maximum number of rows to return (up to 300):

Search by: begins with

[Search](#)
[Advanced Search](#)

Search Results

[View All](#)
[First](#)
1-2 of 2
[Last](#)

User ID	Description
BOE_Admin	BOE administrative user
BOE_Viewing	BOE viewing user

[Find an Existing Value](#) | [Add a New Value](#)

User Profiles search results showing BOE_Admin

4. If the BOE_Admin user does not exist, select Add a New Value and create it.
5. On the User ID page for BOE_Admin, on the General page, specify PTPT2200 for the Process Profile.

General | ID | Roles | Workflow | Audit | Links | User ID Queries

User ID: BOE_Admin
Description: BOE administrative user

☐ Account Locked Out?

Login Information

Symbolic ID: SYSADM1
Password:
Confirm Password:
User ID Alias:
[Edit Email Addresses](#) [Instant Messaging Information](#)

General Attributes

Language Code: English
Currency Code:
Default Mobile Page:
☐ Enable Expert Entry

Permission Lists

Navigator Homepage: ALLPAGES Primary: ALLPAGES
Process Profile: PTPT2200 Row Security: ALLPAGES

[Save](#) [Return to Search](#) [Previous in List](#) [Next in List](#) [Add](#) [Update/Display](#)

[General](#) | [ID](#) | [Roles](#) | [Workflow](#) | [Audit](#) | [Links](#) | [User ID Queries](#)

BOE_Admin User ID General page

6. Select the Roles tab.

General | ID | Roles | Workflow | Audit | Links | User ID Queries

User ID: BOE_Admin
Description: BOE administrative user

Dynamic Role Rule

Execute on Server:
[Test Rule\(s\)](#) [Refresh](#)
[Execute Rule\(s\)](#)
[Process Monitor](#)
[Service Monitor](#)

Role Name	Description	Dynamic	View Definition
BOE Admin	BOE admin role	☐	Route Control View Definition + -
QAS Admin	QAS Administrators	☐	Route Control View Definition + -

[Save](#) [Return to Search](#) [Previous in List](#) [Next in List](#) [Add](#) [Update/Display](#)

[General](#) | [ID](#) | [Roles](#) | [Workflow](#) | [Audit](#) | [Links](#) | [User ID Queries](#)

BOE_Admin User ID Roles page

Verify that the following roles are present, or add them if necessary:

- BOE Admin
- QAS Admin

7. If you made any changes, click Save.
8. Repeat step 2, and search for *BOE_Viewing*.
9. If the user does not exist, select Add a New Value and create the BOE_Viewing user.

10. On the User ID: BOE_Viewing page, select the Roles tab.
11. Verify that the BOE Viewing role is present, or add it if it is not present.
12. If you made any changes, click Save.

To configure the user credentials:

1. Select PeopleTools, Utilities, Administration, BOE Integration Administration.

The screenshot shows the 'BOE Integration Administration' page with a sub-section titled 'BusinessObjects Enterprise'. It contains four input fields: 'Administrative User' with the value 'BOE_Admin', 'Password' with masked characters, 'Viewing User' with the value 'BOE_Viewing', and another 'Password' field with masked characters.

BOE Integration Administration page: BusinessObjects Enterprise portion

The screenshot shows the 'BusinessObjects Web Server' section. It includes a text box for the BOE web server location with instructions: 'This is the location of the BusinessObjects Enterprise (BOE) web server. Enter http:// followed by the machine name and port.' Below this is a text field for 'BOE Web Server URL' containing 'http://HOST_COMPUTER.us.oracle.com:9080'. A 'Ping' button is visible on the right. A sample URL 'http://HOST_COMPUTER.us.oracle.com:9080/CmcApp' is shown below the input field.

BOE Integration Administration page: BusinessObjects Web Server portion

The screenshot shows the 'BusinessObjects Database' section. It includes a text box for the CMS database location with instructions: 'This is the location of the BusinessObjects Enterprise (BOE) - Central Management Server (CMS) database. Enter the machine name and port. The BOE Domain Name is optional.' Below this is a text field for 'CMS Machine Name' containing 'http://HOST_COMPUTER.us.oracle.com:6400'. A 'BOE Domain Name' field contains the value 'BOEXI'.

BOE Integration Administration page: BusinessObjects Database portion

2. Enter the following values:

- Administrative User: Enter BOE_Admin
- Password: Enter the password associated with BOE_Admin.
- Viewing User: Enter BOE_Viewing.
- Viewing User Password: Enter the password associated with the user BOE_Viewing. The default password is the same as the user name; that is, BOE_Viewing for the BOE_Viewing user.
- BOE Web Server URL
Enter `http://<machine_name>:<port>`
- CMS Machine Name: Enter the name of the computer where you installed BusinessObjects Enterprise XI 3.1, and the port for the CMS. The default port is 6400.
- BOE Domain Name (Optional): Enter a name to identify the BOE domain.
Make a note of this domain name. You will use it on the CMC authentication page in a later step.

Verifying Process Scheduler Server Definition

You need to verify that the Process Scheduler servers that you plan to use to run Crystal Reports are configured to run those processes.

To verify the Process Scheduler server definition:

1. Log into your PeopleSoft application in a browser.
2. Select PeopleTools, Process Scheduler, Servers.
3. Choose each server on which you plan to schedule Crystal Reports. The example below shows the Server Definition page for the PSNT server.

ORACLE

Home | Worklist | MultiChannel Console | Add to Favorites | Sign out

New Window | Customize Page | http

Server Definition | Distribution | Operation | Notification | Daemon

Server Name: PSNT

Description: NT Server Agent

***Sleep Time:** 15 Seconds

***Heartbeat:** 60 Seconds

Max API Aware: 5 Concurrent Tasks

***Operating System:** Windows

CPU Utilization Threshold: %

Memory Utilization Threshold: %

Server Load Balancing Option: Use for Load Balancing

Redistribute Workload Option: Redistribute to any O/S

Note: To disable a process category on this server, set the max. concurrent to 0.

Process Category	Priority	Max Concurrent
Default	Medium	5
LOADCACHE	Medium	0
QEHIGH	Medium	5
QELow	Medium	5
QEMEDIUM	Medium	5
QEZEROMAX	Medium	5

Server Definition page for PSNT: Part 1

ORACLE

Home | Worklist | MultiChannel Console | Add to Favorites | Sign out

QEZEROMAX Medium 5

Process Type	Priority	Max Concurrent
Application Engine	Medium	3
COBOL SQL	Medium	3
Crw Online	Medium	3
Crystal	Medium	3
Cube Builder	Medium	3
Data Mover	Medium	3
Essbase Cube Builder	Medium	3
Optimization Engine	Medium	2
SQR Process	Medium	3
SQR Report	Medium	3
SQR Report For WF Delivery	Medium	3
Winword	Medium	3
XML Publisher	Medium	3
nVision-Report	Medium	3
nVision-ReportBook	Medium	3

Save Return to Search Notify Add Update/Display

Server Definition page for PSNT: Part 2

For each server, verify that Crystal is one of the Process Types in the grid Process Types run on this Server.

- If the Crystal Process Type does not exist, add it and save the page.

Updating the PeopleSoft Integration Broker Gateway

You must update the PeopleSoft Integration Broker Gateway to recognize your PeopleSoft application server.

To configure the Integration Broker Gateway:

- Log in to your PeopleSoft application.
- Select PeopleTools, Integration Broker, Configuration, Quick Configuration.
- In the Gateway URL field, enter the following value, where <machine_name> is the machine where the Integration Broker is installed, and <port> is the port number where the PeopleSoft web server is listening.

That is, the machine where PeopleSoft PeopleTools is installed, and the port number for the web server listener; in the following example, PTOOLS-HOST1 and 8000, respectively.

`http://<machine_name>:<port>/PSIGW/PeopleSoftListeningConnector`

[New Window](#) | [Customize Page](#) |

Integration Broker Quick Configuration

Local Gateway

The integration gateway manages message transport through several communication protocols.

Gateway URL: Ping Gateway

[Advanced Gateway Setup](#) Use to access additional integration gateway features.

Integration Broker Domains

To process asynchronous messages, one application server domain must be active. If inactive, use the Domain Status drop-down list to activate the appropriate domain.

Customize Find		
Machine Name	Application Server Path	Status
HLAM032002	C:\pt842\APPSERVQEMST842	Active
HLAM042503	C:\pt844\APPSERVQEMST844	Inactive
HLAM072500	C:\pt840\APPSERVQe84mst	Active
HLAMCMPQ	C:\pt840\APPSERVQEMST84	Active

Integration Broker Quick Configuration page

4. Activate the domain by changing the status in the Domains list to Active, and click Save.
5. Select PeopleTools, Integration Broker, Configuration, Service Configuration.

[New Window](#) | [Customize Page](#) |

ORACLE

[Home](#) | [Worklist](#) | [MultiChannel Console](#) | [Add to Favorites](#) | [Sign out](#)

[Service Configuration](#) | [UDDI Configuration](#) | [Restricted Services](#) | [Exclude PSFT Auth Token](#)

***Service Namespace:**

***Schema Namespace:**

***Target Location:**

Example: http://<machine>:<port>/PSIGW/PeopleSoftServiceListeningConnector

Alternate Example: http://<machine>:<port>/PSIGW/PeopleSoftServiceListeningConnector/<defaultlocalnode>

Secure Target Location:

Example: https://<machine>:<port>/PSIGW/PeopleSoftServiceListeningConnector

Alternate Example: https://<machine>:<port>/PSIGW/PeopleSoftServiceListeningConnector/<defaultlocalnode>

***Service System Status:**

☐ **Enable Multi-queue**

***WSDL Generation Alias Check:**

Last Updated: **Last Update Date/Time:**

Save

[Service Configuration](#) | [UDDI Configuration](#) | [Restricted Services](#) | [Exclude PSFT Auth Token](#)

Service Configuration page

6. Fill in the Target Location and Secure Target Location fields.
- The BusinessObjects Enterprise XI 3.1 configuration requires an HTTPS address on this page.

- Target Location

Enter the machine name where PeopleSoft PeopleTools is installed, and the HTTP port number for the web server (the following example uses PTOOLS-HOST1 and 8000, respectively):

`http://<machine_name>:<http_port>/PSIGW/PeopleSoftServiceListeningConnector`

- Secure Target Location

Enter the machine name where PeopleSoft PeopleTools is installed, and the HTTPS port number for the web server (the following example uses PTOOLS-HOST1 and 8001, respectively):

`https://<machine_name>:<https_port>/PSIGW/PeopleSoftServiceListeningConnector`

7. Select PeopleTools, Integration Broker, Configuration, Quick Configuration.

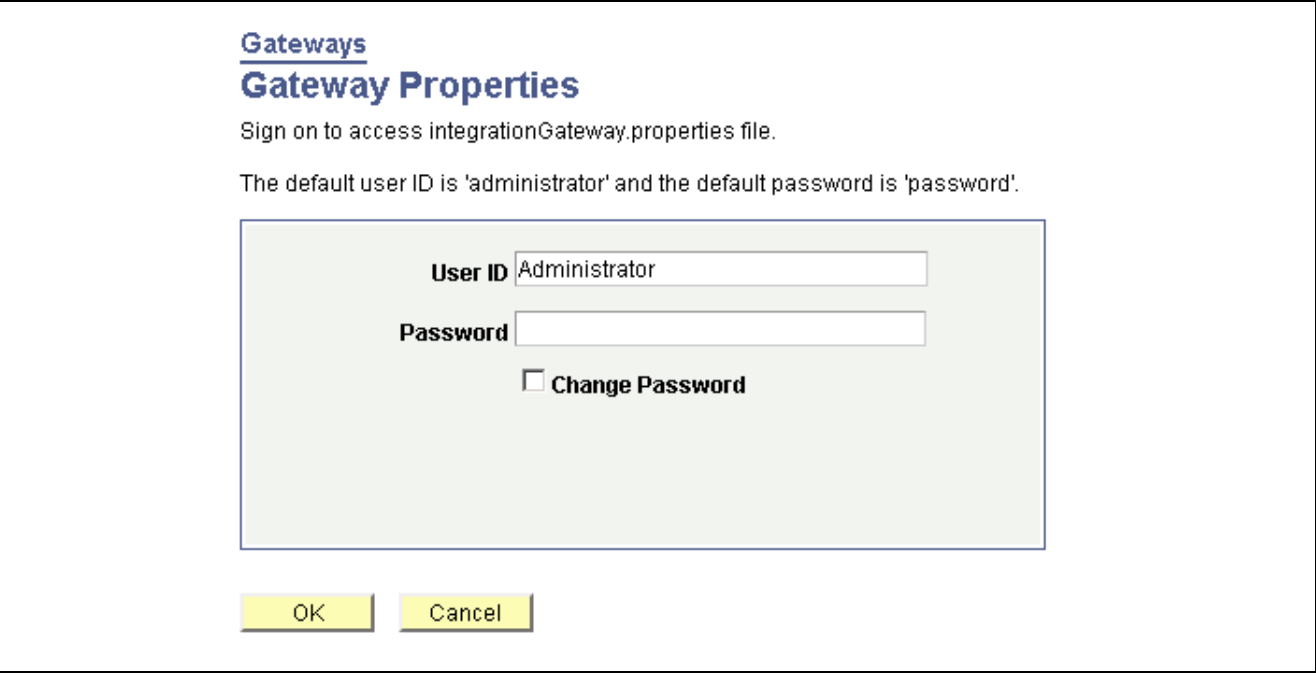
Select the link Advanced Gateway Setup.

8. On the Gateways page, select the link Gateway Setup Properties.

The Gateways Properties page appears.

9. Enter the Integration Gateway administrator user ID and password.

The default values are administrator and password.



Gateways
Gateway Properties

Sign on to access integrationGateway.properties file.

The default user ID is 'administrator' and the default password is 'password'.

User ID: Administrator

Password:

☐ Change Password

OK Cancel

Gateways Properties window

10. Add a new node in the PeopleSoft Node Configuration page and save.

PeopleSoft Node Configuration

URL:

Gateway Default App. Server

App Server URL	User ID	Password	Tools Release
http://PTOOLS-HOST1:8000	BOE_Admin		8.50-9

PeopleSoft Nodes Customize | Find | View All | | First 1 of 1 Last

Node Name	App Server URL	User ID	Password	Tools Release	
PSFT_HR	http://PTOOLS-HOST1:8000	BOE_Admin		8.50-9	Ping Node + -

[Advanced Properties Page](#)

PeopleSoft Node Configuration page

Enter the following values:

- Node Name: Enter the name of the active default node.

This example uses PSFT_HR as the default node.

See *Identifying the Local Default Node in Your System*.

- App Server URL: Enter the URL of the web server that is connected (through Jolt) to your PeopleSoft database's application server.
- User ID: Enter user *BOE_Admin* and its password.
- Password: Enter the password for user *BOE_Admin*; the default password is *BOE_Admin*.
- Tools Release: Provide the exact PeopleSoft PeopleTools release that your application server is using; for example, 8.50-9.

11. Save and exit.

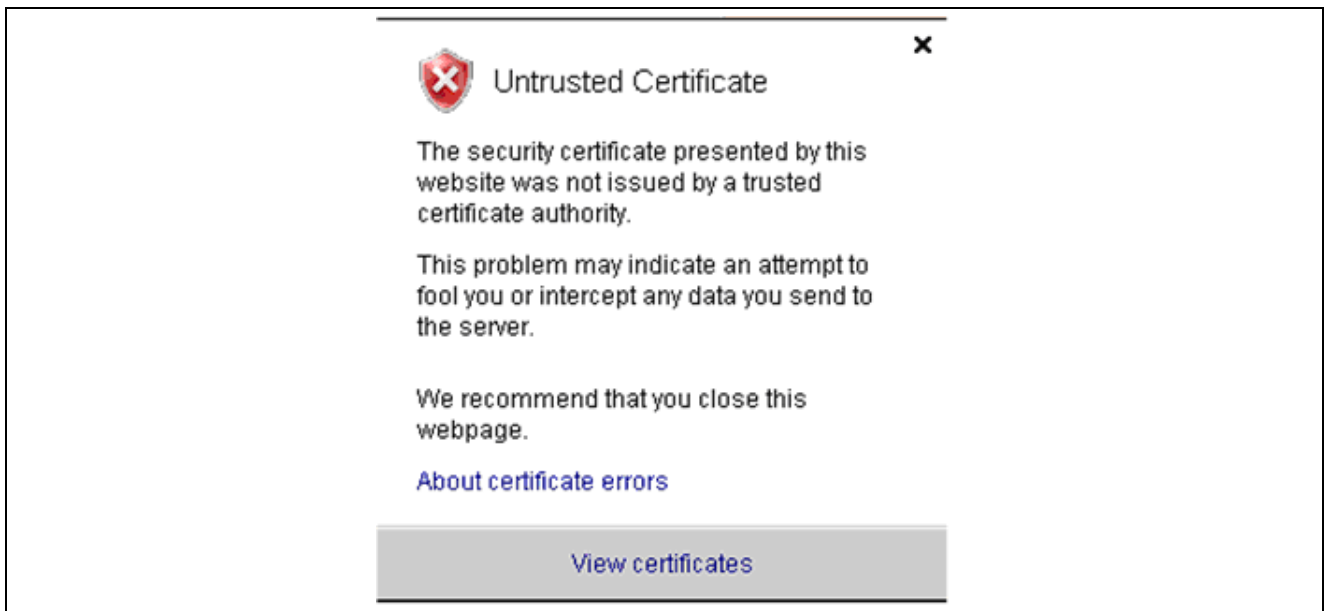
Task 12-4-16: Importing Security Certificate to the Oracle WebLogic Server

This section describes how to export the security certificate for PeopleSoft PeopleTools and import it for BusinessObjects Enterprise XI 3.1. Before carrying out this step you should have configured Secure Socket Layers (SSL) for the PeopleSoft web server.

See *Enterprise PeopleTools 8.50 PeopleBook: System and Server Administration*, "Working with Oracle WebLogic."

1. Sign in to the PeopleSoft application using the https port.
2. In the browser menu, select View, Security Report.

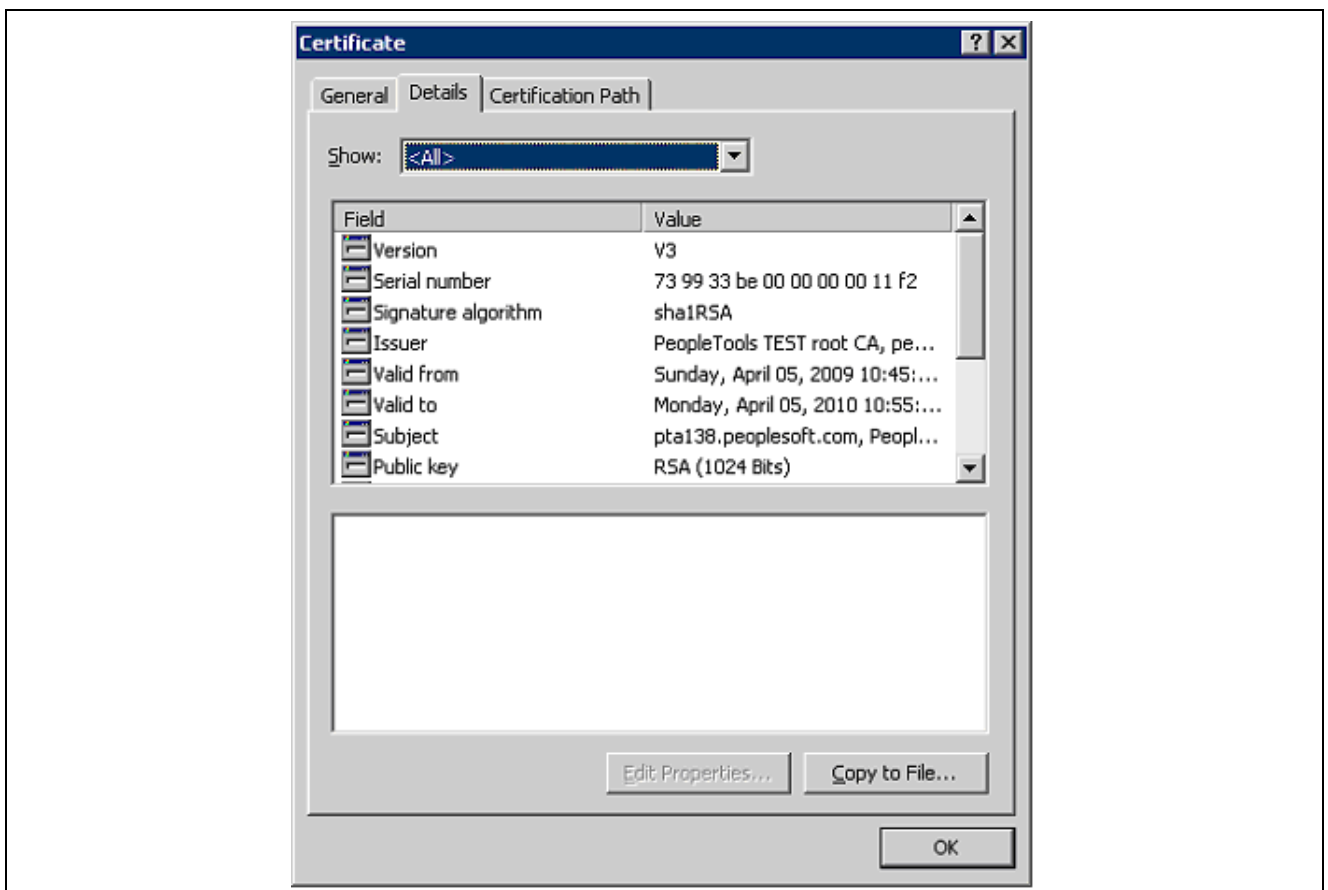
Note. Depending upon your browser version, you may need to use another command to view the certificates.



Untrusted Certificate message

3. Click the View certificates link.

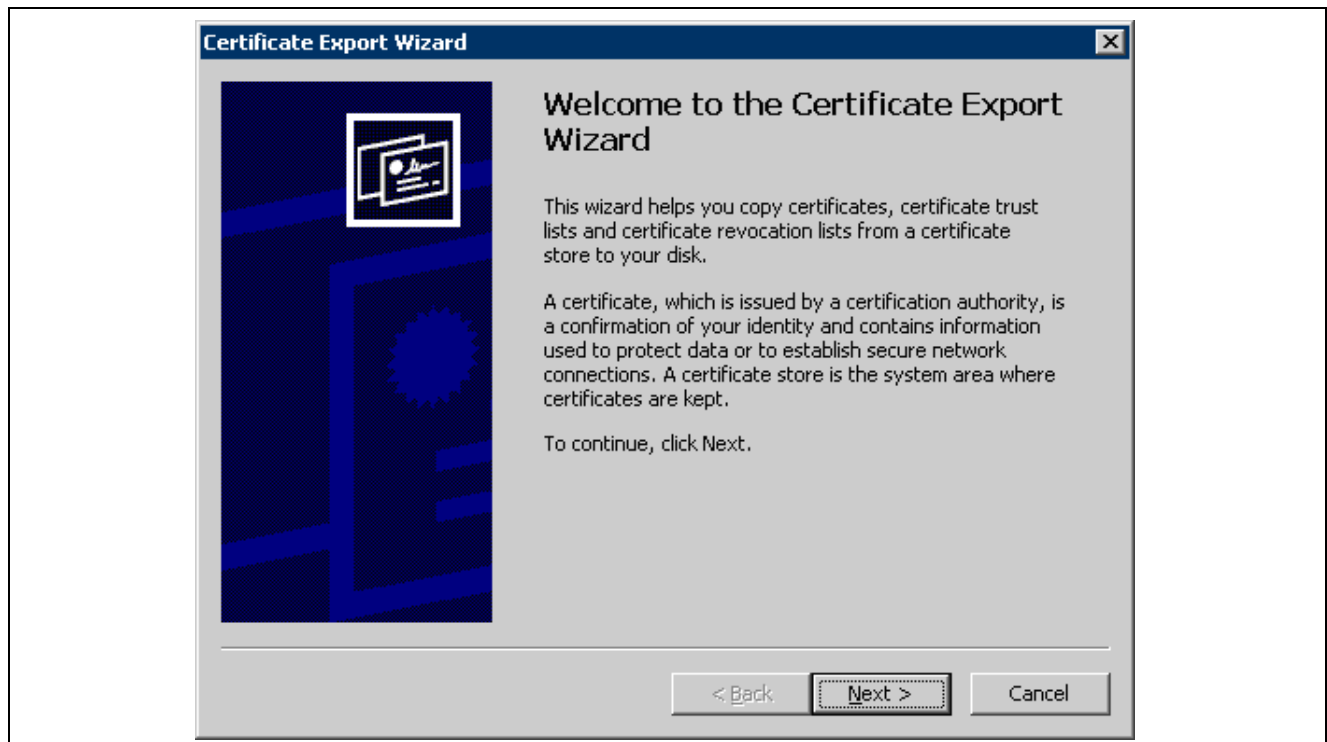
The Certificate dialog box appears.



Certificate dialog box

4. Click the Copy to File button.

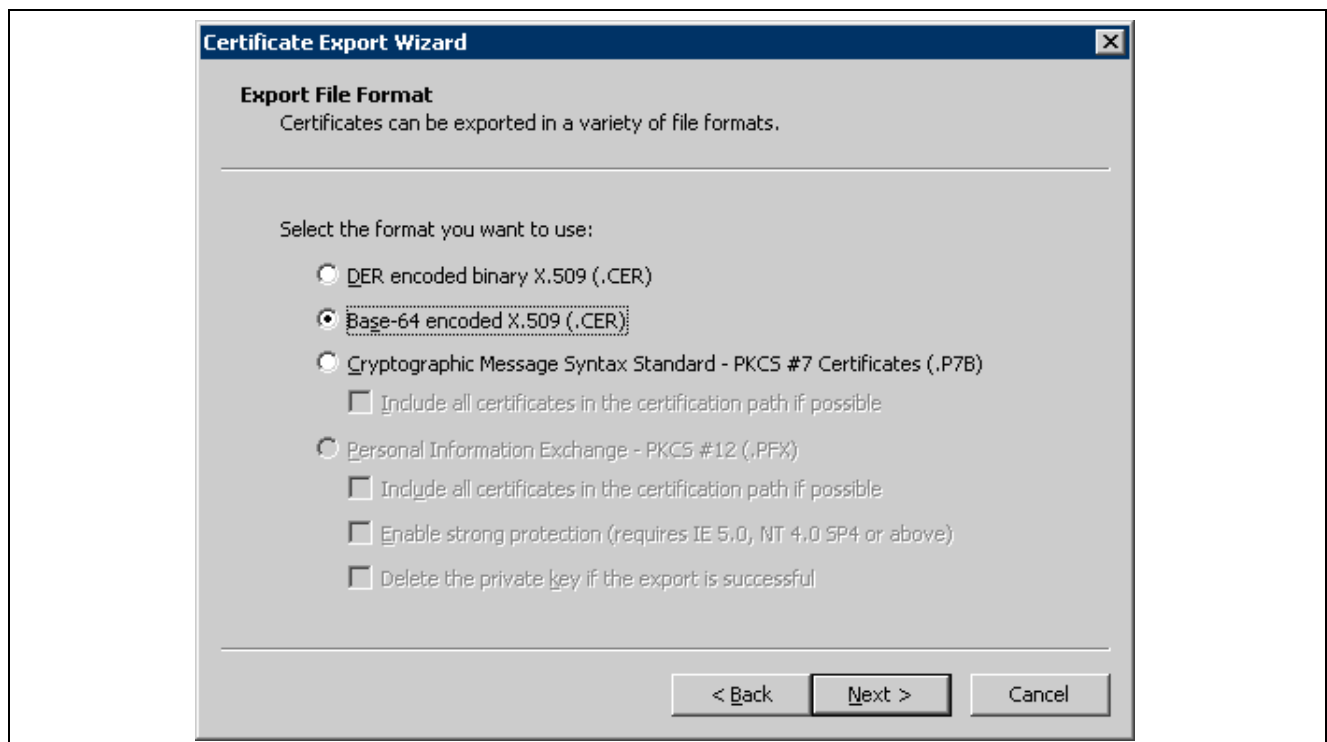
The Certificate Export Wizard dialog box appears.



Certificate Export Wizard dialog box

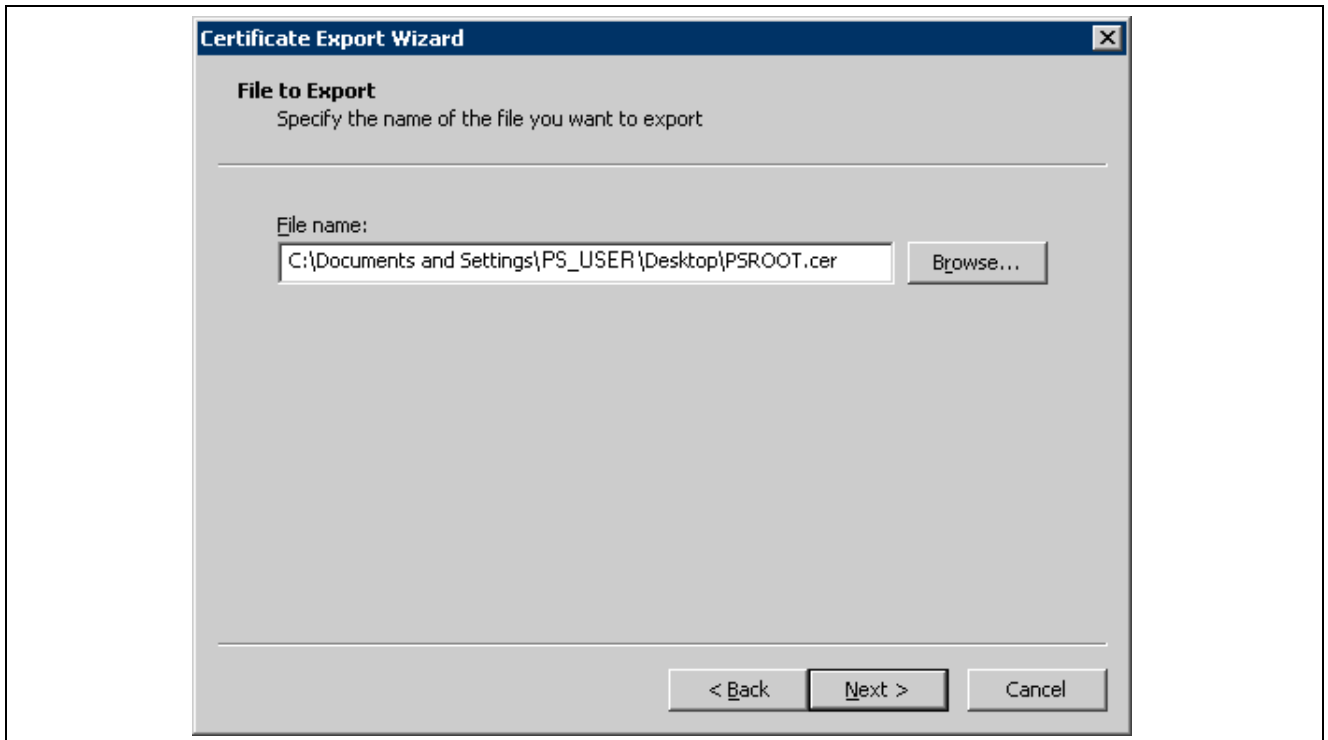
5. Click Next.

On the Export File Format page, select Base-64 encoded X.509 (.CER), and click Next.



Export File Format page

6. Enter the name you would like to provide for the certificate and the location to export it to.
Click Next.



File to Export page

7. Click Finish to export the certificate.
8. Copy the exported certificate to a directory, referred to here as *CERTIFICATE_DIR*, on the system where the you installed the web server for BOE.
9. Go to the `<WLS10_HOME>\jdk<version>\bin` where you installed WebLogic 10.1.

Use the following command to import the PeopleSoft certificate to WebLogic keystore:

```
keytool -import -file <certificate file> -keystore <keystore file> -alias =>
<alias>
```

- For `<certificate file>` enter the full path of the directory where you saved the exported certificate, *CERTIFICATE_DIR*.
- For `<keystore file>` enter `<WLS10_home>\jdk<version>\jre\lib\security\cacerts`
- For `<alias>` enter any name.

10. Enter the keystore password. (The default is *changeit*.)

Enter *y* to import the certificate.

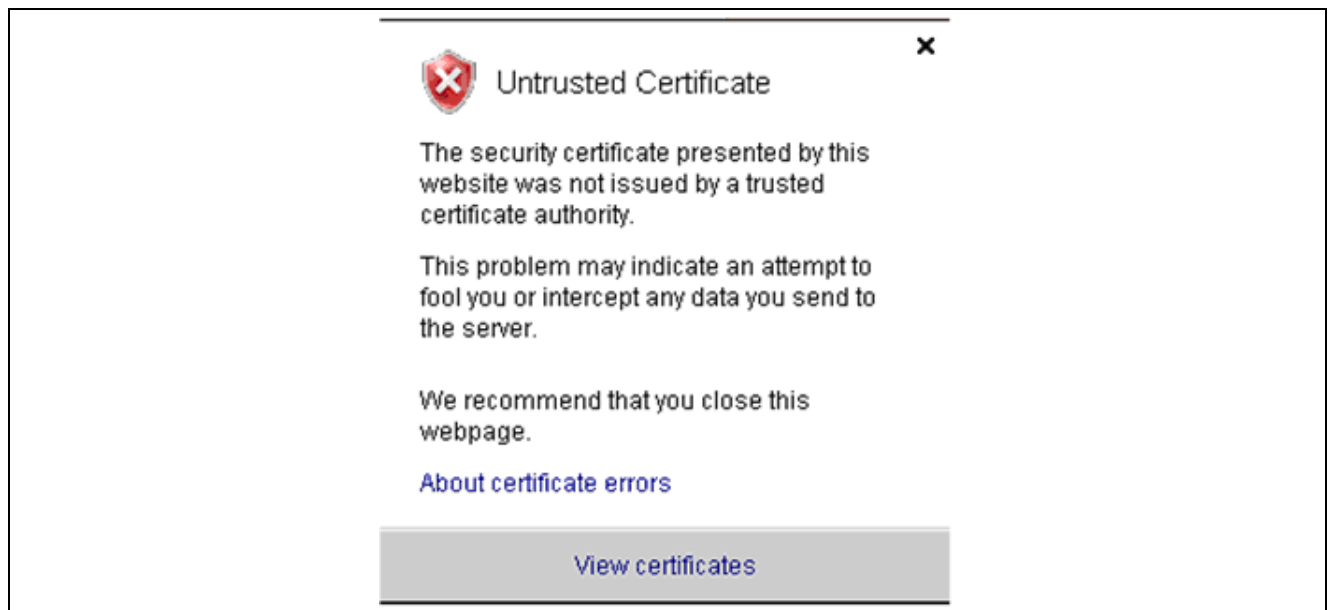
Task 12-4-17: Importing Security Certificate to the IBM WebSphere Server

This section describes how to export the security certificate for PeopleSoft PeopleTools and import it for BusinessObjects Enterprise XI 3.1. Before carrying out this step you should have configured Secure Socket Layers (SSL) for the PeopleSoft web server.

See *Enterprise PeopleTools 8.50 PeopleBook: System and Server Administration*, "Working with IBM WebSphere."

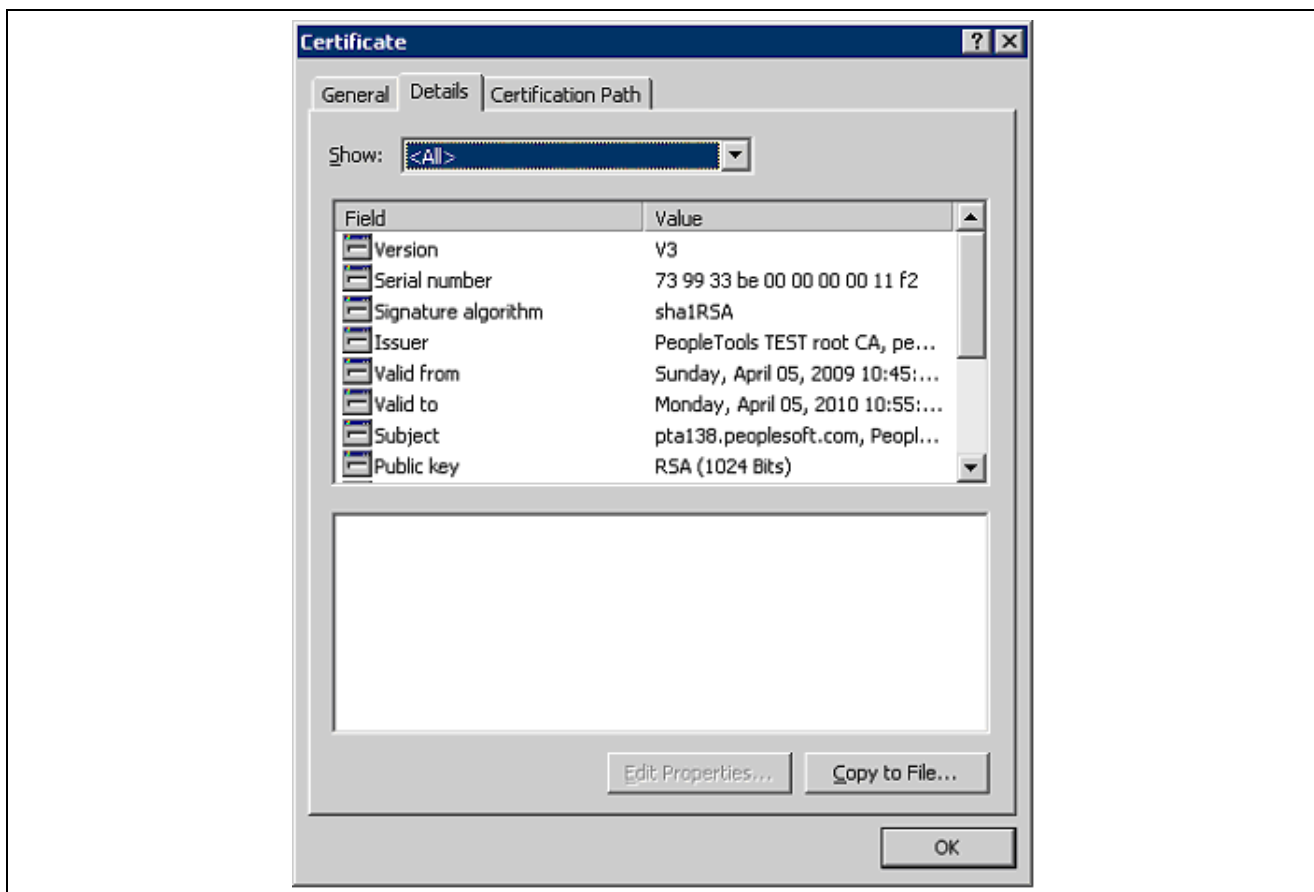
1. Sign in to the PeopleSoft application using the https port.
2. In the browser menu, select View, Security Report.

Note. Depending upon your browser version, you may need to use another command to view the certificates.



Untrusted Certificate message

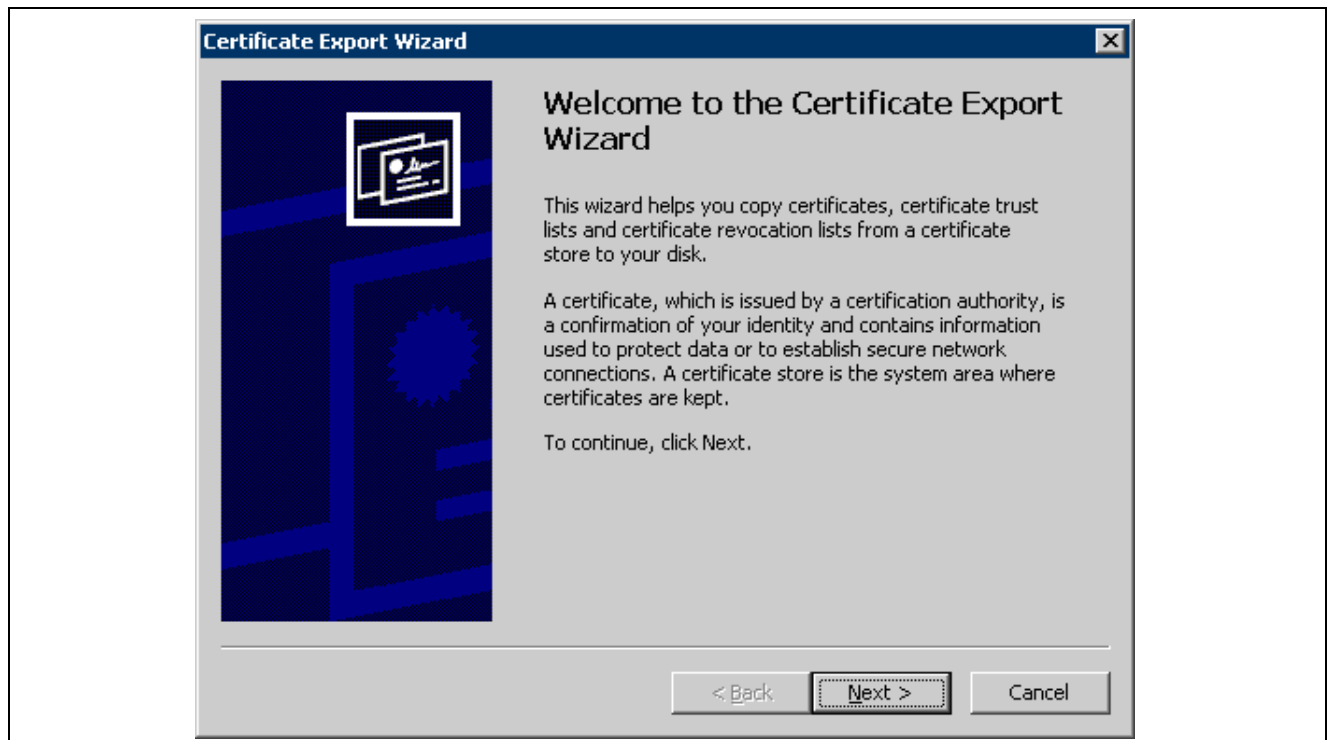
3. Click the View certificates link.
The Certificate dialog box appears.



Certificate dialog box

4. Click the Copy to File button.

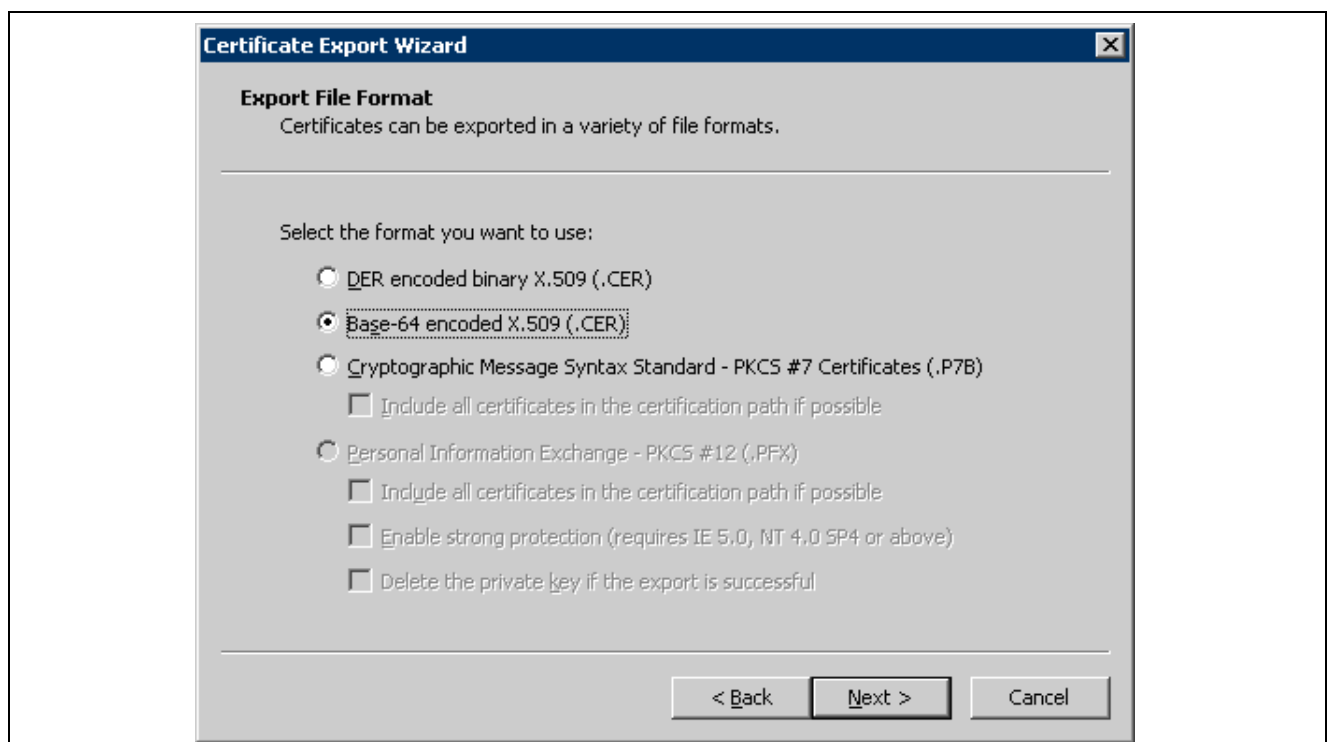
The Certificate Export Wizard dialog box appears.



Certificate Export Wizard dialog box

5. Click Next.

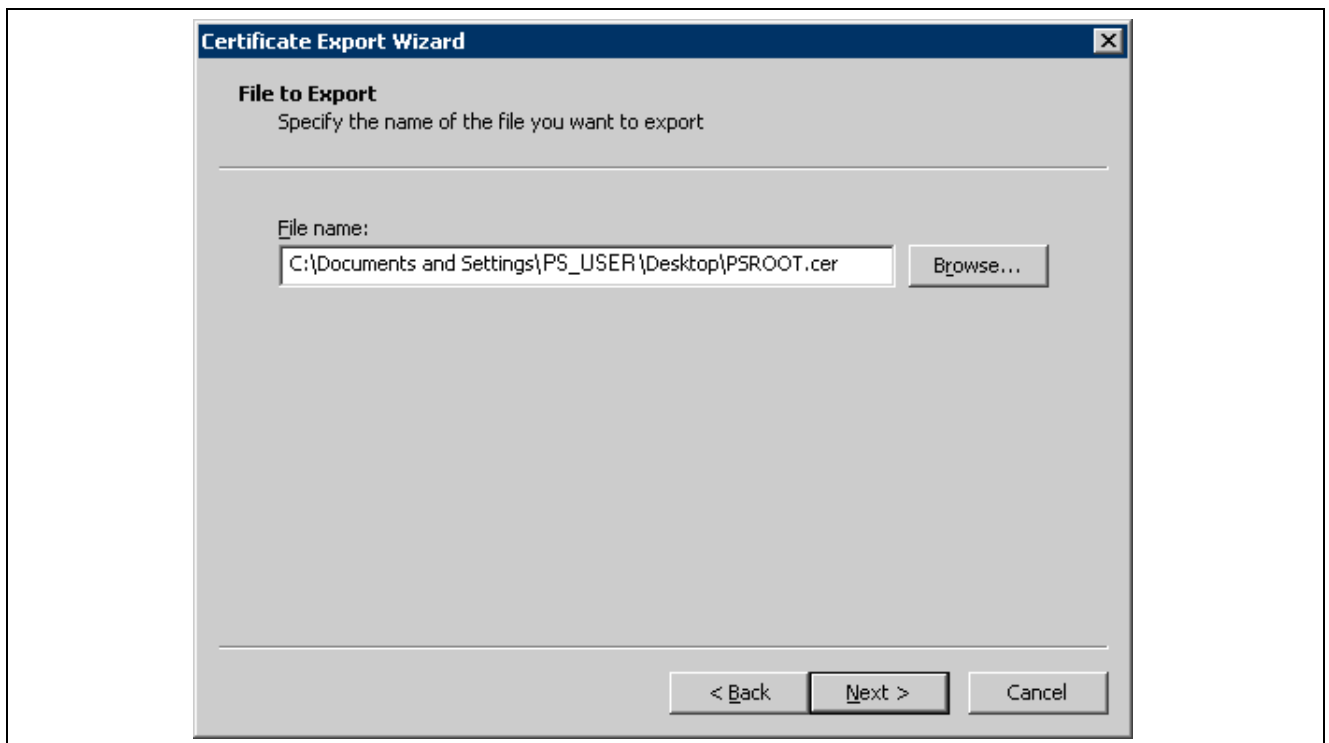
On the Export File Format page, select Base-64 encoded X.509 (.CER), and click Next.



Export File Format page

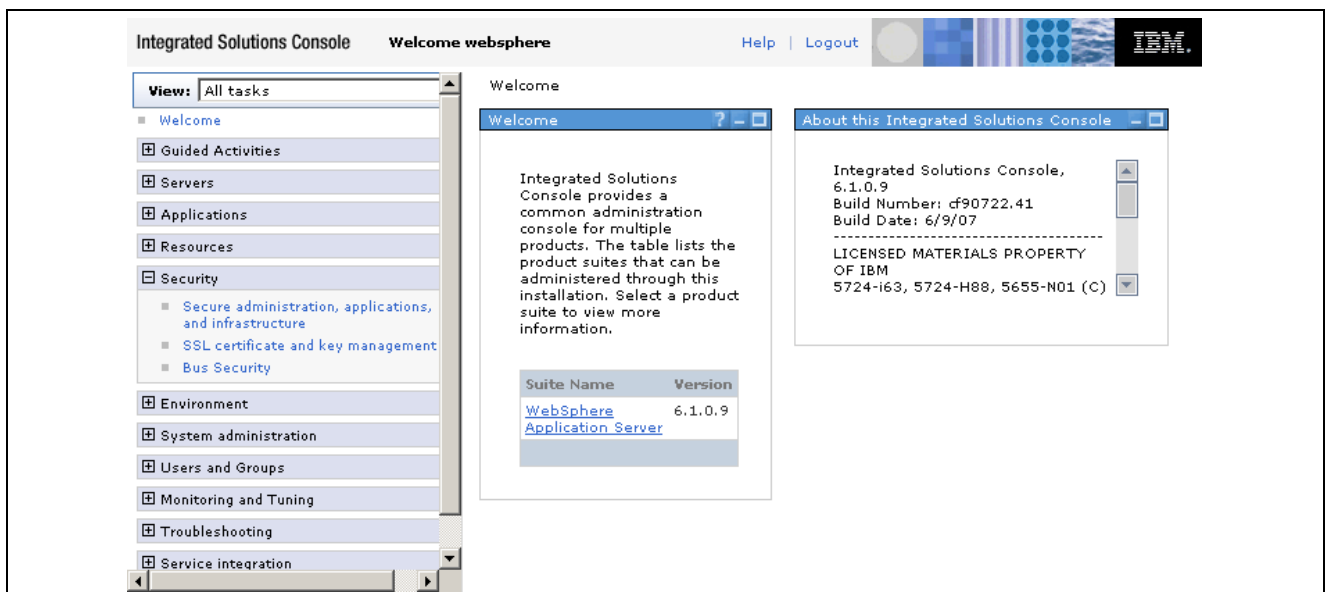
6. Enter the name you would like to provide for the certificate and the location to export it to.

Click Next.



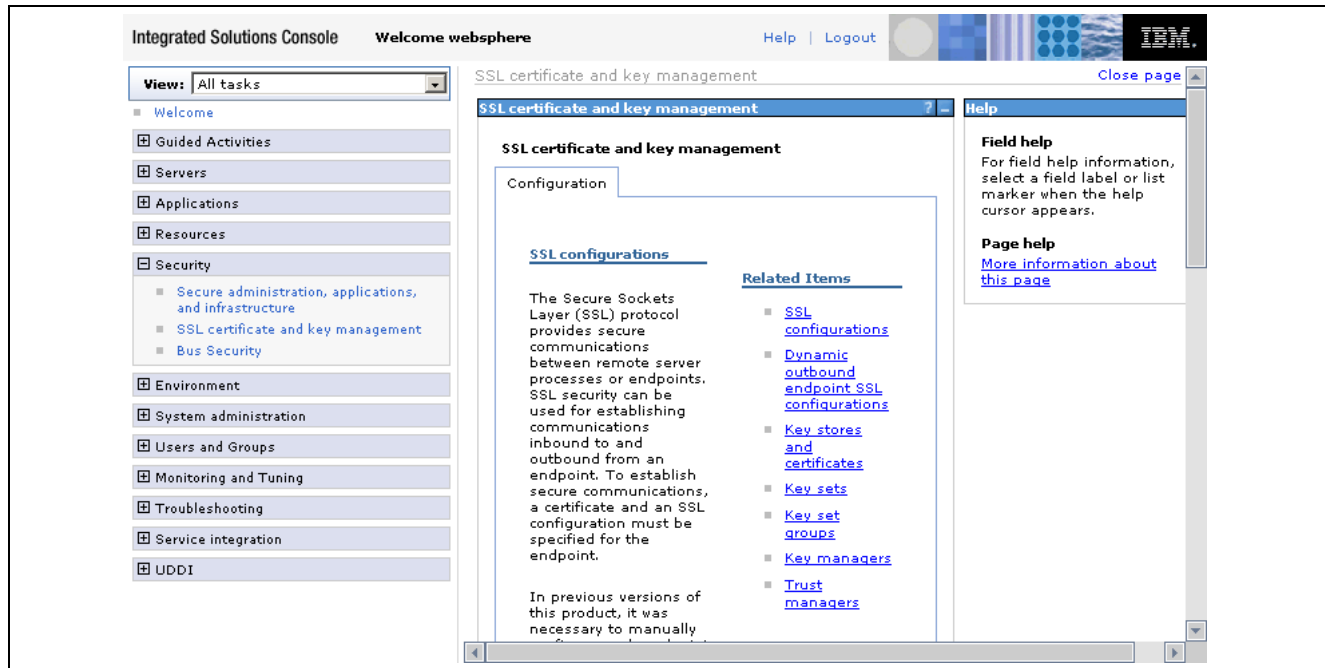
File to Export page

7. Click Finish to export the certificate.
8. Copy the exported certificate to a directory, referred to here as *CERTIFICATE_DIR*, on the system where you installed the web server for BOE.
9. Log on to IBM WebSphere Administrative Console.
10. Select Security, SSL certification and key management.



IBM WebSphere Integrated Solution Console welcome page

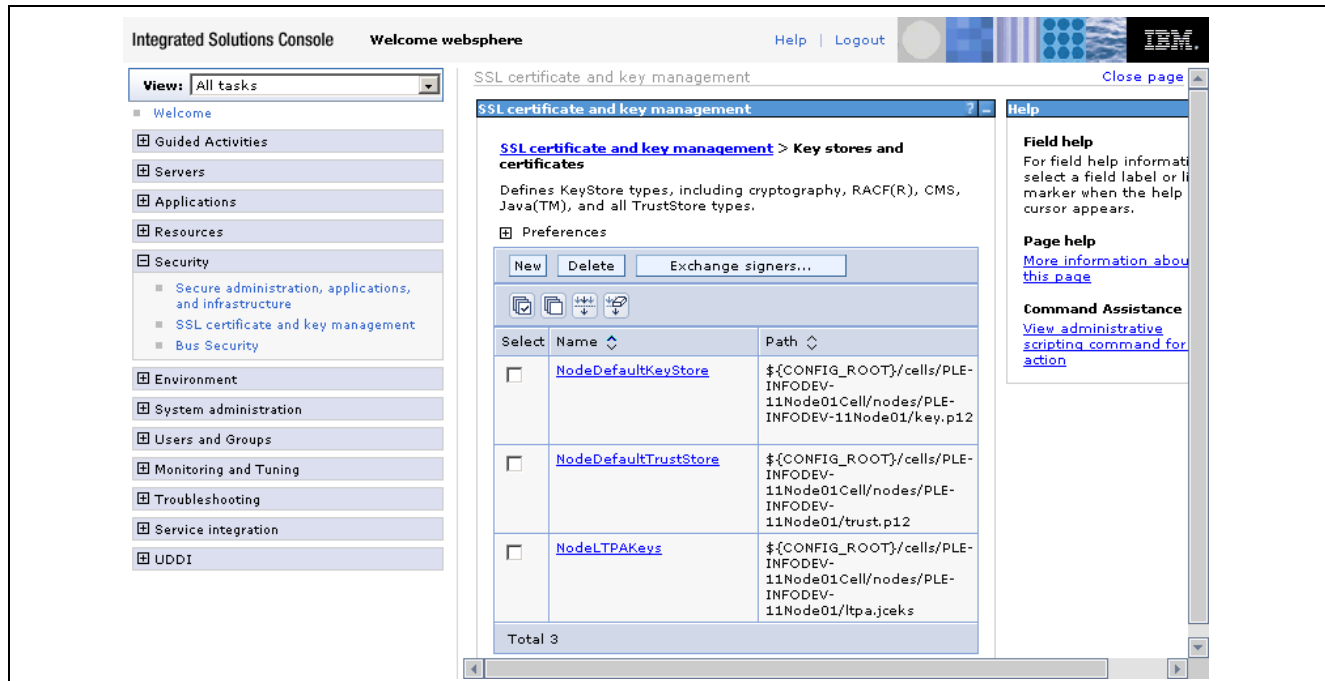
11. Select Key stores and certificates in the Related Items area.



SSL certificate and key management page

12. Select the link for NodeDefaultTrustStore.

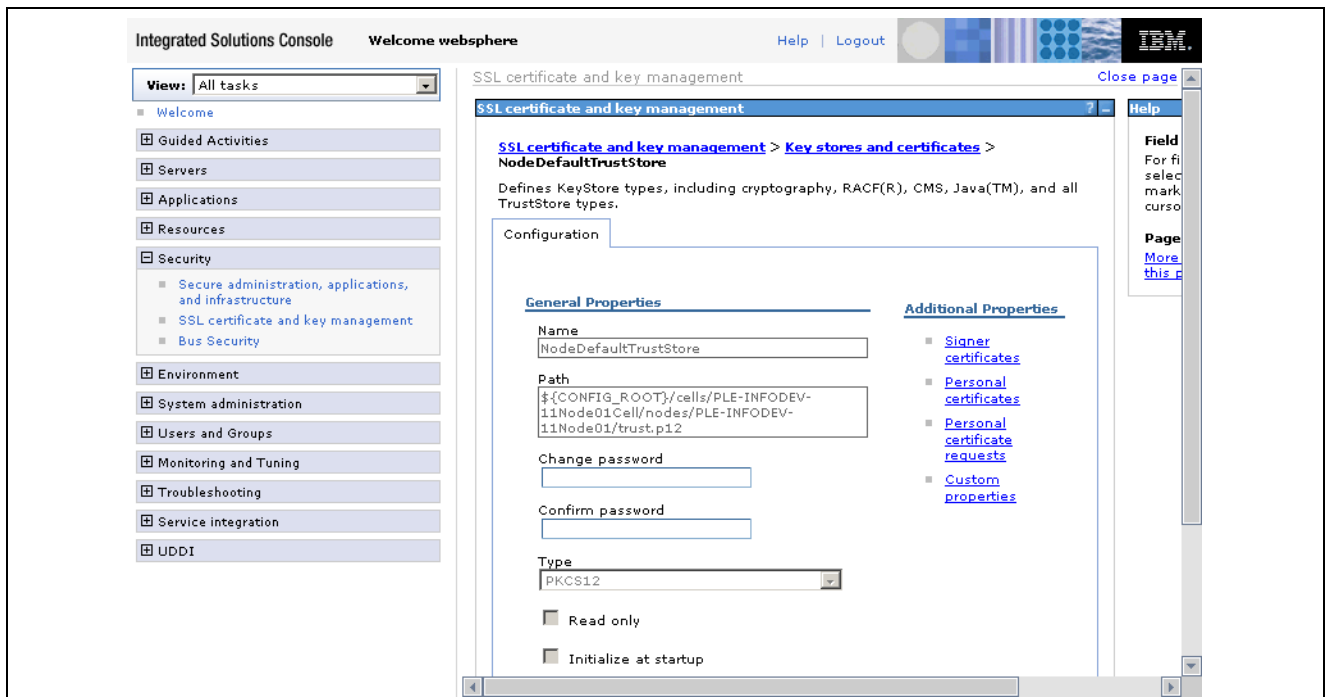
The trust store filename can be found on the Key stores and certificates page.



Key stores and certificates page

13. On the NodeDefaultTrustStore page, make a note of the path for this trust store file and the trust store type, which is PKCS12 in this example.

The variable `${CONFIG_ROOT}` refers to the installation directory for IBM WebSphere, referred to here as `WAS_HOME`. Note that on the NodeDefaultTrustStore page you can change the trust store password.



NodeDefaultTrustStore page

14. Run the following command to launch the IBM WebSphere ikeyman utility to import the certificate:

On Microsoft Windows:

```
WAS_HOME\AppServer\bin\ikeyman.bat
```

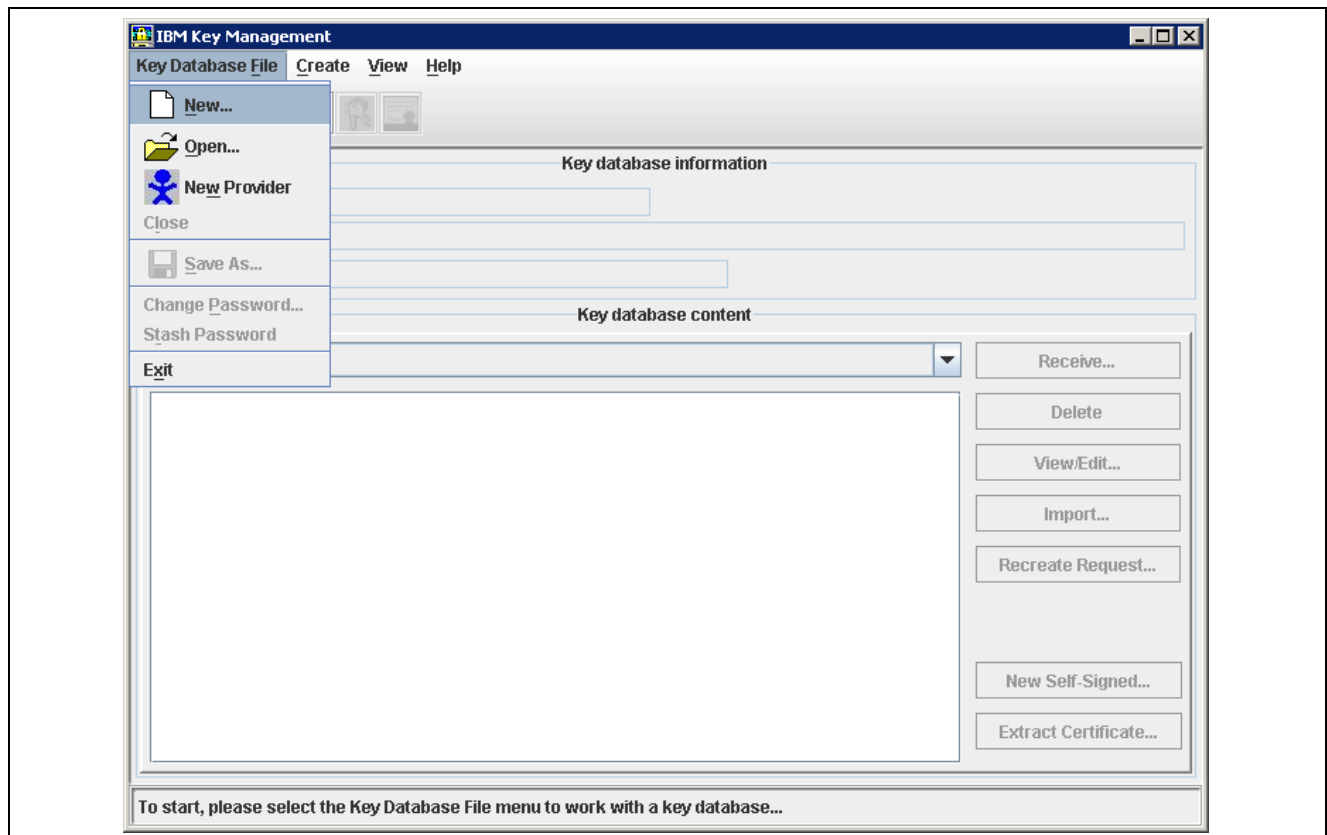
On UNIX or Linux

Note. Use Windows X reflection tool to invoke ikeyman in GUI mode

```
WAS_HOME/AppServer/bin/ikeyman.sh
```

Note. You can also use Java keytool, as described in the previous section.

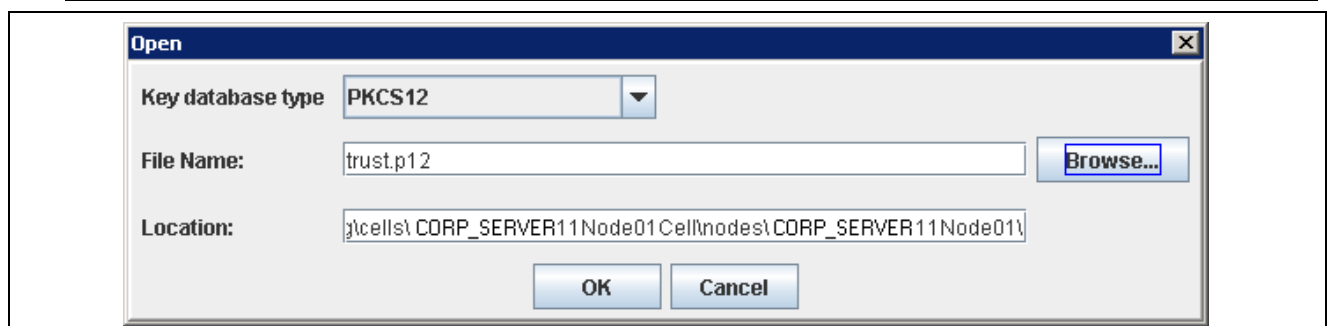
15. Select Key Database File, Open.



IBM Key Management dialog box

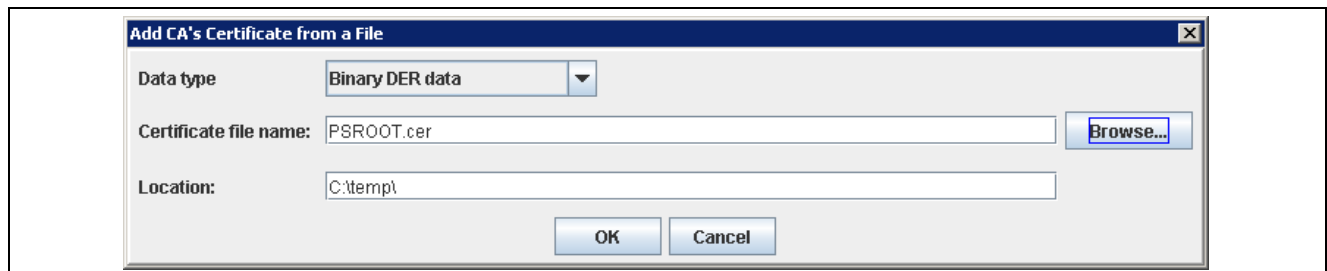
16. Browse to the trust.p12 file.

Note. The file is found in the path listed on the NodeDefaultTrustStore page in a previous step.



Selecting the trust file

17. Click the Add button, and browse to find the PeopleSoft certificate you saved in *CERTIFICATE_DIR*.



Selecting the PeopleSoft certificate

18. Save the trust store file.
19. Restart IBM WebSphere.

Task 12-4-18: Configuring the BusinessObjects Enterprise XI 3.1 Server

This section discusses:

- Entering License Keys for BusinessObjects Enterprise XI 3.1 Server
- Entering the PeopleSoft Authentication Information into the BusinessObjects Enterprise XI 3.1 Server

Entering License Keys for BusinessObjects Enterprise XI 3.1 Server

To enter the license keys for BusinessObjects Enterprise XI 3.1:

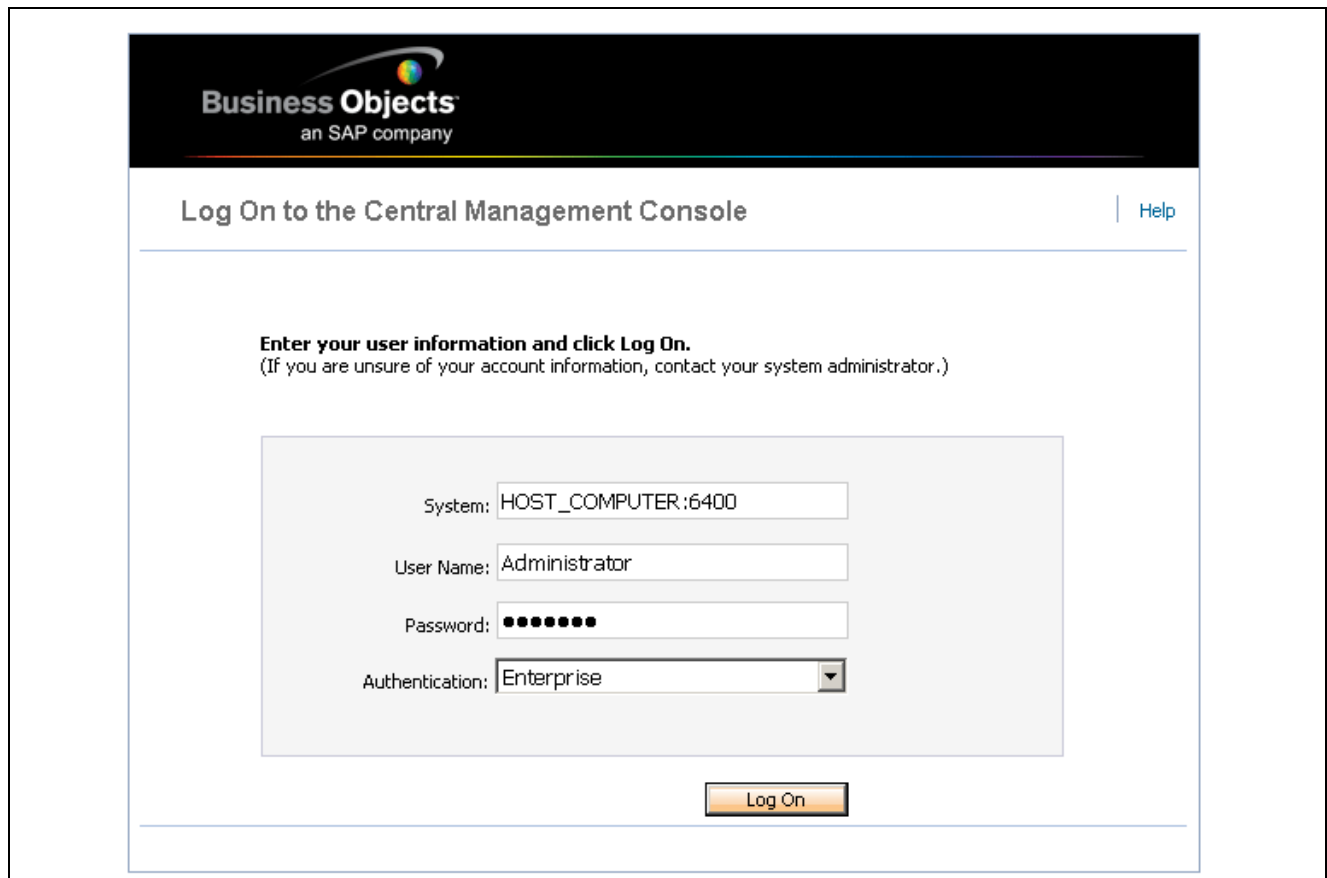
See Using BusinessObjects Enterprise XI 3.1 License Keys.

1. In a browser, enter the following URL, substituting the name of your BusinessObjects Enterprise XI 3.1 server for <machine_name>, and the BusinessObjects Enterprise XI 3.1 port number for <BOE_port>:
`http://<machine_name>:<BOE_port>/CmcApp.`

Note. You can also click the Webserver Ping button on the BOE administrator page to open the Central Manager Console.

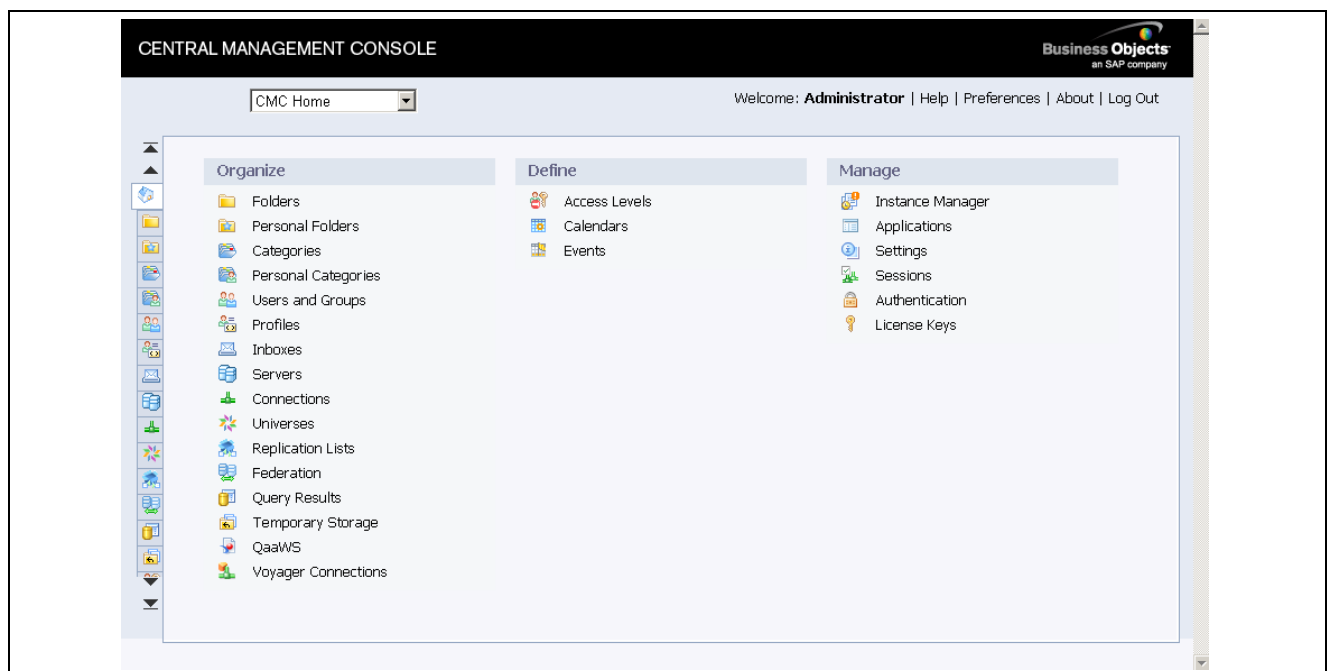
2. Log in using Administrator as the User name and the associated password:

Note. This is the password you assigned to the Administrator account on the Server Components Configuration window when installing BusinessObjects Enterprise XI 3.1.



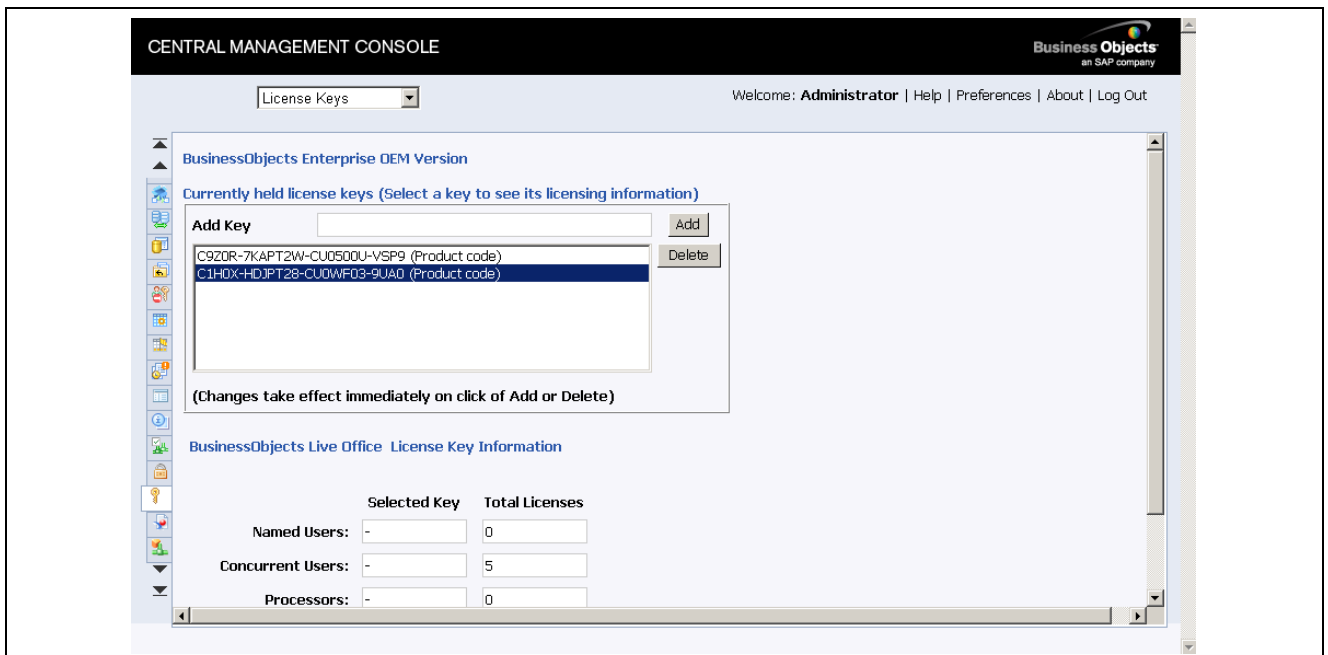
BusinessObjects Enterprise log in window

3. Select License Keys.



Central Management Console home page

4. Enter your license key in the Add Key box and click Add.



Central Management Console License Keys page

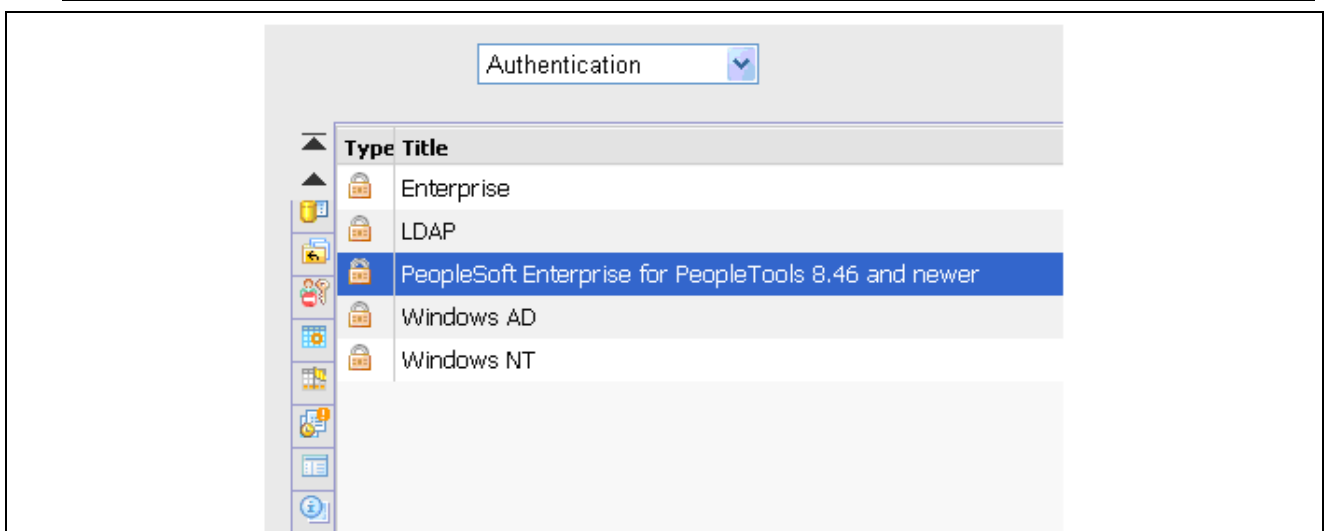
Entering the PeopleSoft Authentication Information into the BusinessObjects Enterprise XI 3.1 Server

This procedure assumes you logged into the BusinessObjects Enterprise XI 3.1 Central Management Console in the previous step.

To enter PeopleSoft authentication information in BusinessObjects Enterprise XI 3.1:

1. On the CMC home page, click the Authentication button.
2. Double-click the PeopleSoft Enterprise link.

Note. If this link is not present, it means the PeopleSoft Integration Kit has not been installed.



BusinessObjects Enterprise XI 3.1 Authentication page

3. Select the Domain tab.

The PeopleSoft Enterprise page appears.

The screenshot shows the 'PeopleSoft Enterprise' configuration window within the 'CENTRAL MANAGEMENT CONSOLE'. The 'Options' tab is selected. Under 'PeopleSoft Enterprise System User', the 'User Name' is 'BOE_Admin' and the 'Password' is masked. Under 'PeopleSoft Enterprise Domains', the 'Domain Name' is 'BOEXI' and the 'QAS Address' is 'com:8000/PSIGW/PeopleSoftServiceListeningConnector'. There is an 'Add' button next to the QAS Address field and a 'Remove' button. A 'Current Domains' list is empty. At the bottom, there are 'Update' and 'Reset' buttons.

PeopleSoft Enterprise System User page

Enter the following information:

- In the PeopleSoft Enterprise System User field, enter *BOE_Admin* as the user, and enter the password that you assigned to the BOE_Admin user in the BOE Integration Administration page.

See Adding PeopleSoft Users and Roles.

- In the Domain Name field, enter the domain name which you entered in the BOE Integration Administration page.

See Adding PeopleSoft Users and Roles.

- In the QAS Address field, enter the Target Location that you entered on the Service Configuration page when configuring Integration Broker.

See Updating the PeopleSoft Integration Broker Gateway.

- In the Default Domain field, you can enter any domain configured in the PeopleSoft Enterprise Domains field, Current Domains section.

4. Click the Add button to add the domain to the list.
5. Click Update.
6. Select the Options tab.



The screenshot shows a configuration window titled "PeopleSoft Enterprise". At the top, there are three tabs: "Options", "Domains", and "Roles". The "Options" tab is currently selected. Below the tabs, the window is divided into several sections:

- PeopleSoft Enterprise Authentication**
 - ☒ Enable PeopleSoft Enterprise Authentication
- New Alias Options**
 - ☒ Assign each added alias to an account with the same name
 - ☐ Create a new account for every added alias
- Update Options**
 - ☒ New aliases will be added and new users will be created
 - ☐ No new aliases will be added and new users will not be created
- New User Options**
 - ☒ New users are created as named users
 - ☐ New users are created as concurrent users

Options tab

Select the following options:

- Verify that the option Enable PeopleSoft Enterprise Authentication is selected.
- New Alias Options

Select Choice 1: Assign each added PeopleSoft Enterprise alias to an account with the same name

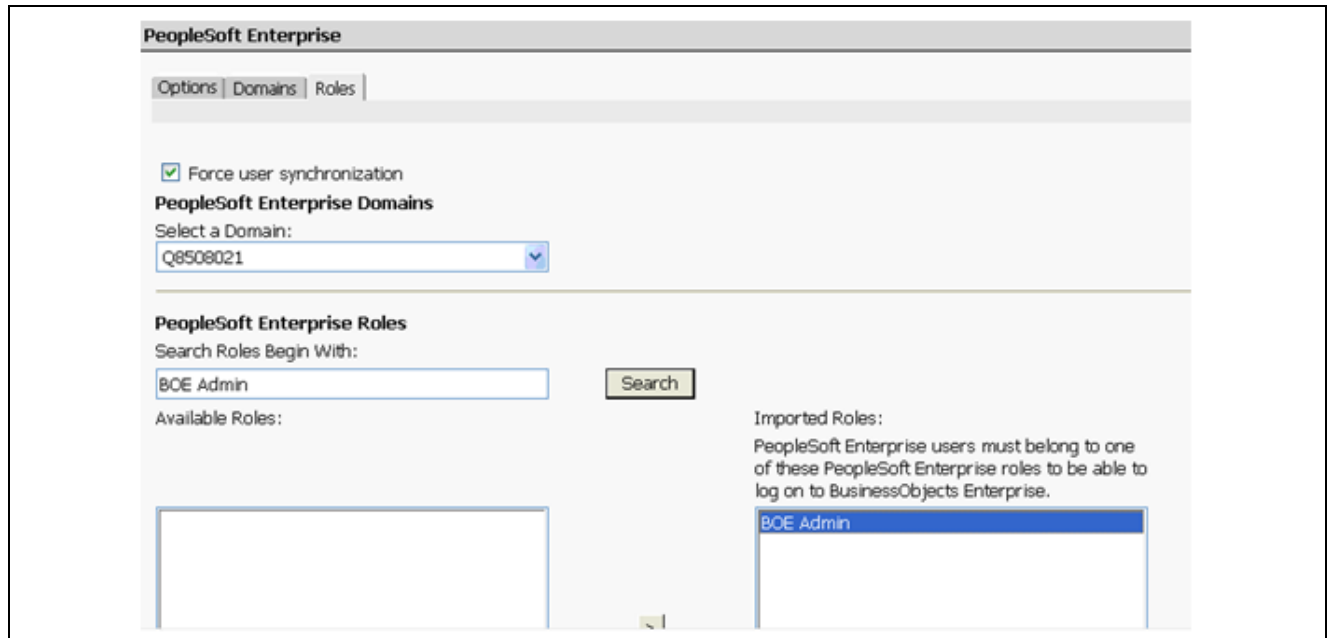
- Update Options

Select Choice 1: New aliases will be added and new users will be created

- New User Options

Select Choice 1: New users are created as *named* users

7. Select the Roles tab.



Roles tab

- a. Under PeopleSoft Enterprise Domains, select each domain configured.
- b. Under PeopleSoft Enterprise Roles, search for role BOE Admin.
- c. Click the Add button to add each role to the selected domain.
- d. Click the Update button.

Note. Clicking the Update button should result in a new Authentication Type of PeopleSoft Enterprise as shown in the Authentication Type drop-down list when you log in to the Central Management Console. Also, User Ids from the PeopleSoft database with the given roles will automatically be added into BusinessObjects Enterprise XI 3.1.

8. Select the Options tab, and select the following options:
 - Verify that the option Enable PeopleSoft Enterprise Authentication is selected.
 - New Alias Options
 - Select Choice 1: Assign each added PeopleSoft Enterprise alias to an account with the same name
 - Update Options
 - Select Choice 1: New aliases will be added and new users will be created
 - New User Options
 - Select Choice 2: New users are created as *concurrent* users
9. Select the Roles tab.
 - a. Under PeopleSoft Enterprise Domains, select each domain configured.
 - b. Under PeopleSoft Enterprise Roles, search for role BOE Viewing.
 - c. Click the Add button to add each role to the selected domain.
 - d. Click the Update button.

Note. Clicking the Update button should result in a new Authentication Type of PeopleSoft Enterprise as shown in the Authentication Type drop-down list when you log in to the Central Management Console. Also, User Ids from the PeopleSoft database with the given roles will automatically be added into BusinessObjects Enterprise XI 3.1.

10. Click the log-off button on the right top and re-log in again with user BOE_Admin and PeopleSoft Enterprise as Authentication Type.

Verifying configuration on log in dialog box

You have completed the installation and configuration.

Task 12-4-19: Configuring Crystal Reports 2008 for BusinessObjects Enterprise XI 3.1

The prerequisites for this configuration are:

- Crystal Reports 2008 must be installed.
See Installing Crystal Reports 2008.
- BusinessObjects XI integration kit for PeopleSoft must be installed.
See Installing Business Objects Integration Kit for PeopleSoft for Windows.
See Installing Business Objects Integration Kit for PeopleSoft on UNIX or Linux.

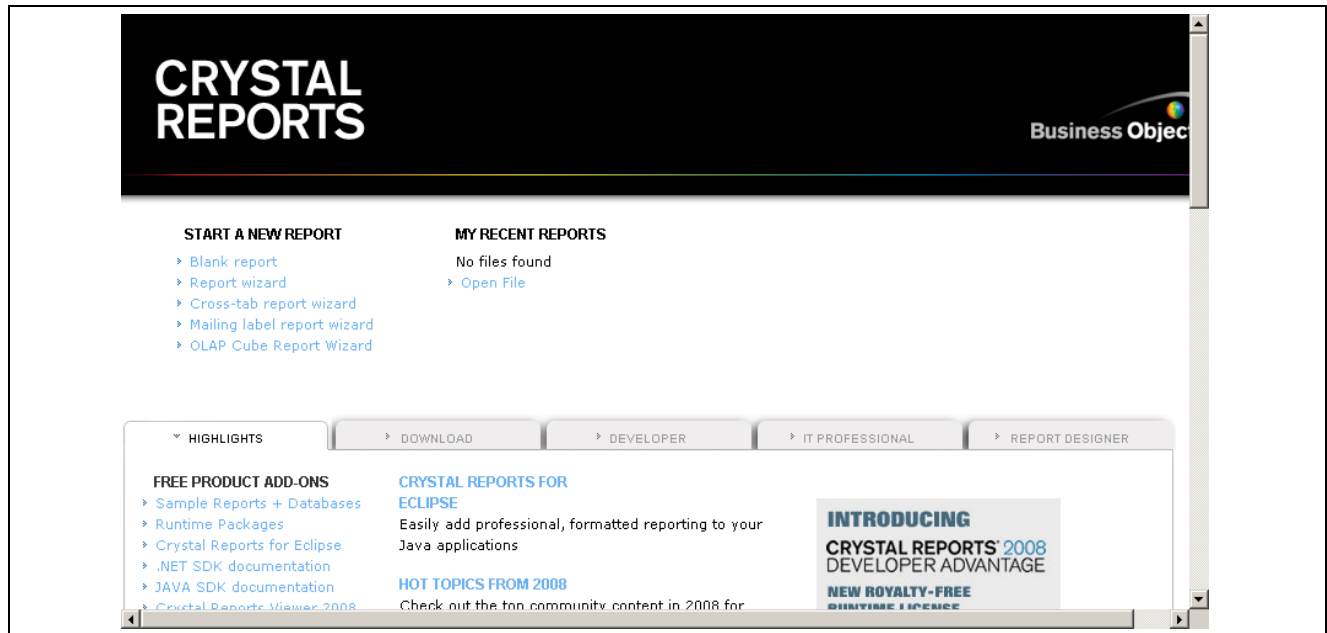
- Integration Broker and QAS must be configured.

See Configuring the PeopleSoft Application for BusinessObjects Enterprise XI 3.1 Integration.

To configure Crystal Reports 2008:

1. Select Start, Programs, Crystal Reports 2008, Crystal Reports 2008.

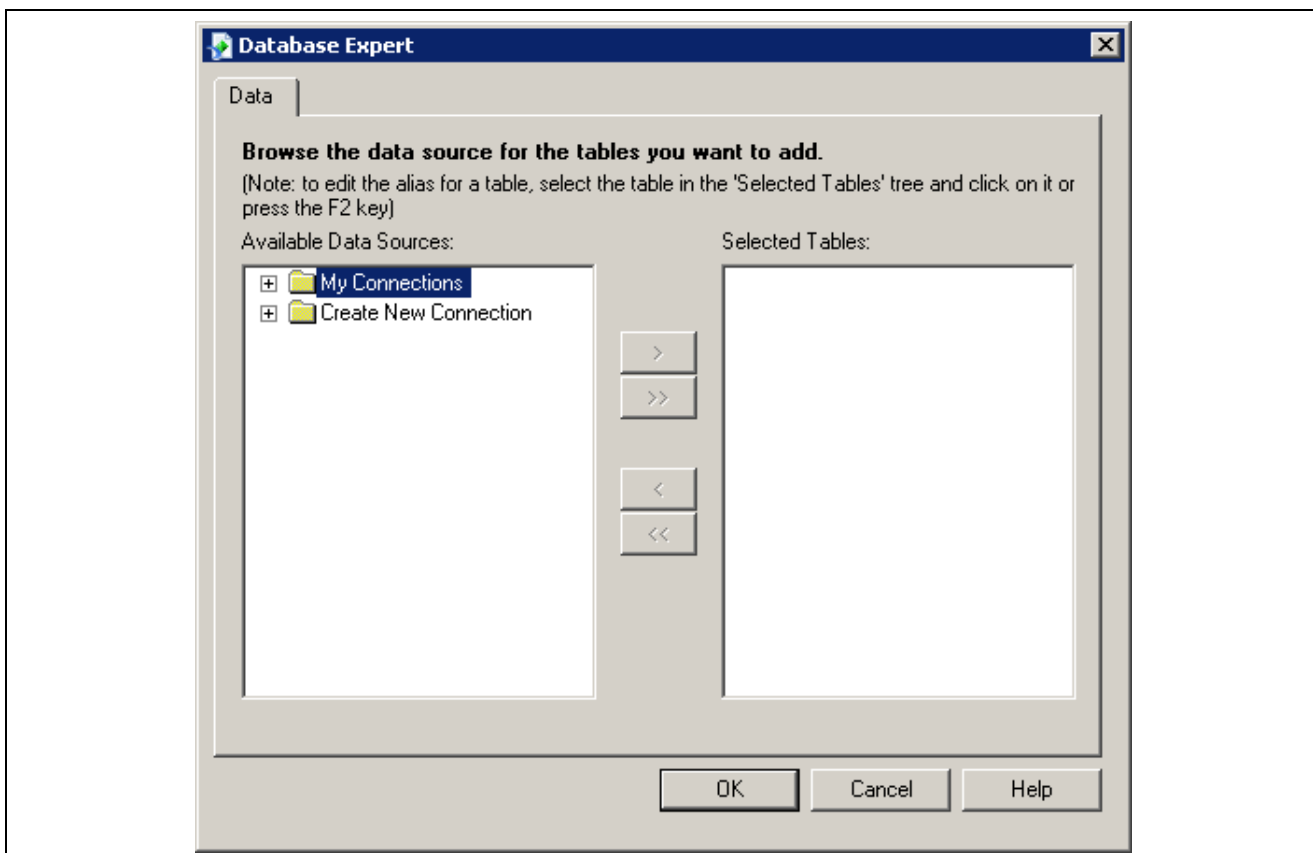
Crystal Reports 2008 opens in a browser.



Crystal Reports home page

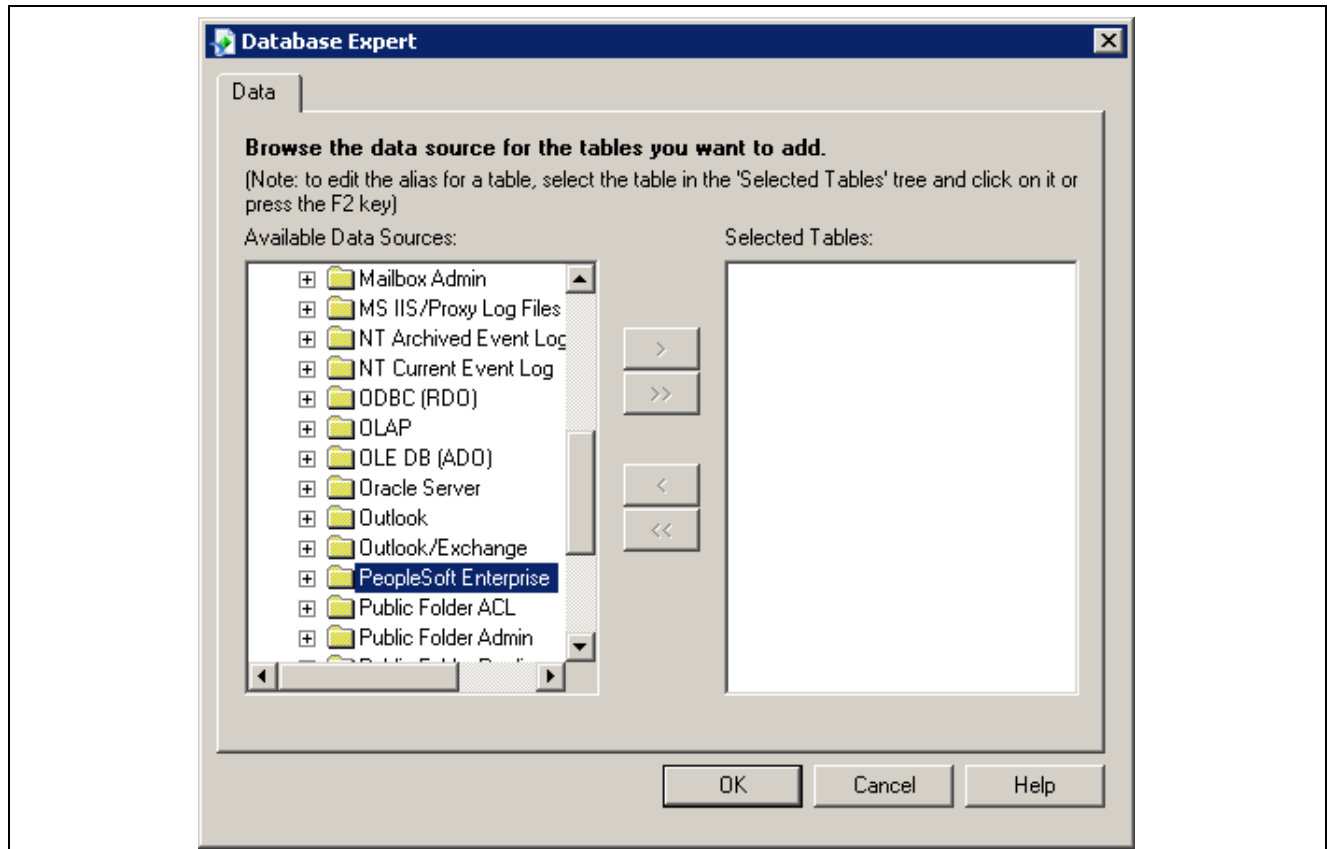
2. Select the Blank report link.

The Database Expert appears.



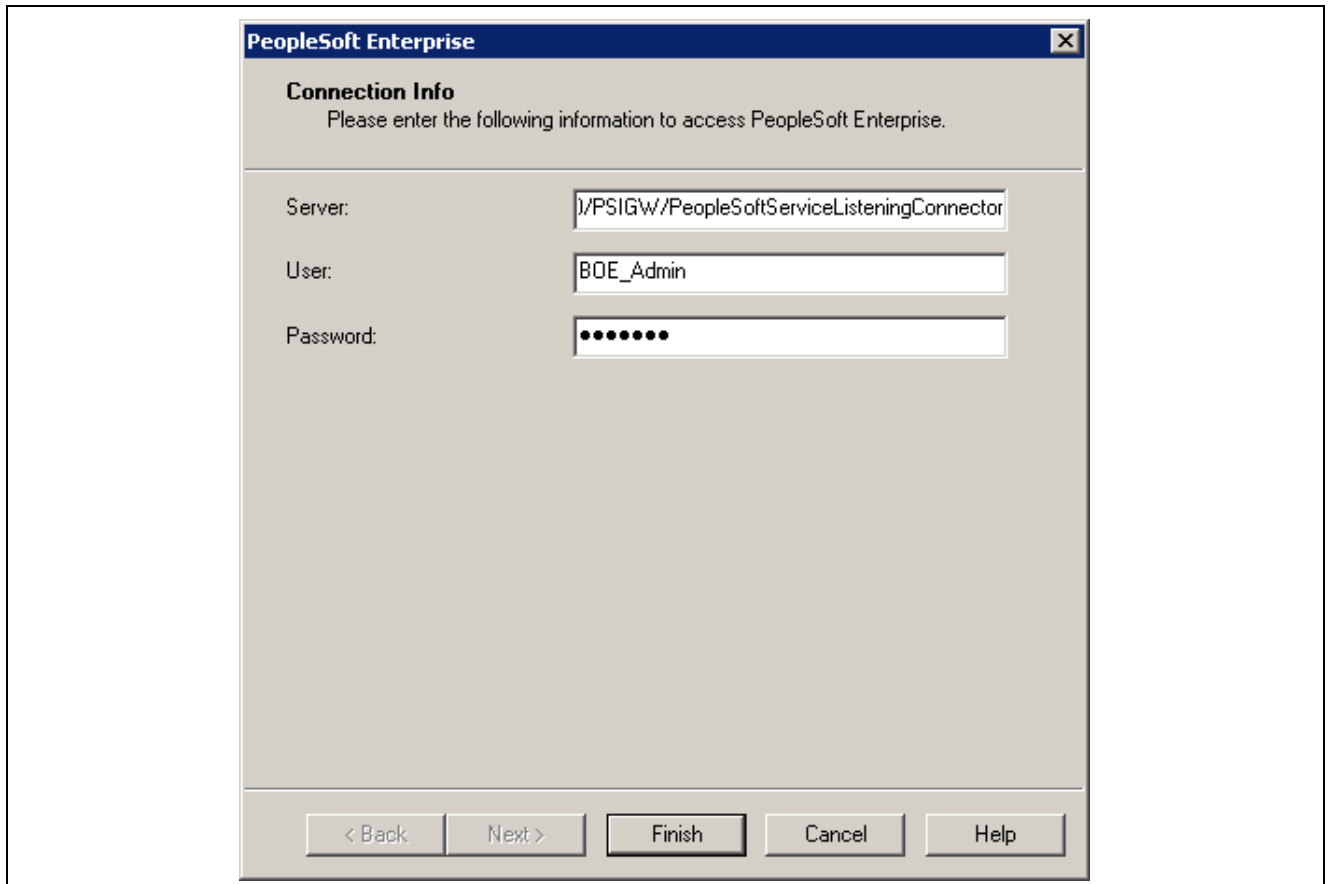
Database Expert dialog box

3. Expand Create New Connection and then expand PeopleSoft Enterprise.
The Connection Info dialog box appears.



Selecting PeopleSoft Enterprise on the Database Expert

4. Enter the QAS endpoint URL for the Server and provide the User and Password.



Connection Info dialog box

5. Click Finish.

Task 12-4-20: Verifying the PeopleSoft to BusinessObjects Enterprise XI 3.1 Integration

Use these tests to ensure that the various features of BusinessObjects Enterprise XI 3.1 are functional:

Note. Prior to running your verification tests, you need to convert your Crystal Reports from Crystal 2008 format to Crystal XI format. See *Converting Crystal Reports* for details.

1. Schedule and run a Crystal Report.
 - a. Log in to the PeopleSoft application as a user who has the authority to run report XRFWIN.
 - b. Select PeopleTools, Process Scheduler, System Process Request.
 - c. Select the Add New Value tab.
 - d. Enter a new run control ID of BOETEST, and click the Add button.
Click the Run button in the Process Request dialog box.
 - e. Select an active process scheduler server.
 - f. Select the check box next to the crystal report XRFWIN.
 - g. Select *Web* for the type and *CR RPT* for the format.

- h. Click OK to run the report. It should generate a process instance id.
2. View Report output in InfoViewer.
 - a. Using the Process Instance ID, ensure the process runs to completion in process monitor.
 - b. Select Reporting Tools, Report Manager, and select the Administration tab.
 - c. Search for the report using the process instance id generated in the previous step.
 - d. Click the Details link next to the report, then the .RPT link to view the report in the BusinessObjects Enterprise XI 3.1 report viewer.

Task 12-5: Migrating your BusinessObjects Enterprise XI 3.1 Installation to a New Version of PeopleTools

You must complete several steps in order to ensure that your new version of PeopleSoft PeopleTools integrates properly with your BusinessObjects Enterprise XI 3.1 installation.

Important! If you fail to perform these steps in the correct order, you could compromise the installation.

Note. You can also use this procedure if you need to delete a PeopleSoft domain from the BusinessObjects Enterprise XI 3.1 CMC for any reason.

1. Delete all PeopleSoft Users from the BusinessObjects Enterprise XI 3.1 server as follows:
 - a. Login to the Central Management Console.
 - b. Select USERS from the navigation drop-down list and click the GO button.
 - c. Select the options next to all PeopleSoft Users (not administrator or guest) and delete them.
2. Delete Roles in the BusinessObjects Enterprise XI 3.1 server:
 - a. Login to the Central Management Console.
 - b. Select the PeopleSoft Authentication tab.
 - c. Delete All the roles.
 - d. Click Update.
3. Delete the Domains:
 - a. Delete All the Domains and click Update.
 - b. Click LOGOFF.
 - c. Log back in to the Central Management Console and verify all that the roles and domains are gone.
4. Stop the BusinessObjects Enterprise XI 3.1 Web Server and all the BusinessObjects Enterprise XI 3.1 services.
5. Uninstall the PeopleSoft Integration for BusinessObjects Enterprise XI 3.1 from the server.

This is the integration that was installed for the old version of PeopleSoft PeopleTools.
6. Install the PeopleSoft Integration for BusinessObjects Enterprise XI 3.1 for the new version of PeopleSoft PeopleTools.

7. Run the verification steps in the task Installing BusinessObjects Enterprise XI 3.1, Verifying the PeopleSoft to BusinessObjects Enterprise XI 3.1 Integration.

Task 12-6: Administering and Using BusinessObjects Enterprise XI 3.1

This section discusses:

- Understanding PeopleSoft Permission Lists, Roles, and Users Involved in PeopleSoft Integration with BusinessObjects Enterprise XI 3.1
- Changing the Data Source of the BusinessObjects Enterprise XI 3.1 Report Repository
- Returning to Crystal 2008 from BusinessObjects Enterprise XI 3.1
- Enabling Logging in BusinessObjects Enterprise XI 3.1
- Using Manual Deployment

Understanding PeopleSoft Permission Lists, Roles, and Users Involved in PeopleSoft Integration with BusinessObjects Enterprise XI 3.1

Certain PeopleSoft permission lists, roles, and users are necessary in order to have your PeopleSoft application integrate with BusinessObjects Enterprise XI 3.1. To run BusinessObjects Enterprise XI 3.1 the following need to be present in the PeopleSoft database and then referenced in the appropriate places (described in the installation instructions) in both the PeopleSoft application and BusinessObjects Enterprise XI 3.1:

- PeopleSoft Permission Lists
- PeopleSoft Roles
- PeopleSoft Users IDs

The Permission Lists and Roles are added to the PeopleSoft database when you copy the CRTOBOE project from file and run the CRTOBOE Data Mover script. The PeopleSoft users must be created manually.

Note. You should use the objects (that is, permission list and roles) as delivered. Do not rename them, delete them or otherwise alter them. This will only complicate and possibly compromise your installation.

PeopleSoft Permission Lists:

The following Permission Lists are inserted into the PeopleSoft database when you copy the project CRTOBOE from file:

- PTPT2200

This is the “QAS Access” permission list. It provides permission to a number of web services related to Query Access Services (QAS).

This permission list is used only by the “QAS Admin” role. When the role is created, this association is already defined.

- PTPT2300

This is the “BOE Viewing” permission list.

PeopleSoft Roles

The three roles listed here work hand-in-hand with the three PeopleSoft users that you need to create. The following Roles are inserted into the PeopleSoft database when you copy the project CRTOBOE from file:

- “QAS Admin”
This role is associated with the QAS_Admin and BOE_Admin user IDs. This role (through the permission list associated with it) allows users associated with the role to make QAS web-service calls. Note that the name of this role *cannot* be changed, as it is hardcoded into the QAS web service implementation.
- “BOE Admin”
This role is associated with the BOE_Admin user ID (which is configured in the PeopleSoft BusinessObjects Enterprise PIA page).
- “BOE Viewing”
This role is associated with the BOE_Viewing user ID (which is configured in the PeopleSoft BusinessObjects Enterprise PIA page).

PeopleSoft Users

You will have to create 3 PeopleSoft users in the PeopleSoft database. They work hand-in-hand with the three PeopleSoft roles described above. For ease of supportability we strongly suggest that you create the users with exactly the names specified. The users are:

- BOE_Admin
This user is used:
 - to run the Crystal 2008 to Crystal XI report convert/publish utility
 - by Process Scheduler to run reports in BusinessObjects Enterprise XI 3.1
 - to make QAS web service calls to the PeopleSoft application from BusinessObjects Enterprise. It is known only within the PeopleSoft application. BusinessObjects Enterprise XI 3.1 is not aware of this user.

This user is specified in the PeopleSoft BusinessObjects Enterprise PIA configuration page. The user will be created in BusinessObjects Enterprise XI 3.1 automatically by specifying its corresponding role (that is, “BOE Admin”) in that application. This user is considered a named user in BusinessObjects Enterprise. Additionally, this user must also be in the BusinessObjects Enterprise XI 3.1 administrators group.
- BOE_Viewing
PeopleSoft Report Manager logs in to BusinessObjects Enterprise XI 3.1 Interactive Viewer as this user in order to permit viewing dynamic report output. This user is specified in the PeopleSoft BusinessObjects Enterprise XI 3.1 PIA configuration page.
The user will be created automatically in BusinessObjects Enterprise XI 3.1 by specifying its corresponding role (that is, “BOE Viewing”) in that application.
This user id is a concurrent user in BusinessObjects Enterprise XI 3.1, which means that each time it logs into BusinessObjects Enterprise XI 3.1 it will use a BOE concurrent access license.
Please note that multiple end-users (that is, real people) accessing reports concurrently in the BusinessObjects Enterprise XI 3.1 Interactive Viewer via the PeopleSoft Report Manager will appear from the perspective of the BusinessObjects XI Interactive Viewer to be concurrent logins from the same user – BOE_Viewing.

Task 12-6-1: Changing the Data Source of the BusinessObjects Enterprise XI 3.1 Report Repository

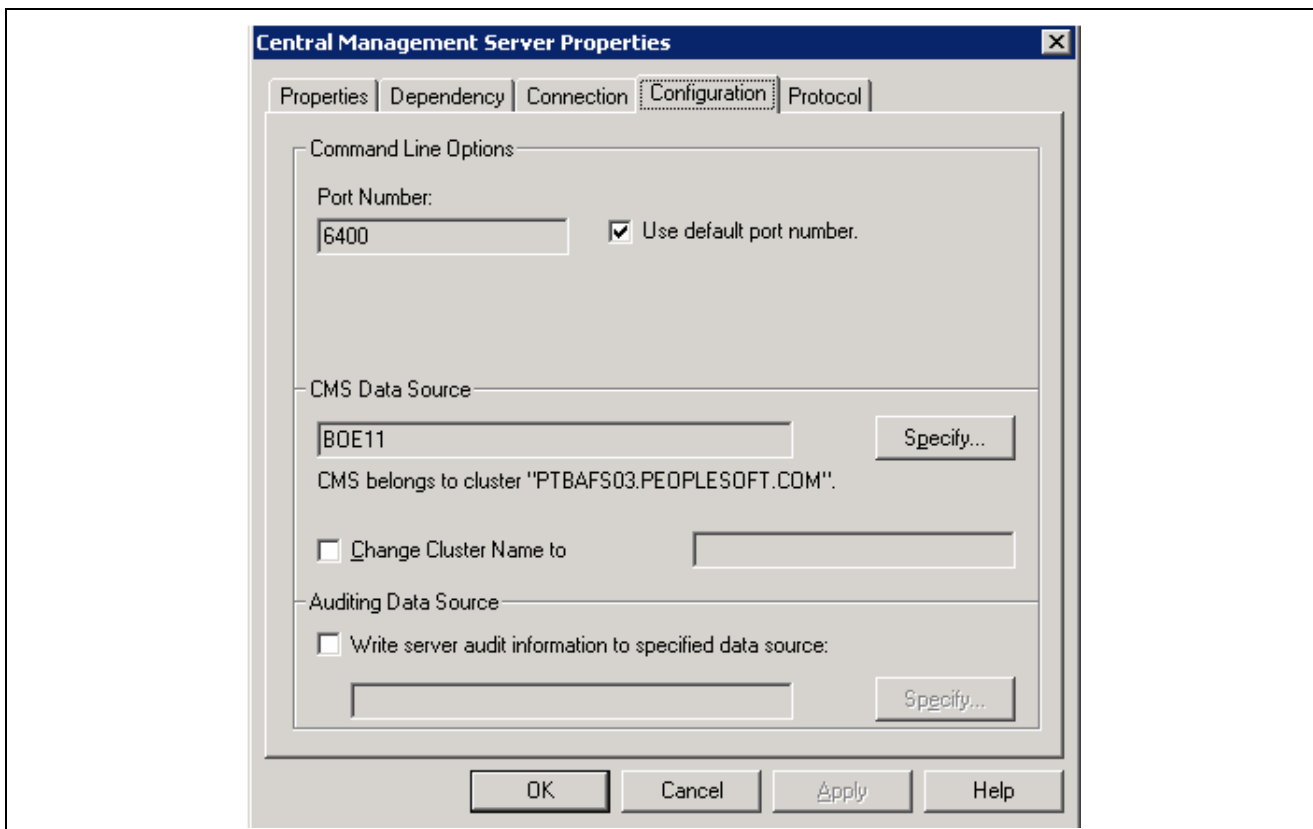
This section discusses:

- Changing the Data Source on Windows
- Changing the Data Source on UNIX or Linux

Changing the Data Source on Windows

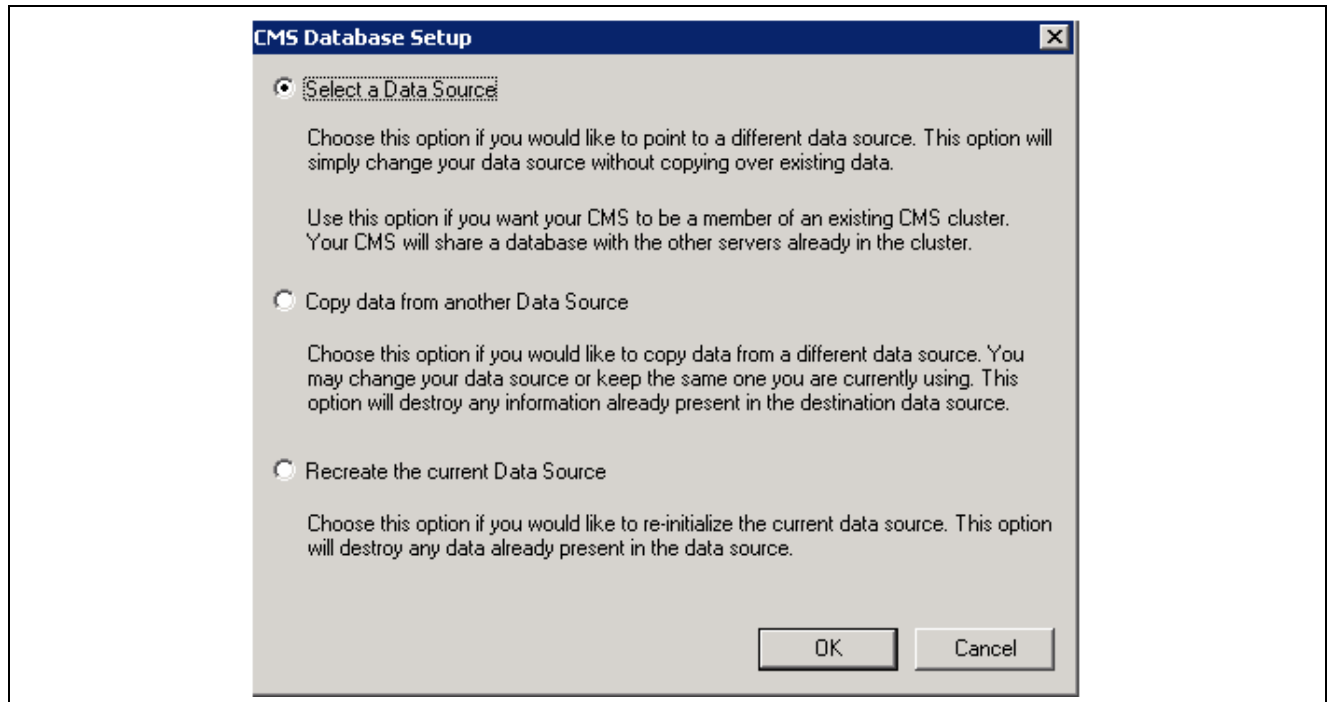
Use the steps in this section if you want to change the data source after you have completed the installation and integration.

1. Select Start, Programs, Business Objects XI, Business Objects Enterprise, Central Configuration Manager.
2. Right-click the Central Management Server and choose the Stop option.
3. Right-click the Central Management Server and select Properties.
4. Select the Configuration tab.
5. Click the Specify button in the CMS Data Source area.



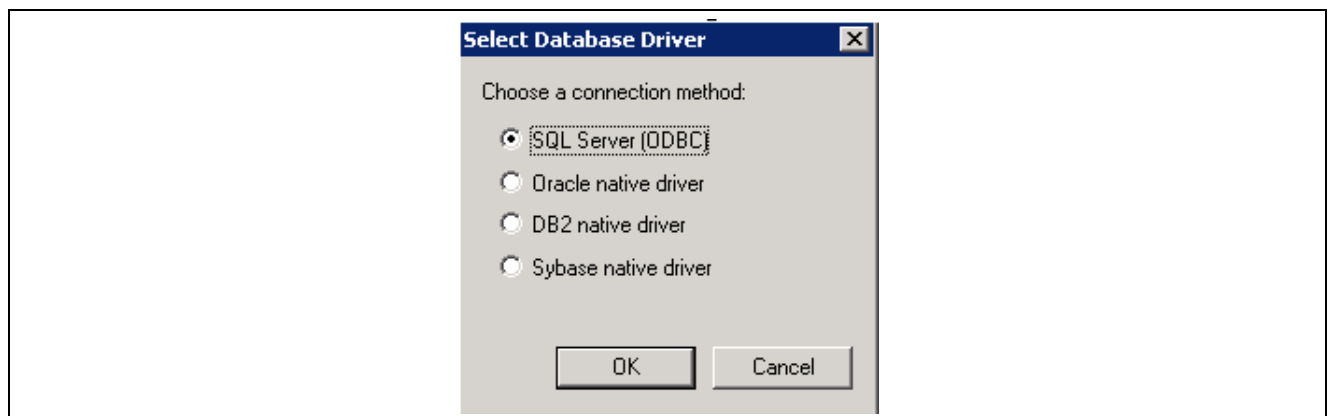
Central Management Server Properties dialog box: Configuration tab

6. Select the radio button Select a Data Source and click OK.



CMC Database Setup window

7. Specify whether you want to connect to the production CMS database through ODBC or through one of the native drivers, and then click OK.



Select Database Driver dialog box

- If you select ODBC, the Windows “Select Data Source” dialog box appears.
Select the ODBC data source that corresponds to your CMS database; then click OK. If prompted, provide your database credentials and click OK.
 - If you select a native driver, you are prompted for your database server name, user id and password.
8. Click OK.
The SvcMgr dialog box notifies you when the CMS database setup is complete.
 9. Start the Central Management Server.

Changing the Data Source on UNIX or Linux

Use the steps in this section if you want to change the data source after you have completed the installation and integration.

1. Use the script `ccm.sh` to stop the Central Management Server.
2. Run `cmsdbsetup.sh`.
When prompted, enter the CMS name or press Enter to select the default one.
3. Type 6 in order to specify source CMS.
4. Select the type of database connection.
5. Enter the database server name, user ID and password.
6. The script notifies you when the setup is complete.

Task 12-6-2: Returning to Crystal 2008 from BusinessObjects Enterprise XI 3.1

Use the instructions in this section if you need to switch your environment back to run Crystal Reports using the Crystal Reports 2008 runtime instead of the BusinessObjects Enterprise XI 3.1 server.

To switch from using BusinessObjects Enterprise XI 3.1 to Crystal Reports:

1. Run the DMS script `boetocr.dms` in `PS_HOME\scripts`.
2. Run the project `BOETOCR` in `PS_HOME\projects`.

Running this script and project will change your delivered Crystal process type back to use Crystal 2008.

Note. This will not change any process types that you created.

You cannot run any reports converted to BusinessObjects Enterprise XI 3.1 format using Crystal Reports. You have to run your original Crystal reports.

Task 12-6-3: Enabling Logging in BusinessObjects Enterprise XI 3.1

This section discusses:

- Enabling BusinessObjects Enterprise XI 3.1 Server Logging
- Enabling Security Plug-in Logging
- Enabling BusinessObjects Enterprise XI 3.1 Services Tracing

Enabling BusinessObjects Enterprise XI 3.1 Server Logging

Each of the BusinessObjects Enterprise XI 3.1 servers is designed to log messages to your operating system's standard system log.

Windows:

BusinessObjects Enterprise XI 3.1 logs to the Event Log service. You can view the results with the Event Viewer (in the Application Log).

UNIX or Linux:

BusinessObjects Enterprise XI 3.1 logs to the syslog daemon as a User application. Each server prepends its name and PID to any messages that it logs.

Each server also logs assert messages to the logging directory of your product installation. The programmatic information logged to these files is typically useful only to Business Objects support staff for advanced debugging purposes. The location of these log files depends upon your operating system:

- On Windows, the default logging directory is C:\Program Files\Business Objects\BusinessObjects Enterprise 12.0\Logging.
- On UNIX, the default logging directory is the *BOE_HOME*/bobje/logging directory of your installation.

For more information on logging BusinessObjects Enterprise XI 3.1 server activity consult the BusinessObjects Enterprise administration guide.

Enabling Security Plug-in Logging

The procedure to turn on security plug-in logging varies by operating system.

Note. Return the log mode to a value of 0 when you do not need logging. Performance will be impacted otherwise.

- *Windows:*

To turn on logging, edit the Windows registry.

```
HKLM\SOFTWARE\BusinessObjects\12.0\BusinessObjects Enterprise for PeopleSoft⇒
Enterprise
Log Mode REG_SZ
```

- Change the Log Mode value from 0 to 1.
- Restart all the BusinessObjects Enterprise services.

This will then generate log files in the directory specified in Path Log. You may want to clean up that directory first, if logging had been turned on before.

- *UNIX or Linux:*

To turn on logging you need to update the Log Mode setting in the registry file.

The registry file is located at: *BOE_HOME*/bobje/data/.bobj/registry

- Open the file in a text editor and set the value of "Log Mode" to "1".
- Restart all the BusinessObjects Enterprise services. This will turn on the driver/security plug-in tracing.

Enabling BusinessObjects Enterprise XI 3.1 Services Tracing

It is also possible to turn on tracing for the BusinessObjects Enterprise XI 3.1 services. This involves updating the command line for each of the servers and adding `-trace` at the end.

Remove the `-trace` from the command line after your testing is complete as it can cause performance issues with the servers because of the large number of log files created.

1. Log on to the Central Manager Console with an account with administrative privileges.
2. Select Servers.
3. Highlight the server you would like to enable tracing on and click the Stop button.
4. Double-click the server, add `-trace` to the command line parameters, and click the Start button.

Completing these steps will enable advanced logging on a Crystal Enterprise, Crystal Reports Server, or BusinessObjects Enterprise XI 3.1 server. You can find the logs in the following directory:

Windows

BOE_HOME\BusinessObjects Enterprise 12.0\Logging

UNIX or Linux:

BOE_HOME/bobje/logging

Task 12-6-4: Using Manual Deployment

Use the wdeploy tool found in *BOE_HOME\deployment* to manually deploy the war files to the web server. On Microsoft Windows, the tool is *wdeploy.bat*. If you are running on UNIX or Linux, substitute *wdeploy.sh* in the following steps. To use manual deployment:

1. Go to *BOE_HOME\deployment* and locate the wdeploy configuration file corresponding to the web server that you installed.
2. Open the file in a text editor and make the changes detailed in the next steps.
3. If you are using Oracle WebLogic, the file is *config.weblogic10*.

Update the following items:

- *as_admin_port*: Administration port of the application server (for example *7001*).
- *as_admin_username*: WebLogic administrator account username (for example *weblogic*).
- *as_admin_password*: WebLogic administrator account password (for example *password*).
- *as_instance*: The name of your WebLogic application server instance (for example *AdminServer*).
- *as_domain_dir*: WebLogic domain directory (for example *C:\bea\weblogic10\user_projects\domains\base_domain*).

4. If you are using IBM WebSphere, the file is *config.websphere6*.

Update the following items:

- *as_soap_port*: SOAP port for application server administration. If not set, the default SOAP port will be used (for example *8880*).
- *as_admin_username*: WebSphere administrator account username (for example *websphere*).
- *as_admin_password*: WebSphere administrator account password (for example *password*).
- *as_instance*: The name of your WebSphere application server instance (for example *server1*).
- *as_virtual_host*: The virtual host to which the application must be bound (for example *default_host*).
- *as_admin_is_secure*: Instructs wdeploy that WebSphere security is enabled (for example *true*).
- *as_dir*: WebSphere installation directory (for example *"C:\Program Files\IBM\WebSphere\AppServer"*).
- *enforce_file_limit*: Indicates to wdeploy whether or not the web application server may encounter issues loading applications that contain more than 65,535 files (for example *true*).

5. In a command prompt, go to *BOE_HOME\deployment*.
6. If you want to deploy all war files, use these commands:

- For Oracle WebLogic:

```
wdeploy.bat(sh) weblogic10 -Das_admin_password=<password> deployall
```

- For IBM WebSphere:

```
wdeploy.bat(sh) websphere6 -Das_admin_password=<password> deployall
```
- 7. If you want to deploy one war file, use these commands:
 - For Oracle WebLogic:

```
wdeploy.bat(sh) weblogic10 -Das_admin_password=<password> -DAPP=<Application=>Name> deploy
```
 - For IBM WebSphere:

```
wdeploy.bat(sh) websphere6 -Das_admin_password=<password> -DAPP=<Application=>Name> deploy
```
- 8. If you want to undeploy all war files, use these commands:
 - For Oracle WebLogic:

```
wdeploy.bat(sh) weblogic10 -Das_admin_password=<password> undeployall
```
 - For IBM WebSphere:

```
wdeploy.bat(sh) websphere6 -Das_admin_password=<password> undeployall
```
- 9. If you want to undeploy one war file, use these commands:
 - For Oracle WebLogic:

```
wdeploy.bat(sh) weblogic10 -Das_admin_password=<password> -DAPP=<Application=>Name> undeploy
```
 - For IBM WebSphere:

```
wdeploy.bat(sh) websphere6 -Das_admin_password=<password> -DAPP=<Application=>Name> undeploy
```
- 10. To review the logs for wdeploy, go to *BOE_HOME\deployment\workdir*.

Task 12-7: Removing the Integrated BusinessObjects Enterprise XI 3.1 Installation

This section discusses:

- Uninstalling PeopleSoft for BusinessObjects Enterprise XI 3.1 on Windows
- Uninstalling BusinessObjects Enterprise XI 3.1 on Windows
- Uninstalling PeopleSoft for BusinessObjects Enterprise XI 3.1 on UNIX or Linux

Task 12-7-1: Uninstalling PeopleSoft for BusinessObjects Enterprise XI 3.1 on Windows

To uninstall the BusinessObjects Enterprise XI 3.1 integration to PeopleSoft on Windows, you must first uninstall the PeopleSoft for BusinessObjects Enterprise XI 3.1 integration, then uninstall BusinessObjects Enterprise XI 3.1.

To uninstall PeopleSoft for BusinessObjects Enterprise XI 3.1 on Windows:

1. Select Start, Settings, Control Panel.
2. Select Add/Remove Programs.
3. Select Integration Kit for PeopleSoft Enterprise 12.0.
4. Click Remove.

Task 12-7-2: Uninstalling BusinessObjects Enterprise XI 3.1 on Windows

After removing the BusinessObjects Enterprise XI 3.1 integration to PeopleSoft, use these steps to uninstall BusinessObjects Enterprise XI 3.1:

Note. These instructions assume that Crystal Reports XI is not installed on the same machine as BusinessObjects Enterprise XI 3.1.

1. Select Start, Settings, Control Panel, Add or Remove Programs.
2. Remove Business Objects XI 3.1 for PeopleSoft.
3. Remove the following directories:
 - *BOE_HOME*\Business Objects, where *BOE_HOME* is the directory where you installed BusinessObjects Enterprise XI 3.1. If you accepted the defaults during installation, this is C:\Program Files\Business Objects.
 - *BOE_HOME*\Common Files\Business Objects
4. Find and delete the following registry keys.

Warning! Using the Registry Editor incorrectly can cause serious problems that may require you to reinstall the Windows operating system. Use Registry Editor at your own risk. It is strongly advised that you make a backup copy of the registry files (System.dat and User.dat on Win9x computers) before you edit the registry.

- HKEY_LOCAL_MACHINE\SOFTWARE\Business Objects
- HKEY_LOCAL_MACHINE\Software\Business Objects
- HKEY_USERS\S-#-#-###...-####\Software\Business Objects

The number signs (#) represent a series of numbers that are different on each computer.

- HKEY_USERS\DEFAULT\Software\Business Objects
5. If you have both BusinessObjects Enterprise XI 3.1 and Crystal Reports installed on your system, you must also delete the Crystal Reports folders, and delete the Crystal Reports registry key, following a similar procedure to that described above.
 6. Reboot your system.

Task 12-7-3: Uninstalling PeopleSoft for BusinessObjects Enterprise XI 3.1 on UNIX or Linux

To uninstall the BusinessObjects Enterprise XI 3.1 integration to PeopleSoft on UNIX or Linux:

1. Enter the following command, where *BOE_HOME* is the directory where you installed BusinessObjects Enterprise XI 3.1:

```
BOE_HOME/AddOrRemoveProducts.sh
```

2. At the following prompt, enter *1*:

This selection will remove BusinessObjects Enterprise XI 3.1 and the BusinessObjects Enterprise XI 3.1 integration kit for PeopleSoft. You also have the option of removing each component individually.

Add or Remove Programs

- 1 - BusinessObjects Enterprise XI 3.1
- 2 - BusinessObjects XI 3.1 Integration for PeopleSoft Enterprise
- 3 - NO LOC: CESKPSFT_FP1_6
- 4 - NO LOC: BusinessObjects_FP1_6

3. At the following prompt, enter *2*:

Note. If you choose to remove the products individually, you do not see this prompt. Instead, the prompt in step 4 appears.

BusinessObjects Enterprise XI 3.1

Modify Features or Uninstall Current Product

- 1 - Add Dashboards and Analytics Servers
- 2 - Uninstall product

4. Enter the information that you specified for the CMS database when you installed BusinessObjects Enterprise XI 3.1.
5. Enter the information that you specified for the Oracle WebLogic or IBM WebSphere web server when you installed BusinessObjects Enterprise XI 3.1.
6. Press ENTER to begin the uninstallation.

This option will perform a complete removal of the Business Objects product.

Are you sure you would like to proceed?

The following products will be removed. Would you like to continue?

- BusinessObjects Enterprise XI 3.1
- BusinessObjects XI Integration for PeopleSoft Enterprise
- NO LOC: CESKPSFT_FP1_6
- NO LOC: BusinessObjects_FP1_6

Task 12-8: Converting Crystal Reports

This section discusses:

- Selecting the Crystal Reports Conversion Method
- Converting Existing Crystal Reports to Crystal Reports 2008 Format
- Converting Reports from Crystal Reports 9 Format to Run with BusinessObjects Enterprise XI 3.1

Selecting the Crystal Reports Conversion Method

This section includes information on converting from Crystal Reports to various formats. Your situation will fall into one of the following scenarios:

- *Scenario 1:*

You are upgrading your PeopleSoft installation from a pre-PeopleSoft PeopleTools 8.x environment to run on PeopleSoft PeopleTools 8.50 or higher and you do not plan to use BusinessObjects Enterprise XI 3.1. You will use the Windows-based Crystal Report Print Engine packaged with PeopleSoft PeopleTools instead.

You will have to run a conversion program to convert your Crystal reports so that they can run on PeopleSoft PeopleTools 8.50.

See Converting Existing Crystal Reports to Crystal Reports 2008 Format.

- *Scenario 2:*

Your PeopleSoft installation is already running on PeopleSoft PeopleTools 8.50 or higher and you want to run your Crystal reports using BusinessObjects Enterprise XI 3.1.

You will have to convert your reports from Crystal 9 format to Crystal 2008 format.

See Converting Reports from Crystal Reports 9 Format to Run with BusinessObjects Enterprise XI 3.1.

- *Scenario 3:*

You are upgrading your PeopleSoft installation to run on PeopleSoft PeopleTools 8.50 or higher and plan to use BusinessObjects Enterprise XI 3.1.

You will have to:

- first run a conversion program to convert your Crystal reports to Crystal Reports 2008 format so that they can run on PeopleSoft PeopleTools 8.50

See Converting Existing Crystal Reports to Crystal Reports 2008 Format.

- then run the conversion program that will enable them to run on BusinessObjects Enterprise XI 3.1.

See Converting Reports from Crystal Reports 9 Format to Run with BusinessObjects Enterprise XI 3.1.

- *Scenario 4:*

You are upgrading your PeopleSoft installation and are already running your reports on BusinessObjects Enterprise XI 3.1.

No report conversion is necessary.

Task 12-8-1: Converting Existing Crystal Reports to Crystal Reports 2008 Format

This section discusses:

- Understanding the PeopleTools RPT Conversion Utility
- Converting RPT Files
- Repairing RPT Files

Understanding the PeopleTools RPT Conversion Utility

The PeopleTools RPT Conversion utility is a standalone program that converts your .rpt files from the format used in previous PeopleSoft releases to the format used for PeopleSoft PeopleTools 8.50 and higher. You only need to run this program if you are upgrading from previous versions of PeopleSoft PeopleTools. This section discusses how to:

- Convert .rpt files
- Repair .rpt files

Converting RPT Files

Before you run the PeopleTools RPT Conversion utility, you should move your report files to a specific directory. You can then point the conversion utility to that directory.

Note. You should also back up your report files. If any problem occurs while you run this program, your report files may become corrupted.

To run the conversion:

1. Select Start, Programs, PeopleSoft 8, PeopleTools RPT Converter.
Alternatively, run `pscvt rpt.exe` from `PS_HOME\bin\client\winx86`.
2. Accept the default directory or browse to select a new directory.
The Selected Report directory default is the location of your Crystal Reports as specified in the Configuration Manager. If you wish to convert files in a different location, select the new directory.
3. Select the check box Convert RPT files in subdirectories.
The database information is automatically removed from older reports that are converted. After the conversion, reports that were successfully converted appear in the Files Converted list box.
4. Select Convert.
If you have not signed into the PeopleSoft database, you are prompted to do so. After you successfully sign into a database, you can see a progress window.
5. At the prompt “Successful conversion of x files. Skipped x files,” click OK.
When the conversion is complete, a Close button is enabled.
6. Select Close.
Before closing, take note of any .rpt files that failed to convert. This is usually due to read-only access.

Repairing RPT Files

You can use the RPT Conversion utility when you are experiencing problems with a report that has already been converted as part of the upgrade procedure.

Note. Select the Run Verify Database option first. If the problem is still not resolved, select the Remove database info from current Crystal reports option.

To repair RPT files:

1. Select Start, Programs, PeopleSoft 8, PeopleTools RPT Converter.
2. Accept the default directory or browse to select a different directory.
The Selected Report directory default is the location of your Crystal Reports as specified in the Configuration Manager. If you wish to repair files in a different location, select the new directory.
3. Select either the Run Verify Database or the Remove database info from current Crystal reports check box.
The Run Verify Database option verifies whether the query information saved in the report is in sync with the query definition.
When it is complete, reports that were current and had the database information removed appear in the Files Converted list box, with a * to the left of the report name.
4. Select Convert.
A progress window appears.
5. At the prompt “Successful conversion of *x* files. Skipped *x* files,” click OK.
When the conversion is complete, a Close button is enabled.
6. Select Close.
Before closing, take note of any .rpt files that failed. This is usually due to read-only access.

Task 12-8-2: Converting Reports from Crystal Reports 9 Format to Run with BusinessObjects Enterprise XI 3.1

This section discusses:

- Understanding the Conversion from Crystal Reports 9 to Crystal Reports 2008
- Preparing for Conversion of Crystal 9 Reports
- Running the Conversion
- Verifying the Conversion and Publish
- Reviewing Common Conversion Errors and Warning Messages

Understanding the Conversion from Crystal Reports 9 to Crystal Reports 2008

The PeopleTools RPT conversion utility pscrconv.exe is a program that converts your Crystal Reports .rpt files from the format that PeopleSoft software used in previous PeopleSoft PeopleTools releases to the PeopleSoft PeopleTools format for use with Crystal Reports 2008. This utility also publishes the converted Crystal Reports files by moving them into the BusinessObjects Enterprise Repository so that they can run in the PeopleSoft database.

Note. The PeopleTools RPT conversion utility is not intended to be run on reports with non-PeopleSoft data sources.

Overview of the Conversion and Publish Processes

There are two key processes:

- Converting report definition files from Crystal 9 to Crystal 2008 format
- Publishing Crystal 2008 report definition files into the BusinessObjects Enterprise XI 3.1 Report Repository

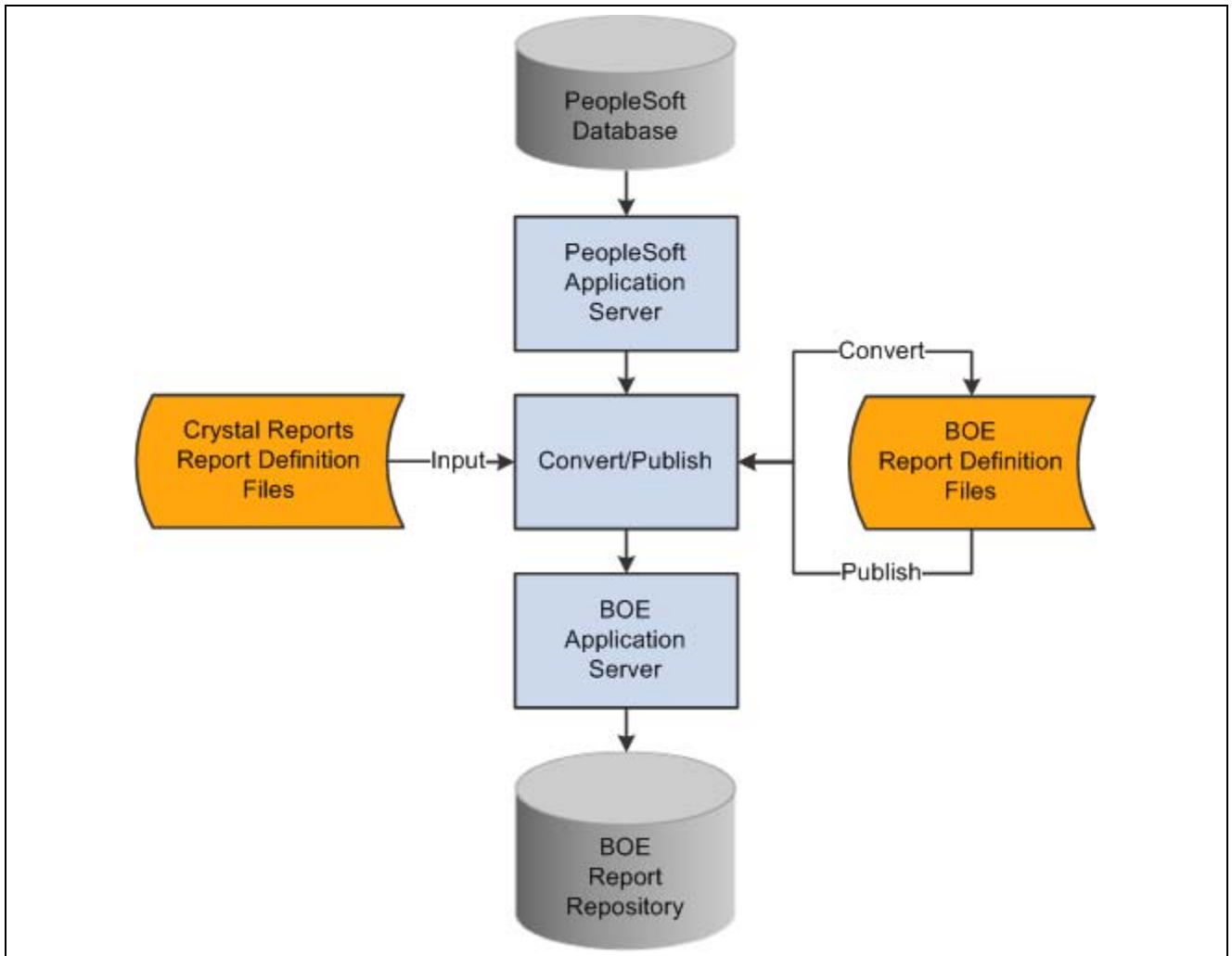
In order to run reports using BusinessObjects Enterprise XI 3.1 through the PeopleSoft software, the Crystal Reports 2008 report definitions must reside in the BusinessObjects Enterprise XI 3.1 Report Repository.

You can perform each process individually or both together. Here are some examples that might make this clear:

- In a development environment you might run convert and publish together to populate your development environment.
- In a test environment you may want to run the conversion by itself, and then run the publish process multiple times in order to publish the same reports to different test environments.

The following diagram illustrates the process flow involved in the conversion and publishing process, moving from the PeopleSoft database to the BusinessObjects Enterprise report repository:

Note. In this flowchart, “BOE” refers to BusinessObjects Enterprise XI 3.1, and “Crystal Reports” refers to Crystal Reports 2008 SP1.



PeopleSoft PeopleTools conversion or publish process

Understanding Report Conversion

The conversion process performs the following:

- Prompts the user for inputs:
 - PeopleSoft sign-on information
 - The action that they would like to take
 - Source folder with Crystal Reports 9 report definition files
 - Destination folder for Crystal Reports 2008 report definition files
- For each report to be converted in the source folder the program:
 - Reads a Crystal 9 report from a folder
 - Runs a Verify Database on that report
 - Removes database information from the report definition and verifies whether the query information saved in the reports is in sync with their query definitions.

- For every field on the report the program determines the name by which QAS recognizes it.
The program identifies all the possible field names that could be used in a report (as either a selected field, parameter field, expression field) and then provides the name QAS will use for those same fields.
- Calls a Business Objects-supplied conversion routine to convert report definition contents from Crystal 9 format to Crystal 2008 format
- Runs a Verify Database on the converted report definition

Understanding Report Publishing

Report publishing can be accomplished by:

- Publishing reports automatically after converting them
- Publishing reports in a separate execution of the program

If you are publishing Crystal 2008 report files for the first time to the BusinessObjects Enterprise XI 3.1 Report Repository for a PeopleSoft database, folders are created in the BusinessObjects Enterprise XI 3.1 Repository under the database name. Report definitions must be published for each PeopleSoft database for which you plan to run reports. Published report definitions cannot be shared across databases. BusinessObjects Enterprise XI 3.1 security on these folders is set with full access granted to the BusinessObject Enterprise Administrative User (BOE_Admin) identified on the PeopleTools, Query Access Services, Configure, BusinessObject Enterprise page. Read access is granted to individual users.

The publish process:

- Requires login information for the administrative PeopleSoft user (user BOE_Admin)
- Requires as input the user for the source folder with Crystal 2008 reports
- Stores (publishes) the converted report in the BusinessObjects Enterprise XI 3.1 Report Repository
- Updates information in the PeopleSoft Report Manager so that the Report Manager is aware of the report definitions in the BusinessObjects Enterprise XI 3.1 Report Repository

Note. If you publish a report that has been previously published to the BusinessObjects Enterprise XI 3.1 Repository for a PeopleSoft database, the earlier version will be overwritten.

In order to successfully convert and publish you must have the following environment in place:

- A properly installed BusinessObjects Enterprise XI 3.1 server
- A properly installed PeopleSoft application (database and application server)
- Integration between the PeopleSoft application and the BusinessObjects Enterprise XI 3.1 server properly installed and configured
- A designated machine on which you will run the conversion program

See the PeopleSoft upgrade guide for your platform.

Preparing for Conversion of Crystal 9 Reports

Before running the conversion, there are several steps you must complete.

To prepare the conversion workstation:

1. If the computer that you use for conversions is different from the computer where BusinessObjects Enterprise XI 3.1 is installed, ensure that the machine name of the Microsoft Windows computer used for conversion can be pinged from the BusinessObjects Enterprise XI 3.1 server box and vice versa. If not,

add the full machine name and the IP address of the computer where conversions are run to the host file of the computer where BusinessObjects Enterprise XI 3.1 is installed.

2. Confirm the operating system of the workstation.

The conversion program must be run on a machine that is running Windows 2000, Windows Server 2003, or Windows XP.

3. Confirm access to the PeopleSoft application.

The workstation must have connectivity to the PeopleSoft application (that is, you can log on to the application through the PeopleSoft logon page).

4. Confirm access to the BusinessObjects Enterprise XI 3.1 application.

The workstation must have connectivity to the BusinessObjects Enterprise XI 3.1 application. Users can verify connectivity by logging in to the BusinessObjects Enterprise XI 3.1 server Central Management Console (CMC) on the workstation.

Note. When you log in to the CMC, select the Servers link and review the list of servers and their status. If the Web Intelligence Processing Server shows status as failed, delete the server from the list as it is not necessary in the integration between BusinessObjects Enterprise XI 3.1 and PeopleSoft software.

See Confirming Access to the BusinessObjects Enterprise XI 3.1 Administration and Central Management Console.

5. If BusinessObjects Enterprise XI 3.1 is installed to any location other than default one, that is, C:\Program Files\Business Objects\...\., update BOEPublish.bat file.

To do this, open the file from *BOE_HOME\CLASS\BOEPublish.bat*, where *BOE_HOME* is the directory where BusinessObjects Enterprise XI 3.1 is installed. Set the variable *-Dbobj.default.enterprise.windows.home* to the location where BusinessObjects Enterprise XI 3.1 is installed.

6. Confirm that the win32_x86 path is included in the PATH environment variable of the workstation.
7. Install PeopleSoft PeopleTools on the workstation.

The way to install the conversion program on the conversion workstation is to simply install PeopleSoft PeopleTools on the workstation. PSCRCONV.EXE is one of the files installed on the machine.

8. Install Crystal Reports XI on the workstation.

Install the latest version of Crystal Reports XI and any hotfixes. Crystal Reports XI will install certain dynamic link libraries that are required for the installation program.

9. Install the PeopleSoft ODBC driver by running psodbcinst.exe.

PSODBC provides connectivity between Crystal 9 or higher reports and the PeopleSoft application database.

See "Setting Up the Install Workstation," Installing PeopleSoft ODBC Driver and Crystal Runtime.

To confirm the PeopleSoft Application environment:

1. Confirm the application version of the database and application version of the Crystal 9 Reports.

The PeopleSoft database that you have must be associated with the Crystal 9 or higher reports that you want to convert. That is, the database must have the queries that the Crystal 9 or higher reports access. And the application version of the database must match the application version of the reports that you plan to convert.

2. Verify that the user that will convert the reports has Query access for all the reports that you are planning to convert.

The simplest way to do this is to assign the PeopleSoft Administrator role to user BOE_Admin. That role allows the user access to run all queries. To assign this role to BOE_Admin:

- a. Log in to the PeopleSoft application in a browser and select PeopleTools, Security, User Profiles.
- b. Open the User Profile for BOE_Admin and select the Roles tab.
- c. If not already present in the list of Roles, add Role *PeopleSoft Administrator* to the roles assigned to BOE_Admin and save the page.

Note. The PeopleSoft Administrator Role should be removed from BOE_Admin as soon as you are done converting reports to minimize security concerns.

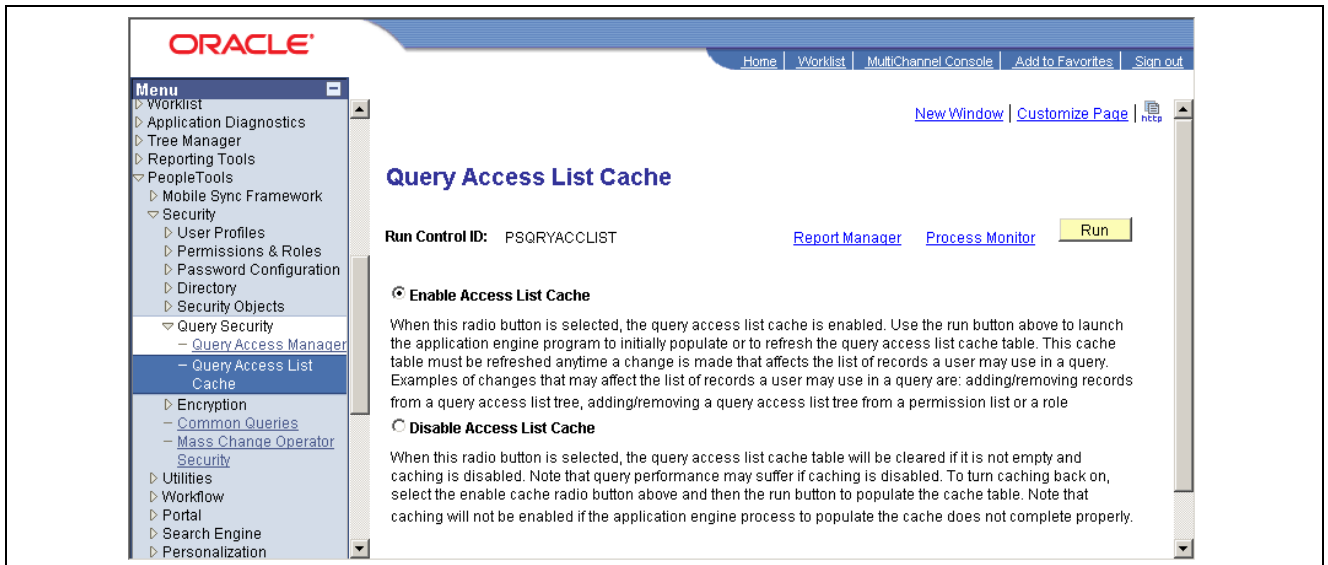
- d. If you do not want to assign the PeopleSoft Administrator Role to user BOE_Admin, there are two options:

Option one: Run the conversion by running the conversion program logged on as a PeopleSoft user who does have the PeopleSoft Administrator role assigned to it.

Option two: Manually assign query security to user BOE_Admin such that BOE_Admin has security access to all queries used in Crystal reports. This can be time consuming and error prone, however.

3. Assign Administrator rights to user BOE_Admin in CMC, as follows:
 - a. Log in to CMC and navigate to Home, Users, BOE_Admin.
 - b. Select the Members of tab.
 - c. Add administrators group to user BOE_Admin.
4. If you logged out, log in to the PeopleSoft application in a browser.
5. Run the process to update the Query Access List Cache as follows:

Note. When the Enable Access List Cache option is selected and roles of a user Profile or permission list of a role has been modified, which affect the Query Access List Cache, you must rerun the QRYACCLIST Application Engine process to properly update the cache. Otherwise, the Query Access List Cache is not up-to-date and will be switched off automatically



Query Access List Cache page

- a. Select PeopleTools, Security, Query Security, Query Access List Cache.
 - b. On the Query Access List Cache page, verify that the radio button Enable Access List Cache is selected
 - c. Click the Run button to run the process.
6. Confirm the integrity of the PeopleSoft application database.

Verify the integrity of the PeopleSoft application database by running SYSAUDIT.SQR on the database. In particular, there should be no anomalies in the database as regards Query definitions (SysQuery-01 through SysQuery-26). For more information on SYSAUDIT.SQR refer to *Enterprise PeopleTools 8.50 PeopleBook: Data Management*.

7. Confirm your BusinessObjects Enterprise XI 3.1 environment and integration with the PeopleSoft system.

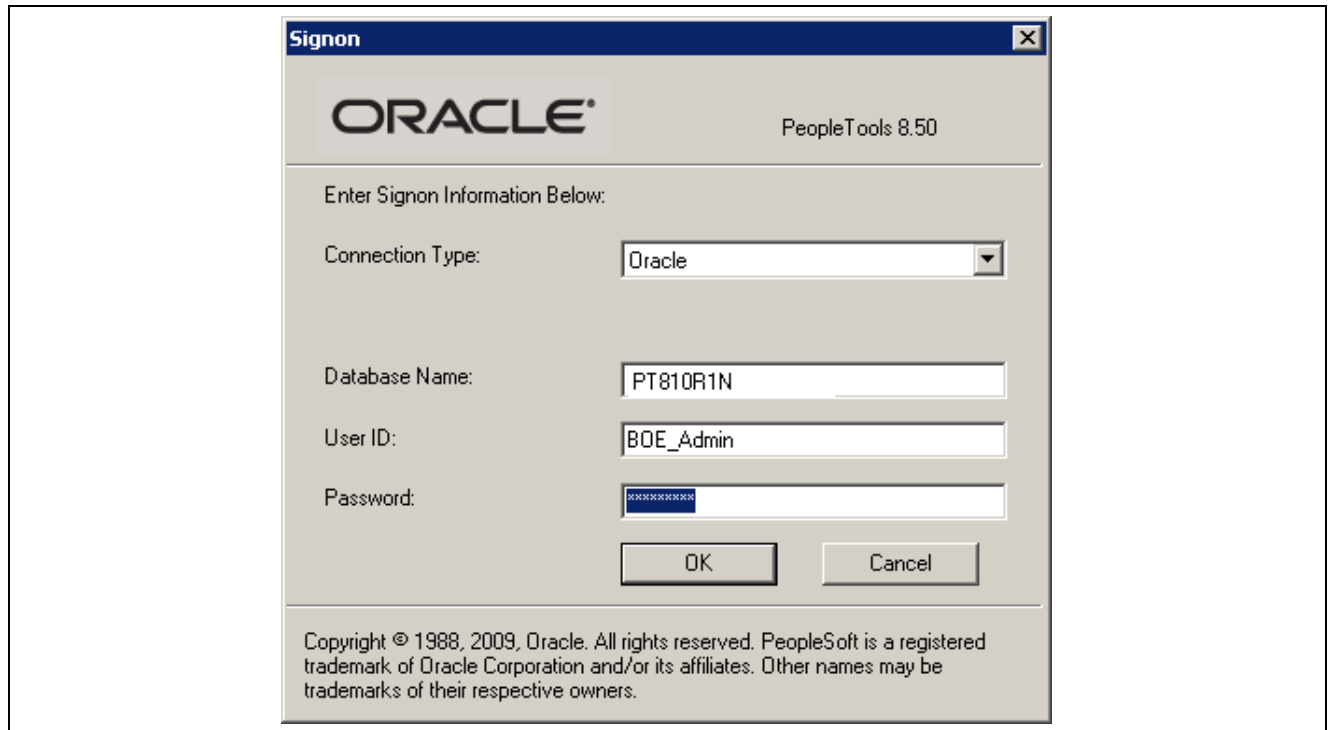
The conversion program relies on having a properly installed and configured BusinessObjects Enterprise XI 3.1 so that the converted report definitions can be inserted in the BusinessObjects Enterprise XI 3.1 repository. There are no special steps in this section that are not part of the basic installation steps covered elsewhere in this installation guide.

Running the Conversion

To run the conversion:

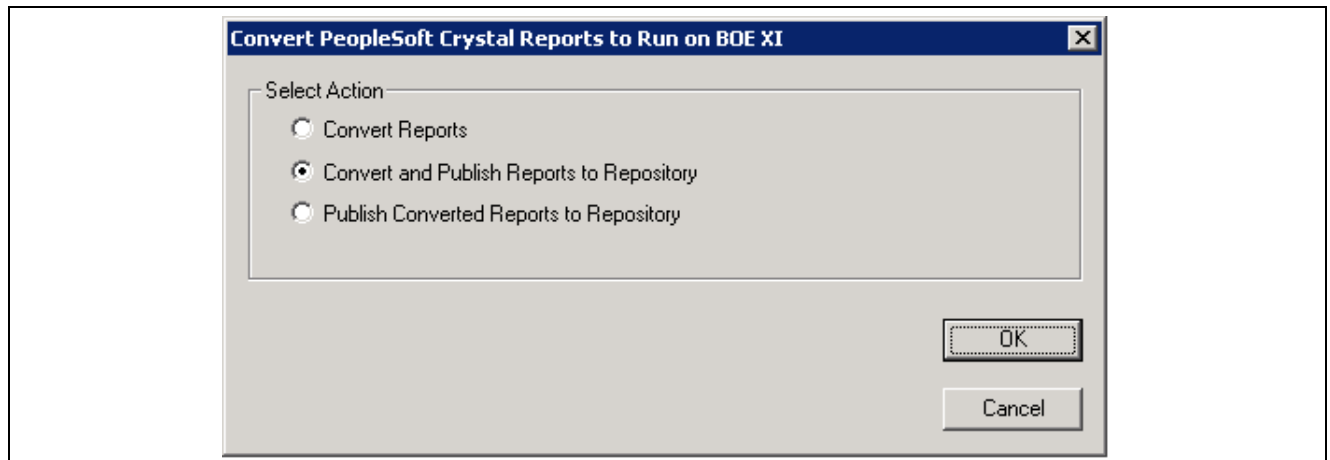
1. Run `pscrconv.exe` from `PS_HOME\bin\client\winx86` directory.
2. Sign into the PeopleSoft database, if you have not already done so. Log in as user `BOE_Admin`.

Ensure that you log into the correct database for the reports that you are converting. For example, do not sign into a Human Resources database if the reports were created against a Financials database.



Signon dialog box for Conversion Utility

3. Choose the action that you wish to perform.



Convert PeopleSoft Crystal Reports to Run on BOE XI dialog box

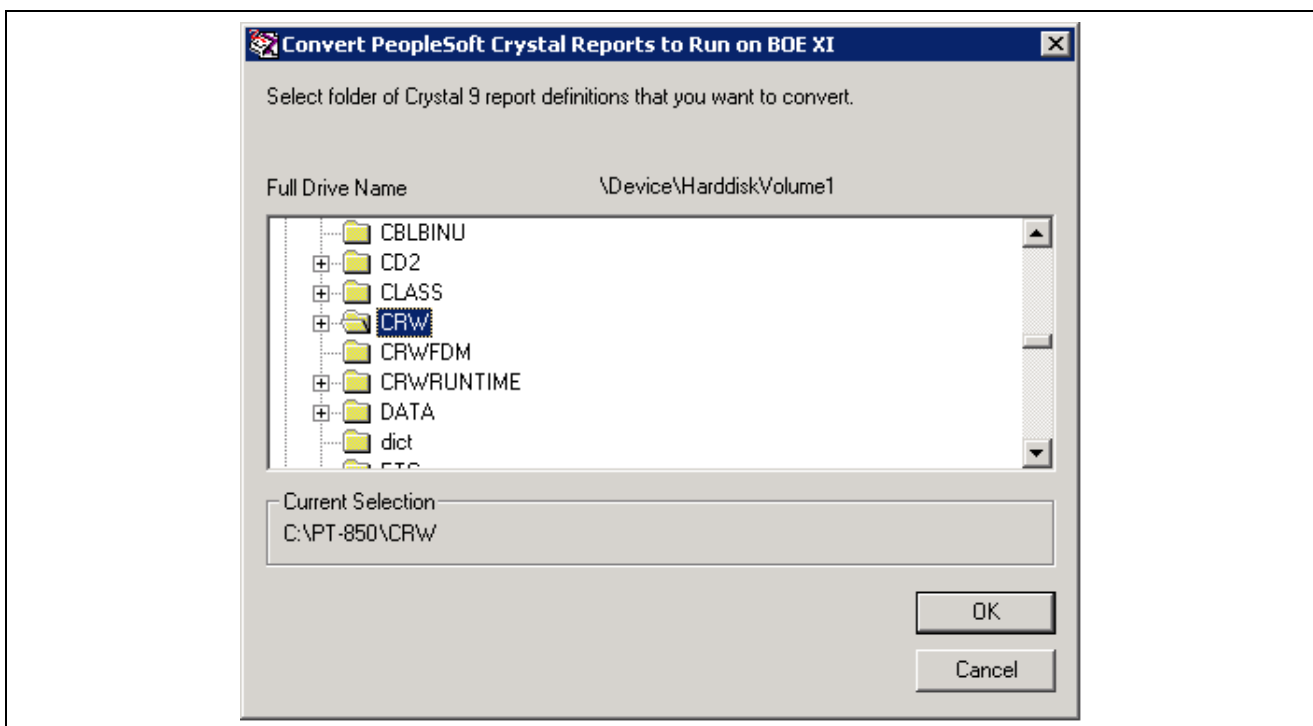
- Converting reports without publishing them to the BusinessObjects Enterprise XI 3.1 report repository allows you to go from running Crystal Reports 9 report definitions to running Crystal Reports 2008 report definitions using Crystal Reports XI on a client machine. The converted reports will be stored in a directory that you specify a little later. Converting without publishing is useful in a demonstration environment where you wish to publish reports to a production or development environment at a later time.
- Converting reports and publishing them to the BusinessObjects Enterprise XI 3.1 report repository allows you to go from running Crystal Reports 9 report definitions to running Crystal Reports 2008 report definitions using BusinessObjects Enterprise XI 3.1 with the PeopleSoft Process Scheduler.
- If you choose to Publish Reports to the repository, you are publishing to the Report Repository report definitions that have already been converted to Crystal Reports 2008 format.

4. Select a report input directory and click OK.

The report input directory must contain a subdirectory that is identified by a language code; the reports to be converted reside in this subdirectory.

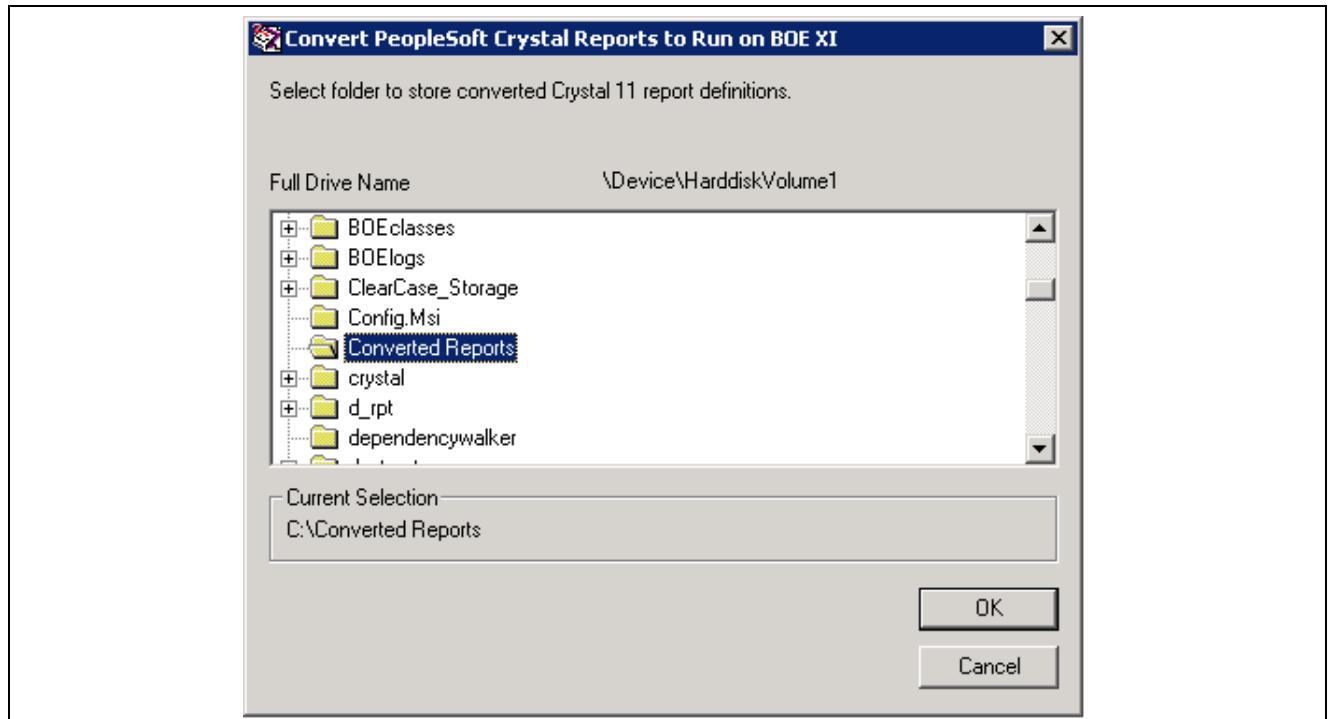
Note. If you chose the Publish Converted Reports to Repository process option in the previous step, you do not see this dialog box.

For example, select C:\PT850\CRW if the reports to be converted are located in C:\PT850\CRW\ENG.



Specifying the input directory for the Crystal Reports conversion

5. Select a report output directory for the converted reports and click OK.



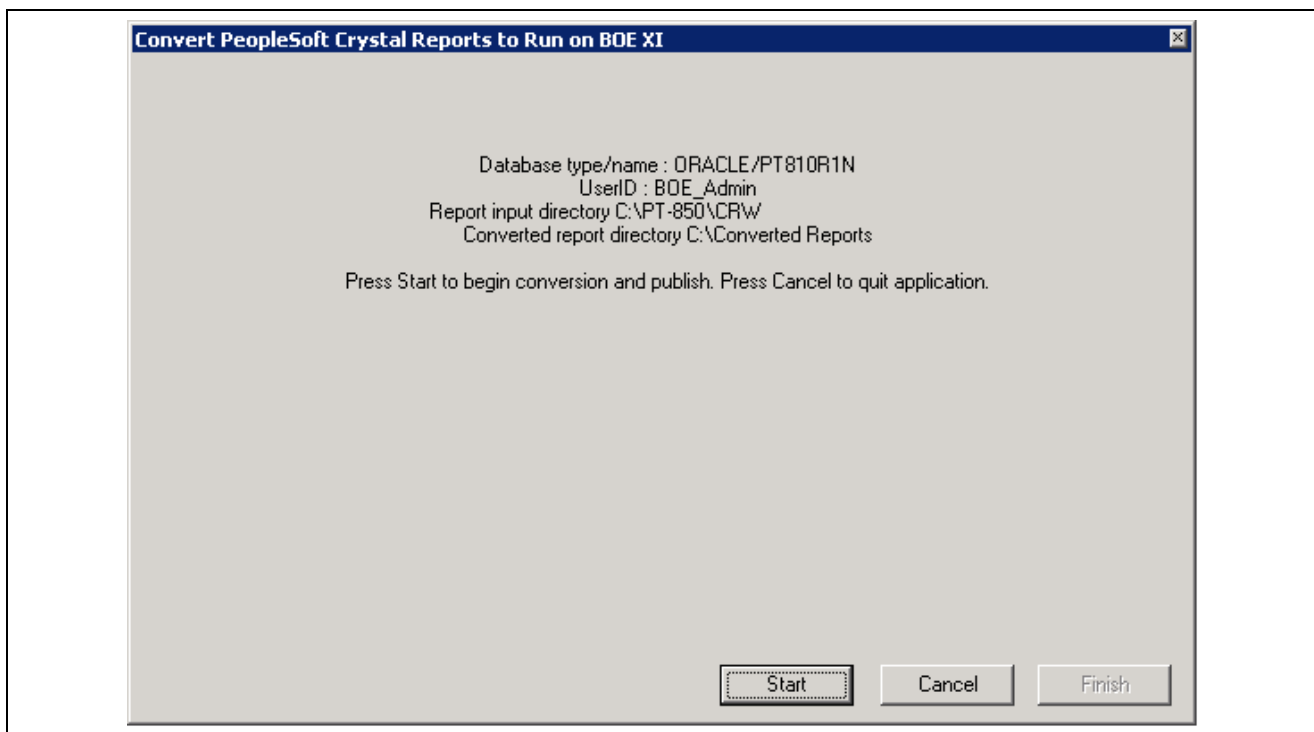
Specifying the output directory for the Crystal Reports conversion

This can be any writable folder, however it cannot be a subfolder of the report input directory. For example, if the reports to be converted are located in C:\\PT850\\CRW\\ENG, the report output directory cannot be C:\\PT850\\CRW\\NEW.

The conversion program will create an appropriate language subdirectory in which the converted reports will be placed. Therefore, if you want your converted reports to be placed in C:\\PT850\\Converted\\ENG, enter C:\\PT850\\Converted as the report output directory.

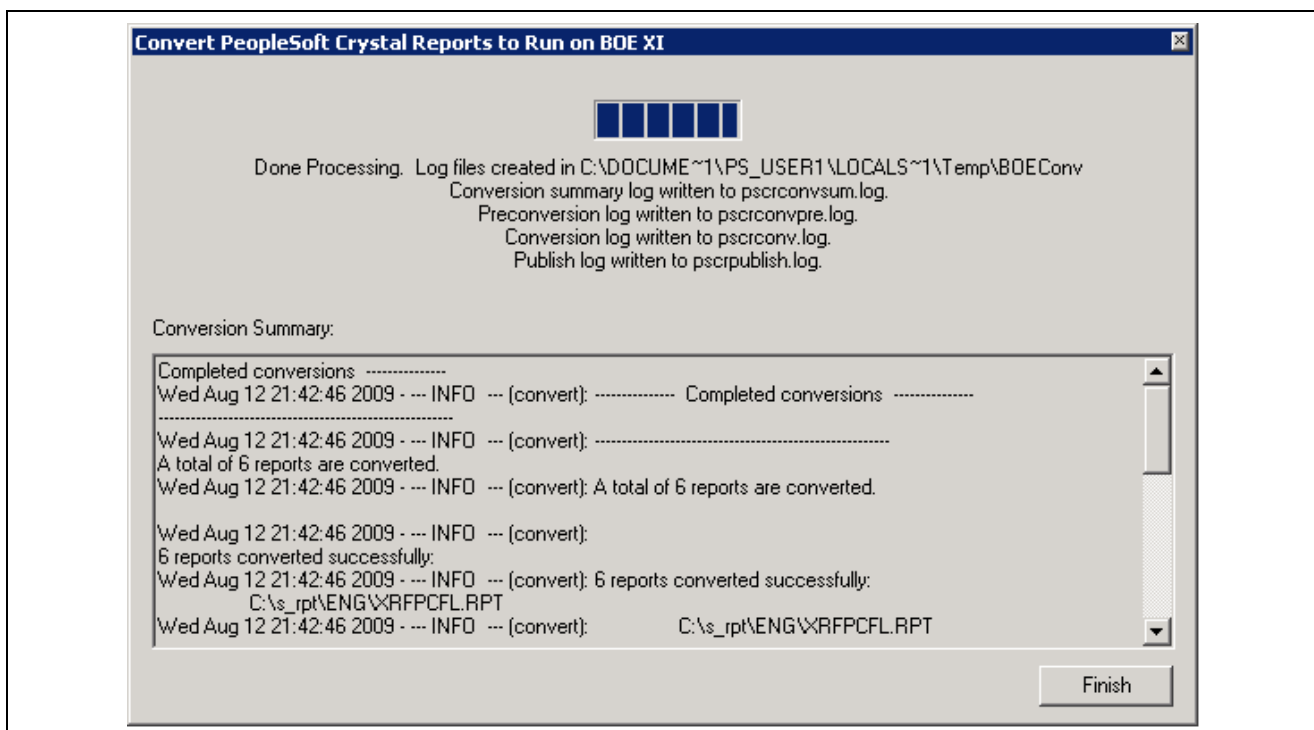
6. Review the information on the summary screen.

If all looks good, click the Start button to begin the process. Clicking Cancel will cause you to exit from the program.



Summary information for the Crystal Reports conversion

A window appears indicating that the conversion is processing. Once the process is complete, a summary details information about the execution. This information is also written to the *PS_HOME\bin\client\winx86\pscrconvsum.log* file.



Progress indicator for the Crystal Reports conversion

7. Click the Finish button.

8. After the report is published to the BOE Repository, right-click the published report in CMC and update the database configuration information.
9. Verify the conversion using the procedure given earlier.

See Verifying the PeopleSoft to BusinessObjects Enterprise XI 3.1 Integration.

The following section also gives information on verifying and troubleshooting the conversion process.

Verifying the Conversion and Publish

Use these steps to verify that your reports are converted properly:

1. Review the conversion logs.

Two log files are generated every time the conversion is run.

PSCRCONVSUM.LOG the summary log

PSCRCONV.LOG the detailed log

These files will be found under your TEMP directory:

TEMP\boeconv.

Note. These files will be overwritten each time you run the conversion program. If you want to save the logs from a previous run, rename them before you run the process.

The log files will contain information about the conversion for all reports that you submitted for conversion in that execution of the conversion program.

- a. Review the Summary conversion log, PSCRCONVSUM.LOG.

The fastest way is to search the summary log for “Error” and “Warn”. If no reports had error or warnings then the conversion was successful. If an error or warning condition is indicated on the summary log, proceed to the next step to check the detailed log.

Here is a sample summary conversion log:

```
Completed conversions -----
Fri Jan 20 13:24:31 2006 - --- INFO --- (convert): ----- =>
Completed conversions -----
-----
Fri Jan 20 13:24:31 2006 - --- INFO --- (convert): -----=>
-----
A total of 13 reports are converted.
Fri Jan 20 13:24:31 2006 - --- INFO --- (convert): A total of 13 reports=>
are converted.

Fri Jan 20 13:24:31 2006 - --- INFO --- (convert):
13 reports converted successfully:
Fri Jan 20 13:24:31 2006 - --- INFO --- (convert): 13 reports converted=>
successfully:
C:\pt849801i1\CRW\ENG\XRFAPFL.RPT
Fri Jan 20 13:24:31 2006 - --- INFO --- (convert): C:\pt849801i1\CRW\ENG=>
\XRFAPFL.RPT
C:\pt849801i1\CRW\ENG\XRFFLPC.RPT
Fri Jan 20 13:24:31 2006 - --- INFO --- (convert): C:\pt849801i1\CRW\ENG=>
```

```

\XRFFLPC.RPT
  C:\pt849801i1\CRW\ENG\XRFFLPN.RPT
Fri Jan 20 13:24:31 2006 - --- INFO --- (convert): C:\pt849801i1\CRW\ENG⇒
\XRFFLPN.RPT
  C:\pt849801i1\CRW\ENG\XRFFLRC.RPT
Fri Jan 20 13:24:31 2006 - --- INFO --- (convert): C:\pt849801i1\CRW\ENG⇒
\XRFFLRC.RPT
  C:\pt849801i1\CRW\ENG\XRFIELDS.RPT
Fri Jan 20 13:24:31 2006 - --- INFO --- (convert): C:\pt849801i1\CRW\ENG⇒
\XRFIELDS.RPT
  C:\pt849801i1\CRW\ENG\XRFMENU.RPT
Fri Jan 20 13:24:31 2006 - --- INFO --- (convert): C:\pt849801i1\CRW\ENG⇒
\XRFMENU.RPT
  C:\pt849801i1\CRW\ENG\XRFPANEL.RPT
Fri Jan 20 13:24:31 2006 - --- INFO --- (convert): C:\pt849801i1\CRW\ENG⇒
\XRFPANEL.RPT
  C:\pt849801i1\CRW\ENG\XRFP CFL.RPT
Fri Jan 20 13:24:31 2006 - --- INFO --- (convert): C:\pt849801i1\CRW\ENG⇒
\XRFP CFL.RPT
  C:\pt849801i1\CRW\ENG\XRFPNPC.RPT
Fri Jan 20 13:24:31 2006 - --- INFO --- (convert): C:\pt849801i1\CRW\ENG⇒
\XRFPNPC.RPT
  C:\pt849801i1\CRW\ENG\XRFR CFL.RPT
Fri Jan 20 13:24:31 2006 - --- INFO --- (convert): C:\pt849801i1\CRW\ENG⇒
\XRFR CFL.RPT
  C:\pt849801i1\CRW\ENG\XRFRCPN.RPT
Fri Jan 20 13:24:31 2006 - --- INFO --- (convert): C:\pt849801i1\CRW\ENG⇒
\XRFRCPN.RPT
  C:\pt849801i1\CRW\ENG\XRFWIN.RPT
Fri Jan 20 13:24:31 2006 - --- INFO --- (convert): C:\pt849801i1\CRW\ENG⇒
\XRFWIN.RPT
  C:\pt849801i1\CRW\ENG\XRFWNFL.RPT
Fri Jan 20 13:24:31 2006 - --- INFO --- (convert): C:\pt849801i1\CRW\ENG⇒
\XRFWNFL.RPT
0 reports converted with warnings:
Fri Jan 20 13:24:31 2006 - --- INFO --- (convert): 0 reports converted with⇒
warnings:
0 reports failed to convert:
Fri Jan 20 13:24:31 2006 - --- INFO --- (convert): 0 reports failed to⇒
convert:

Fri Jan 20 13:24:31 2006 - --- INFO --- (convert):
-----
Fri Jan 20 13:24:31 2006 - --- INFO --- (convert): -----⇒
⇒
⇒
-----

```

- b. If necessary review the detailed conversion log, PSCRCONV.LOG

It is not necessary to perform this step if the summary conversion log indicates that all reports converted successfully.

The detailed log contains three types of messages:

```
INFO
WARN
ERROR
```

You need to eliminate all ERROR messages. The best policy is to understand why all WARN messages are generated and eliminate them if you can.

Here's a portion of the detailed log that illustrates a successfully converted report:

```
...
...
Converting the report "C:\pt849801i1\CRW\ENG\XRFAPFL.RPT".
Fri Jan 20 13:29:46 2006 - --- INFO --- (convert): Converting the report "C:⇒
\pt849801i1\CRW\ENG\XRFAPFL.RPT".
Fri Jan 20 13:29:46 2006 - --- INFO --- (verify ): Verifying the report⇒
before conversion.
Fri Jan 20 13:29:46 2006 - --- INFO --- (verify ): Successfully verified⇒
the report.
Fri Jan 20 13:29:50 2006 - --- INFO --- (convert): Successfully converted⇒
report "C:\pt849801i1\CRW\ENG\XRFAPFL.RPT" to target "c:\cnew\ENG⇒
\XRFAPFL.RPT".
...
...
```

If a report has one or more ERROR messages associated with it, it failed conversion. If a report has only WARN and INFO messages associated with it, it passed conversion and will run. The WARN messages may indicate some changes you may want to make to the report definition.

See *Reviewing Common Conversion Errors and Warning Messages*.

2. Re-run the conversion on the altered reports

After you have made changes to address the ERRORS and WARNs, re-run the conversion program. You should exclude from this execution of the conversion program any reports that were successfully converted in prior executions.

3. Verify report publishing.

To verify that the reports published properly, launch the BusinessObjects Enterprise XI 3.1 Admin Console (on Infoview) and locate the shared folder with the database name you used to publish. Ensure that the number of reports with the datetime of the Publish process matches the number of Crystal Reports XI report definition files that you wanted to publish.

4. Run the converted reports.

For final verification that the reports you converted are correct, you should run the converted reports and compare their output to their unconverted (that is, Crystal 9) counterparts. You should compare them for equivalent layouts and equivalent data.

To run the report in BusinessObjects Enterprise XI 3.1 InfoView:

- a. Log onto BusinessObjects Enterprise XI 3.1 Infoview with user BOE_Admin.
- b. Use search edit box at top to find the report that you want to run.

- c. In the search results choose the report.
- d. Enter report parameters, if any, and the report displays.

Reviewing Common Conversion Errors and Warning Messages

Here are some conversion errors that you may encounter as you convert your reports. For each we suggest possible ways to address the problem.

- **ERROR** — Failed to update the data source of table *[datasource(table name)]* to QUERY.*[query name]*

For example:

```
Converting the report "C:\M\CRWFD\ENG\FORA003-.RPT".
Fri Jan 13 18:10:00 2006 - --- INFO --- (convert): Converting the report "C:\M\
\CRWFD\ENG\FORA003-.RPT".
Fri Jan 13 18:10:00 2006 - --- INFO --- (verify ): Verifying the report before⇒
conversion.
Fri Jan 13 18:10:00 2006 - --- INFO --- (verify ): Successfully verified the⇒
report.
Fri Jan 13 18:10:01 2006 - --- ERROR --- (convert): Failed to update the data⇒
source of table EB_EAB(EB_EAB_GEN0) to QUERY.EB_EAB.
```

Things to check:

- Does the offending query exist in the database?
- Does the PeopleSoft user doing the conversion (that is, the PeopleSoft user that you provided to the conversion program) have security in the PeopleSoft database to access the query?
- **WARN** — Encountered a duplicate table *[table name]*. Skipping element.

WARN — Encountered an element "field" within an invalid "table" element. Skipping element.

For example:

```
Thu Jan 19 11:07:29 2006 - --- INFO --- ( parse ): -----⇒
-----
Thu Jan 19 11:07:29 2006 - --- INFO --- ( parse ): ----- Reading⇒
command file -----
Thu Jan 19 11:07:29 2006 - --- INFO --- ( parse ): -----⇒
-----
Thu Jan 19 11:07:29 2006 - --- INFO --- ( parse ): Parse commands from file⇒
pscrconv.xml
Thu Jan 19 11:07:29 2006 - --- WARN --- ( parse ): Encountered a duplicate⇒
table WFA0001_AVERAGES_BY_BP_WL. Skipping element.
Thu Jan 19 11:07:29 2006 - --- WARN --- ( parse ): Encountered an element⇒
"field" within an invalid "table" element. Skipping element.
Thu Jan 19 11:07:29 2006 - --- WARN --- ( parse ): Encountered an element⇒
"field" within an invalid "table" element. Skipping element.
Thu Jan 19 11:07:29 2006 - --- WARN --- ( parse ): Encountered an element⇒
"field" within an invalid "table" element. Skipping element
```

These two warnings are often seen together. They can be generated when two reports being converted in the same execution of the conversion program use the same query.

There is no need to take action on these warnings.

CHAPTER 13A

Compiling COBOL on Windows

This chapter discusses:

- Understanding COBOL
- Prerequisites
- Compiling COBOL Source Files
- Distributing COBOL Binaries

Understanding COBOL

This chapter describes how to compile and link PeopleSoft COBOL batch programs, if necessary.

COBOL is not needed for PeopleSoft PeopleTools because the Process Scheduler is written in C++. In addition, COBOL is not required for applications that contain no COBOL programs. See My Oracle Support for the details on whether your application requires COBOL.

Warning! If your database server is DB2 UDB for z/OS and your CCSID is not 37, you must read the CCSID discussion under Defining DB2 UDB for z/OS Subsystem Configuration in the chapter “Preparing for Installation.”

See *Enterprise PeopleTools 8.50 PeopleBook: Global Technology*, “Sorting in PeopleTools” (look for %BINARYSORT).

See *Enterprise PeopleTools 8.50 PeopleBook: System and Server Administration*, “Using PeopleTools Utilities,” (look for PeopleTools options and PSOPTIONS).

See Also

"Preparing for Installation," Installing Supporting Applications

"PeopleSoft Enterprise Frequently Asked Questions About PeopleSoft and the Micro Focus COBOL Compiler," My Oracle Support, (search for the article name)

"COBOL: Installation, versions, fixpacks, etc PT 8.50," My Oracle Support, (search for the article name)

Enterprise PeopleTools 8.50 PeopleBook: Global Technology, "Running COBOL in a Unicode Environment"

Enterprise PeopleTools 8.50 PeopleBook: Global Technology, "Running COBOL in a z/OS Unicode Environment."

Prerequisites

Before you attempt to run COBOL from the command line you should do the following:

- Make sure the variable PS_SERVER_CFG points to a valid pspres.cfg file.
- Make sure %PS_HOME%\bin\server\winx86 is in your path. It should appear before %PS_HOME%\bin\client\winx86 if that also appears in the path.

Task 13A-1: Compiling COBOL Source Files

This section discusses:

- Understanding COBOL Compilation
- Compiling COBOL with CBLBLD.BAT
- Compiling COBOL with CBLMAKE.BAT
- Defining the GNT and INT Files

Understanding COBOL Compilation

With PeopleSoft PeopleTools 8.50 and higher, your COBOL always needs to be compiled on Microsoft Windows. (This is a change from previous versions of PeopleSoft PeopleTools, which delivered compiled COBOL for Windows.) This chapter assumes that you are carrying out the compile from your file server. (The COBOL compiler itself doesn't need to be on the file server, as long as the user can write to the file server and can link to the src and bin directories.) The recommended approach for the PeopleSoft installation is to use CBLBLD.BAT to compile all your COBOL at once. Another alternative is CBLMAKE.BAT, which you can use to compile selected COBOL files.

Make certain to check whether you need to apply any late-breaking patches.

See My Oracle Support, Patches & Updates.

Task 13A-1-1: Compiling COBOL with CBLBLD.BAT

To compile COBOL with CBLBLD.BAT:

1. Set up two environment variables, %PS_HOME% and %COBROOT%, on the machine from which you'll compile COBOL. (This should be either your file server or a machine that has access to your file server.) You can do this from a DOS command prompt window.

Environment Variable	Purpose
PS_HOME	PeopleSoft home directory—that is, the drive letter and high-level PeopleSoft directory where you installed PeopleTools and the application.
COBROOT	Drive letter and root directory of the COBOL compiler.

For example, you could enter the following at the DOS command prompt:

```
set PS_HOME=C:\hr840
```

```
set COBROOT=c:\netexpress\base
```

2. Open a DOS command prompt window if you do not have one open already, and change directories to *PS_HOME\setup*.
3. Execute CBLBLD.BAT as follows:

```
cblbld <compile drive> <compile directory> EBCDIC
```

In this command, *<compile drive>* is the drive where the compile takes place, *<compile directory>* is the temp directory where the compile takes place

EBCDIC is a parameter for collating sequence comparisons on DB2 z/OS (by default it compiles with ASCII mode)

The CBLBLD.BAT file will create the compile directory for you if it does not already exist.

Note. If the database server is DB2 UDB for z/OS, the EBCDIC parameter is required; it is not needed for other platforms.

Note. *Make sure* to include a space between the *<compile drive>* and *<compile directory>* parameters; they are treated as two different parameters within the CBLBLD.BAT batch program. Also ensure that you have write permission to *<compile drive>* and *<compile directory>* as the compile process will take place there.

For example, the following command will take the COBOL source from *PS_HOME\src\cbl* and do the compile process under *c:\temp\compile*:

```
cblbld c: \temp\compile
```

Make note of the information that is displayed on the screen while the process is running; it provides the locations of important files that you will need to examine.

4. After you have successfully compiled your source code, all of the executables should have been placed in your *PS_HOME\CBLBINX* directory (this directory will be named CBLBINA, CBLBINU, or CBLBINE, depending on whether you are using ANSI, Unicode or EBCDIC). Make sure that all of the files were copied correctly to this directory.
5. If the files were copied correctly, you can delete the entire temporary compile directory to free space on your disk drive.

Note. You may want to keep the files in the compile directory for testing purposes. Make sure that you have enough space on the drive where *<compile directory>* is located. Estimate about three times the amount in the *PS_HOME\CBLBINX* directory.

Note. If you chose the Unicode option while running the PeopleSoft Installer, the file UNICODE.CFG was created in the setup directory. UNICODE.CFG automatically triggers the batch file CBL2UNI.BAT when you run CBLBLD.BAT. Another batch file, CBLRTCPY.BAT, copies four DLLs (CBLINTS.DLL, CBLRTSS.DLL, CBLVIOS.DLL, COB32API.DLL) from the Microfocus compiler directory (identified by %COBROOT% setting) into the appropriate CBLBIN directory (CBLBINA, CBLBINU, or CBLBINE) when you run CBLBLD. These files are needed for COBOL to run; they can reside anywhere as long as they are in the path. You can run either of these BAT files independently from the DOS command line (they reside in *PS_HOME\setup*). For CBLRTCPY.BAT you need to specify a target directory.

Task 13A-1-2: Compiling COBOL with CBLMAKE.BAT

CBLBLD.BAT compiles all your COBOL at once, which can take a lot of time. CBLMAKE.BAT, in contrast, lets you employ one or more parameters to compile a specific COBOL file or a selected group of COBOL files. Unlike CBLBLD.BAT, however, CBLMAKE.BAT does not automatically trigger the batch file CBL2UNI.BAT or CBLRTCPY.BAT.

Here is the basic syntax for CBLMAKE.BAT:

```
CBLMAKE.BAT [] [ALL] [wildcard filename[ALL]] [wildcard filename | wildcard⇒
filename without extension[INT | GNT | EXE]] [EBCDIC] [LIST]
```

Note. The switches are well documented in the CBLMAKE.BAT file in the form of comments.

Note. If you are running DB2 z/OS, you must use the EBCDIC parameter.

Note. If the change in the COBOL source is a copy member, you must compile all of the COBOL programs using CBLBLD.BAT. You know it is a copy member when the third letter in the file name is a C, as in PTCSQLRT.CBL.

The following table describes the various options for CBLMAKE.BAT.

Option	Purpose
Cblmake	Compiles all source
Cblmake all	Compiles all source
Cblmake EBCDIC	Compiles all source files for DB2 UDB for z/OS
Cblmake PT*	Compiles all source files that start with PT
Cblmake PT* ALL	Compiles all source files that start with PT
Cblmake PT* INT	Generates INT files for all source files that start with PT
Cblmake PT* GNT	Generates GNT files for all source files that start with PT
Cblmake PT* EXE	Generates EXE files for all source files that start with PT
Cblmake PTPDBTST INT	Generates PTPDBTST.INT file
Cblmake PTPDBTST INT LIST	Generates PTPDBTST.INT and source listing file
Cblmake PTPDBTST GNT	Generates PTPDBTST.GNT file
Cblmake PTPDBTST EXE	Generates PTPDBTST.EXE file

The LIST option creates a source listing file under *<compile directory>\<filename>.lis*. The LIST option is useful when the compile fails during the debugging phase. The source listing files show exactly where an error occurred. This option is not recommended when the program compiles successfully because the .LIS files can grow to be quite large.

Note. By default, when the program fails to compile, the system will generate a .LIS file.

To compile with CBLMAKE.BAT:

1. Verify that the %PS_HOME% and %COBROOT% environment variables are set up correctly.

2. Open a DOS command prompt window.
3. Make sure the compile directory exists; it may already if you've run CBLBLD.BAT. If it does exist, remove any files residing there—just as a safeguard. If it does not exist, you need to create it.

Note. Make sure you have write permission to *<compile directory>* as the compile process will take place there.

4. Change to the *PS_HOME\setup* directory.
5. If the installation is Unicode, run CBL2UNI (with no parameters).
6. Execute the following command to copy all the COBOL source files from the *PS_HOME* directory to the compile directory:

```
cblsrc <source directory> <compile directory>
```

where *<source directory>* is the drive and directory where the source resides (it should be the same as *PS_HOME*), and *<compile directory>* is the drive and directory to which the source files will be copied.

For example, the following command will take the COBOL source from *PS_HOME* and copy all the necessary files to the location where the compile process will take place.

```
cblsrc PS_HOME c:\temp\compile
```

If the COBOL source that will be compiled is different from the one under *PS_HOME*, copy that COBOL source to *<compile directory>*.

Note. The compile in the next step will generate a GNT file unless the exception file, CBLINT.XX already exists (the XX represents the Product ID). CBLINT.XX contains the list of files that need to be compiled to the INT file. Make sure the intended CBLINT.XX is located under *<compile directory>* before executing CBLMAKE.

7. After CBLSRC completes, change directories to the compile directory, and run CBLMAKE.BAT, using the basic syntax as well as the CBLMAKE table shown earlier as your guide.
8. After CBLMAKE.BAT completes, copy the EXE, GNT, or INT files to the appropriate *PS_HOME\CBLBINX* directory (CBLBINA, CBLBINU, or CBLBINE).

```
copy *.exe PS_HOME\cblbina
copy *.gnt PS_HOME\cblbina
copy *.int PS_HOME\cblbina
```

Note. You have to copy these files to the appropriate cblbin directory manually when you use CBLMAKE; they are not copied automatically, as when you use CBLBLD.

Task 13A-1-3: Defining the GNT and INT Files

By default, the compile generates a GNT file unless the exception file, CBLINT.XX already exists. CBLINT.XX contains the list of files that need to be compiled to the INT file.

Note. The INT exception file is sometimes needed to overcome MicroFocus execution error with GNT files.

For example, the exception file, CBLINT.PT, where *PT* represents PeopleTools, would contain the following information:

```
Call cblcrnt <file name without file extension>
```

or:

```
Call cblcprint PTPDBTST
```

Task 13A-2: Distributing COBOL Binaries

Once you've compiled your COBOL, you must transfer it to the needed locations. Copy the contents of *PS_HOME\CBLBINX* (CBLBINA, CBLBINU, or CBLBINE) directory into *PS_HOME\CBLBINX* (CBLBINA, CBLBINU, or CBLBINE) on your batch and application server machines.

CHAPTER 13B

Compiling COBOL on UNIX

This chapter discusses:

- Understanding COBOL
- Prerequisites
- Modifying the Liblist (IBM AIX 5.3 and HP-UX Only)
- Modifying the Cobopt File (SuSE Linux Enterprise Server Only)
- Compiling COBOL Programs
- Linking COBOL
- Recompiling COBOL on UNIX

Understanding COBOL

This chapter describes how to compile and link PeopleSoft COBOL batch programs, if necessary.

COBOL is not needed for PeopleSoft PeopleTools because the Process Scheduler is written in C++. In addition, COBOL is not required for applications that contain no COBOL programs. See My Oracle Support for the details on whether your application requires COBOL.

Warning! If your database server is DB2 UDB for z/OS and your CCSID is not 37, you must read the CCSID discussion under Defining DB2 UDB for z/OS Subsystem Configuration in the chapter “Preparing for Installation.”

See *Enterprise PeopleTools 8.50 PeopleBook: Global Technology*, “Sorting in PeopleTools” (look for %BINARYSORT).

See *Enterprise PeopleTools 8.50 PeopleBook: System and Server Administration*, “Using PeopleTools Utilities,” (look for PeopleTools options and PSOPTIONS).

See Also

"Preparing for Installation," Installing Supporting Applications

"PeopleSoft Enterprise Frequently Asked Questions About PeopleSoft and the Micro Focus COBOL Compiler," My Oracle Support, (search for the article name)

"COBOL: Installation, versions, fixpacks, etc PT 8.50," My Oracle Support, (search for the article name)

Enterprise PeopleTools 8.50 PeopleBook: Global Technology, "Running COBOL in a Unicode Environment"

Enterprise PeopleTools 8.50 PeopleBook: Global Technology, "Running COBOL in a z/OS Unicode Environment."

Prerequisites

Before you attempt to run COBOL from the command line you should make sure the variable PS_SERVER_CFG points to a valid psprcs.cfg file.

Task 13B-1: Modifying the Liblist (IBM AIX 5.3 and HP-UX Only)

This section discusses:

- Understanding Liblist Modifications
- Modifying the Liblist File

Understanding Liblist Modifications

If you are compiling COBOL on AIX 5.3 or HP-UX, modify the liblist or liblist64 file as described here. See the document "COBOL: Installation, versions, fixpacks, etc. PT 8.50" on My Oracle Support for additional information about modifications that need to be made in the liblist or liblist64 file.

Task 13B-1-1: Modifying the Liblist File

This section discusses:

- Modifying the Liblist64 File for AIX
- Modifying the Liblist64 File for HP-UX

Modifying the Liblist64 File for AIX

To modify the liblist file for AIX 5.3:

1. cd to \$COBDIR/lib.
2. Add the following line to the liblist file:

```
x:*:s!t:-lc
```

The following listing shows where to make the changes:

```
# More emulation of cc (MUST be after MF/user libraries):
x*:sg:-lg
x*:sg:-bE:/usr/lib/libg.exp
x*:st:-L/usr/lib/threads
x*:st:-lpthreads
x*:s!t:-lc          <=== Add this line
x*:s:-lc
```

Modifying the Liblist64 File for HP-UX

You must modify \$COBDIR/lib/liblist64 if *both* of the following conditions exist:

Note. This modification is for the liblist64 (sixty-four) file, not the liblist file.

- You get this error message when running psrun.mak:

```
$ ./psrun.mak
./psrun.mak - linking PSRUN ...
./psrun.mak - Error(s) encountered creating PSRUN!
./psrun.mak - See psrun.err for messages
```

- The psrun.err error file contains the following error:

```
ld: Can't open /opt/langtools/lib/pa20_64/crt0.o
ld: No such file or directory
```

To modify the liblist64 file for HP-UX PA RISC:

1. Login into the system as user root.
2. cd to \$COBDIR/lib and find the liblist64 file.
3. Edit \$COBDIR/lib/liblist64 with vi, emacs or your favorite editor, and change the crt0.o specification as depicted below.

From this:

```
x*:s:/opt/langtools/lib/pa20_64/crt0.o
```

To this:

```
x*:s:/usr/ccs/lib/pa20_64/crt0.o
```

Task 13B-2: Modifying the Cobopt File (SuSE Linux Enterprise Server Only)

This section discusses:

- Understanding the \$COBDIR/etc/cobopt File Modification
- Modifying the File on zSeries Platforms

Understanding the \$COBDIR/etc/cobopt File Modification

You must update the \$COBDIR/etc/cobopt or \$COBDIR/etc/cobopt64 file to point to the correct GCC compiler object files. Without these changes the Server Express product cannot compile correctly.

Note. If you are installing Server Express 5.0 Wrap Pack 4, these changes may have already been incorporated in the files.

Task 13B-2-1: Modifying the File on zSeries Platforms

Change the following line in the \$COBDIR/etc/cobopt file:

From	To
-C nolist set GCC_LIB=/usr/lib64/gcc-lib/s390x-suse-linux/3.3.3/32	-C nolist set GCC_LIB=/usr/lib64/gcc/s390x-suse-linux/4.1.0/32

Change the following line in the \$COBDIR/etc/cobopt64 file

From	To
-C nolist set GCC_LIB=/usr/lib64/gcc-lib/s390x-suse-linux/3.3.3/32	-C nolist set GCC_LIB=/usr/lib64/gcc/s390x-suse-linux/4.1.0

Task 13B-3: Compiling COBOL Programs

This section discusses:

- Understanding COBOL Compilation
- Compiling COBOL on UNIX

Understanding COBOL Compilation

Under UNIX, you always need to compile your COBOL at installation time. After you run the PeopleSoft Installer to set up your application or batch server, carry out the following steps.

You have two options for compiling:

- You can treat one application or batch server as your compile server, compile all your COBOL there, and then distribute cblbin from there to all other relevant servers. In this case, only that one server would require a COBOL compiler, and you would copy any patches and customizations from your file server to this designated server before carrying out the compile.
- The second option is to compile on all servers. In this situation, all servers would need a COBOL compiler, and you would need to copy any patches and customizations from the file server to all of these servers before carrying out the compile.

Note. You should have read/write access to the directory *PS_HOME/cblbin* to be able to compile the COBOL programs.

Note. To copy a compiled COBOL program from one UNIX server to another, they must be on the same OS that the compile took place on. For example, if you compile on Solaris for the Application Server, and the Process Scheduler is on AIX, you cannot copy the compiled program (you will also need to compile on the AIX box).

Task 13B-3-1: Compiling COBOL on UNIX

To compile COBOL on UNIX:

1. If you haven't already done so, download all required patches to your file server, and from there to FTP the contents of *src/cbl/base* and *src/cbl/unix* over to *src/cbl* on the relevant application or batch server.

Note. When you bring patches up from the file server, the files need to have a lowercase *cbl* extension and an uppercase program name, as in *PATCH.cbl*.

2. Run *psconfig.sh* from *PS_HOME* to set up environment variables correctly on your application or batch server.
3. Change to the *PS_HOME/setup* directory:

```
cd $PS_HOME/setup
```

4. To compile all the COBOL source dynamically, issue the command:

```
./pscbl.mak
```

The dynamic compile creates INT, LST, and GNT files, which are copied to these locations:

File	Location
INT	<i>PS_HOME/src/cbl/int</i>
LST	<i>PS_HOME/src/cbl/lst</i>
GNT	<i>PS_HOME/cblbin</i>

Warning! Proposed ISO 2000 COBOL features are enabled. Please refer to documentation for details, and do not rely on these features being supported in future products from Micro Focus due to changes in the proposed COBOL standard.

Note. For Server Express, PeopleSoft sets the COBOL directive *INTLEVEL* to 4. Setting this directive to this value enables you to raise the significant digits of numeric fields from 18 to 31. This is in accordance with the ISO 2000 COBOL standard. During the compilation of each program, the vendor of Server Express will display a warning. This should not be considered a compilation error.

Task 13B-4: Linking COBOL

This section discusses:

- Understanding COBOL Linking
- Linking COBOL Components on UNIX

Understanding COBOL Linking

PSRUN is the PeopleSoft procedure that connects the COBOL batch programs with the RDBMS API. It is compiled uniquely for each platform and consists of modules provided with PeopleSoft software, the RDBMS platform, and the operating system.

You need to create the PSRUN program in the following situations:

- You are installing PeopleSoft software for the first time.
- Any COBOL programs have changed.
- The version of the RDBMS running the PeopleSoft system has changed.
- The COBOL compiler has changed.
- One of the C programs supplied with the PeopleSoft system has changed.

Note. The PeopleSoft system only supports dynamic linking of COBOL. Static linking is not an option.

Task 13B-4-1: Linking COBOL Components on UNIX

To link COBOL components on UNIX:

1. Change to the *PS_HOME/setup* directory:

```
cd $PS_HOME/setup
```

2. For dynamic linking, run:

```
./psrun.mak
```

The PSRUN.MAK script should return the UNIX prompt when done. If the compile completes without errors, the file PSRUN will now exist in the *PS_HOME/bin* directory. If you encounter errors, check *PS_HOME/setup/psrun.err*.

Task 13B-5: Recompiling COBOL on UNIX

You always need to compile at installation, so you will only need to recompile COBOL in the following situations:

- Any COBOL programs change
- The supported COBOL compiler changes
- You change the version of your RDBMS
- You change your version of your operating system
- You apply a patch or a fix

Note. Remember, you must always use your file server as the source repository for your COBOL. You should download any patches and apply any customizations to the file server, and disseminate them from there.

You can compile a *single* COBOL program dynamically by using this command syntax:

```
./pscb1.mak <PROGRAM NAME WITHOUT "cbl" EXTENSION>
```

For example,

```
./pscb1.mak PTPDBTST
```

compiles the lone file PTPDBTST.

Note. If you want to recompile all your COBOL, you can follow the procedure described earlier.

See “Compiling COBOL Programs.”

The compile should run without errors until it completes. After the script is complete, check the destination directories for the newly created files in *PS_HOME/src/cbl/int*, *PS_HOME/src/cbl/1st*, and *PS_HOME/cblbin*. They should have a length greater than zero as well as a current date and time stamp.

Note. You can also use *pscb1.mak PTP* or *pscb1.mak PTP** to compile all source files that start with PTP.

CHAPTER 14

Installing PeopleSoft Change Assistant

This chapter discusses:

- Understanding PeopleSoft Change Assistant
- Installing and Configuring PeopleSoft Change Assistant
- Specifying Options
- Exporting Jobs to XML, HTML, or Microsoft Excel Format
- Validating Change Assistant Settings

Understanding PeopleSoft Change Assistant

Oracle's PeopleSoft Change Assistant is a standalone application that enables you to assemble and organize the steps necessary to apply patches and fixes for maintenance updates. You also use PeopleSoft Change Assistant for software upgrades, that is, the process of moving from one PeopleSoft application release to another PeopleSoft application release. PeopleSoft Change Assistant runs only on Microsoft Windows platforms.

In order to perform reliable and accurate updates, PeopleSoft Change Assistant gathers all the necessary information including the change log from the Environment Management hub and uploads it to My Oracle Support. With the environment data available, My Oracle Support can determine what updates apply to your environment.

When you access My Oracle Support, you can obtain a list of all unapplied updates for a given application environment including all prerequisites. You can then download a set of change packages associated with the update IDs and install the patches and fixes with minimal effort.

See Also

"Using the PeopleSoft Installer," Verifying Necessary Files for Installation on Windows

Enterprise PeopleTools 8.50 PeopleBook: PeopleSoft Change Assistant

Enterprise PeopleTools 8.50 PeopleBook: Life Cycle Management Guide

Task 14-1: Installing and Configuring PeopleSoft Change Assistant

This section discusses:

- Installing PeopleSoft Change Assistant
- Setting Up Security for PeopleSoft Change Assistant
- Verifying the Path Variable
- Scanning the Workstation

Task 14-1-1: Installing PeopleSoft Change Assistant

At the end of the installation, you have the option of installing PeopleSoft Change Impact Analyzer. For more information on that installation, see the following chapter.

See "Installing PeopleSoft Change Impact Analyzer."

To install PeopleSoft Change Assistant:

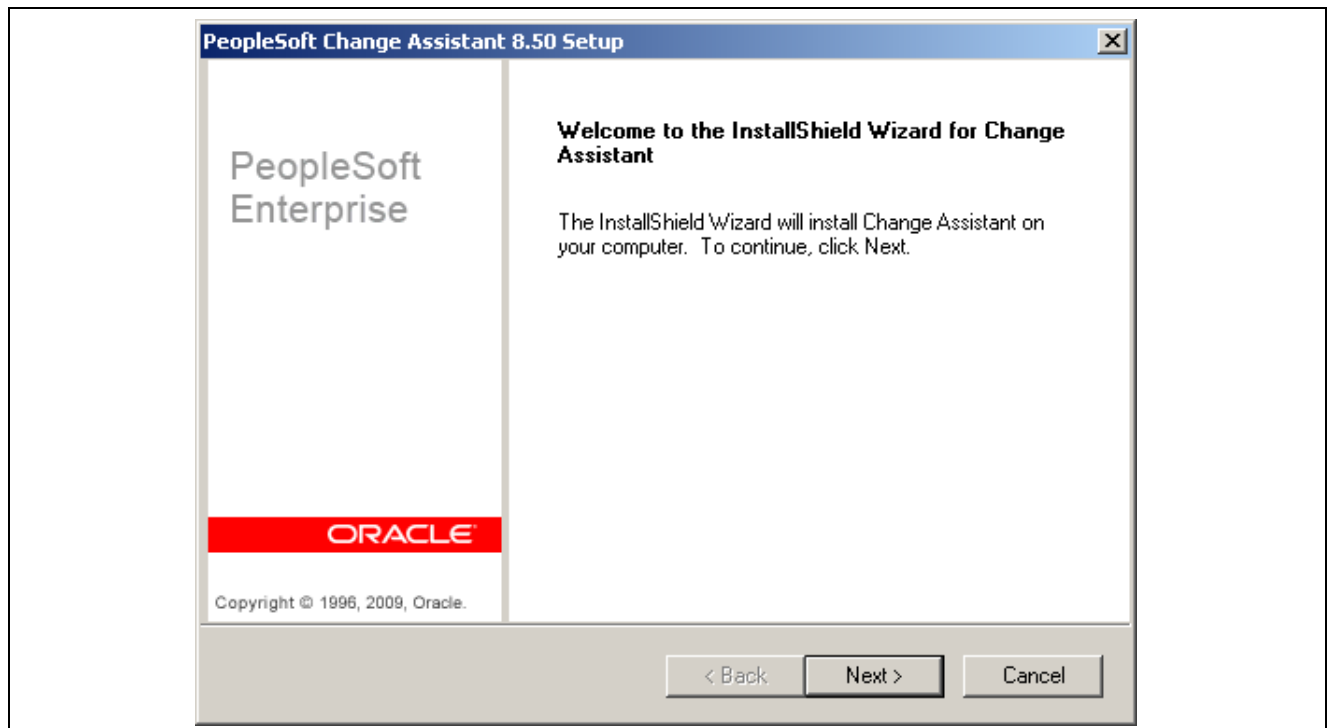
Note. A Microsoft Windows-based operating system is required to use PeopleSoft Change Assistant.

1. If there is a pre-8.50 version of PeopleSoft Change Assistant installed on your computer, remove it before beginning the installation. Otherwise, the installation process will terminate.

You can remove the previous version of PeopleSoft Change Assistant by using the Microsoft Windows Add or Remove Programs feature. Alternatively, launch the setup.exe of the previous version and select the option to remove the software.

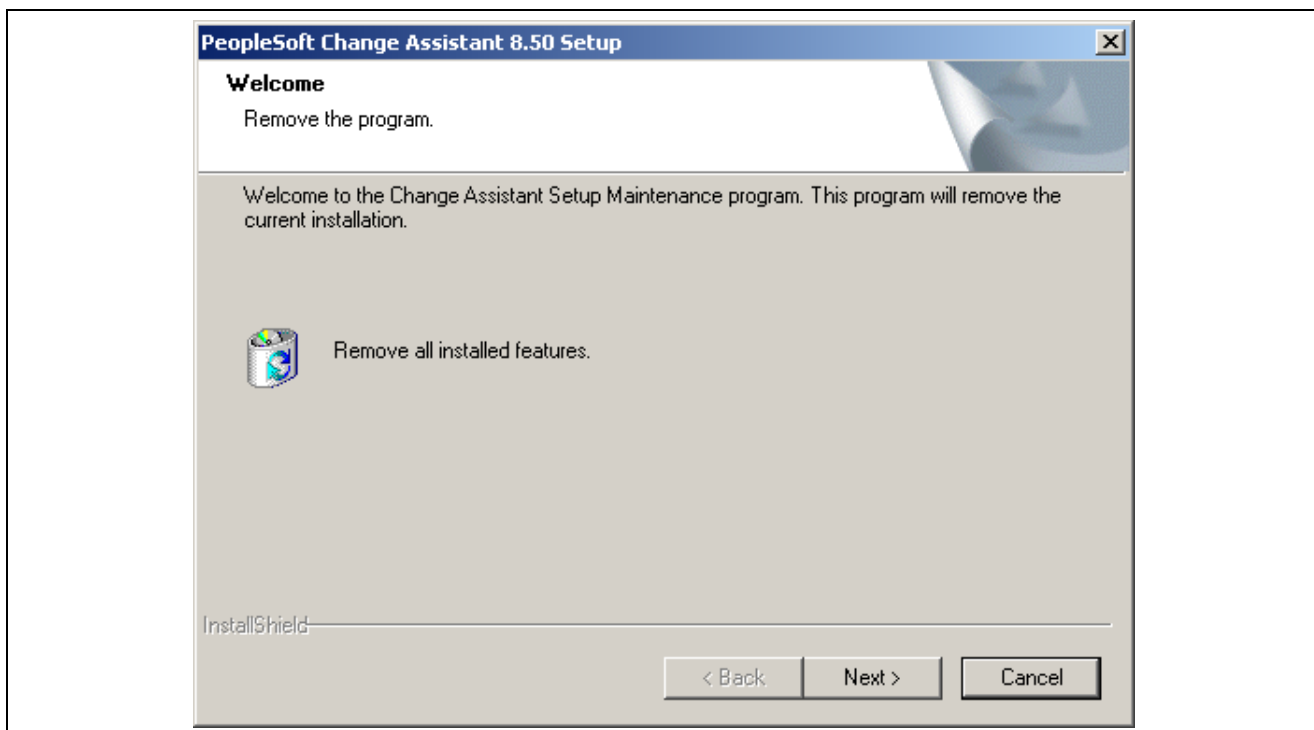
2. From the *PS_HOME*\setup\PsCA directory, run *setup.exe*.

Click Next on the Welcome window.



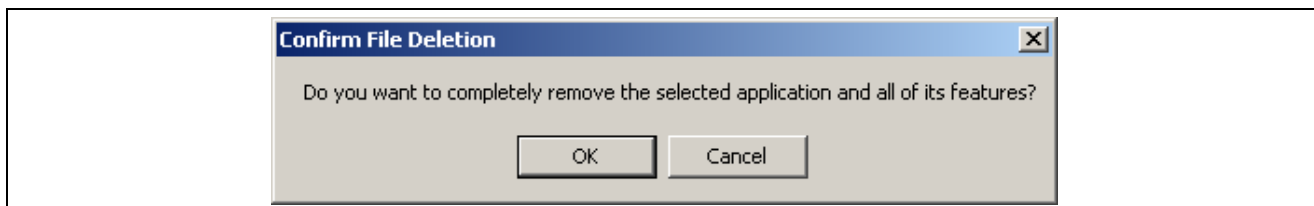
PeopleSoft Change Assistant 8.50 Setup Welcome window

3. If there is an existing installation of PeopleSoft Change Assistant 8.50 a window appears that enables you to remove the existing installation.



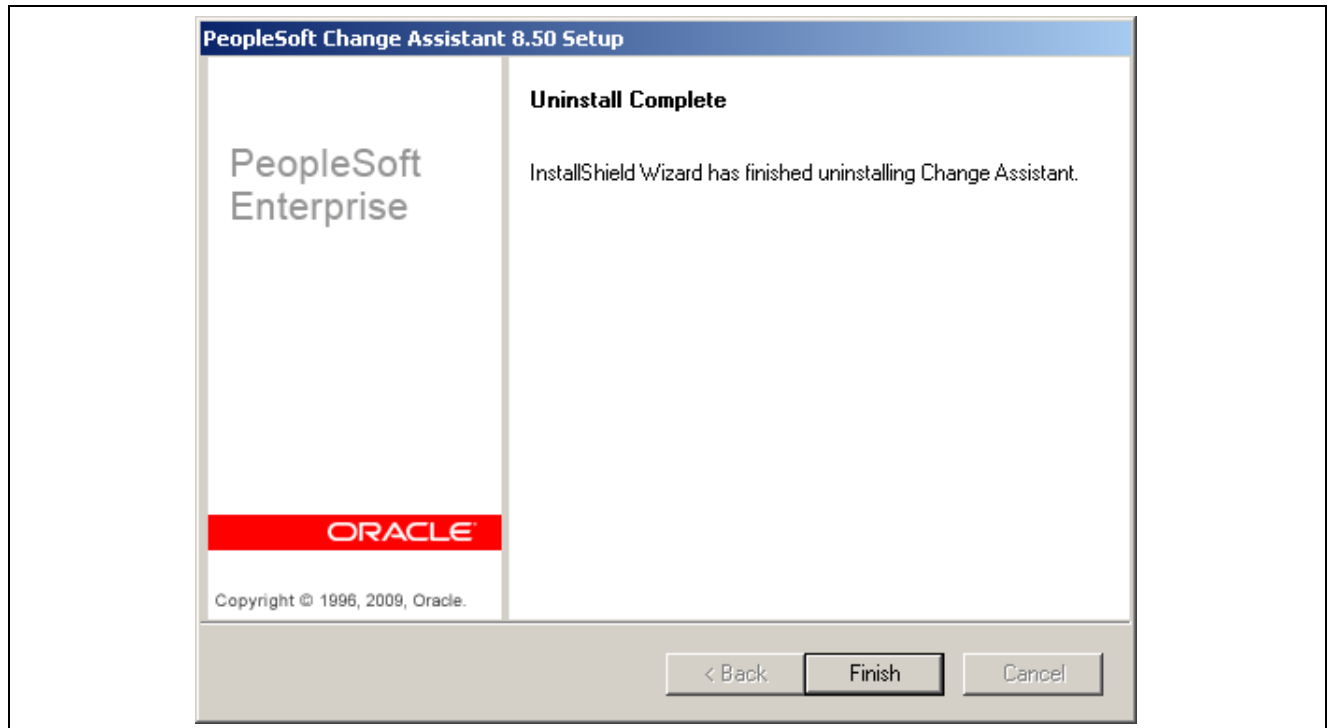
Remove the previous PeopleSoft Change Assistant installation

Click Next, and then click OK on the Confirm File Deletion dialog box, as seen in this example:



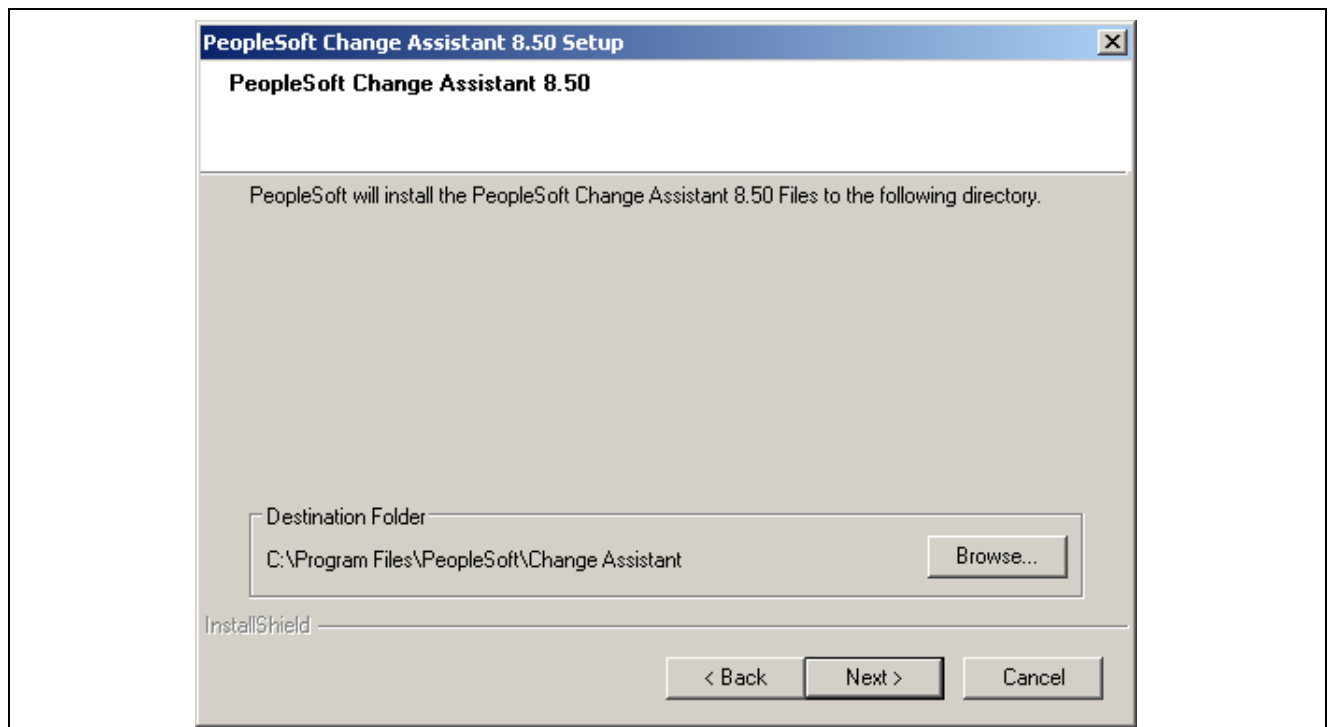
Confirm File Deletion dialog box

4. After the previous installation has been removed, click Finish.



Uninstall Complete window

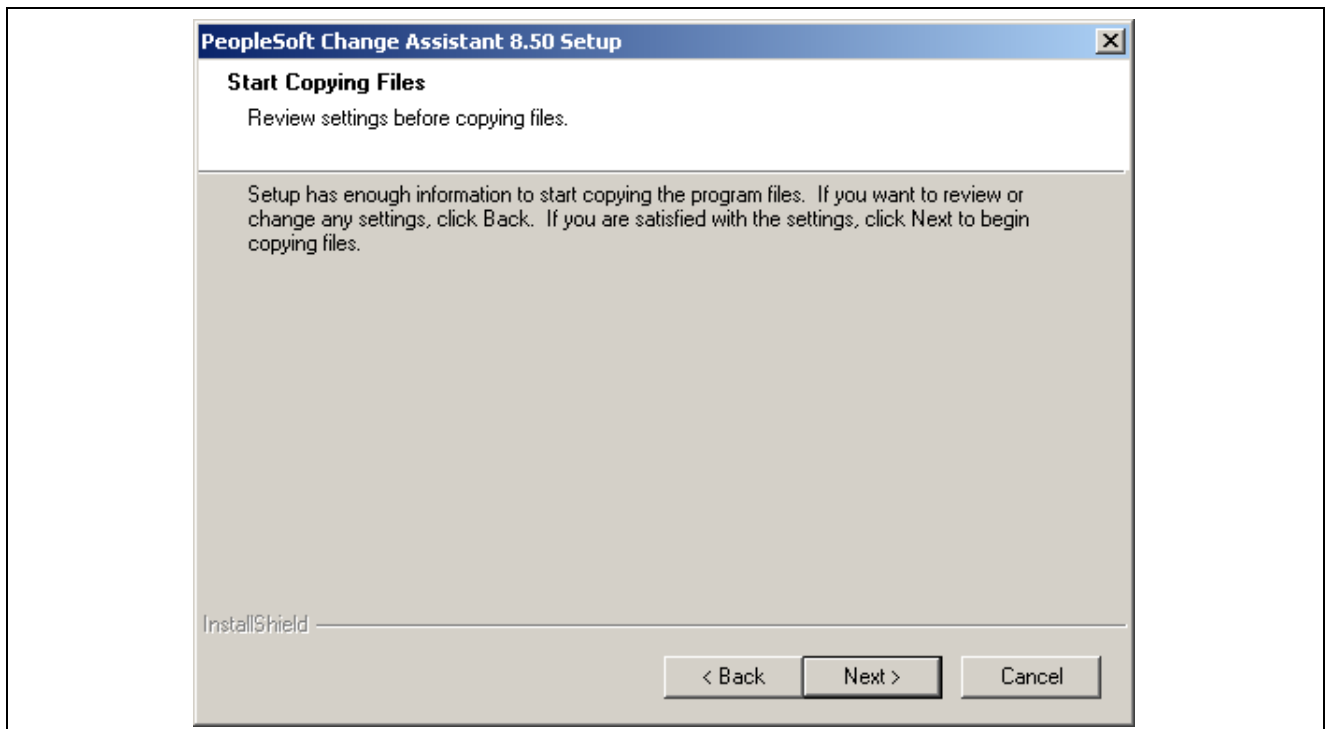
5. Go to *PS_HOME*\setup\PsCA directory again and run `setup.exe`.
The Welcome window seen in the first step appears. Click Next.
6. Accept the default Destination Folder or specify another Destination Folder.



Destination Folder window

7. Select Next.

The Start Copying Files screen appears.



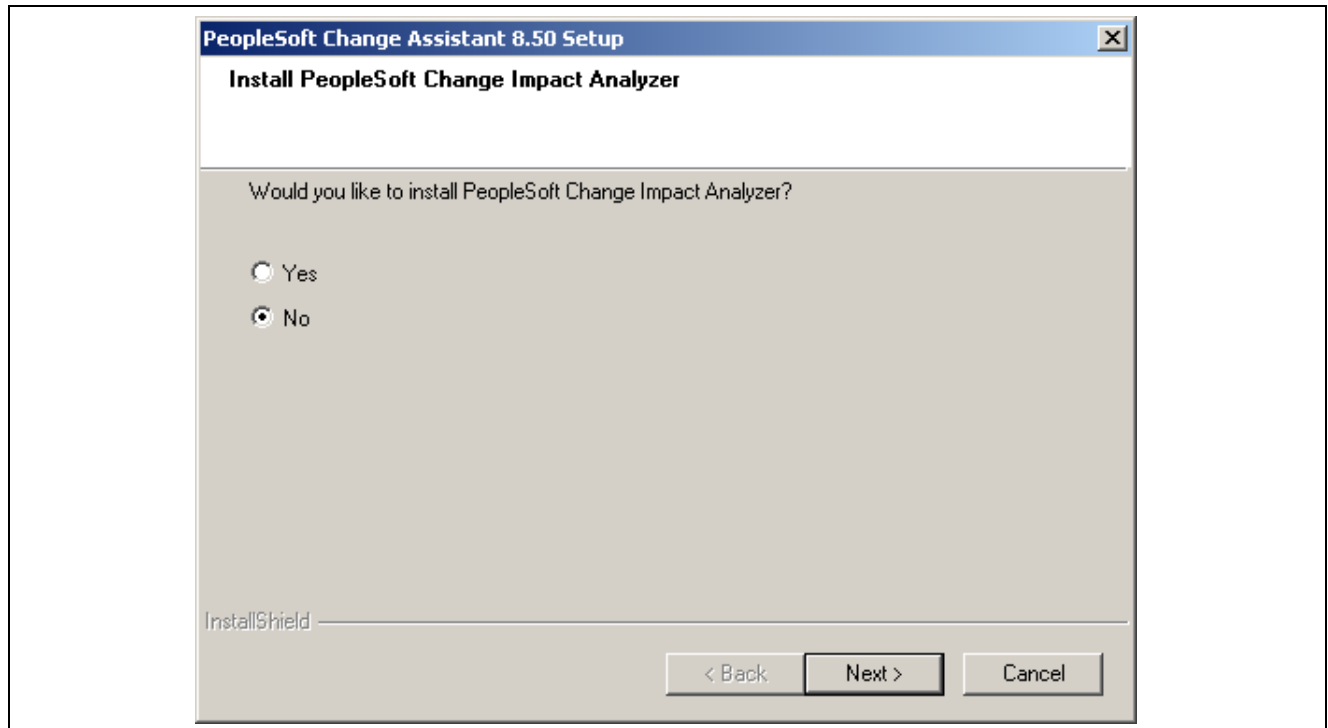
Start Copying Files window

8. Click Back to review or change any settings.

If you are satisfied with your settings, click Next to begin copying files. PeopleSoft Change Assistant copies files to the designated directory.

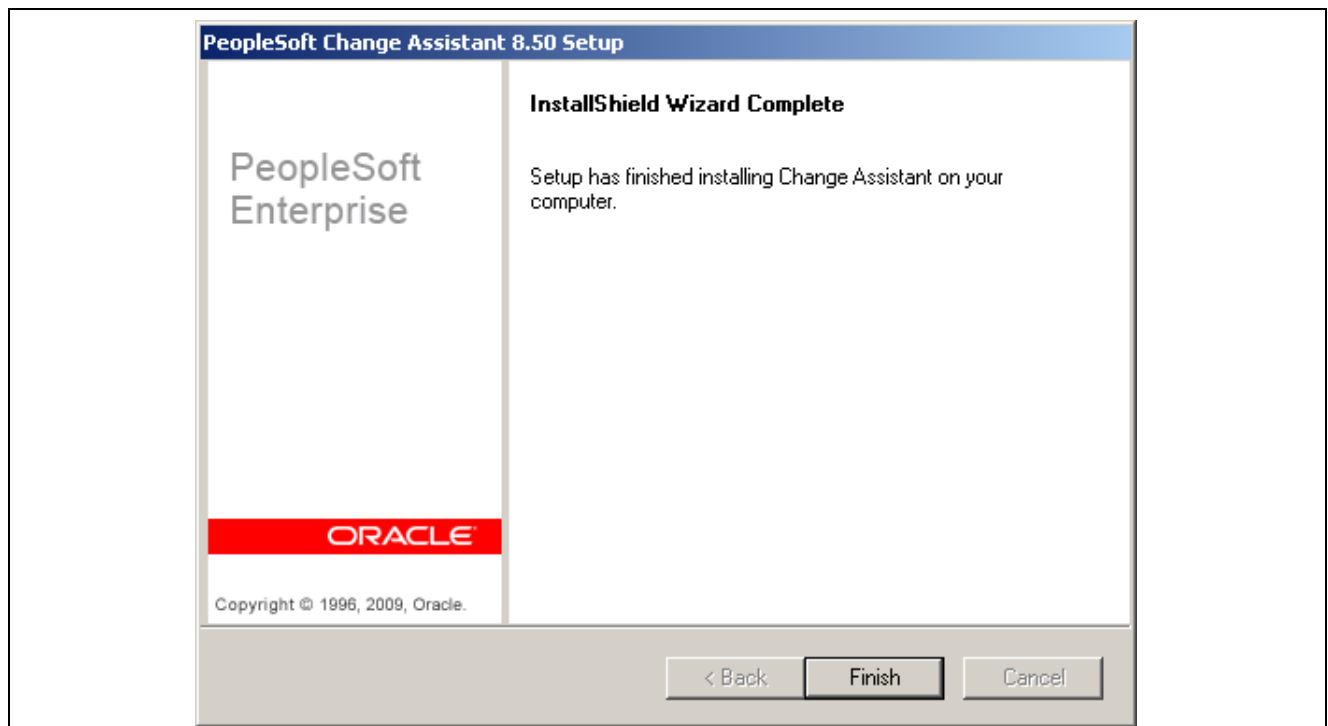
9. On the screen asking whether you want to install Change Impact Analyzer, select No, and click Next.

If you select Yes, the PeopleSoft Change Impact Analyzer installation begins. You will do this installation in the next chapter. Instead, continue with the tasks in this chapter to finish setting up PeopleSoft Change Assistant.



Choosing not to install Change Impact Analyzer

10. Click Finish to complete the installation process.



InstallShield Wizard Complete window

11. Reboot your machine after the installation process is complete.

12. To start PeopleSoft Change Assistant, select Start, Programs, PeopleSoft 8.50, Change Assistant.

Task 14-1-2: Setting Up Security for PeopleSoft Change Assistant

To use PeopleSoft Change Assistant, you must configure your firewall settings so that the firewall does not filter PeopleSoft domain and IP names.

Note. When setting trust rules or bypass rules on your proxy server, or in browser security, it is easier to maintain rules by domain or IP subnet.

The following features must be set to allow access for PeopleSoft Change Assistant:

- *Domains*

We recommend that you set domain rules to allow access to *.*oracle.com*. In addition, allow access for the following domains:

- www.peoplesoft.com
- update.peoplesoft.com
- psft-updates.oracle.com
- www.oracle.com
- metalink3.oracle.com
- login.oracle.com

- *IP addresses*

Allow access for the IP address 141.146.8.119.

We recommend that you set IP rules at the subnet 141.146.54.0.

PeopleSoft Change Assistant uses SSL to connect at all times, but when you log in to My Oracle Support or Update Gateway through a browser only the login page is SSL.

Task 14-1-3: Verifying the Path Variable

After installing PeopleSoft Change Assistant, verify that the following values are the first entries in the PATH environment variable:

- *PS_HOME\bin\client\winx86*
- *PS_HOME\jre\bin*

See *Enterprise PeopleTools 8.50 PeopleBook: PeopleSoft Change Assistant*, "Configuring Change Assistant."

Task 14-1-4: Scanning the Workstation

The first time you use PeopleSoft Change Assistant, it automatically scans your workstation for applications that it will use in order to automate the steps. For example, it automatically finds the SQL Query tool and uses it to run SQL commands or scripts.

If you add a new application or update an existing application, PeopleSoft Change Assistant must perform a scan of the system in order to discover the changes. To perform this scan, select Tools, Scan Configuration.

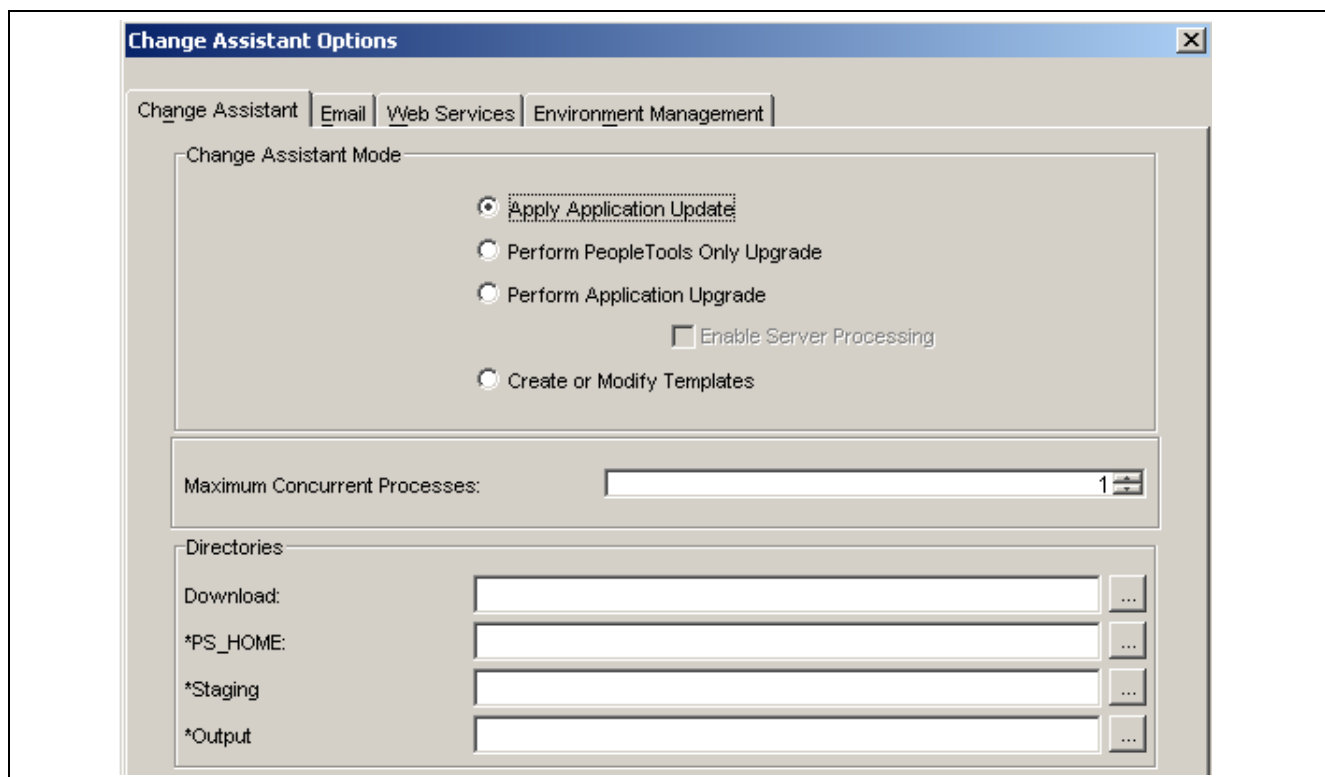
Task 14-2: Specifying Options

This section discusses:

- Specifying Change Assistant Options
- Setting Email Options
- Setting Up Web Services Options
- Setting Environment Management Options

Task 14-2-1: Specifying Change Assistant Options

This section describes options to set in Change Assistant. Select Tools, Options, Change Assistant.



Change Assistant Options window

Change Assistant Mode

Select one of the following radio buttons; the window changes depending upon the mode you choose:

- Apply Application Update
- Perform PeopleTools Only Upgrade
- Perform Application Upgrade
- Enable Server Processing

	Select this check box to enable Change Assistant to run Application Engine, Data Mover User, Data Mover Bootstrap, and SQL Scripts on Remote Agents as configured through Environment Management Framework as part of the Application upgrade.
	• Create or Modify Templates
Maximum Concurrent Processes	Specify the maximum number of processes that can be executed concurrently on the local machine. The default at installation time is one.
Download Directory	Enter the full path of the location to which you want to download your change packages.
*PS_HOME	Enter the full path of the directory in which you installed PeopleSoft PeopleTools.
*Staging Directory	Enter the directory in which you would like to stage all the Change Assistant update files. This is the location that Change Assistant will store files to be used during the apply update process.
*Output Directory	Enter the directory in which you want the log files generated by the update process to reside.

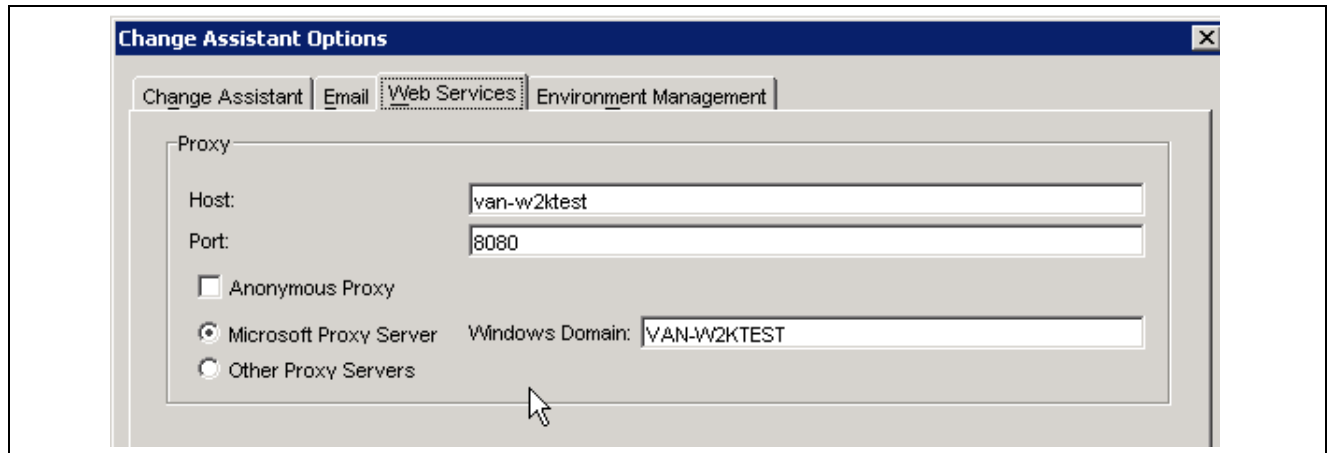
Task 14-2-2: Setting Email Options

Select Tools, Options, Email.

Send email notifications	Select this check box to receive email notifications if there are errors in the update process. Change Assistant also sends you a completion message when it encounters a <i>Stop</i> in the update process.
SMTP Server	Enter the SMTP mail server from which you receive the error or completion messages.
Port	Enter the port from which you want to access the email.
Send To	Enter the address to which you want the email sent.
Return Address	Enter the email address of the sender. Use this to identify who sent the notification.
Test	Use to validate that email is sent to the designated recipients and is working correctly

Task 14-2-3: Setting Up Web Services Options

Select Tools, Options, Web Services.



Change Assistant Options: Web Services tab

Host	(Optional) Enter the name of the proxy server if you want to run Change Assistant behind the firewall using a proxy server.
Port	(Optional) Enter the port number for the proxy server.
Anonymous Proxy	Indicates that you are using a proxy server that does not require authenticated connections.
Microsoft Proxy Server	Indicates that you are using a proxy server with Windows NT authentication.
Windows Domain	The domain to which you belong.
Other Proxy Servers	Indicates you are using non-Microsoft proxy servers.

Task 14-2-4: Setting Environment Management Options

Select Tools, Options, Environment Management.

Server Hostname	The hostname of the server in which the Environment Management components reside.
Server Port	Indicates the port in which to connect to the Environment Management hub.
Ping (button)	Click to verify a valid server URL. If you see "Service is off" to the right of this button, then you must correct the server URL and ping again until you see "Service is on."
Chunk Size	Used for deploying files during a software update. Default is 1024 * 1024 bytes. Typically this does not need to be changed unless there are a significant number of files greater than 1024 KB in a software update.
Ping Interval	Ping interval is in milliseconds for Change Assistant to contact the hub for new messages.
Drives to Crawl	Setting of drives to crawl to identify the configuration of the Change Assistant machine. Windows directories need to use the forward slash (/) character. Include your local drive in this setting so that Change Assistant can locate the SQL Query tool used for automating steps. Also include the path of the SQL Query tool.

Task 14-3: Exporting Jobs to XML, HTML, or Microsoft Excel Format

Change Assistant allows users to export jobs to XML, HTML, or Microsoft Excel file formats. Do this by selecting File, Export Job in Change Assistant. Then, enter the desired exported filename and select the desired file type format.

Task 14-4: Validating Change Assistant Settings

After you have set up and configured PeopleSoft Change Assistant and the Environment Management components, you should validate your PeopleSoft Change Assistant and environment settings.

PeopleSoft Change Assistant validates settings by:

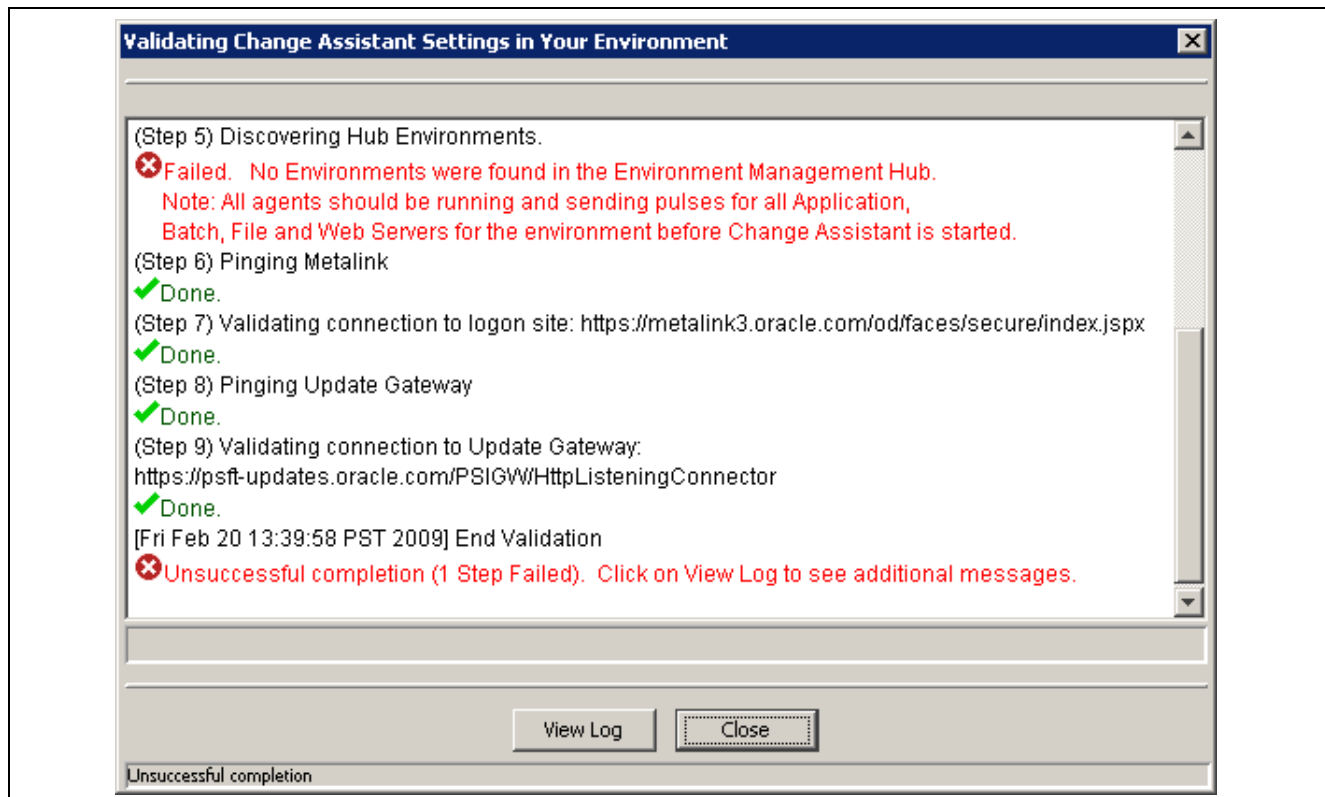
- Locating valid SQL query tools required to run SQL scripts.
- Testing the Environment Management hub and ensuring that PeopleSoft Change Assistant can communicate with it.
- Testing My Oracle Support and ensuring that PeopleSoft Change Assistant can communicate with it.

PeopleSoft Change Assistant sends a ping to My Oracle Support and then tests the connection. In order for the validation to succeed, the machine where you have PeopleSoft Change Assistant installed must have the ping feature enabled.

You can also print a summary of your environment, which can facilitate the diagnosis of problems by Oracle Global Customer Support.

To validate your environment, select Tools, Options, Validate. Click Start Validation.

If any of the steps were unable to complete successfully, open the log file to determine the cause.



Validating Change Assistant Settings in Your Environment

Note. If you use proxy servers, the system will ping those and prompt for proxy server user ID and password. In this case, the validation step numbers would be different from the example.

To review the log file, click the View Log button at the bottom of the screen:

```

validate_2009_2_20_13_39.log - Notepad
File Edit Format View Help
[Fri Feb 20 13:39:46 PST 2009] Begin validation
output written to: C:\Program Files\PeopleSoft\Change
Assistant\validate\validate_2009_2_20_13_39.log
(Step 1) Creating a Summary of Your Environment
PS_HOME: C:\pt850\
Output Directory: C:\pt850_output\
Staging Directory: C:\pt850_staging\
Path: C:\Program Files\PeopleSoft\Change
Assistant\jre\bin;. ;C:\WINDOWS\Sun\Java\bin;C:\WINDOWS\system32;C:\WINDOWS;C:\pt850
\bin\client\winx86;C:\oracle\product\10.2.0\db_1
\bin;C:\WINDOWS\system32;C:\WINDOWS;C:\WINDOWS\System32\wbem;C:\apps\db\oracle102\bin;C:\Program
Files\Microsoft SQL Server\80\Tools\BINN;C:\bea\tuxedo9.1_vs2005_v2\bin
CLASSPATH: C:\Program Files\PeopleSoft\Change Assistant\changeassistant.jar;C:\Program
Files\PeopleSoft\Change Assistant\mx4j-jmx.jar;C:\Program Files\PeopleSoft\Change
Assistant\xercesimpl.jar;C:\Program Files\PeopleSoft\Change Assistant\xml-apis.jar;C:\Program
Files\PeopleSoft\Change Assistant\xalan_2_7_0.jar;C:\Program Files\PeopleSoft\Change
Assistant\serializer.jar;C:\Program Files\PeopleSoft\Change Assistant\commons-logging-
1.0.1.jar;C:\Program Files\PeopleSoft\Change Assistant\commons-httpclient-2.0-rc1.jar;C:\Program
Files\PeopleSoft\Change Assistant\commons-codec-1.1.jar;C:\Program Files\PeopleSoft\Change
Assistant\xml-db-api-20021118.jar;C:\Program Files\PeopleSoft\Change Assistant\xml-db-
common.jar;C:\Program Files\PeopleSoft\Change Assistant\xml-db-xupdate-20040205.jar;C:\Program
Files\PeopleSoft\Change Assistant\xindice-1.1b5-dev.jar;C:\Program Files\PeopleSoft\Change
Assistant\psemf.jar;C:\Program Files\PeopleSoft\Change Assistant\AbsoluteLayout.jar;C:\Program
Files\PeopleSoft\Change Assistant\log4j-1.2.8.jar;C:\Program Files\PeopleSoft\Change
Assistant\jxl.jar;C:\Program Files\PeopleSoft\Change Assistant\j2ee.jar
Current working directory: C:\Program Files\PeopleSoft\Change Assistant
Done.
(Step 2) validating your SQL Query Tools
Found Microsoft SQL Query Tool at c:\Program Files\Microsoft SQL server\80\Tools\Binn\osql.exe
Found Oracle SQL Query Tool at c:\Apps\db\oracle102\bin\sqlplus.exe
Done. 2 SQL Query Tools found.
(Step 3) Pinging Environment Management Hub
Pinging PLE-INFODEV-11
Done.
(Step 4) Connecting to Hub: http://PLE-INFODEV-11:80/PSEMHUB/hub
Done.
(Step 5) Discovering Hub Environments.
Failed. No Environments were found in the Environment Management Hub.

```

Validation log

CHAPTER 15

Installing PeopleSoft Change Impact Analyzer

This chapter discusses:

- Prerequisites
- Installing PeopleSoft Change Impact Analyzer

Prerequisites

Oracle's PeopleSoft Change Impact Analyzer is a tool you can use to evaluate the effect of changes you make on your installation. PeopleSoft Change Impact Analyzer can help you monitor the impact a Change Package has on your system, as well as monitor the impact from other changes such as customizations.

Ensure that your system meets the following requirements before you begin this installation:

- PeopleSoft Change Impact Analyzer runs on Microsoft Windows platforms. For database platforms that do not run on Microsoft Windows, install PeopleSoft Change Impact Analyzer on the Windows client.
- You can install PeopleSoft Change Impact Analyzer from downloaded files as a standalone application, or as a part of your PeopleSoft PeopleTools installation. You can also install PeopleSoft Change Impact Analyzer as a part of the PeopleSoft Change Assistant installation, as mentioned in the previous chapter. These instructions assume you have installed PeopleSoft PeopleTools on the machine on which you want to run PeopleSoft Change Impact Analyzer, and have completed the PeopleSoft Change Assistant installation.
- You must install JDBC drivers for connectivity to your database platform. PeopleSoft Change Impact Analyzer uses Type 4 JDBC drivers by default.

You can normally obtain JDBC drivers from your RDBMS vendor. Search the vendor's web site or contact the vendor for information.

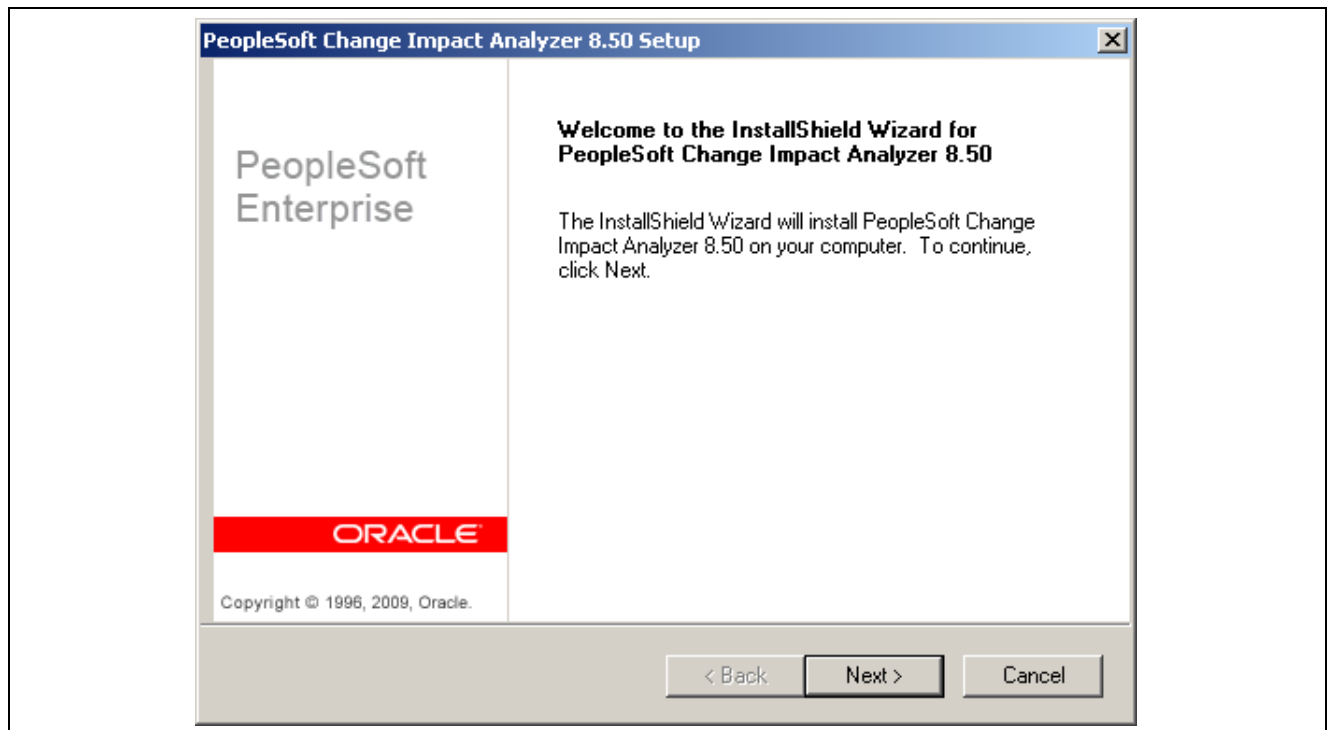
See Also

Enterprise PeopleSoft PeopleTools 8.50 PeopleBook: Change Impact Analyzer

Task 15-1: Installing PeopleSoft Change Impact Analyzer

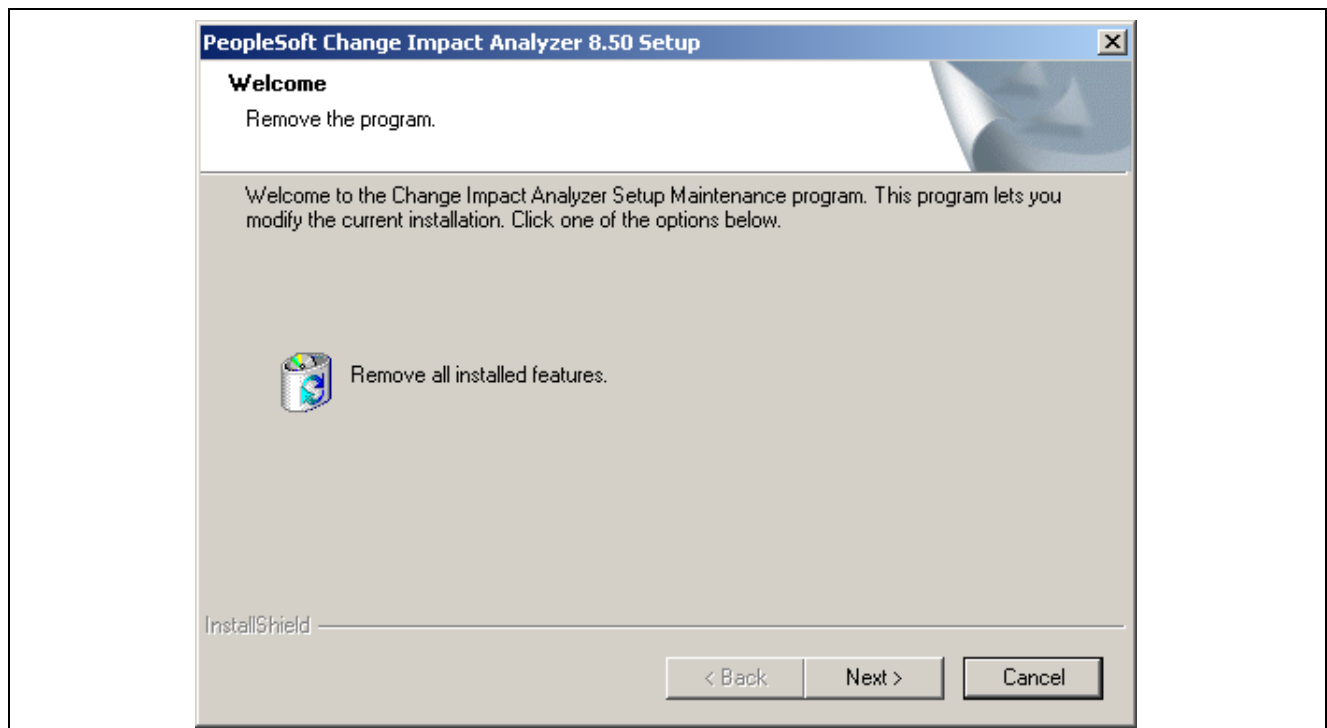
To install PeopleSoft Change Impact Analyzer and Rules Editor:

1. From the *PS_HOME*\setup\PscIA directory, run *setup.exe*.
A Welcome window appears.



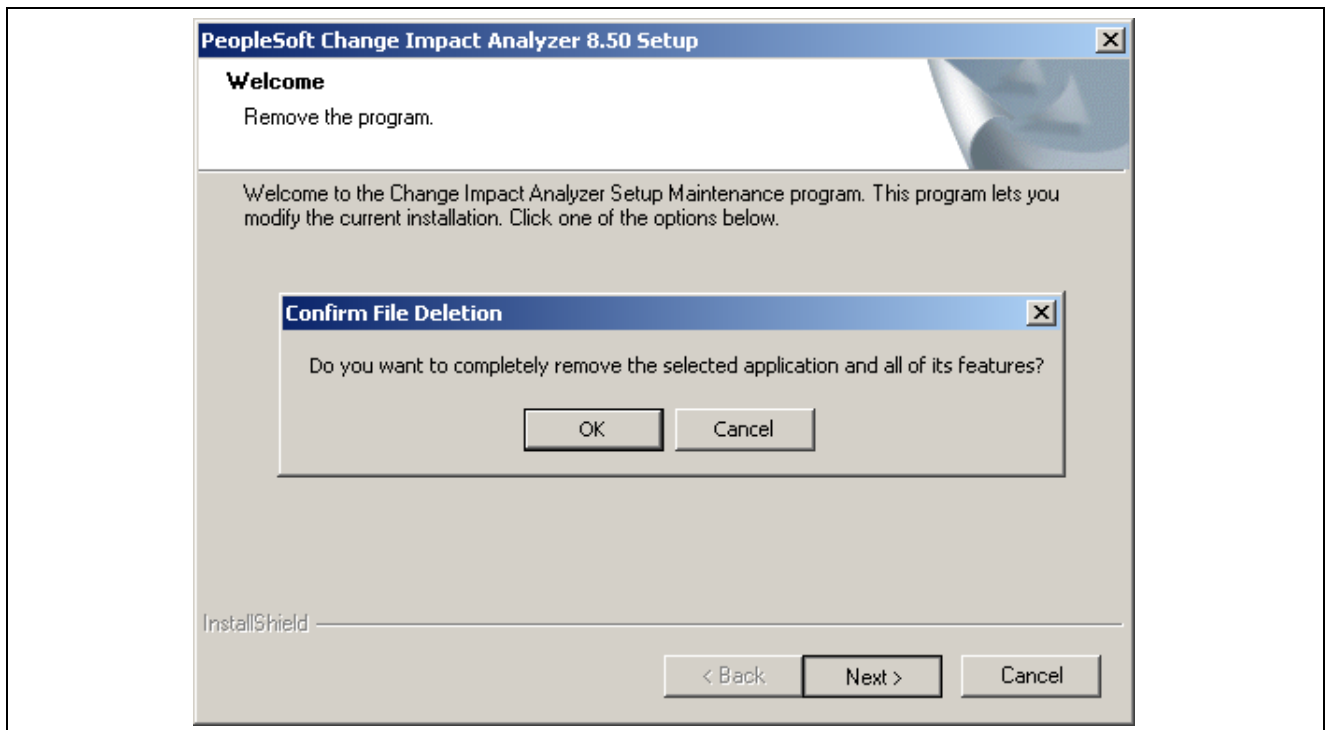
PeopleSoft Change Impact Analyzer Welcome window

2. If there is an existing installation of PeopleSoft Change Impact Analyzer on your machine, a screen appears telling you to remove it.



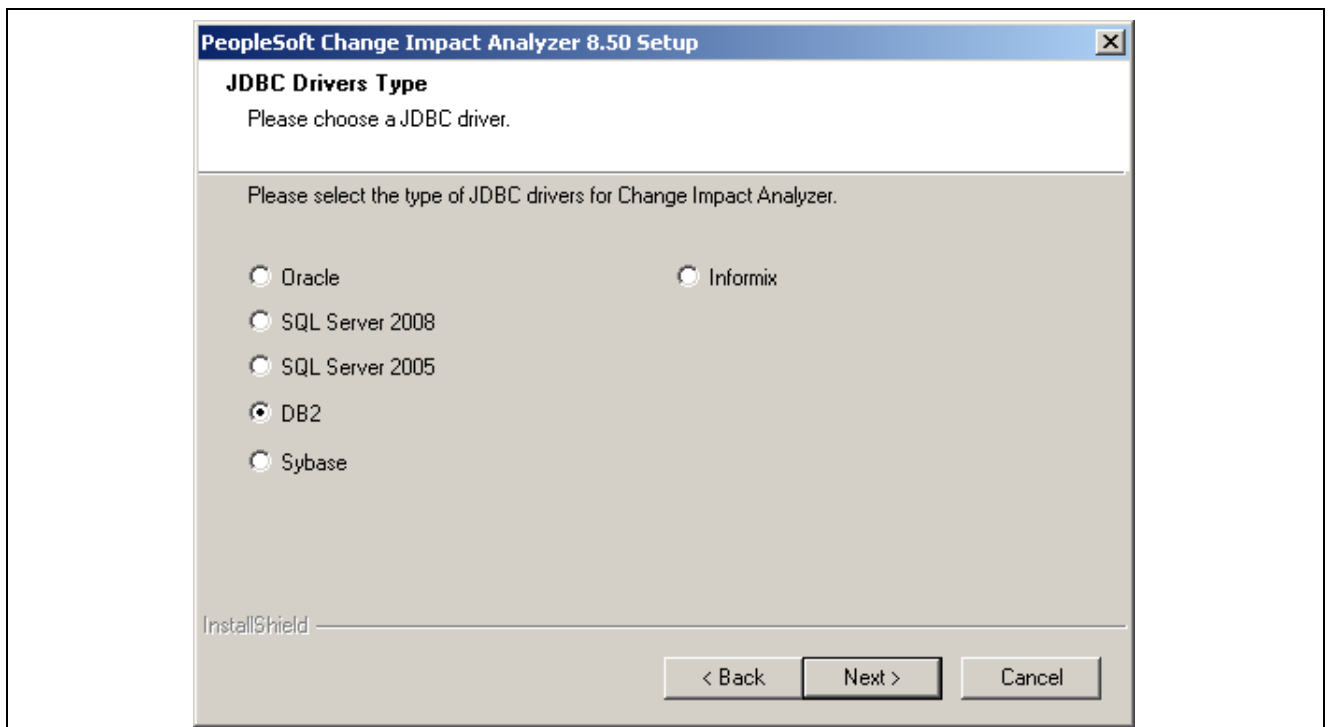
PeopleSoft Change Impact Analyzer Setup Maintenance window

Click Next, and then click OK on the Confirm File Deletion dialog box.



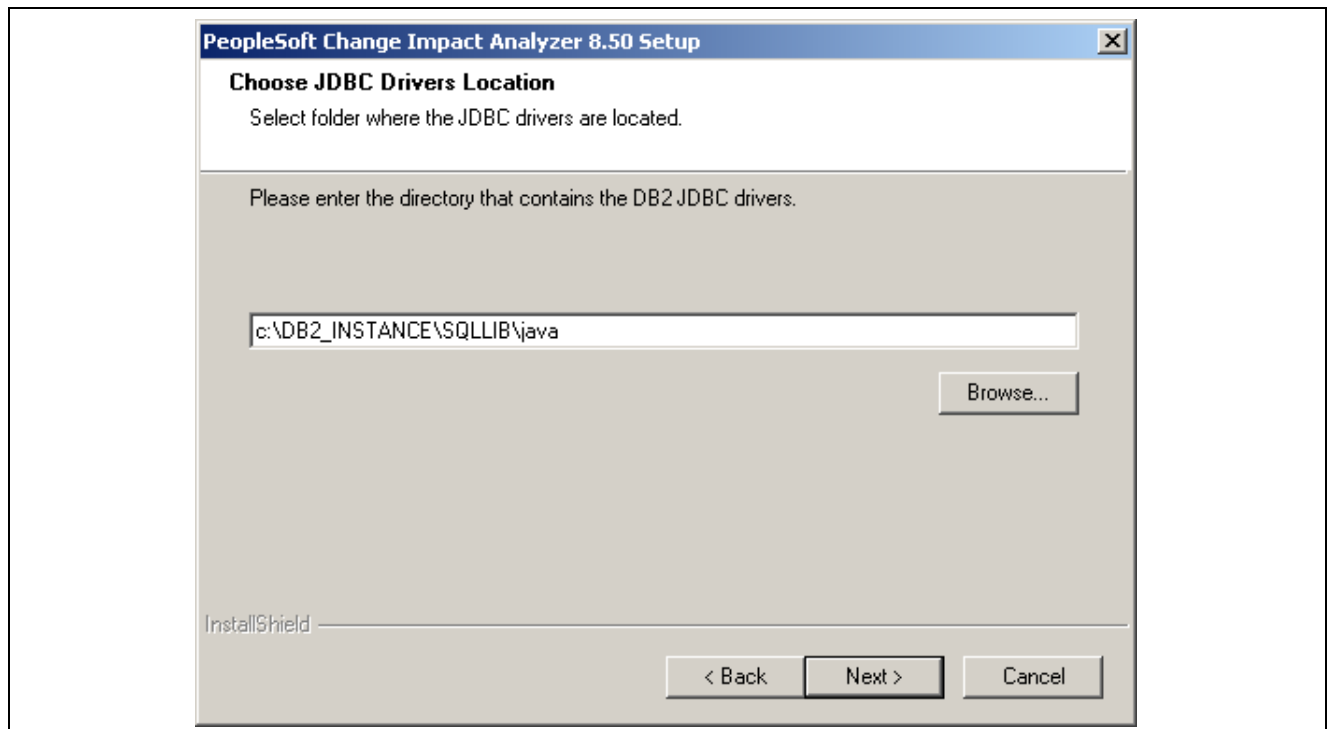
PeopleSoft Change Impact Analyzer Setup Maintenance window

3. Run *PS_HOME\setup\PsCIA\setup.exe* again.
The Welcome window shown in step 1 appears.
4. Click Next on the Welcome window.
5. Select the JDBC drivers for your database platform.



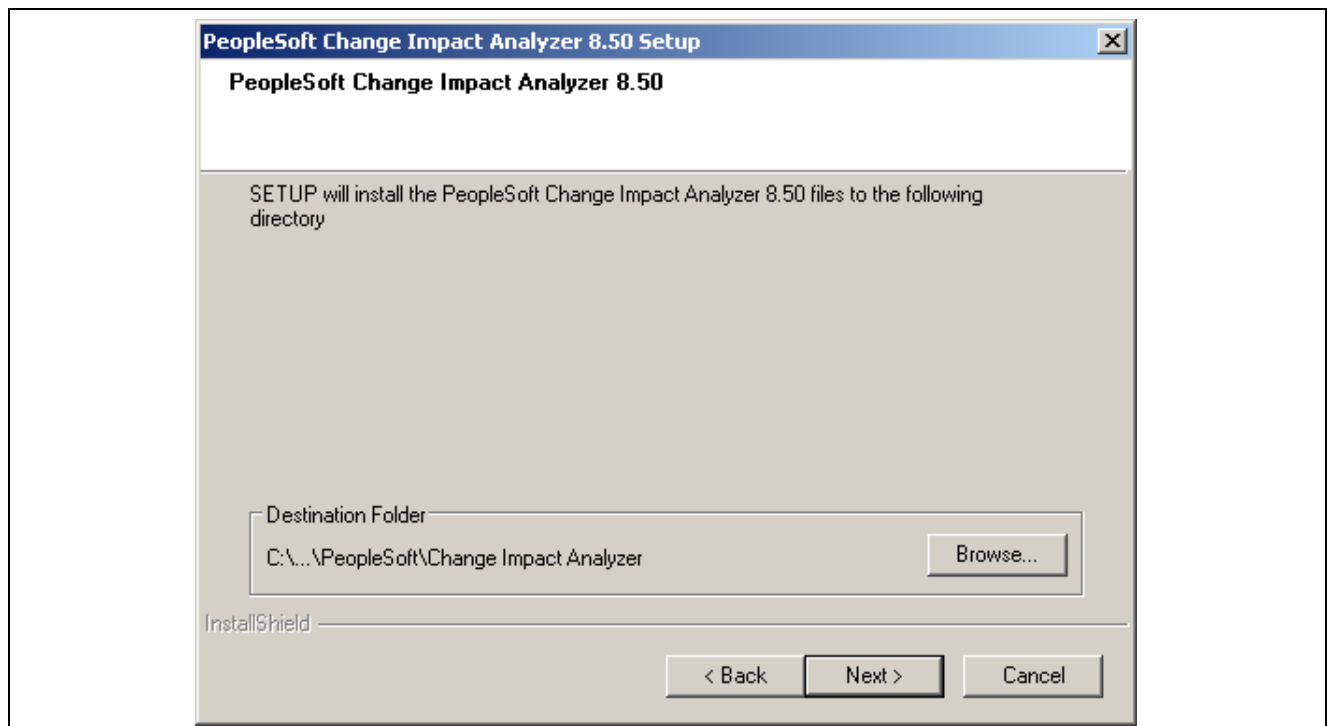
JDBC Drivers Type window

6. Browse to select the directory where the JDBC drivers are installed, or accept the default location.



Choose JDBC Drivers Location window

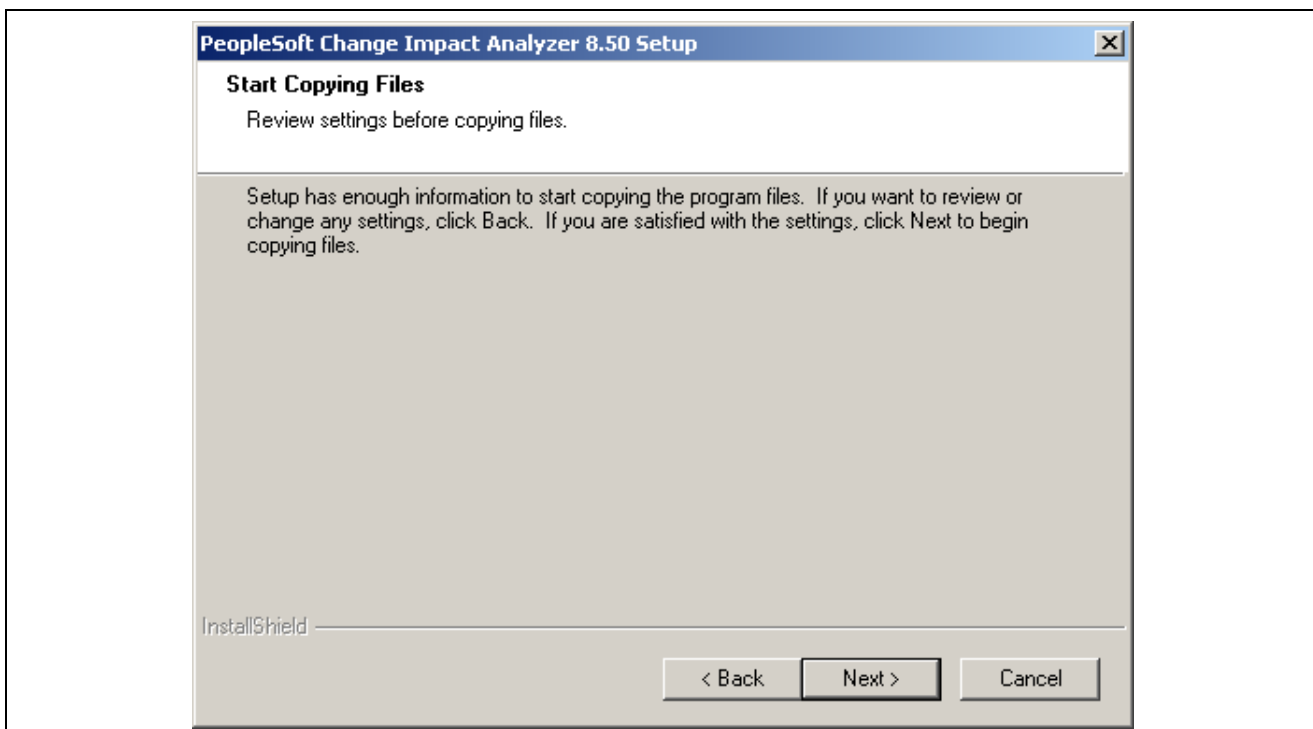
7. Browse to select the directory where PeopleSoft Change Impact Analyzer will be installed, or accept the default directory.



Selecting the PeopleSoft Change Impact Analyzer destination folder

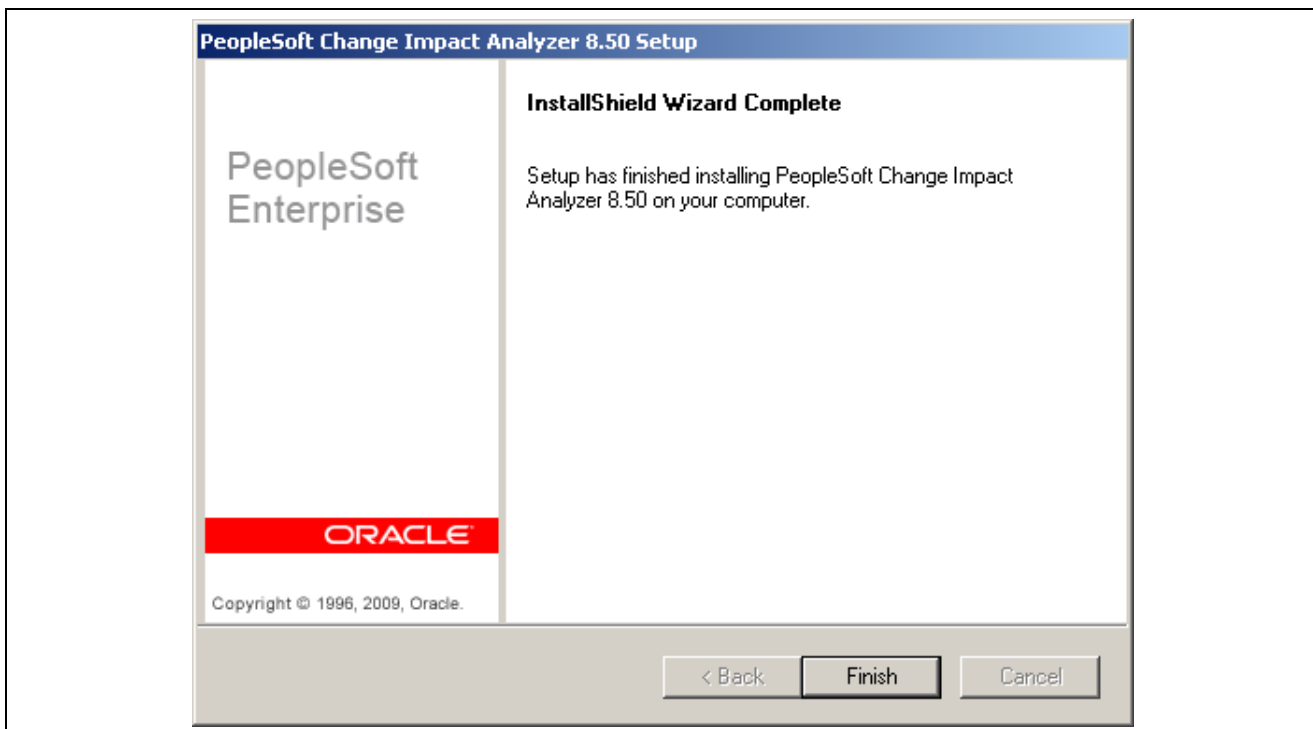
8. Click Back to review or change any settings.

If you are satisfied with your settings, click Next to begin copying files to the designated directory.



Start Copying Files window

9. Click Finish to exit when the installation is complete:



Setup complete window

10. To start PeopleSoft Change Impact Analyzer, select Start, Programs, PeopleSoft 8.50, Change Impact Analyzer.

APPENDIX A

Adding New Product Modules

This appendix discusses:

- Adding New Modules to PeopleSoft 8.4 Installations

Task A-1: Adding New Modules to PeopleSoft 8.4 Installations

This task explains how to add new application modules to an existing PeopleSoft installation. Follow this procedure if, for example, you already installed HRMS and now you need to install Time and Labor.

When you add new application modules to an existing installation, you may overwrite files that were included as part of a patch or fixes, or customizations that you applied. For example, suppose you customize a report that is updated in a subsequent PeopleSoft release. If you install the update into your current working directory, your customized report will be overwritten with the newly installed, updated report.

The PeopleSoft system does not currently provide an automated way to notify you before overwriting customized modules or patch files. You can make preparations to protect important files from being overwritten. For your customized modules, you need to maintain a backup of any customizations. It is also a good idea to make a copy of your *PS_HOME* directory before beginning this process, so that you can find and restore necessary patch files. Check My Oracle Support to identify any patches or fixes required for your installation.

See My Oracle Support, Patches & Updates.

To add new module(s) to PeopleSoft 8.4 installations:

1. Back up the database, file server, application server, Process Scheduler Server, and web server components of your current system.
2. Make sure you have the new license code that includes the new module(s). The new license code allows you to load the batch components for the new module(s).

See "Using the PeopleSoft Installer," Obtaining License Codes.

3. Install the PeopleSoft Application software on the file server.
4. When prompted, enter the new license code for your applications.

Initially, all installation options will be selected. You must deselect those programs you do not wish to install.

5. Launch Data Mover in bootstrap mode (sign in as the accessid and password).

Data Mover is located in *PS_HOME\bin\client\winx86\psdmt.exe*.

6. Select File, Database Setup and choose your database type in the resulting dialog.
7. Select Next and select add new product.

8. Select Finish and a Data Mover script that updates the license code will be generated in Data Mover.
9. Select File, Run script and your database updates are complete.
10. Install software to your batch server.

See "Setting Up Process Scheduler."

11. Reapply all code customizations if needed.

Note. Remember to maintain back-up copies of your customizations.

12. Compile and link COBOL.

See Compiling COBOL.

13. Verify that the appropriate Installation Records are selected.

If they are not checked, check them and save the page. To open the page, select Setup <apptype>, Install, Installation Options, where <apptype> is HRMS, CRM, Financials/Supply, and so on. (For HRMS the navigation is Setup <apptype>, Install, Installation Table.)

14. Run the DDDAUDIT and SYSAUDIT SQRs.

See "Creating a Database."

15. Shut down all application servers.

16. Install software to your application server.

See "Configuring the Application Server."

17. Restart all required application servers.

18. Shut down all web servers.

19. Install software to your web server.

See "Setting Up the PeopleSoft Pure Internet Architecture."

APPENDIX B

Extracting DDL for PTSYS Database

This appendix discusses:

- Understanding the PTGENDDL.DMS Script
- Using the PTGENDDL.DMS Script

Understanding the PTGENDDL.DMS Script

You can customize and use the PTGENDDL.DMS sample script to extract the DDL (Data Definition Language) SQL statements to create a separate PTSYS database for the PeopleTools Performance Monitor. The script is found in the *PS_HOME/scripts* directory.

First use the PTDDL.SQL (or PTDDL.U.SQL for Unicode) script to create the database and tablespaces for the PeopleTools Performance Monitor database. Then follow the directions in the following section to generate the PTSYS table and index DDL.

See Using the PTGENDDL.DMS Script.

When executed in bootstrap mode, the sample Data Mover script PTGENDDL.DMS will generate the DDL statements for both tables and indexes using default values (for ownerid and tablespaces) and store the DDL statements in the output file *C:\TEMP\PTSYSDDL.SQL*. The sample script is given in the following section, and includes information on prerequisites and instructions for using it for various scenarios.

See Also

Enterprise PeopleTools 8.50 PeopleBook: PeopleSoft Performance Monitor

Using the PTGENDDL.DMS Script

"Creating a Database, " Creating Data Mover Import Scripts

Task B-1: Using the PTGENDDL.DMS Script

Since most DB2 UDB for z/OS customers edit scripts in order to change the delivered ownerid and tablespace names to local installation naming standards, several usage scenarios are included as comments within the PTGENDDL.DMS script.

The PTGENDDL.DMS sample script includes the following usage scenarios:

- *Usage_#1*: Extract from PTENG.S.DB all tables and index DDL definitions using imbedded defaults. This is delivered as the default enabled commands

- *Usage_#2*: Extract from PTENG.S.DB all tables and index DDL definitions and override default values with local installation names.
- *Usage_#3*: Extract from PTENG.S.DB all table DDL definitions and override default values with local installation names.
- *Usage_#4*: Extract from PTENG.S.DB all index DDL definitions and override defaults with local installation names.

Sample PTGENDDL.DMS script

```
-- *****
-- Confidentiality Information:
--
-- This module is the confidential and proprietary information of
-- PeopleSoft, Inc.; it is not to be copied, reproduced, or
-- transmitted in any form, by any means, in whole or in part,
-- nor is it to be used for any purpose other than that for which
-- it is expressly provided without the written permission of
-- PeopleSoft, Inc.
--
-- Copyright (c) 1988-2004 PeopleSoft, Inc. All Rights Reserved
-- *****
-- *
-- * Name:  PTGENDDL.DMS      Directory:  <$PS_HOME>/scripts/
-- * ====                      =====
-- *
-- * Description:
-- * -----
-- *
-- * o- DMS script for zOS customer to extract embedded DB2/zOS DDL
-- * statements/info from "PTENG.S.DB". This DDL statements will be
-- * used to create a "PTSYS" database for PTools Performance Monitor.
-- *
-- * ** NOTE1: DB2/zOS DBA's typically edit/tailor "*DDL.SQL" files
-- * to adhere to "local installation names" convention.
-- * Read "USAGE_#" section below to generate this automatically.
-- *
-- * ** NOTE2: Used for "Tools Performance Monitor" installation,
-- *
-- * Assumptions:
-- * -----
-- * a) Datamover execution environment is assumed to be
-- * "WINTEL" on a DB2/zOS database environment.
-- *
-- * b) These instructions are for installing PTSYS for
-- * PTools Performance Monitor
-- *
-- * *****
-- *
-- * Required Input:
-- * -----
```



```

-- *
-- *      <$PS_HOME>\data\PTENG.S.DB ==> PTSYS database name.
-- *
-- *      *** NOTE: $PS_HOME is the PTOOLS installation directory
-- *
-- *      Output(s): ==> (using Usage_#1 script; as delivered)
-- *      -----
-- *
-- *      C:\TEMP\PTGENDDL.LOG -> Datamover log output
-- *      C:\TEMP\PTSYSDDL.SQL -> DB2 DDL statements to create "PTSYS"
-- *
-- *
-- *      *****
-- *
-- *      INSTRUCTIONS:
-- *      =====
-- *
-- *      A. BEFORE EXECUTING THIS FILE, PERFORM THE FOLLOWING STEPS.
-- *
-- *      1) Replace <$PS_HOME> with the valid directory value.
-- *
-- *      2) IF YOU ARE USING SECONDARY AUTHORIZATION, CHANGE
-- *          'OWNER#ID' TO THE DATABASE OWNERID, ELSE CHANGE
-- *          'OWNER#ID' TO YOUR PEOPLESFT ACCESS ID.
-- *
-- *      3) CHANGE 'OBJ#OWNER' TO THE COMMON CREATOR ID (OBJECT OWNER).
-- *
-- *      4) CHANGE THE DATABASE NAMES TO THE SITE SPECIFIC VALUES.
-- *
-- *      5) IF NOT USING THE RECOMMENDED PEOPLESFT TABLESPACE NAMES,
-- *          CHANGE THEM TO THE SITE SPECIFIC VALUES (see Usage_#2 example).
-- *
-- *      6) CHANGE 'SET UNICODE OFF' TO 'SET UNICODE ON', IF IT IS
-- *          AN UNICODE DATABASE.
-- *
-- *      B. AFTER EXECUTING THIS FILE, PERFORM THE FOLLOWING STEPS.
-- *
-- *      1) Check the LOG file for successful execution.
-- *
-- *      2) Validate the "local installation values" have been generated.
-- *
-- *      3) Submit the DDL (via SPUFI/DSNTEP2, etc) to create the DB2 objects.
-- *
-- *
-- *      *****
-- *
-- *      Usage_#1: Extract all DDL statements <using PSFT default values>
-- *
-- *
-- *      *NOTE: As delivered, both tables and index DDLs will be
-- *              generated and stored in C:\TEMP\PTSYSDDL.SQL

```

```
--
-- *****

SET NO DATA;
SET NO SPACE;

SET LOG C:\TEMP\PTGENDDL.LOG;
SET INPUT <$PS_HOME>\data\PTENG.S.DB;

SET DDL RECORD * INPUT OWNER AS OBJ#OWNER;
SET DDL INDEX * INPUT OWNER AS OBJ#OWNER;
SET DDL UNIQUE INDEX * INPUT OWNER AS OBJ#OWNER;

SET DDL INDEX * INPUT OWNER2 AS OBJ#OWNER;
SET DDL UNIQUE INDEX * INPUT OWNER2 AS OBJ#OWNER;

SET UNICODE OFF;
SET DBSPACE PSPTDM0.* AS PSPTSYS.*;
SET DBSPACE PSPTDM0T.* AS PSPTSYS.*;

SET OUTPUT C:\TEMP\PTSYSDDL.SQL1;
SET EXTRACT DDL;

IMPORT *;

-- *****
--
-- ADDITIONAL USAGE_#* examples for DB2/zOS DBA's to facilitate DDL editing
--
-- *****
--
-- Configurable values:
-- -----
--
-- set ddl table space * input STOGROUP as <TableSpace_Stogroup>;
-- set ddl index * input STOGROUP as <IndexSpace_Stogroup>;
-- set ddl unique index * input STOGROUP as <IndexSpace_Stogroup>;
--
-- set ddl record * input OWNER AS <OBJ#OWNER>;
-- set ddl index * input OWNER AS <OBJ#OWNER>;
-- set ddl unique index * input OWNER AS <OBJ#OWNER>;
--
-- *****
--
-- Usage_#2: Extract DDL statements <using customer configured values>
--
-- .....
--
```

```

-- SET NO DATA;
-- SET NO SPACE;
--
-- SET LOG C:\TEMP\PTGENDDL.LOG;
-- SET INPUT <$PS_HOME>\data\PTENG.S.DB;

--
-- SET DDL RECORD * INPUT OWNER AS cus#OWNER;
-- SET DDL INDEX * INPUT OWNER AS cus#OWNER;
-- SET DDL UNIQUE INDEX * INPUT OWNER AS cus#OWNER;
--

-- SET DDL INDEX * INPUT OWNER2 AS cus#OWNER;
-- SET DDL UNIQUE INDEX * INPUT OWNER2 AS cus#OWNER;
--
-- SET UNICODE OFF;
-- SET DBSPACE PSPTDM0.* AS custSYS.*;
-- SET DBSPACE PSPTDM0T.* AS custSYST.*;
--
-- SET OUTPUT C:\TEMP\PTSYSDDL.SQL2;
-- SET EXTRACT DDL;
--
-- SET DDL TABLE SPACE * INPUT STOGROUP AS      custD1SG;
-- SET DDL INDEX * INPUT STOGROUP AS             custX1SG;
-- SET DDL UNIQUE INDEX * INPUT STOGROUP AS      custX1SG;
--
-- IMPORT *;
--
--
-- *****
--
-- Usage_#3: Extract DDL statements for TABLE-OBJECTS ONLY
--           using customer configured values (ie. cusXXX)
--
-- .....
--
-- SET NO DATA;
-- SET NO INDEX;
-- SET NO SPACE;
--
-- SET LOG C:\TEMP\PTGENDDL.LOG;
-- SET INPUT <$PS_HOME>\data\PTENG.S.DB;

--
-- SET DDL RECORD * INPUT OWNER AS cus#OWNER;
-- SET DDL INDEX * INPUT OWNER AS cus#OWNER;
-- SET DDL UNIQUE INDEX * INPUT OWNER AS cus#OWNER;

-- SET DDL INDEX * INPUT OWNER2 AS cus#OWNER;

```

```

-- SET DDL UNIQUE INDEX * INPUT OWNER2 AS cus#OWNER;
--
-- SET UNICODE OFF;
-- SET DBSPACE PSPTDM0.* AS custSYS.*;
-- SET DBSPACE PSPTDM0T.* AS custSYST.*;
--
-- SET OUTPUT C:\TEMP\PTSYSDDL.SQL3;
-- SET EXTRACT DDL;
--
-- SET DDL TABLE SPACE * INPUT STOGROUP AS      custD1SG;
-- SET DDL INDEX * INPUT STOGROUP AS             custX1SG;
-- SET DDL UNIQUE INDEX * INPUT STOGROUP AS      custX1SG;
--
-- IMPORT *;
--
--
-- *****
--
-- Usage_#4: Extract DDL statements for INDEX-OBJECTS ONLY
--           using customer configured values.
--
-- .....
--
-- SET NO RECORD;
-- SET NO SPACE;
--
-- SET LOG C:\TEMP\PTGENDDL.LOG;
-- SET INPUT <$PS_HOME>\data\PTENG.S.DB;
--
-- SET DDL TABLE SPACE * INPUT STOGROUP AS      custD1SG;
-- SET DDL INDEX * INPUT STOGROUP AS             custX1SG;
-- SET DDL UNIQUE INDEX * INPUT STOGROUP AS      custX1SG;
--
-- SET DDL RECORD * INPUT OWNER AS cus#OWNER;
-- SET DDL INDEX * INPUT OWNER AS cus#OWNER;
-- SET DDL UNIQUE INDEX * INPUT OWNER AS cus#OWNER;
--
--
-- SET DDL INDEX * INPUT OWNER2 AS cus#OWNER;
-- SET DDL UNIQUE INDEX * INPUT OWNER2 AS cus#OWNER;
--
-- SET UNICODE OFF;
-- SET DBSPACE PSPTDM0.* AS custSYS.*;
-- SET DBSPACE PSPTDM0T.* AS custSYST.*;
--
-- SET OUTPUT C:\TEMP\PTSYSDDL.SQL4;
-- SET EXTRACT DDL;
--
-- IMPORT *;
--

```

--

PTGENDDL.DMS Sample Output

```

CREATE TABLE OBJ#OWNER.PS_ACCESS_GRP_LANG (ACCESS_GROUP CHAR(20) NOT
NULL,
    LANGUAGE_CD CHAR(3) NOT NULL,
    DESCR CHAR(30) NOT NULL,
    DESCRLONG LONG VARCHAR) IN PSPTSYS.PSIMAGE
;
COMMIT
;
CREATE UNIQUE INDEX OBJ#OWNER.PS_ACCESS_GRP_LANG ON
OBJ#OWNER.PS_ACCESS_GRP_LANG (ACCESS_GROUP,
    LANGUAGE_CD) USING STOGROUP PSSGIXPT PRIQTY 48 SECQTY 720 CLUSTER
BUFFERPOOL BP3 CLOSE NO
;
COMMIT
;
CREATE TABLE OBJ#OWNER.PS_ACCESS_GRP_TBL (ACCESS_GROUP CHAR(20) NOT
NULL,
    DESCR CHAR(30) NOT NULL,
    DESCRLONG LONG VARCHAR) IN PSPTSYS.PTTBL
;
COMMIT
;
CREATE UNIQUE INDEX OBJ#OWNER.PS_ACCESS_GRP_TBL ON
OBJ#OWNER.PS_ACCESS_GRP_TBL (ACCESS_GROUP) USING STOGROUP PSSGIXPT
PRIQTY 48 SECQTY 720 CLUSTER BUFFERPOOL BP3 CLOSE NO
;
COMMIT
;
CREATE TABLE OBJ#OWNER.PS_AE_APPL_TBL (AE_PRODUCT CHAR(2) NOT NULL,
    AE_APPL_ID CHAR(8) NOT NULL,
    AE_VERSION DECIMAL(5, 2) NOT NULL,
    DESCR CHAR(30) NOT NULL,
    AE_DATE_OVERRIDE CHAR(1) NOT NULL,
    ASOF_DT DATE,
    LAST_DTTM_UPDATE TIMESTAMP,
    OPRID CHAR(30) NOT NULL,
    AE_CACHE_RECNAME CHAR(15) NOT NULL,
    AE_SYMBOLICS_PROG CHAR(8) NOT NULL,
    AE_FILTER_PROG_1 CHAR(8) NOT NULL,
    AE_FILTER_PROG_2 CHAR(8) NOT NULL,
    AE_FILTER_PROG_3 CHAR(8) NOT NULL,
    AE_USE_PLATFORM CHAR(1) NOT NULL,
    AE_DEF_TRN_CTL CHAR(1) NOT NULL,
    MESSAGE_SET_NBR INTEGER NOT NULL,
    AE_DEBUG_MODE CHAR(1) NOT NULL,
    AE_TRACE CHAR(1) NOT NULL,

```

```

    AE_FORCE_COMMIT CHAR(1) NOT NULL,
    AE_FORCE_ABEND CHAR(1) NOT NULL,
    AE_COMMIT_MSG CHAR(1) NOT NULL,
    AE_DISABLE_RESTART CHAR(1) NOT NULL,
    AE_CHUNK_FACTOR SMALLINT NOT NULL,
    AE_CHUNK_METHOD CHAR(1) NOT NULL,
    AE_ADJ_DTTM TIMESTAMP) IN PSPTSYS.PTAPPE
;
COMMIT
;
CREATE UNIQUE INDEX OBJ#OWNER.PS_AE_APPL_TBL ON
    OBJ#OWNER.PS_AE_APPL_TBL (AE_PRODUCT,
        AE_APPL_ID) USING STOGROUP PSSGIXPT PRIQTY 48 SECQTY 720 CLUSTER
    BUFFERPOOL BP3 CLOSE NO
;
COMMIT
;
CREATE TABLE OBJ#OWNER.PS_AE_APPL_TMP (AE_PRODUCT CHAR(2) NOT NULL,
    AE_APPL_ID CHAR(8) NOT NULL,
    AE_VERSION DECIMAL(5, 2) NOT NULL,
    DESCR CHAR(30) NOT NULL,
    AE_DATE_OVERRIDE CHAR(1) NOT NULL,
    ASOF_DT DATE,
    LAST_DTTM_UPDATE TIMESTAMP,
    OPRID CHAR(30) NOT NULL,
    AE_CACHE_RECNAME CHAR(15) NOT NULL,
    AE_SYMBOLICS_PROG CHAR(8) NOT NULL,
    AE_FILTER_PROG_1 CHAR(8) NOT NULL,
    AE_FILTER_PROG_2 CHAR(8) NOT NULL,
    AE_FILTER_PROG_3 CHAR(8) NOT NULL,
    AE_USE_PLATFORM CHAR(1) NOT NULL,
    AE_DEF_TRN_CTL CHAR(1) NOT NULL,
    MESSAGE_SET_NBR INTEGER NOT NULL,
    AE_DEBUG_MODE CHAR(1) NOT NULL,
    AE_TRACE CHAR(1) NOT NULL,
    AE_FORCE_COMMIT CHAR(1) NOT NULL,
    AE_FORCE_ABEND CHAR(1) NOT NULL,
    AE_COMMIT_MSG CHAR(1) NOT NULL,
    AE_DISABLE_RESTART CHAR(1) NOT NULL,
    AE_CHUNK_FACTOR SMALLINT NOT NULL,
    AE_CHUNK_METHOD CHAR(1) NOT NULL) IN PSPTSYS.PTWORK
;
COMMIT
;
CREATE UNIQUE INDEX OBJ#OWNER.PS_AE_APPL_TMP ON
    OBJ#OWNER.PS_AE_APPL_TMP (AE_PRODUCT,
        AE_APPL_ID) USING STOGROUP PSSGIXPT PRIQTY 48 SECQTY 720 CLUSTER
    BUFFERPOOL BP3 CLOSE NO
;
COMMIT

```

```

;
CREATE TABLE OBJ#OWNER.PS_AE_CV8_PAIR_TBL (FIELDNAME CHAR(18) NOT NULL
,
    FIELDNAME_TO CHAR(18) NOT NULL,
    AE_FROM_CHAR CHAR(1) NOT NULL,
    AE_TO_CHAR CHAR(1) NOT NULL) IN PSPTSYS.PTAPPE
;
COMMIT
;
CREATE UNIQUE INDEX OBJ#OWNER.PS_AE_CV8_PAIR_TBL ON
    OBJ#OWNER.PS_AE_CV8_PAIR_TBL (FIELDNAME,
        FIELDNAME_TO,
        AE_FROM_CHAR) USING STOGROUP PSSGIXPT PRIQTY 48 SECQTY 720 CLUSTER
    BUFFERPOOL BP3 CLOSE NO
;
COMMIT
;
CREATE TABLE OBJ#OWNER.PS_AE_INTTEST_AET (PROCESS_INSTANCE DECIMAL(10)
    NOT NULL,
    AE_STEP CHAR(8) NOT NULL,
    AE_SECTION CHAR(8) NOT NULL,
    AE_INT_15 DECIMAL(15) NOT NULL,
    AE_INT_14 DECIMAL(14) NOT NULL,
    AE_INT_13 DECIMAL(13) NOT NULL,
    AE_INT_12 DECIMAL(12) NOT NULL,
    AE_INT_11 DECIMAL(11) NOT NULL,
    AE_INT_10 DECIMAL(10) NOT NULL,
    AE_INT_9 INTEGER NOT NULL,
    AE_INT_8 INTEGER NOT NULL,
    AE_INT_7 INTEGER NOT NULL,
    AE_INT_6 INTEGER NOT NULL,
    AE_INT_5 INTEGER NOT NULL,
    AE_INT_4 SMALLINT NOT NULL,
    AE_INT_3 SMALLINT NOT NULL,
    AE_INT_2 SMALLINT NOT NULL,
    AE_INT_1 SMALLINT NOT NULL) IN PSPTSYS.PTAPPE
;
COMMIT
;
CREATE UNIQUE INDEX OBJ#OWNER.PS_AE_INTTEST_AET ON
    OBJ#OWNER.PS_AE_INTTEST_AET (PROCESS_INSTANCE) USING STOGROUP
    PSSGIXPT PRIQTY 48 SECQTY 720 CLUSTER BUFFERPOOL BP3 CLOSE NO
;
COMMIT
;
CREATE TABLE OBJ#OWNER.PS_AE_OPTIONS (AE_CHUNK_SIZE INTEGER NOT NULL,
    AE_INS_SEL_LONGS CHAR(1) NOT NULL) IN PSPTSYS.PTAPPE
;
COMMIT
;

```

```

CREATE TABLE OBJ#OWNER.PS_AE_PTTSRPLC_AET (PROCESS_INSTANCE
DECIMAL(10) NOT NULL,
    OPRID CHAR(30) NOT NULL,
    TS_SRCH_ID CHAR(30) NOT NULL,
    TS_SRCH_STATUS CHAR(1) NOT NULL,
    TS_RPLC_RDY CHAR(1) NOT NULL,
    LANGUAGE_CD CHAR(3) NOT NULL,
    BASE_LANGUAGE_CD CHAR(3) NOT NULL,
    BASELINE CHAR(1) NOT NULL,
    TS_RESULT_SEQ INTEGER NOT NULL,
    RECNAME CHAR(15) NOT NULL,
    RECNAME_TMP CHAR(15) NOT NULL,
    SQLTABLENAME CHAR(18) NOT NULL,
    TABLE_NAME CHAR(30) NOT NULL,
    RELLANGRECNAME CHAR(15) NOT NULL,
    TS_COMBINED CHAR(1) NOT NULL,
    FIELDNAME CHAR(18) NOT NULL,
    TS_RPLC CHAR(1) NOT NULL,
    TS_RPLC_TEXT CHAR(254) NOT NULL,
    FIELDTYPE SMALLINT NOT NULL,
    LENGTH SMALLINT NOT NULL,
    FIELDNAME0 CHAR(18) NOT NULL,
    TS_KEY_CHAR CHAR(50) NOT NULL,
    TS_KEY_NUMBER DECIMAL(10) NOT NULL,
    TS_KEY_DATE DATE,
    FLDFIELDTYPE SMALLINT NOT NULL,
    SQL_STMT_254 CHAR(254) NOT NULL,
    REFRESH CHAR(1) NOT NULL) IN PSPTSYS.PTTBL
;
COMMIT
;
CREATE UNIQUE INDEX OBJ#OWNER.PS_AE_PTTSRPLC_AET ON
    OBJ#OWNER.PS_AE_PTTSRPLC_AET (PROCESS_INSTANCE) USING STOGROUP
    PSSGIXPT PRIQTY 48 SECQTY 720 CLUSTER BUFFERPOOL BP3 CLOSE NO
;
COMMIT
;

```


APPENDIX C

Installing and Configuring DB2 Connect

This appendix discusses:

- Understanding DB2 Connect
- Verifying Supported Versions
- Defining DB2 Connect Architecture
- Setting Up DDF on the Mainframe
- Configuring TCP/IP on the Client
- Configuring the DB2 Connect Gateway on Windows
- Binding DB2 Connect Packages for an EBCDIC Installation
- Binding DB2 Connect Packages for a Unicode Installation
- Setting DB2CodePage For A Unicode Database
- Setting Up the DB2 Connect Gateway on UNIX
- Confirming DB2 Connect/ODBC Settings
- Setting CLI/ODBC Trace with the Client Configuration Assistant

Understanding DB2 Connect

This appendix discusses installing and configuring DB2 Connect connectivity for z/OS. The points during the installation when you will need to perform these procedures are noted in the chapters where they apply. You will need to set up connectivity on the following locations:

- On the mainframe.
- On any application server (Windows or UNIX).
- On any Windows or UNIX Server acting as DB2 Connect gateway.
- On any dedicated Windows or UNIX batch server.
- On any Windows client that will be making a two-tier connection to the database; this is required for any clients that will be running COBOL or SQR batch processes locally, but not for clients that are connecting exclusively in three-tier and running all batch processes on the server.

This appendix describes specific environment variables and parameters that you'll need to set for each DB2 Connect component so that it will work optimally with PeopleSoft software. For the complete instructions on installing DB2 Connect, refer to the DB2 Connect product documentation.

See the DB2 Connect Product documentation.

Verifying Supported Versions

To use PeopleSoft 8.50 with DB2 Connect, verify the following release information:

- Consult the supported platform information on My Oracle Support to verify that Oracle supports the version of DB2 Connect that you intend to use with your particular release of DB2 UDB for z/OS.
- Consult My Oracle Support also to verify that Oracle supports the particular release of UNIX or Windows on which you plan to install DB2 Connect.
- When configuring DB2 Connect on supported releases of either Windows or UNIX, no additional TCP/IP software is required.
- TCP/IP for z/OS is required on the mainframe.
- See My Oracle Support for the minimum required z/OS version for PeopleSoft PeopleTools 8.50.

See Also

My Oracle Support, Certifications

Defining DB2 Connect Architecture

This section discusses:

- Understanding DB2 Connect Architecture
- Using DB2 Connect Enterprise Edition
- Using DB2 Connect Personal Edition
- Defining PeopleSoft Three-Tier Configuration with DB2 Connect

Understanding DB2 Connect Architecture

DB2 Connect connects your client PeopleSoft applications to DB2's Distributed Data Facility (DDF) components on the mainframe. DB2 Connect performs the following tasks when connecting to DB2 UDB for z/OS with DDF:

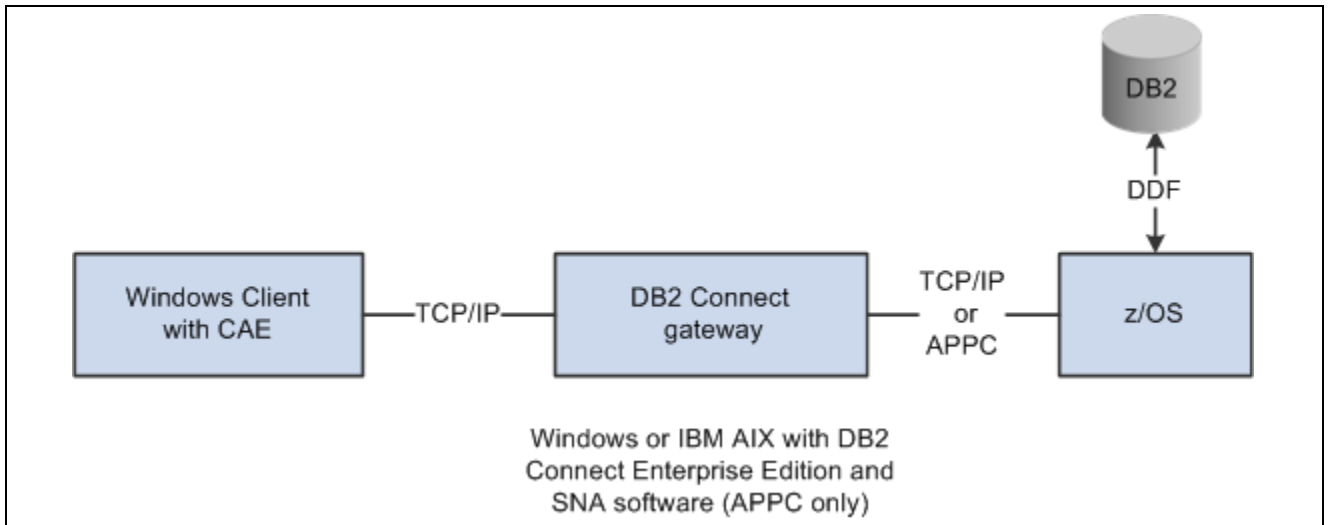
- Provides a control point for client connections.
- Performs the proper character conversions when receiving data from DB2.
- Responds to the connect requests from PeopleSoft client computers and creates corresponding TCP/IP conversations with DDF.
- Sends requests and replies between client computers and DDF.

IBM offers two different DB2 Connect products: DB2 Connect Enterprise Edition and DB2 Connect Personal Edition.

Using DB2 Connect Enterprise Edition

DB2 Connect Enterprise Edition requires a gateway machine; individual clients connect to the gateway machine using DB2 Connect CAE. The DB2 Connect gateway manages the TCP/IP conversation with the DDF on the mainframe. DB2 Connect Enterprise Edition can be used with either the PeopleSoft two-tier or three-tier architecture.

The DB2 Connect CAE (Client Application Enabler) component of DB2 Connect Enterprise Edition comes with the base product and must reside on each Windows client machine. It provides a logical connection between the PeopleSoft client and the DB2 Connect gateway machine. The router sends the PeopleSoft SQL requests by way of network protocol to the gateway, and then receives the result set in return. The following diagram shows the connections between the Windows client machine, the DB2 Connect gateway, and the mainframe:

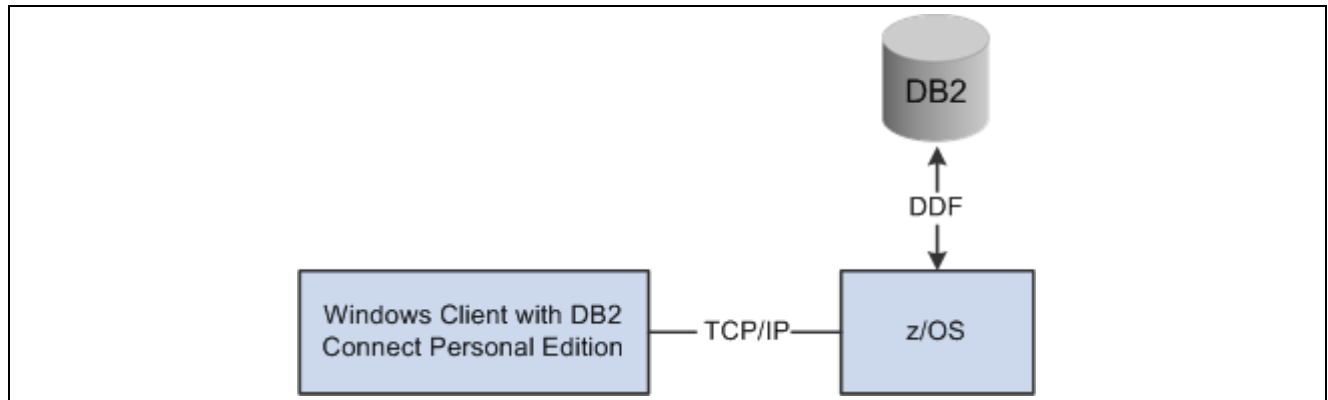


DB2 Connect Enterprise Edition architecture

The communication between the Windows client machine and the DB2 Connect gateway is accomplished using the TCP/IP protocol. The physical connection between the DB2 Connect gateway and the mainframe can be made by a Token Ring attachment, a bridged Token Ring attachment, Ethernet, FDDI, Escon Channels, or a leased-line or dial-up SDLC connection. This connectivity is a critical piece for performance such that it should be configured with a high-bandwidth and located very close to the mainframe.

Using DB2 Connect Personal Edition

DB2 Connect Personal Edition is installed on each client workstation and allows clients to connect directly to DB2 DDF. It does not require an intermediary DB2 Connect gateway to access your database. The following diagram illustrates the connection between DB2 Connect Personal Edition and the mainframe:



DB2 Connect Personal Edition architecture

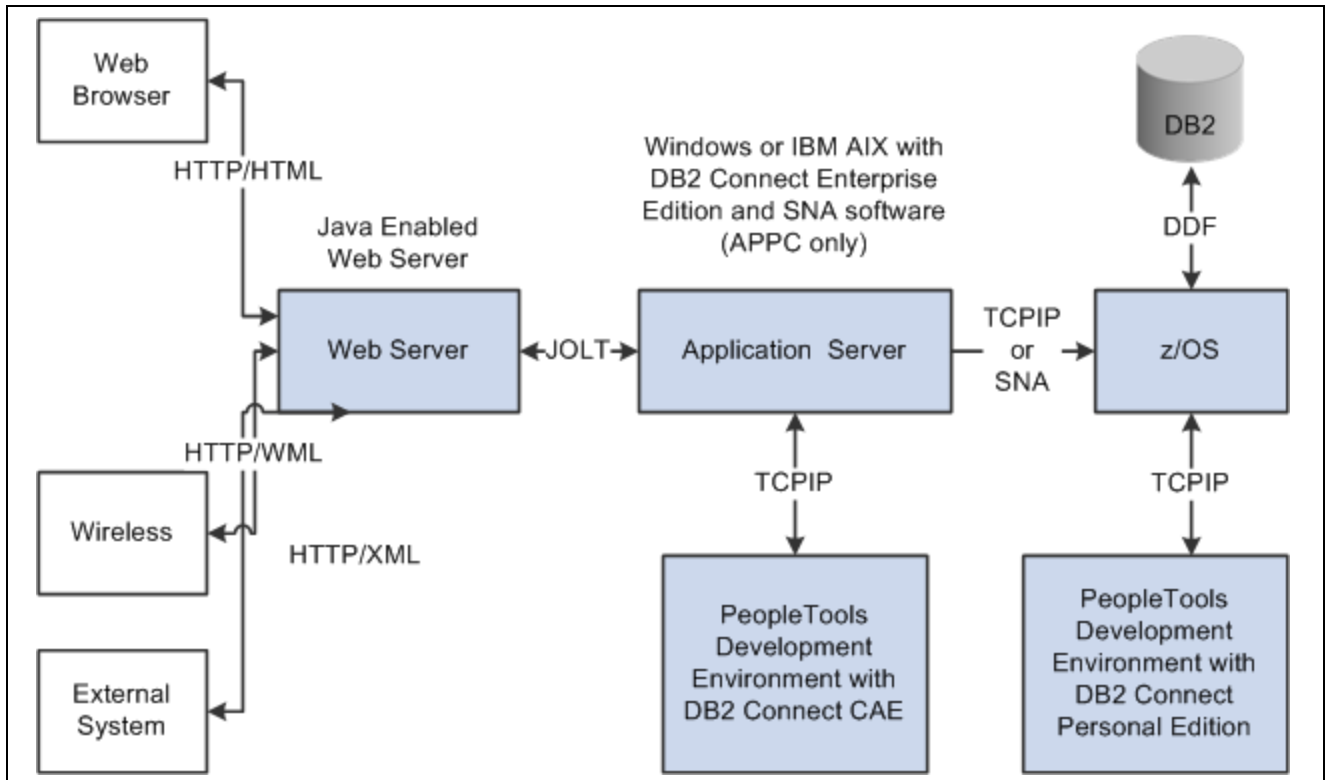
DB2 Connect Personal Edition allows direct TCP/IP connection to the host with no gateway requirement.

Defining PeopleSoft Three-Tier Configuration with DB2 Connect

The PeopleSoft application server processes all transactions requested by Windows clients and Web servers and sends SQL to the database server using DB2 Connect. The Oracle Tuxedo middleware product manages all these transactions in the application server. In addition to Tuxedo, the server hosting the PeopleSoft application server must be configured with DB2 Connect Enterprise Edition to establish connectivity to the database server.

On DB2 UDB for z/OS, the application server can be configured either on Windows, IBM AIX, SUN Solaris or HP-UX. Since all SQL is handled in the application server, it is paramount for performance reasons that the application server machine be connected to the mainframe via Fast Ethernet, Escon channel attached, FDDI, or some comparable network connection that allows maximum through-put.

When connecting with the PeopleSoft three-tier, the individual client workstations do not require DB2 Connect CAE. No connectivity is required on the client machines for PeopleSoft three-tier connectivity; communication between client workstation and application server is handled via BEA Tuxedo. If clients have specific needs to connect via two-tier (for example, to run Data Mover, client COBOL, perform upgrade steps), they will need to either install DB2 Connect Personal Edition for a direct connection to DDF on the mainframe, or install DB2 Connect CAE and connect to DDF via the DB2 Connect EE gateway. In either case, they will still be connecting via the DB2 Connect option but will not be using the PeopleSoft application server. The following diagram illustrates the difference in the interaction between the various servers when using DB2 Connection Enterprise Edition and a gateway machine, or using DB2 Connect Personal Edition.



Connecting through a gateway machine using DB2 Connection Enterprise Edition and connecting directly using DB2 Connect Personal Edition

Task C-1: Setting Up DDF on the Mainframe

DDF is one of the DB2 address spaces which allows applications running in a remote application requestor environment that supports IBM's Distributed Relational Database Architecture (DRDA) to access data in a DB2 for OS/390 subsystem. DDF and DB2 Connect communicate with each other using the TCP/IP protocol. The services DDF provides include:

- Receiving client requests from DB2 Connect.
- Performing the proper character conversions when receiving data from DB2.
- Forwarding requests to and receiving responses from DB2 for z/OS.
- Building response messages and returning them to DB2 Connect, which in turn forwards the response messages to the client.
- Managing the communication protocol (TCP/IP) and DB2 for z/OS interaction. This includes maintaining the DB2 for z/OS SQLCA and SQLDA data structures.
- Managing and recovering from exception conditions.

See *IBM's DB2 Administration Guide*

To set up DDF on the mainframe:

1. Use the Change Log Inventory Utility to update the BSDS. The SYSIN DD card should specify the following values:

```
DDF LOCATION=<location name>
LUNAME=<vtam appl id>
PASSWORD=<password>
```

2. Start DDF (-STA DDF).
3. When DB2 is started you should see the LU Name and port number for the DB2 for z/OS Distributed Data Facility (DDF). Look at the DDF startup messages in the system log and you should see information similar to the following:

```
DSNL004I %Z DDF START COMPLETE
LOCATION  DB2DSNZ
LU      NETA.DB2APPLZ
GENERICLU -NONE
DOMAIN  sysaoe.peoplesoft.com
TCPPOINT 5070
RESPORT  5071
```

Task C-2: Configuring TCP/IP on the Client

Use the following procedure to configure TCP/IP on the client.

1. Obtain the host name or IP address of the z/OS server that you will be connecting to. You may need to contact your network administrator to obtain the IP address. You can test the IP address by attempting to ping it using the `ping hostname` command.

```
C:\ping mvsptown
PING mvsptown.peoplesoft.com: (207.135.44.20): 56 data bytes
64 bytes from 207.135.44.99: icmp_seq=0 ttl=56 time=10 ms
64 bytes from 207.135.44.99: icmp_seq=1 ttl=56 time=5 ms
64 bytes from 207.135.44.99: icmp_seq=2 ttl=56 time=9 ms
64 bytes from 207.135.44.99: icmp_seq=3 ttl=56 time=5 ms
```

You can also obtain the host's IP address by entering TSO NETSTAT HOME from the z/OS server.

2. Obtain the Port number to use to connect to target DB2 subsystem. The port number must be a unique value and can be obtained by looking in DB2MSTR at the DDF startup. The parameter TCPPOINT identifies the port used for that DB2 subsystem. You may need to contact your database administrator for TCPPOINT used by DDF at startup.
3. Catalog a TCP/IP Node.

Note. The TCPIP Node will automatically get cataloged when you create a Database Alias via the Client Configuration Assistant. In the previous release of the product, known as DDCS, the TCPIP Nodes had to be cataloged manually using the steps below. Manually cataloging the Nodes is no longer the only option. You may skip this step if using the Client Configuration Assistant. To see the Nodes that are currently cataloged, type the following line in Command Line Processor: `Db2 => list node directory`. You can also use the `uncatalog node` command to remove a node catalog.

You must add an entry to the client's node directory to describe the remote node. This entry specifies the node name, the hostname (or *ip_address*), and the port number. To catalog a TCP/IP node, perform the following steps from the Command Line Processor:

```
Db2 => catalog tcpip node node_name remote [hostname|ip_address] server [=>  
svcname|port_number]
```

For example, to catalog a remote server with the IP Name MVSPTOWN on the node called *DB2DSNT*, using the port number *5070*, enter the following:

```
Db2 => catalog tcpip node DB2DSNT remote MVSPTOWN server 5070
```

4. Catalog the Database.

Note. The Database will automatically get cataloged when you create a Database Alias via the Client Configuration Assistant. In the previous release of the product, known as DDCS, the Database had to be cataloged manually using the steps below. Manually cataloging the database is no longer the only option. You may also skip this step if using the Client Configuration Assistant. To see the Databases that are currently cataloged, enter the following line in Command Line Processor: `Db2 => list database directory`. You can also use the `uncatalog database` command to remove a database catalog.

5. Before a client application can access a remote database, the database must be cataloged on the TCPIP Node.

```
DB2 => catalog database database_name as database_alias at node node_name  
For example, to catalog a remote database PT800T8 so that it has the alias =>  
PT800T8, on the node DB2DSNT, enter the following commands:  
DB2 => catalog database PT800T8 as PT800T8 at node DB2DSNT
```

6. Test connection to database. You can test the connection to the database using the following command:

```
Db2 => connect to database_alias user userid using password
```

For example, to connect to *database_alias* PT800T8 using valid mainframe id PEOPLE1 and password PASSWRD1 then enter the following:

```
Db2 => connect to PT800T8 user PEOPLE1 using PASSWRD1
```

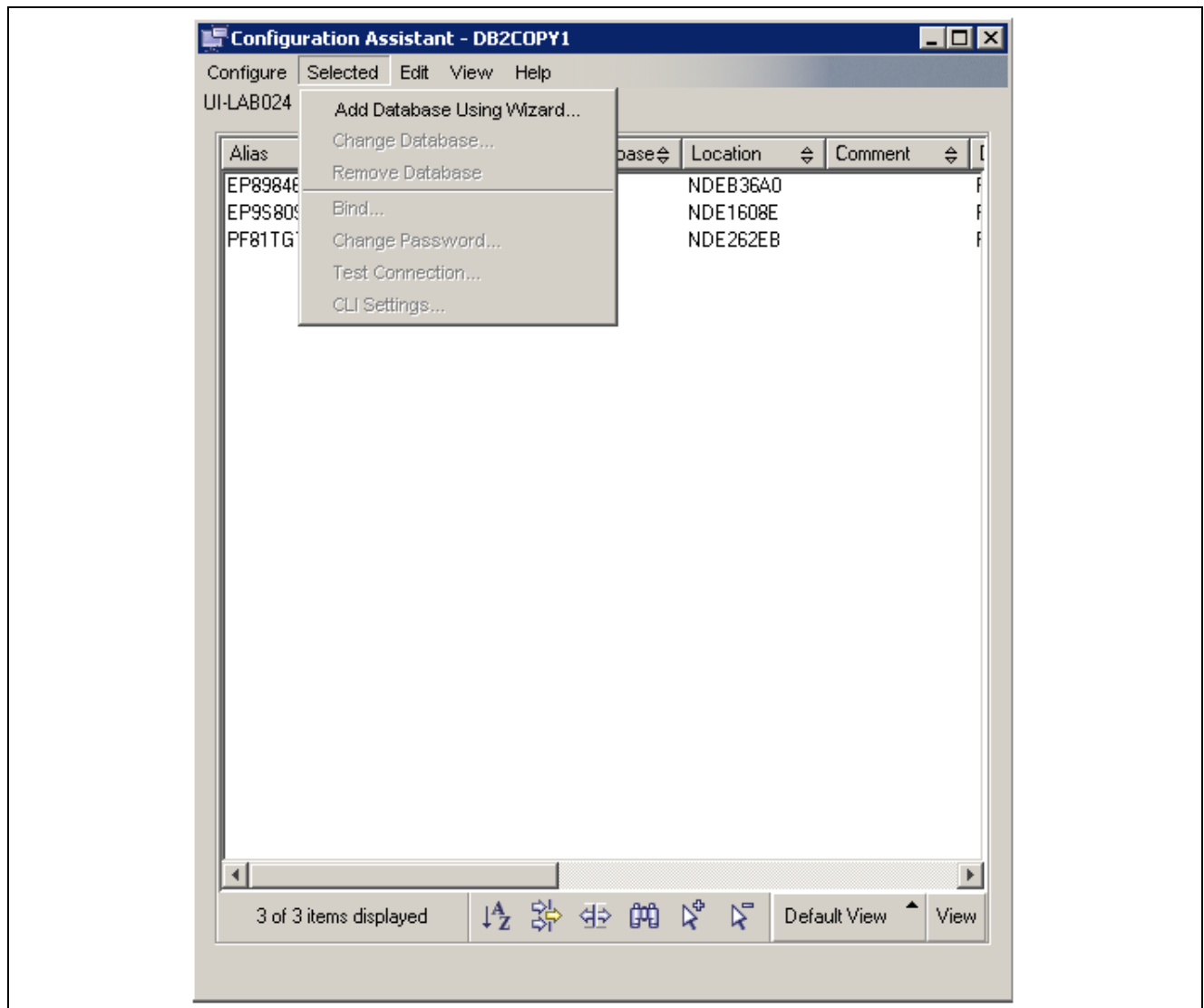
Authentication takes place on the DB2 server, so *userid* and *password* must be valid mainframe ids. If the connection is successful, you will get a message showing the name of the database to which you have connected. This step is synonymous to the TEST button in Client Configuration Assistant. You can now execute SQL statements against the database.

Task C-3: Configuring the DB2 Connect Gateway on Windows

To install the DB2 Connect Gateway to run properly with PeopleSoft applications, configure the DB2 Database in Client Configuration Assistant.

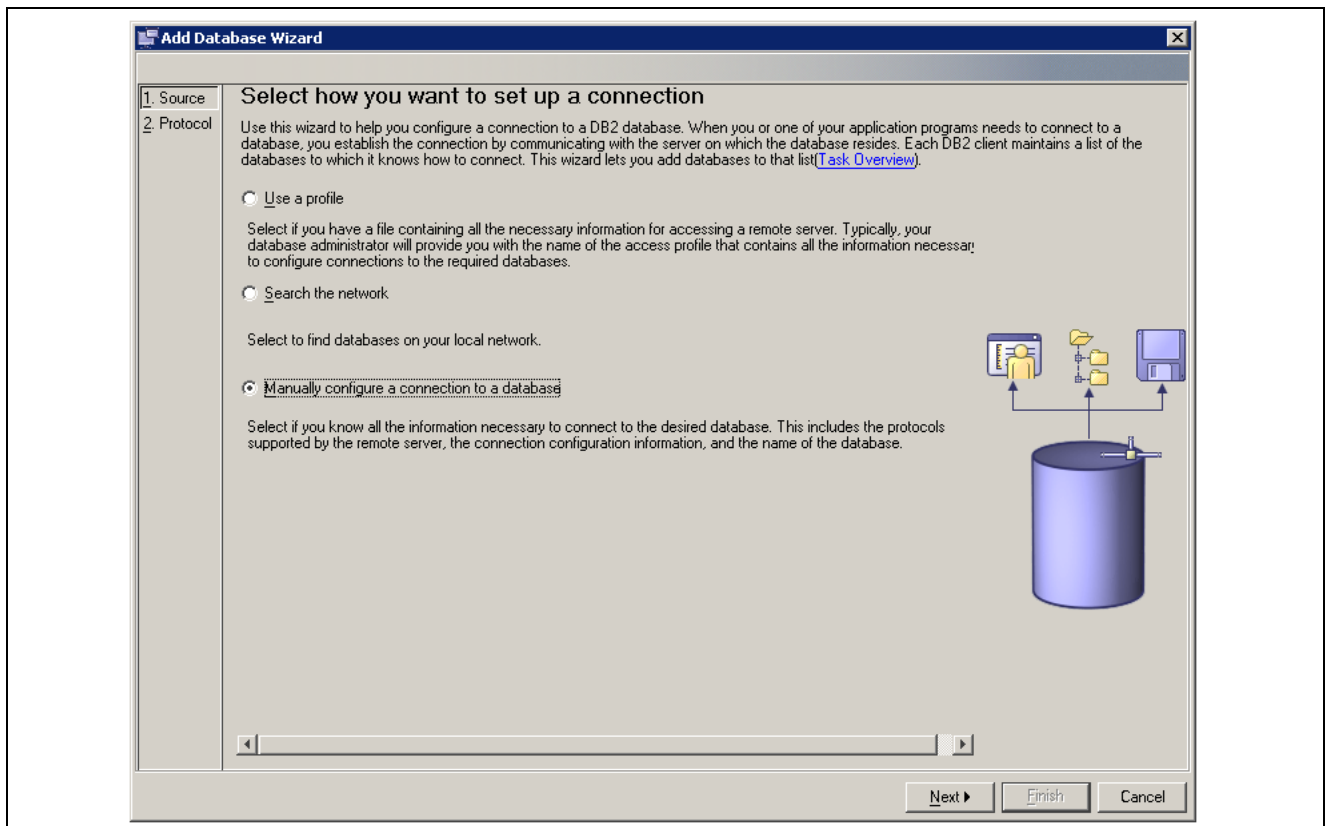
See *DB2 Connect Enterprise Edition Quick Beginnings manual*.

1. Open Configuration Assistant. On the Selected menu, select Add Database Using Wizard.
The Add Database Wizard window opens.



Using the Selected menu on the Configuration Assistant window

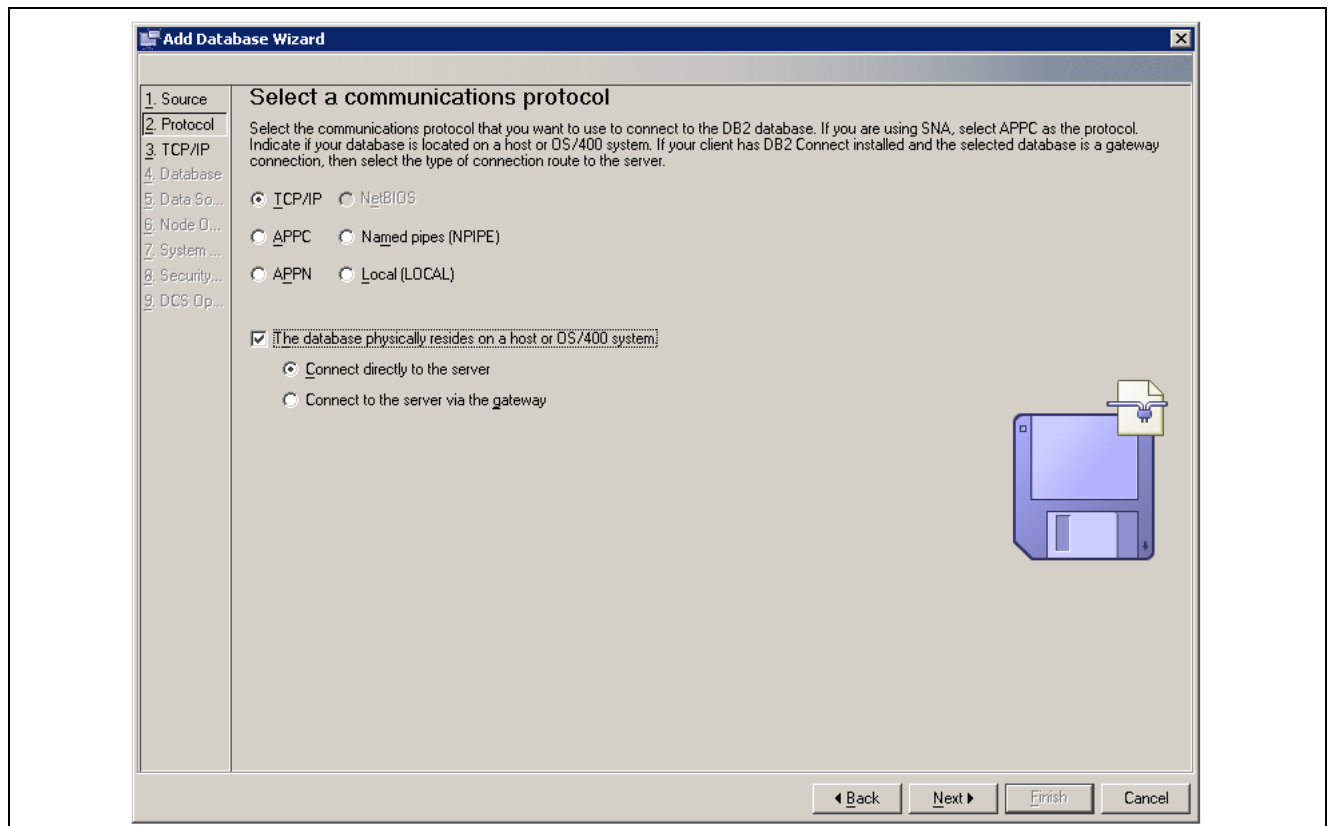
2. Select the radio button Manually configure a connection to a database, and then click Next to continue.



Selecting a connection method on the Add Database Wizard window

3. Select the radio button TCP/IP and select the check box labelled The database physically resides on a host or OS/400 system.

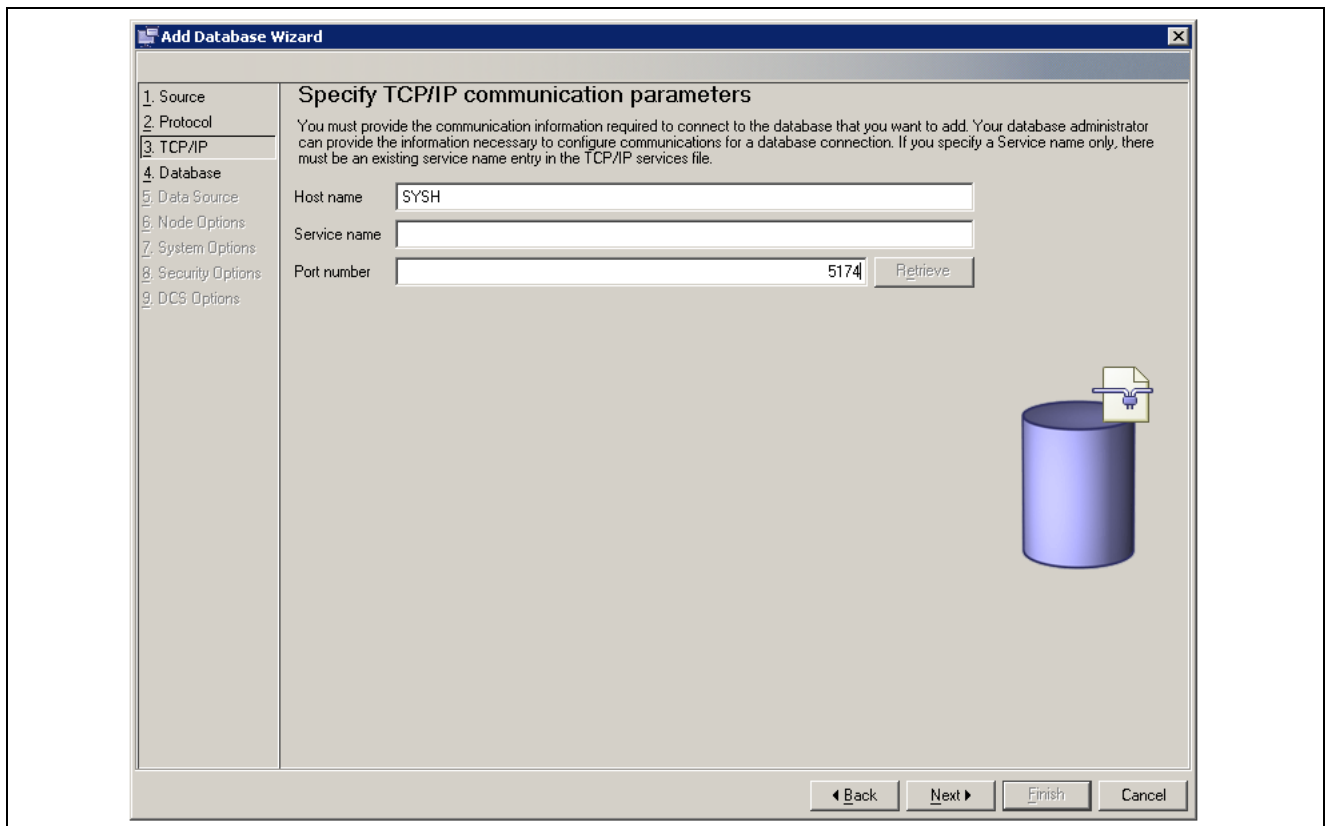
The Connect directly to the server option is selected by default. Leave this option selected and click the Next button.



Selecting a communications protocol on the Add Database Wizard window

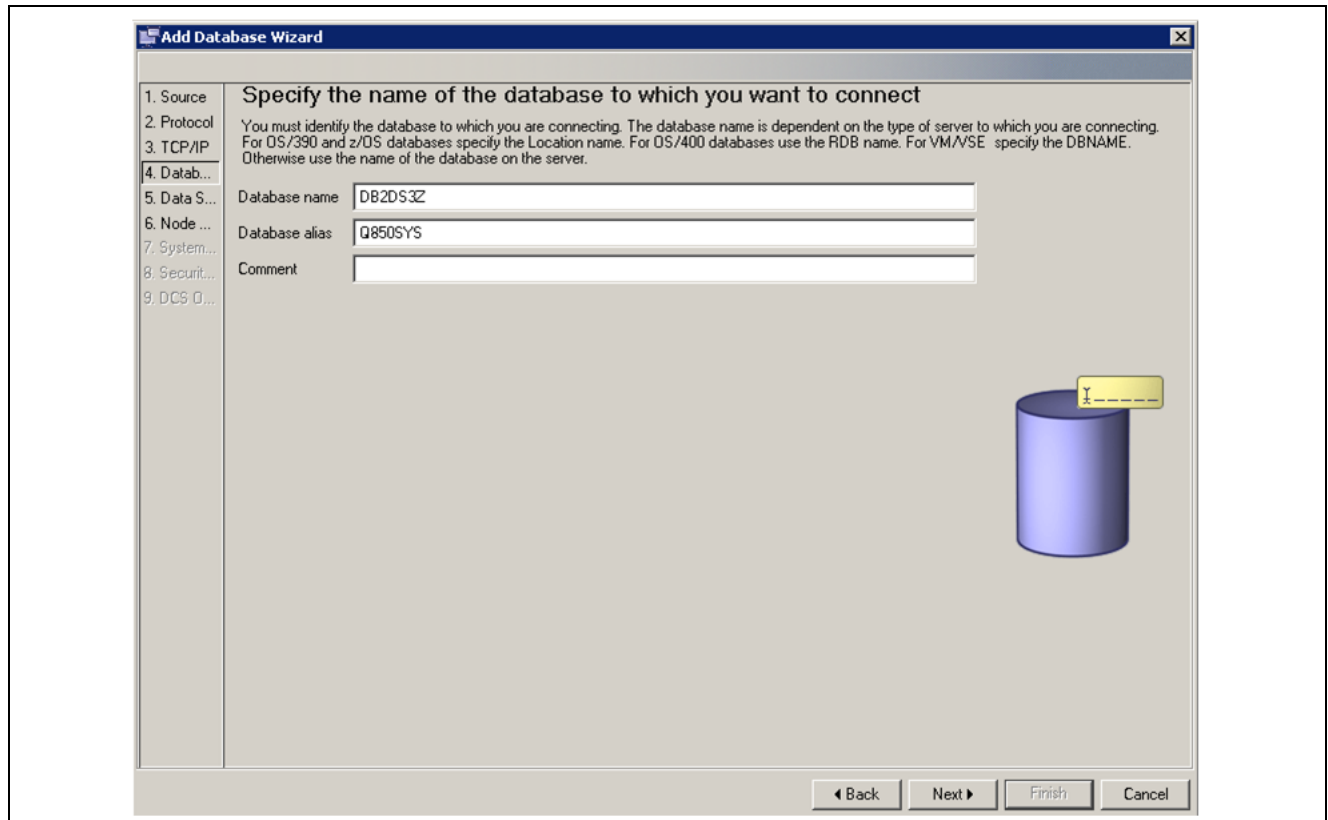
4. Enter either the DNS or IP address of your mainframe in the Host name field.

For the Port number, use the TCPPOPT used to start DDF for the DB2 subsystem that you want to connect to. You may need to consult your systems programmer for this value or you can look in the DB2MSTR log for the DB2 subsystem.



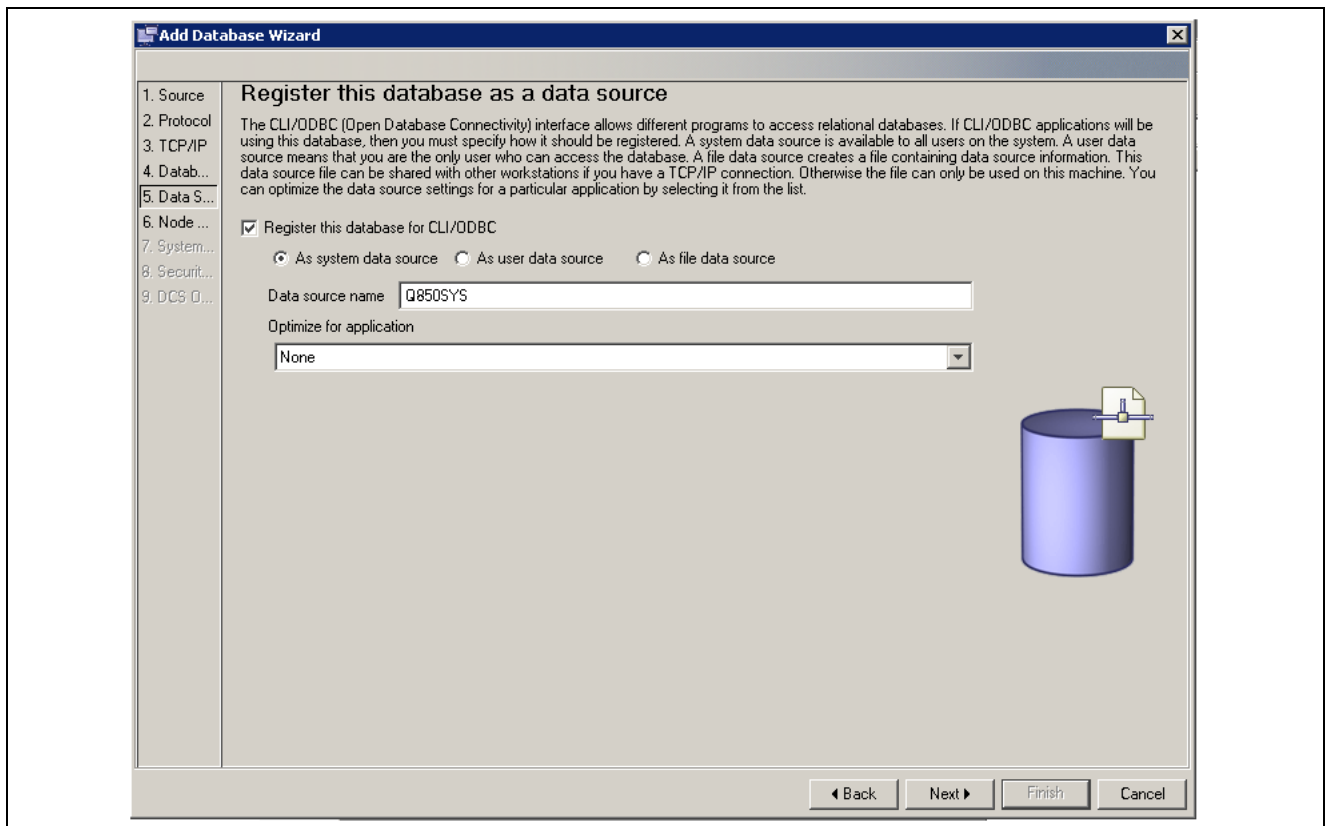
Specifying communication parameters on the Change Database Wizard window

5. Enter the database name defined in your LU in the Target database field in the entry box Database name. For Database alias, enter the name of the database. Click Next.



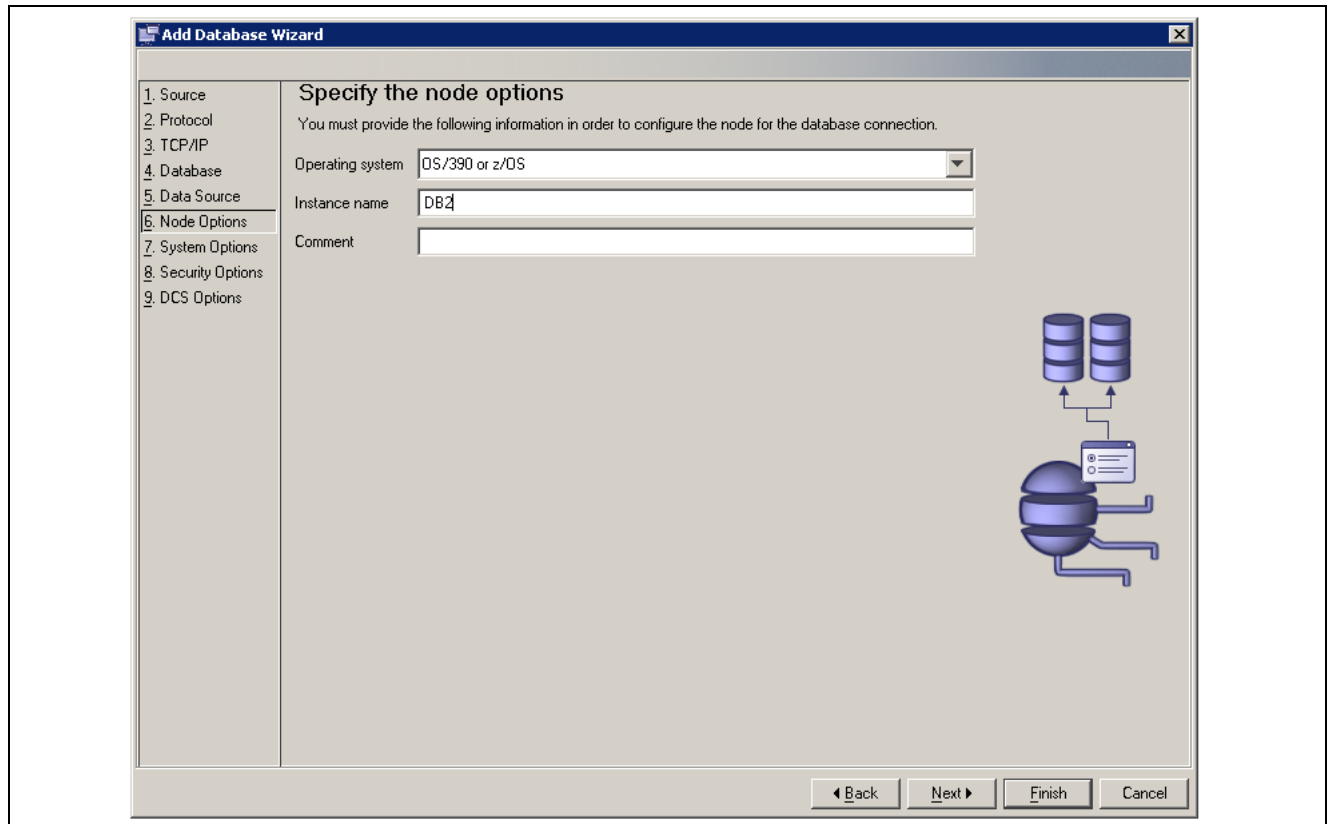
Specifying database parameters on the Change Database Wizard window

6. Verify that the check box Register this database for CLI/ODBC and the radio button As system data source are selected. Click Next.



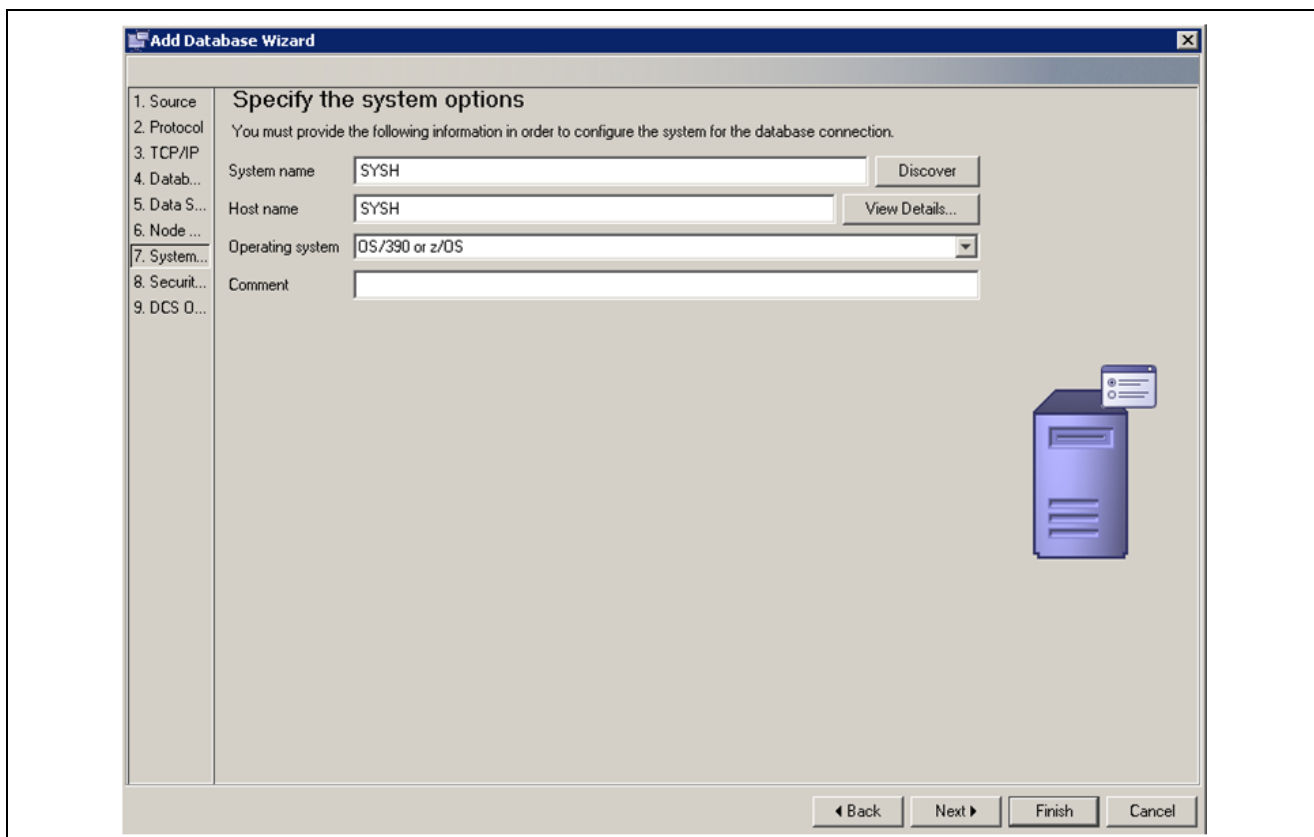
Registering the database on the Change Database Wizard window

7. Select *OS/390* or *z/OS* in the Operating system drop-down list box, and then click Next.



Specifying the node options on the Change Database Wizard window

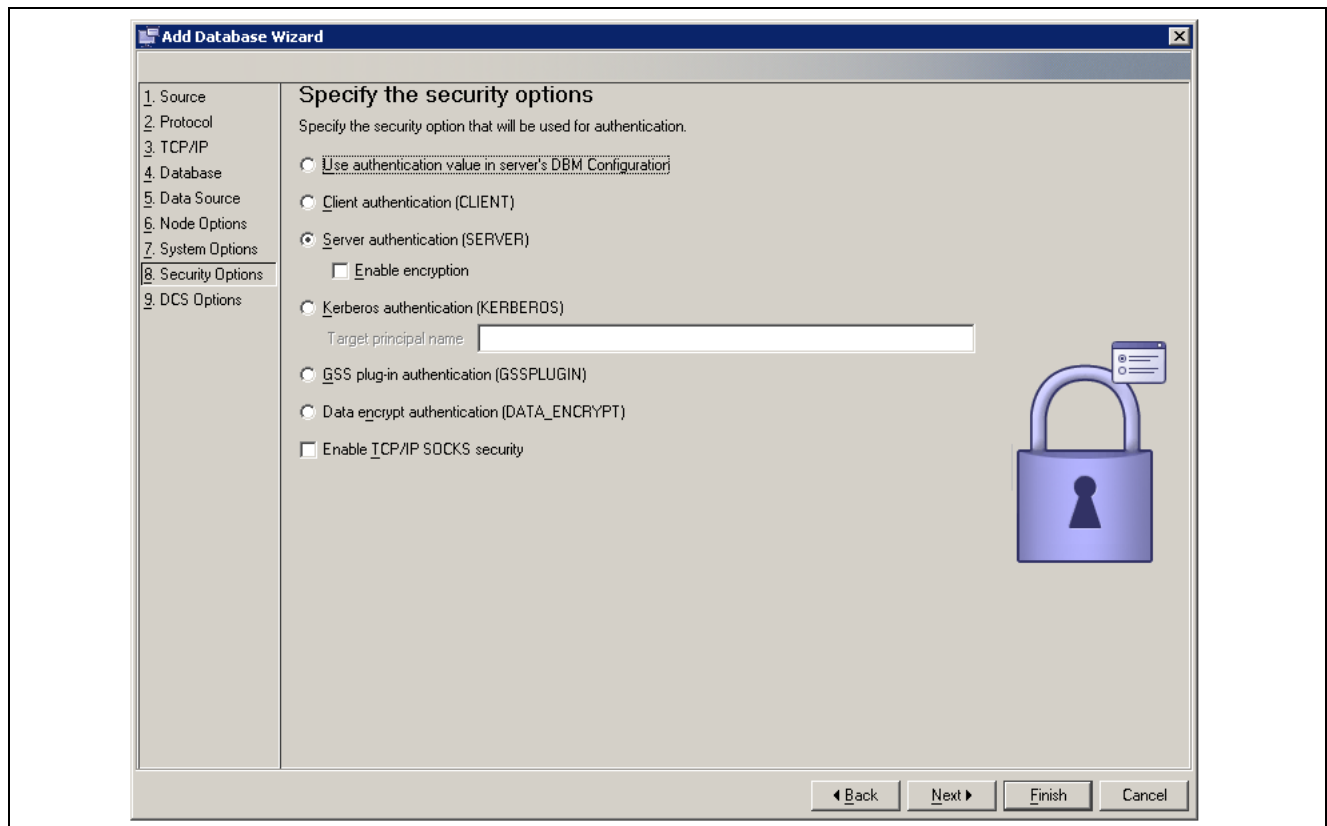
8. Verify that the information in the System name and Host name text boxes is correct. Click Next.



Verifying System name and Host name in the Change Database Wizard window

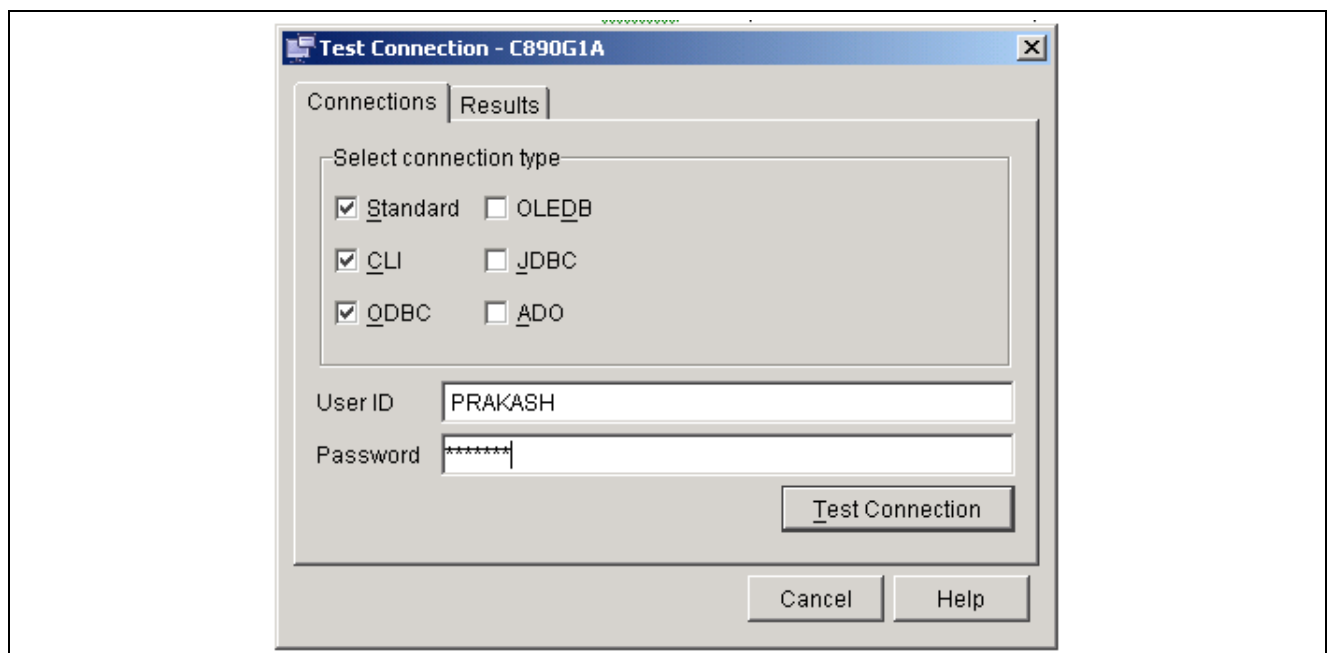
9. Make sure that the radio button Server authentication is selected and click Finish.

Note. No changes are required on the DCS Options page.



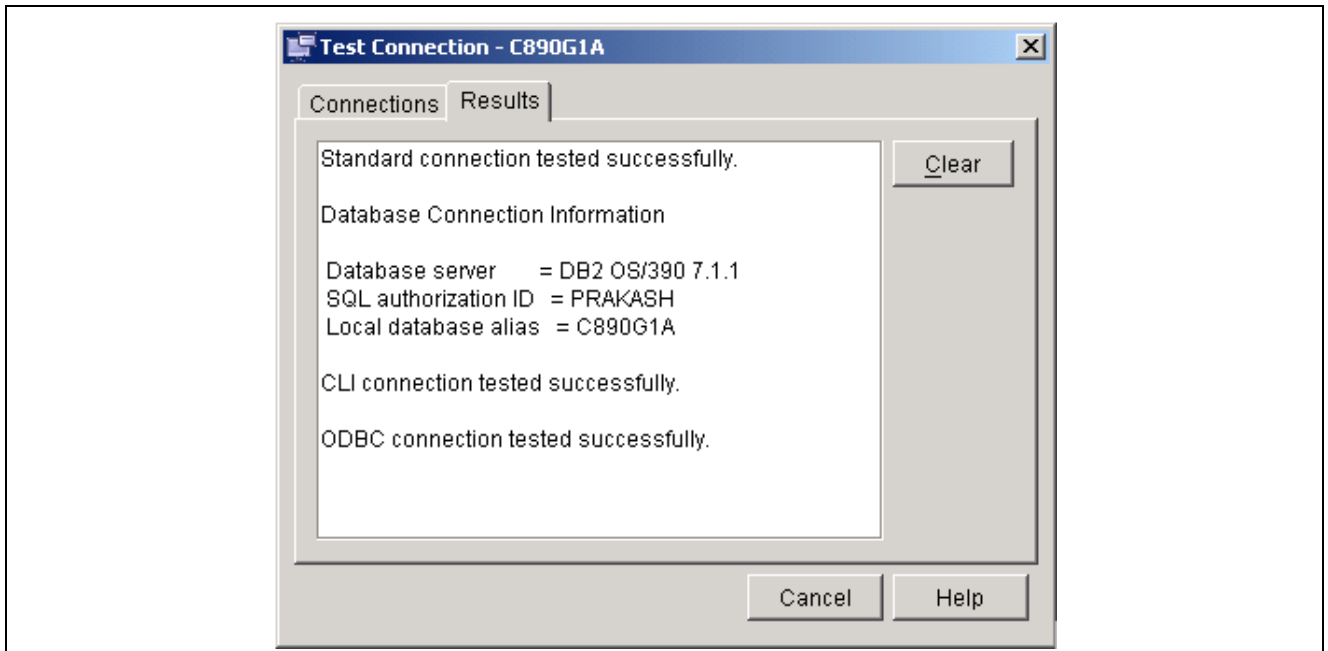
Specifying security options on the Change Database Wizard window

10. Enter User ID and Password and click Test Connection on the Test Connection dialog box.



Test Connection dialog box: Connections tab

Confirm that the connection test was successful by selecting the Results tab. You are now ready to use your entry to create or access a PeopleSoft database.



Test Connection dialog box: Results tab

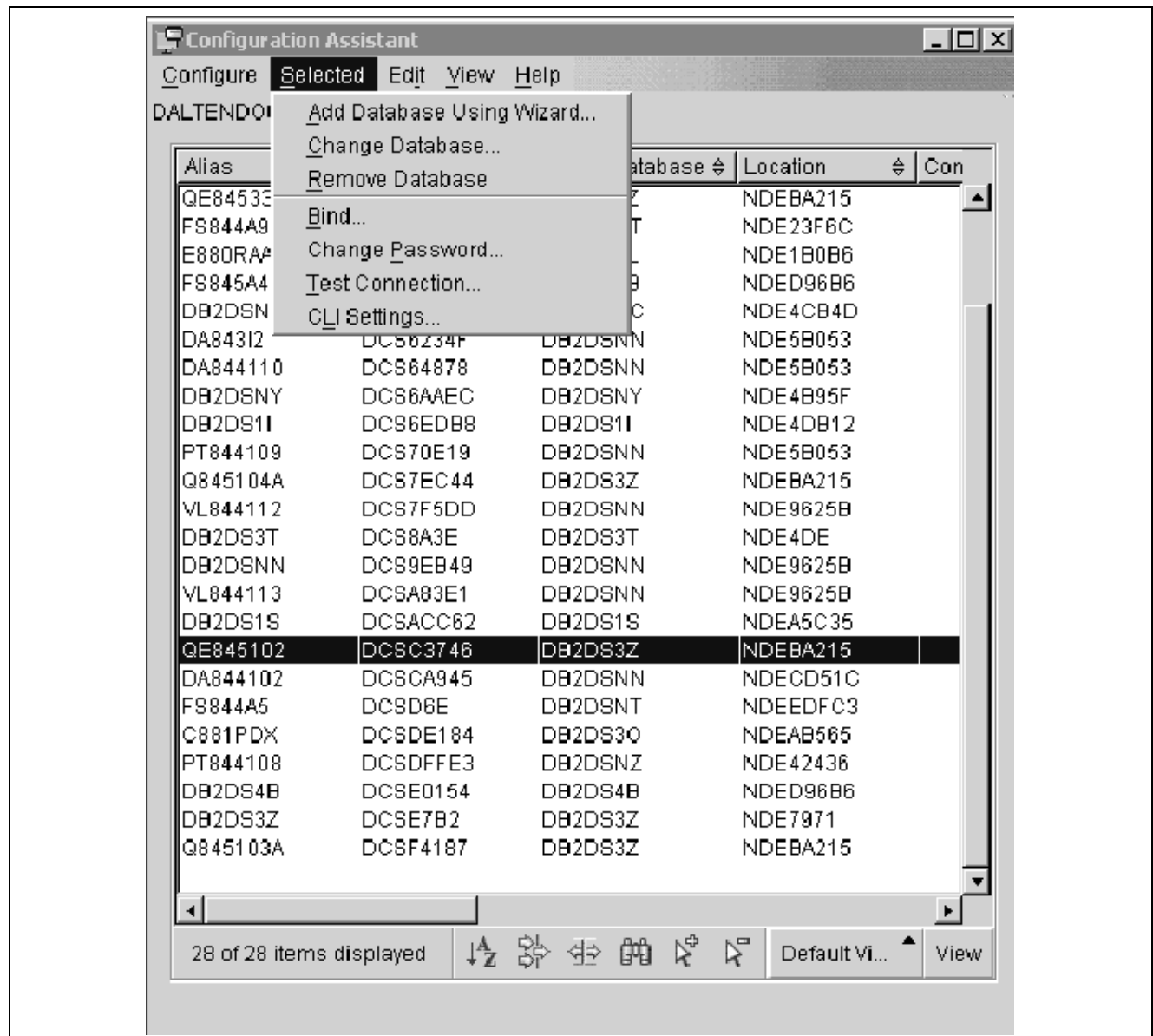
It may be necessary to bind the packages for DB2 Connect to the DRDA server for the first connection.

See "Binding DB2 Connect Packages for an EBCDIC Installation or Binding DB2 Connect Packages for an Unicode Installation."

Task C-4: Binding DB2 Connect Packages for an EBCDIC Installation

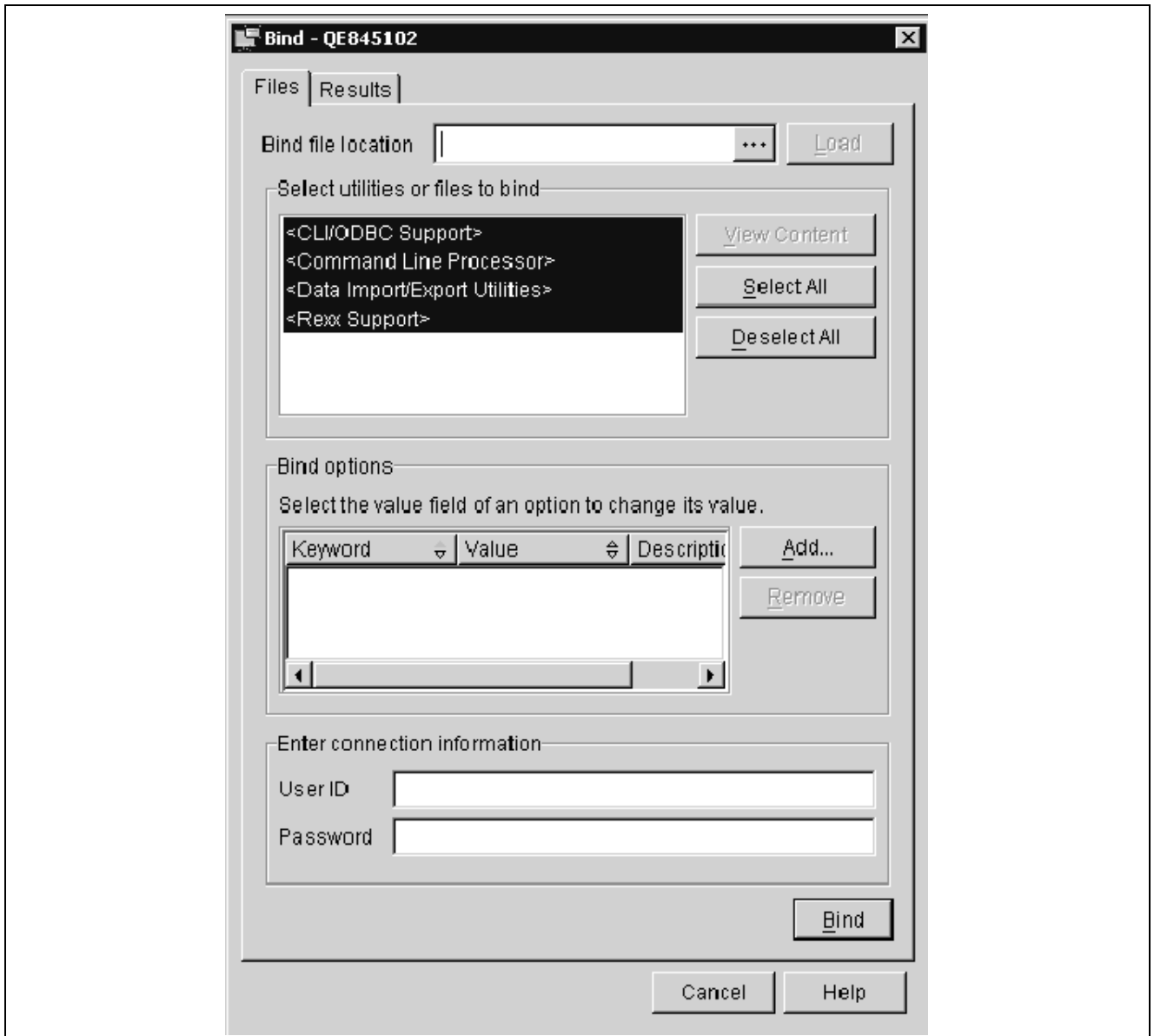
Use the instructions in this task if you have to bind the packages for DB2 Connect for a EBCDIC installation.

1. Open the Configuration Assistant. Highlight your database name and select Bind from the Selected. The Bind window appears.



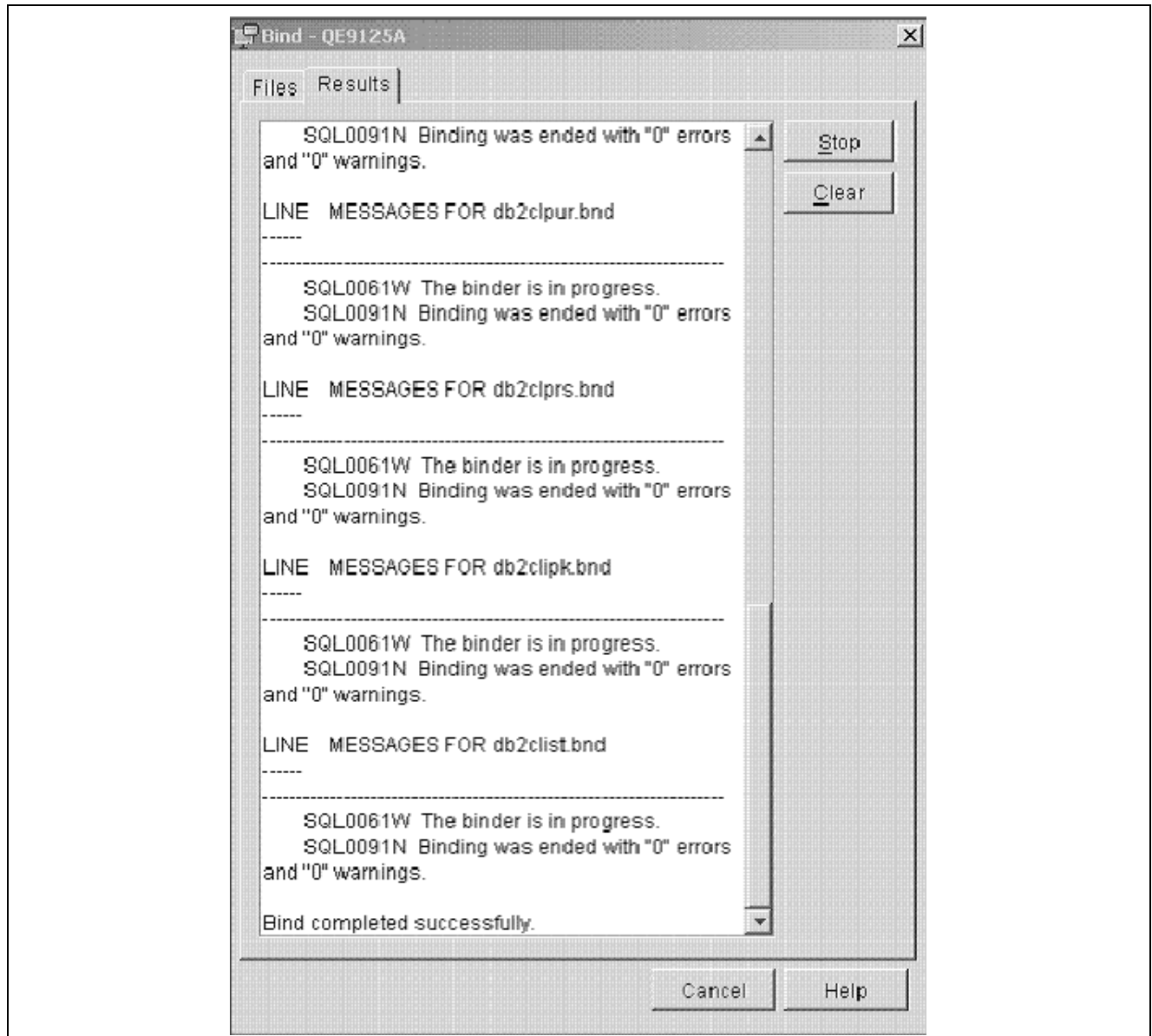
Selecting Bind on the Configuration Assistant window

2. Click Select All and enter your User ID and password.



Files tab on the Bind window

3. Scroll through the results. You should see 'Bind Completed Successfully' at the bottom.



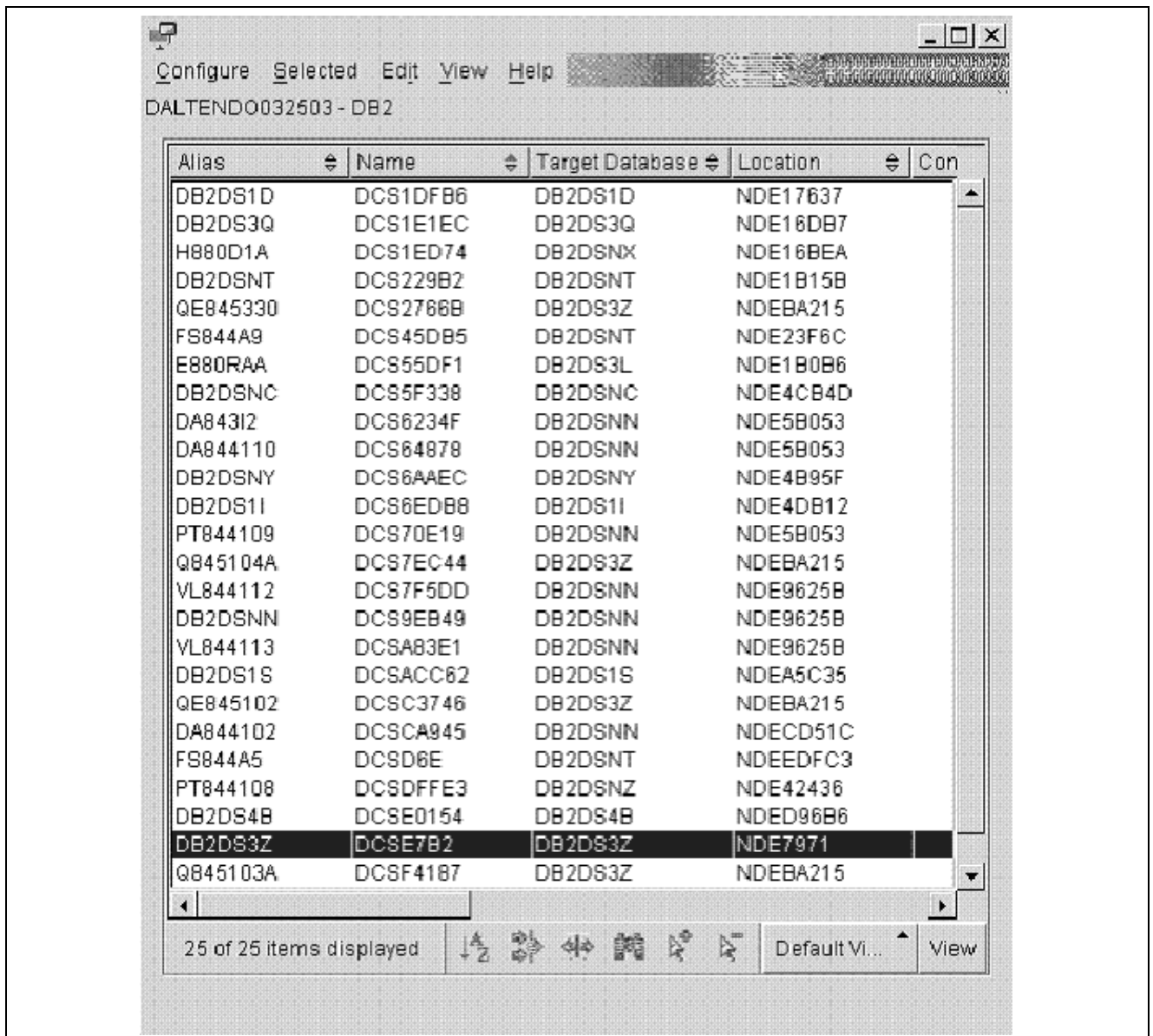
Results tab on the Bind window

Note. You may see some warning messages in the list indicating that some bind options are not valid for all .bnd files. The Configuration Assistant may attempt to bind some Connect packages that are actually specific to the use of DB2 UDB for Linux, UNIX, or Windows and not DB2 UDB for z/OS. *You can ignore these warning messages.*

Task C-5: Binding DB2 Connect Packages for a Unicode Installation

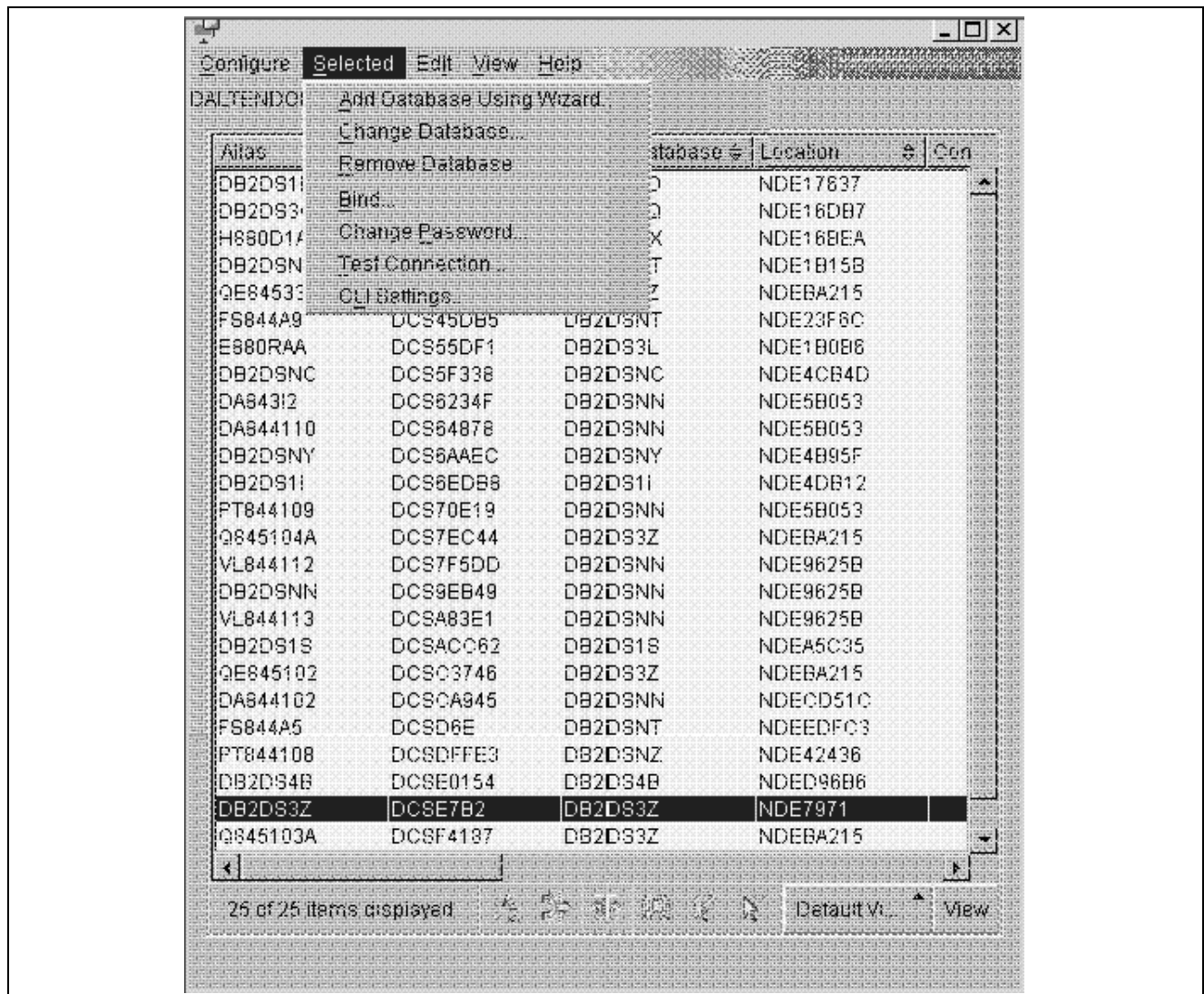
Use the instructions in this task if you have to bind the packages for DB2 Connect for a Unicode installation.

1. Open the Configuration Assistant.



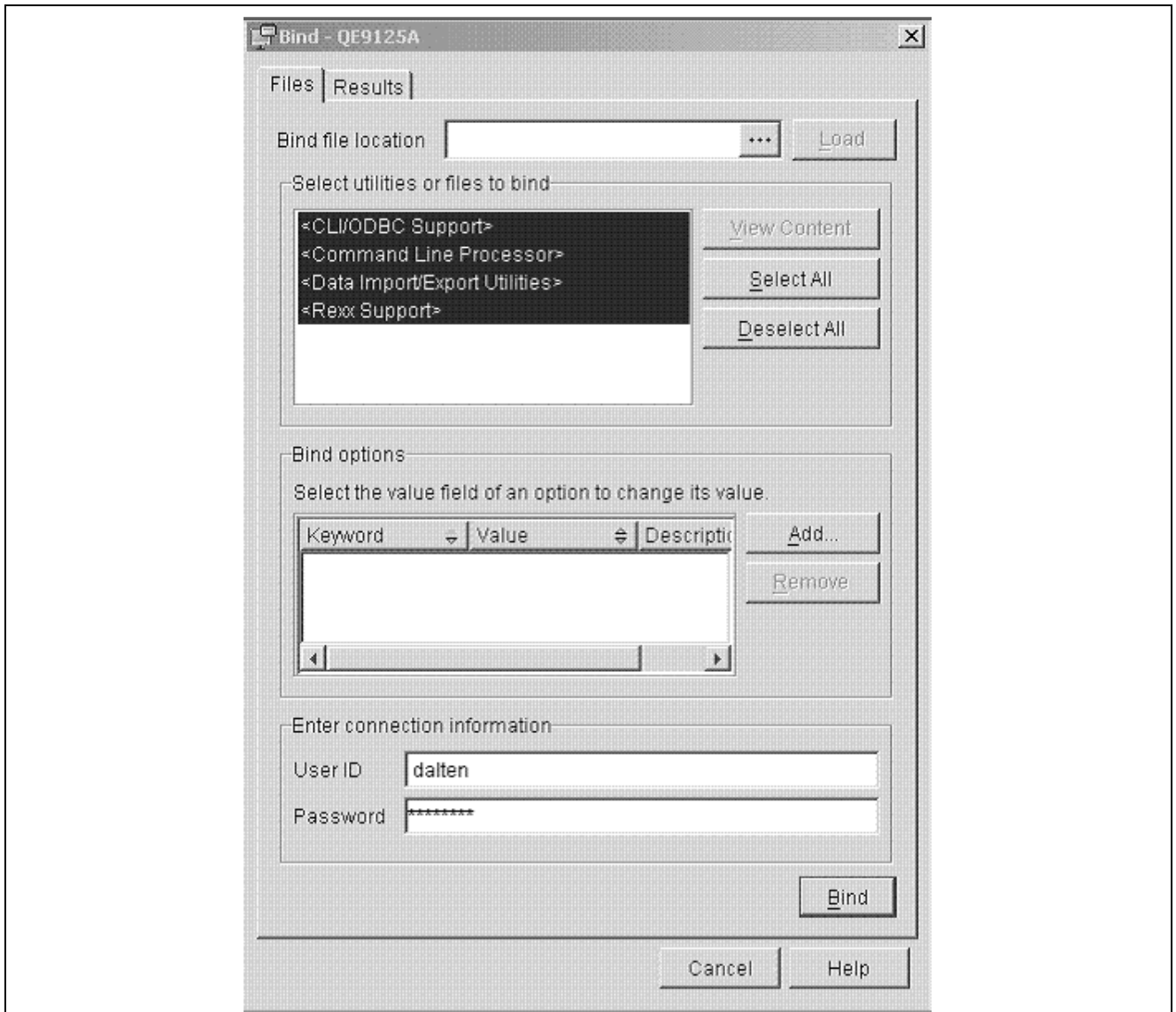
Configuration Assistant window

- Highlight the database and on the Selected menu, select Bind.



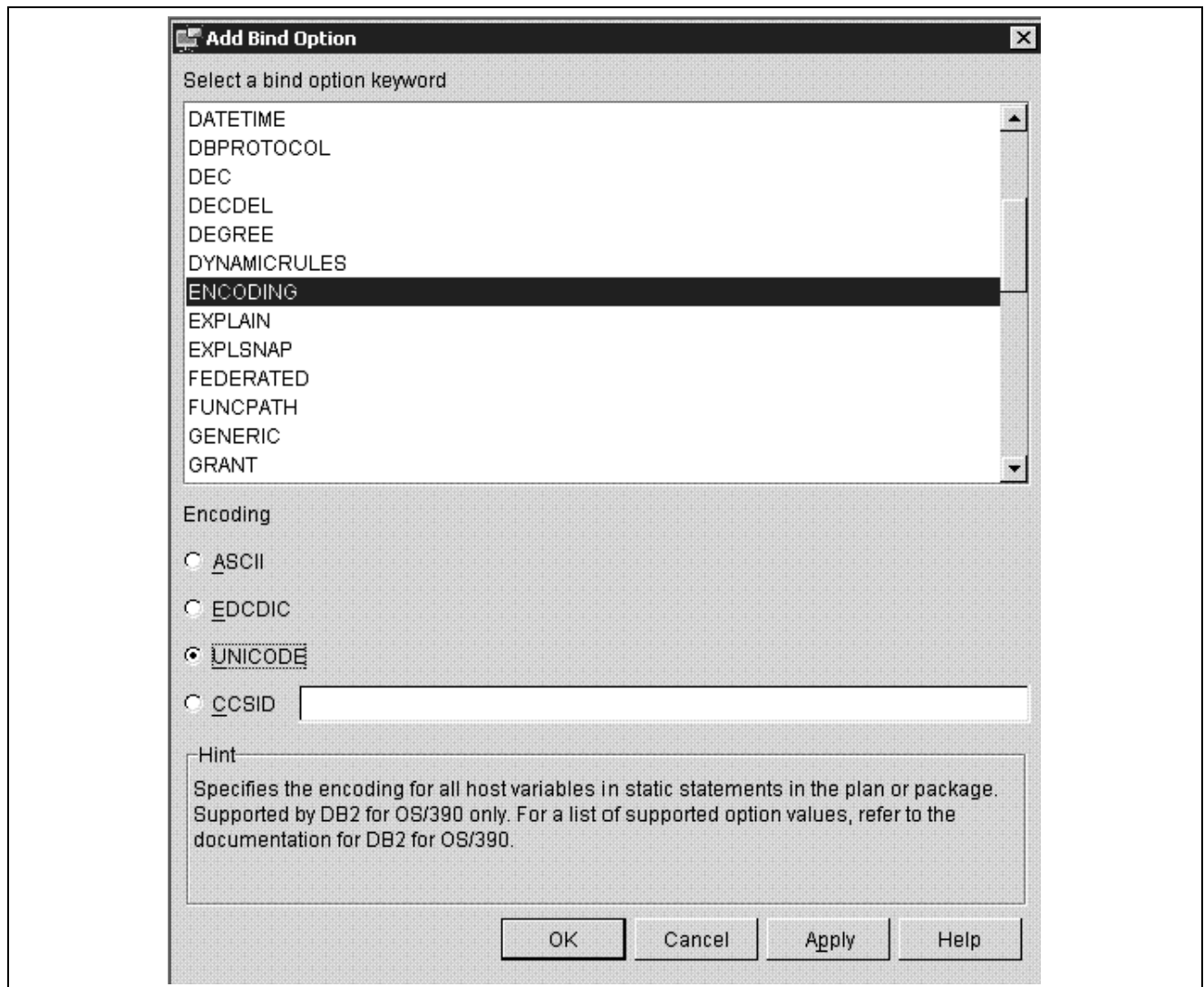
Selecting Bind on the Configuration Assistant

3. Enter a valid user ID and password. Click Select All and then click Add. The Add Bind Option window appears.



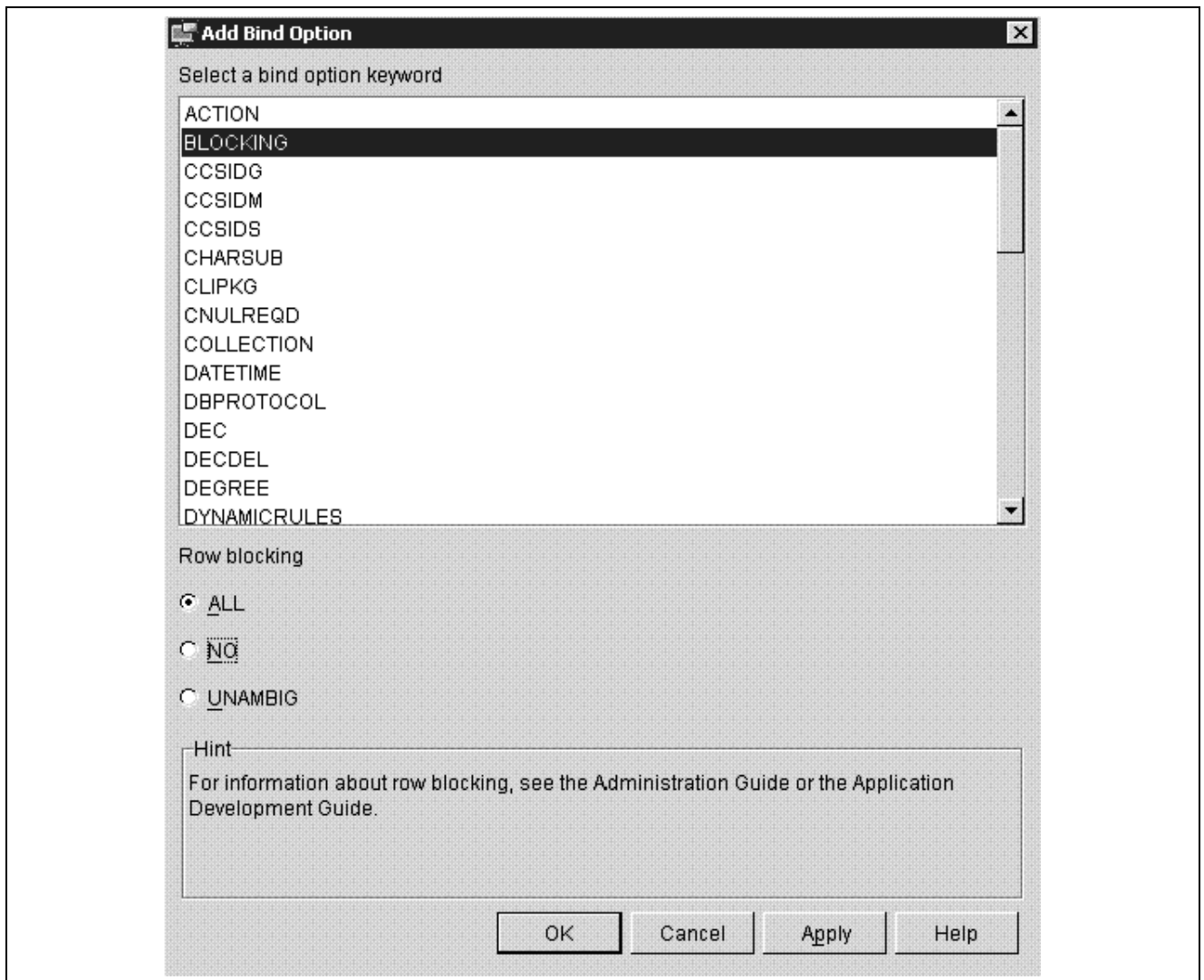
Files tab on the Bind window

4. Highlight *ENCODING* in the list, and select the UNICODE radio button in the Encoding area. Click Apply.



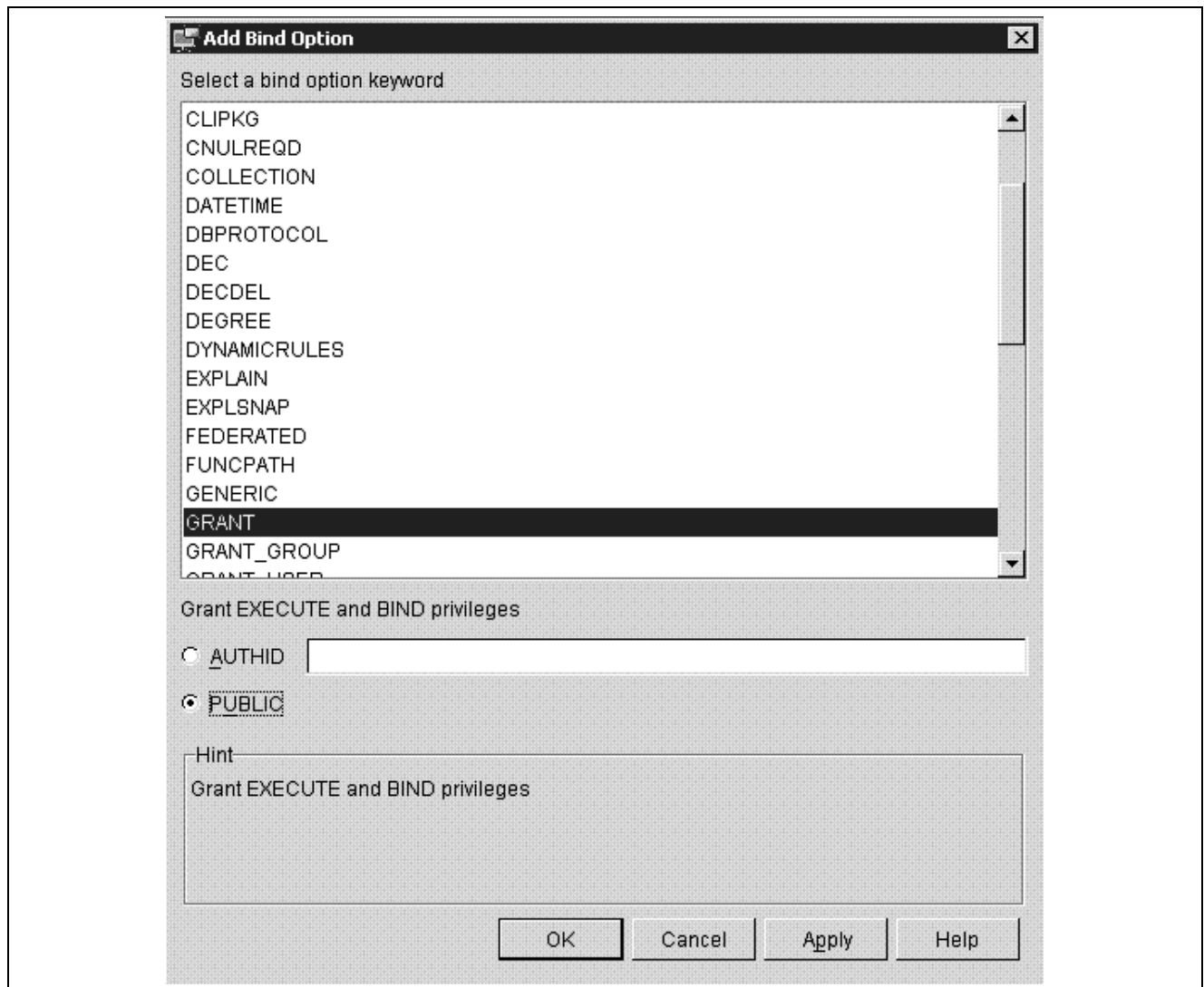
Specifying encoding on the Add Bind Option window

5. Highlight *BLOCKING* in the list, and select the ALL radio button in the Row blocking area. Click Apply.



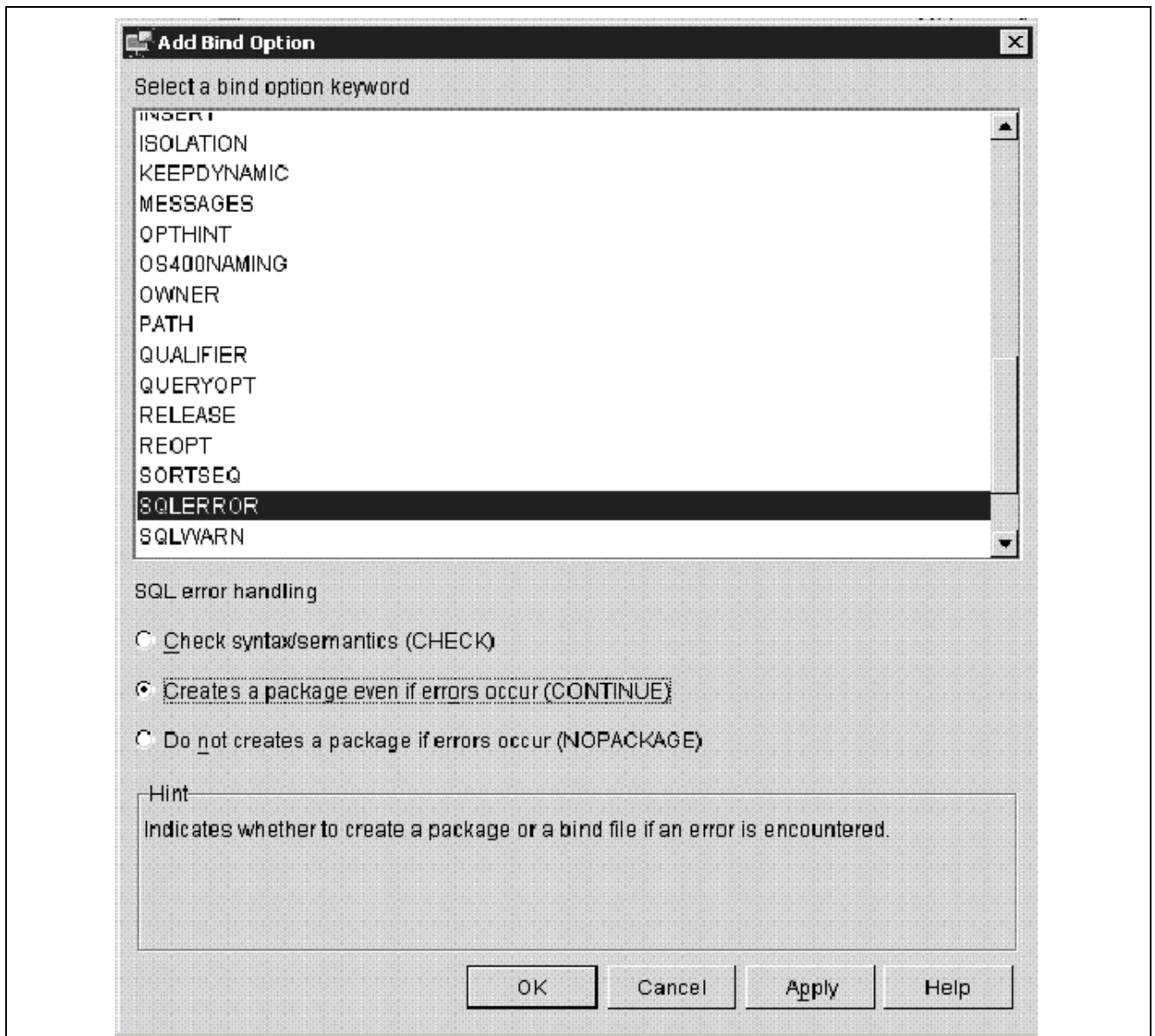
Specifying row blocking on the Add Bind Option window

6. Highlight *GRANT* from the list, and select the PUBLIC radio button from the Grant EXECUTE and BIND privileges area. Click Apply.



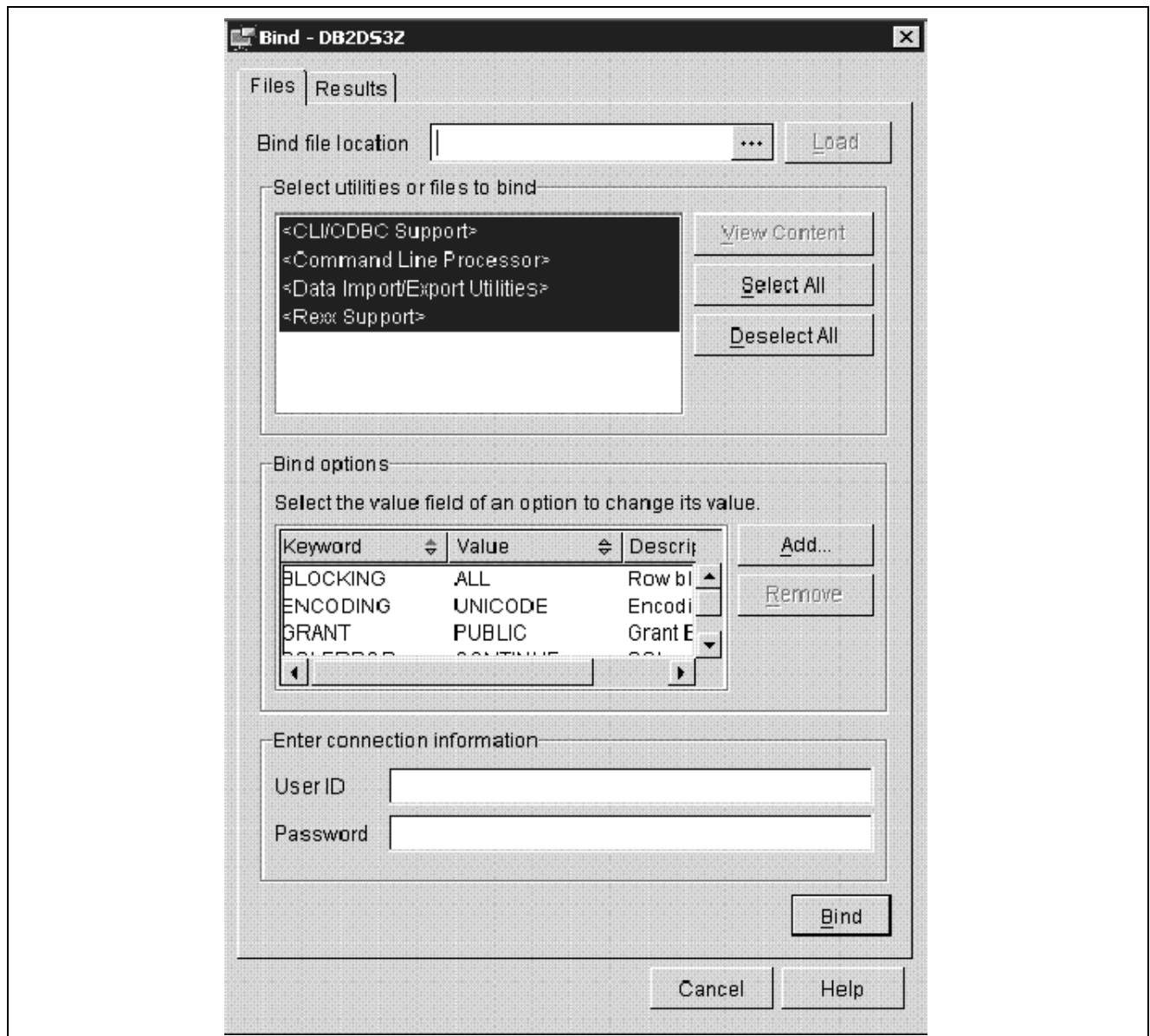
Specifying granting privileges on the Add Bind Option window

7. Highlight *SQLERROR* in the list, and select the Creates a package even if errors occur (CONTINUE) radio button. Click Apply, and then click OK to return to the Bind window.



Specifying SQL error handling on the Add Bind Option window

8. Verify that the Bind options list includes the options you added in the previous steps.

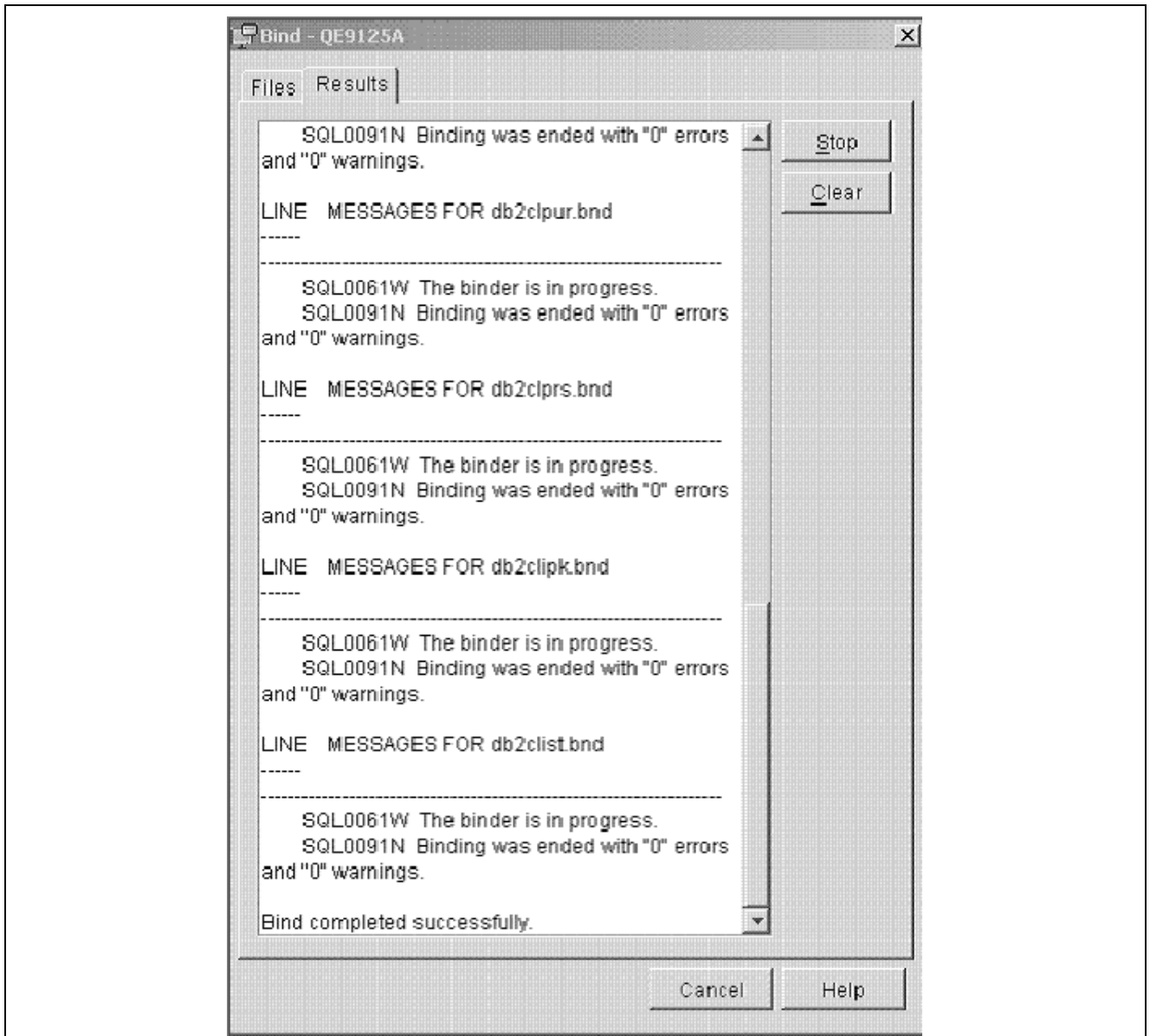


Verifying bind options on the Bind window

You should see these parameters in the Bind options area:

Keyword	Value
ENCODING	UNICODE
BLOCKING	ALL
GRANT	PUBLIC
SQLERROR	CONTINUE

9. Add a user ID and password and click Bind to view the Results tab.



Verifying results on the Bind window

Note. You may see some warning messages in the list indicating that some bind options are not valid for all .bnd files. The Configuration Assistant may attempt to bind some Connect packages that are actually specific to the use of DB2 UDB for Linux, UNIX, and Windows and not DB2 UDB for z/OS. *You can ignore these warning messages.*

Task C-6: Setting DB2CodePage For A Unicode Database

Use these instructions to set DB2CodePage for a Unicode Database.

1. From a command prompt issue the db2set command as follows:

```
c:\apps\DB\DB20DBC8\bin db2set DB2CODEPAGE=1208
```

2. Issue the following command to verify that it has been set:

```
C:\Apps\DB\db2odbc8>db2set -all
```

You should see:

```
[i] DB2CODEPAGE=1208
```

Task C-7: Setting Up the DB2 Connect Gateway on UNIX

Use this task to set up the DB2 Connect Gateway on UNIX, as required for a UNIX application server or Process Scheduler.

1. The Client Configuration Assistant (CCA) helps you manage your database connections to remote servers. This is the preferred method to set up any Windows client to communicate with a server. You can use the Command Line Processor to set up DB2 clients on any platform and this will be the method used to configure DB2 Connect on the UNIX operating system.
2. If you are using TCP/IP to connect to the z/OS server and to catalog Nodes and Databases for a TCP/IP connection, the procedure is the same.

See "Setting Up TCP/IP on the Client."

3. Test connection. From the UNIX command line type the following command:

```
Db2 => connect to database_alias user userid using password
```

For example:

```
Db2 => connect to PT800T9 user PEOPLE1 using PASSWRD1
```

4. It may be necessary to bind the packages for DB2 Connect to the DRDA server for the first connection. The following is a sample bind of the DB2 Connect packages:

```
Db2 => bind /usr/lpp/db2_05_00/bnd/ddcsmvs.lst action replace blocking all=>
grant public release commit sqlerror continue
```

Task C-8: Confirming DB2 Connect/ODBC Settings

DB2 Connect reads the DB2CLI.INI file in the \SQLLIB directory to obtain information at connection time. This file contains any overrides that are set via the Client Configuration Assistant when cataloguing the database. In past versions of PeopleSoft and DB2 Connect (formerly DDCS) there have been a number of DB2CLI.INI settings that have been recommended to improve performance.

Note. Use special care when you add settings to the DB2CLI.INI file. DB2 Connect will not inform you if a setting is misspelled; it just disregards the setting and uses the default.

We have made numerous changes to the PeopleSoft software to enable or disable DB2 Connect functionality at runtime that will result in improved performance. One example is the cursorhold setting. In PeopleSoft PeopleTools 8.50 and higher, we are completely controlling the cursorhold setting and we enable cursorhold for batch and disable it for PeopleSoft online activity. The following section lists the settings in the DB2CLI.INI file of special interest to PeopleSoft customers along with the Oracle recommendation:

- **DEFERREDPREPARE** — Defer Prepare chains together OPEN and PREPARE statements. This reduces network traffic which can have a significant impact in reducing response. DB2 Connect, by default, activates the Defer Prepare when creating new entries through Client Configuration Assistant.

For PeopleSoft software: Use default setting (DEFERREDPREPARE=1) *It is the default setting – It is not necessary to add the setting to your DB2CLI.INI file.*

- **CURSORHOLD** — Cursor Hold determines at what point of the transaction to release a SQL cursor. Deactivating Cursor Hold releases cursors after a transaction has been committed. Programs within the PeopleSoft system control at what point a cursor needs to be released. The DB2 Connect default is Cursor Hold enabled.

For PeopleSoft software: Use default setting (CURSORHOLD=1) *It is the default setting – It is not necessary to add the setting to your DB2CLI.INI file.*

- **DISABLEKEYSETCURSOR** — Support for Keyset cursors was introduced in DB2 Connect 6.1. PeopleTools testing has found a very high overhead in DB2 Connect when Keyset cursors are enabled. PeopleSoft PeopleTools uses forward cursors rather than Keyset cursors, so this extra overhead is not justified for PeopleSoft systems.

For PeopleSoft software: Override the default setting by adding DISABLEKEYSETCURSOR=1 in DB2CLI.INI.

Note. In a Keyset Cursor, the membership and order of rows in the result set are fixed at cursor-open time. Keyset cursors are controlled by a set of unique identifiers (keys) known as the Keyset. The keys are built from a set of columns that uniquely identify the rows in the result set. Changes to data values in non-Keyset columns (made by the cursor owner or committed by other users) are visible as the user scrolls through the cursor.

Note. If a change disqualifies a row for membership or affects the order of a row, the row does not disappear or move unless the cursor is closed and reopened. Inserts to the database made outside the cursor are also not visible in the cursor unless the cursor is closed and reopened.

- **DISABLEUNICODE** — This is an undocumented DB2 Connect parameter. DB2 Connect will attempt to communicate with a DB2 z/OS database server via Unicode. If an Unicode conversion service has not been enabled on your mainframe, you will be unable to connect to the database. If ICONV is used for the Unicode conversion, IBM has documented cases in which data corruption has occurred. For this reason, the PeopleSoft installation requires that the DISABLEUNICODE=1 parameter be used to suppress DB2 Connect from communicating in Unicode, and use ANSI instead. The default is enabled. The PeopleSoft installation requires adding DISABLEUNICODE=1 to the DB2CLI.INI file.

Note. For a Unicode installation, do not add DISABLEUNICODE=1 to the DB2CLI.INI file.

Note. If you are using DB2 Connect with multiple DB2 platforms (z/OS, Linux, UNIX, or Windows), add this statement to the stanzas pertaining to each individual DB2 z/OS database configured in the DB2CLI.INI file. Do not add this parameter to any non-z/OS database configurations, and do not add it to the COMMON stanza. If you are connecting to DB2 z/OS databases exclusively, then you may add this parameter once in the DB2CLI.INI file, in the COMMON stanza.

- **CLI/ODBC Trace settings** — If you want to enable DB2 Connect Trace, you need to add the parameters for turning the trace *On* in the [Common] section only. Adding the trace information in a database-specific section will be ignored. So if you turn trace on for any database, the trace gets activated for every database that is catalogued on the workstation.

These are the recommended settings for turning Trace on:

```
[COMMON]
TRACEFLUSH=1
TRACEPATHNAME=C:\TEMP\DB2TRACE\
TRACECOMM=1
TRACE=1    (trace=0 turns the trace OFF)
```

Note. The DB2CLI.INI file contains a section for each database you configure. For example, if you catalog database PT800T1 you will see a [PT800T1] section in the DB2CLI.INI. A convenient way to set an override for all databases is to add it to the [Common] section of the DB2CLI.INI. If you add the overrides to this section, you do not need to add the override for each database because the [Common] section applies to all databases. For example:

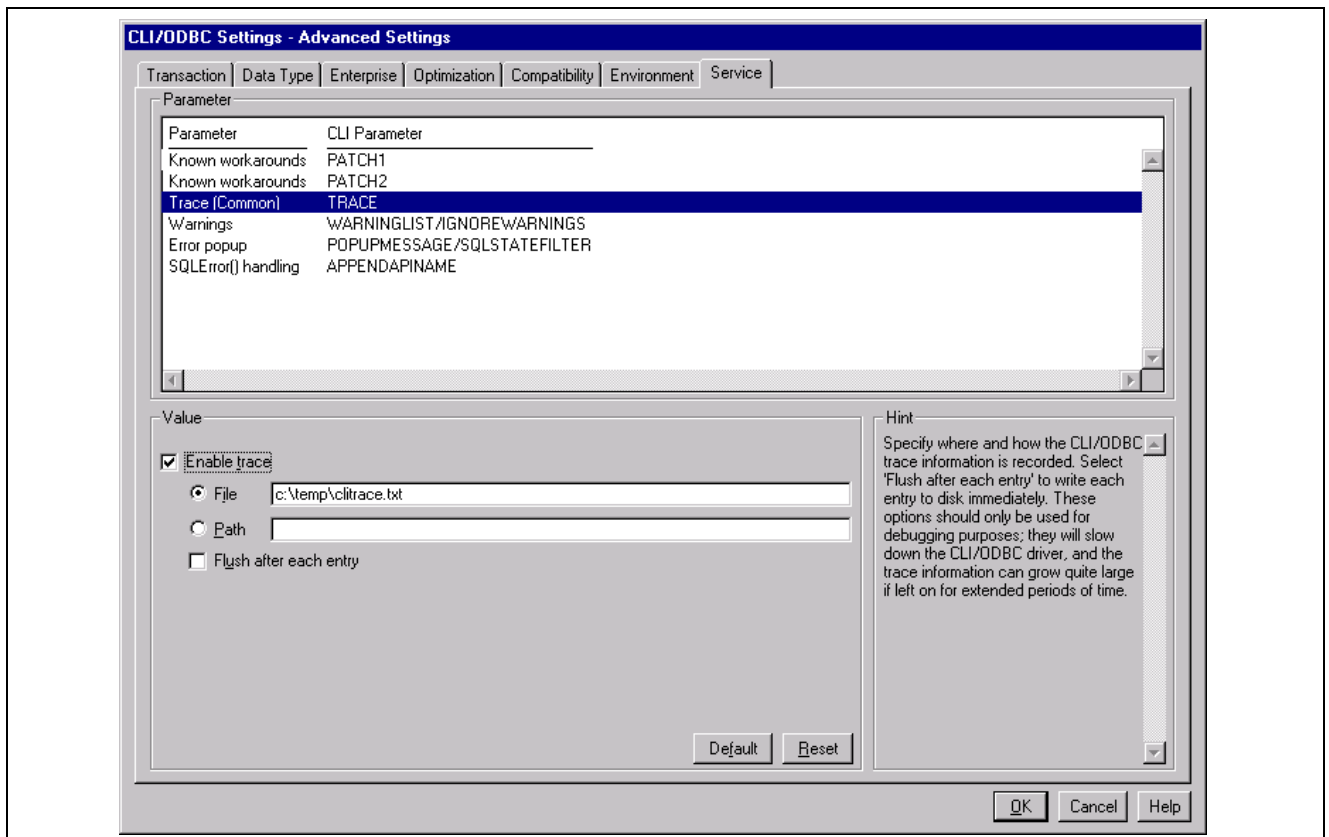
```
[Common]
DISABLEKEYSETCURSOR=1
```

Task C-9: Setting CLI/ODBC Trace with the Client Configuration Assistant

The DB2 CLI/ODBC trace is a valuable tool for debugging conversations between client workstations and the DB2 UDB for z/OS database server. The trace can be set via the DB2CLI.INI file directly (see the previous section) or via the Client Configuration Assistant. You now need to alter the database settings specific for use with the PeopleSoft database.

To set CLI/ODBC Trace with the Client Configuration Assistant:

1. From the Client Configuration Assistant panel, highlight the database entry you just added and click on the Properties button. This brings up the Database Properties panel.
2. Click on the Settings button. This will give you the DB2 Message box requesting you to connect to the data source.
3. Choose No. This will take you to the CLI/ODBC Settings panel.
4. Click on the Advanced button to open the Advanced Settings panel.



CLI/ODBC Settings - Advanced Settings page: Service tab

5. From the Advanced Settings panel, verify that you are on the Transaction tab. Select the Service tab and enable the trace. The example above shows how to set the DB2 CLI/ODBC trace.
6. Click OK to save your changes.
7. From here on, click OK until you return to the Client Configuration Assistant panel, and then close it.

APPENDIX D

Installing PeopleBooks

This appendix discusses:

- Understanding PeopleBooks
- Installing and Accessing PeopleBooks
- Implementing the PSOL Server for PeopleBooks
- Configuring Context-Sensitive Help
- Administering PeopleBooks

Understanding PeopleBooks

PeopleBooks are the documentation delivered with PeopleSoft PeopleTools and every PeopleSoft application. This appendix describes how to install and configure PeopleBooks so that you can deploy the PeopleSoft documentation at your site.

There are three options for configuring PeopleBooks.

- *Hosted PeopleBooks*: Use PeopleBooks over the Internet with the Oracle PeopleSoft Enterprise Hosted PeopleBooks.
- *Full-text Search*: Requires installation of the PeopleSoft Pure Internet Architecture and hosting PeopleBooks on a web server.
- *Context-sensitive help*: Configure PeopleSoft PeopleTools to call PeopleBooks as context-sensitive help from both internet applications and Microsoft Windows-based programs. For instance, when a user clicks the Help link in a browser or presses F1 in Windows, the appropriate documentation appears.

Note. The F1 button calls PeopleBooks Help only for the PeopleTools Development Environment (the Windows-based client). If you press F1 while using the portal, you invoke the help for your current browser. For context-sensitive help in the portal, end users need to click the Help link to call PeopleBooks Help.

See Also

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

Task D-1: Installing and Accessing PeopleBooks

This section discusses:

- Prerequisites
- Accessing Oracle PeopleSoft Enterprise Hosted PeopleBooks
- Obtaining the PeopleBooks Installation Files from E-Delivery
- Installing the PeopleBooks Installation Software in GUI Mode
- Installing the PeopleBooks Installation Software in Console Mode

Prerequisites

PeopleSoft PeopleTools 8.50 PeopleBooks are immediately available for use over the internet at the Oracle Enterprise PeopleSoft Hosted PeopleBooks web site. The prerequisite for using this site is an Internet connection available to your server where PeopleSoft PeopleTools is installed. Alternatively, you can install PeopleSoft PeopleBooks to your PeopleSoft PeopleTools 8.50 dedicated web server machine.

Before you begin the installation, make sure you meet the following requirements:

- You are installing to a supported web server and operating system platform.
PeopleSoft PeopleBooks 8.50 is supported on the same web server platforms and operating systems as the PeopleSoft Pure Internet Architecture (PIA) for PeopleSoft PeopleTools 8.50.
- You installed Verity beneath the PeopleSoft PeopleTools root folder, commonly referred to as *PS_HOME*, and must reside under *PS_HOME*, as well.
- You installed PeopleSoft Pure Internet Architecture to *PS_HOME*.

The PeopleSoft Pure Internet Architecture must reside beneath the same *PS_HOME* where you installed PeopleSoft PeopleTools.

- You installed PeopleSoft Pure Internet Architecture as a Multiple Server domain.

When executing PeopleSoft Pure Internet Architecture setup, you were instructed to install PeopleSoft Pure Internet Architecture as a Multiple Server Domain if installing PeopleBooks on the same machine as PeopleSoft PeopleTools. This means that PSOL is now configured to be run as a separate server. If your PeopleSoft Pure Internet Architecture is configured as a single server domain, re-run the PeopleSoft Pure Internet Architecture setup and create a Multiple Server Domain to be used with PeopleBooks before proceeding.

See Also

Enterprise PeopleTools 8.50 Hardware and Software Requirements

My Oracle Support, Certifications

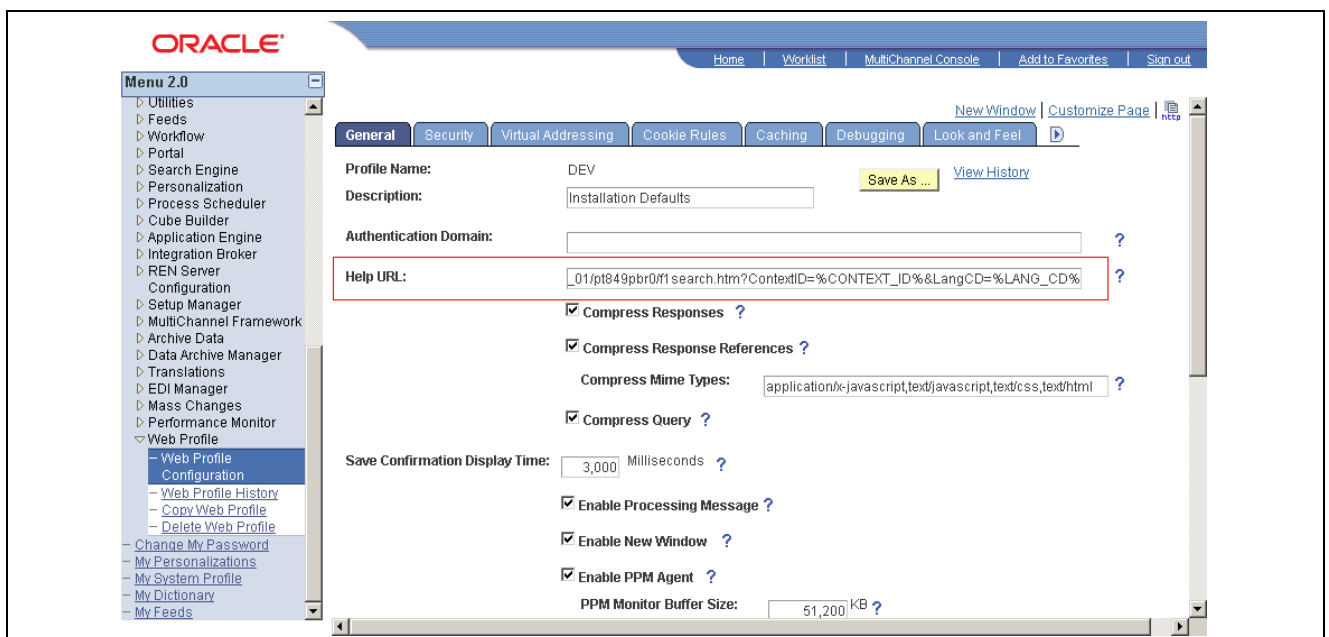
"Preparing for Installation," Defining Installation Locations

Task D-1-1: Accessing Oracle PeopleSoft Enterprise Hosted PeopleBooks

Open a browser and enter the URL: <http://www.oracle.com/pls/psft/homepage>. Here you can see all the hosted PeopleBooks currently available. For the PeopleSoft PeopleTools 8.50 PeopleBooks, select the link for your product application.

You can configure your PeopleSoft server to use hosted PeopleBooks for context-sensitive help. Each page in your PeopleSoft applications includes a Help icon that, when clicked, opens a new browser window displaying help topics that discuss that page. To enable the Help link from application pages:

1. Log in to your PeopleSoft application in a browser.
2. Select PeopleTools, Web Profile, Web Profile Configuration.
3. Click Search and select the Profile Name you specified during your PeopleSoft Pure Internet Architecture installation, for example, DEV.



Web Profile Configuration General page

4. On the General page, change the value for the Help URL field, indicated with a red rectangle in the example above, by replacing the existing string with the URL for your product.

The URLs are available on the Oracle PeopleSoft Enterprise Hosted PeopleBooks web page. Select the link View the simple steps to set up the context sensitive help.

5. Save and exit the Web Profile Configuration page.
6. Restart the following servers:
 - If you are running on Oracle WebLogic, restart the PeopleSoft Pure Internet Architecture and admin web servers.
 - For IBM WebSphere, restart the PeopleSoft Pure Internet Architecture server.
 - If the Help link does not appear in the next step, it may be necessary to also stop and restart the application server.
7. Test the help functionality by clicking the Help icon on a PeopleSoft application page.

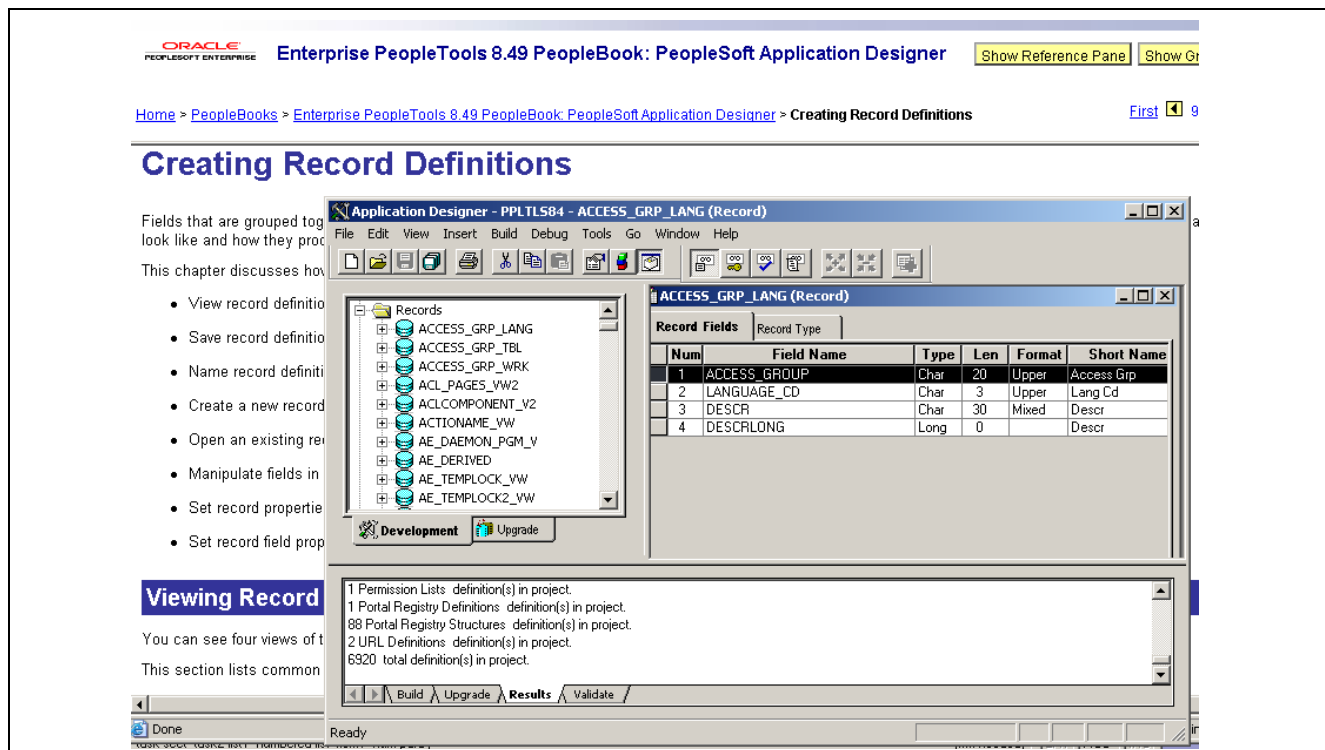
PeopleTools Application Designer also has context sensitive help available through the user's F1 key. To enable this help functionality, the PeopleTools Options must be configured to access the PeopleBooks Library as follows:

1. In your PeopleSoft application, navigate to the PeopleTools, Utilities, Administration, PeopleTools Options.
2. Scroll down to the Help Options group.
3. Change the value for the F1 URL field by replacing the existing string. The URL should be similar to the following:

`http://download.oracle.com/docs/cd/E13292_01/pt849pbr0/f1search.htm?ContextID=%CONTEXT_ID%&LangCD=%LANG_CD%`

Note. The correct URL for this field is available on the Oracle PeopleSoft Enterprise Hosted PeopleBooks web page. Select the link View the simple steps to set up the context sensitive help, and select the link for PeopleTools 8.50.

4. Save and exit the PeopleTools Options page.
5. Open Application Designer. Press F1 to display general information on using Application Designer.
6. For context sensitive help, open an object, such as a panel or PeopleCode, then press F1.



Application Designer with F1 Help

Task D-1-2: Obtaining the PeopleBooks Installation Files from E-Delivery

You obtain the PeopleBooks installation files by downloading a zip file from Oracle E-Delivery. At this point you should have already downloaded the necessary file. This section includes additional information on finding and using the installation file if necessary.

See "Preparing for Installation, " Using E-Delivery.

To obtain the PeopleBooks installation files from Oracle E-Delivery:

1. After logging in to Oracle E-Delivery, on the Media Search Pack page, select PeopleSoft Enterprise from the Select a Product Pack drop-down list on the Media Pack Search page.

Select the operating system you are running on from the Platform drop-down list, and click Go.

Note that you must unzip the media pack zip files on the platform for which they are intended. For example, if you download the file for the Solaris platform, you must unzip the file on a Solaris operating system. If you unzip the file on a Microsoft Windows machine into a staging directory, and then move the directory to a Solaris machine, the staging area files may be corrupted.

2. Select the radio button for PeopleSoft Enterprise - PeopleTools 8.50 Media Pack, and click Continue.
3. Download the zip files for the PeopleSoft Enterprise PeopleTools 8.50 PeopleBooks installation.
4. When you unzip the file, extract it into a temporary directory, referred to here as *PBK_INSTALL*.

Task D-1-3: Installing the PeopleBooks Installation Software in GUI Mode

PeopleBooks can be installed directly to a Windows, Linux or UNIX machine. In addition, PeopleBooks can be installed over an existing PeopleBooks site, effectively upgrading the site and merging in new content. (Duplicate book titles will be overwritten.)

Note. The PeopleSoft Pure Internet Architecture file structure has changed for PeopleSoft PeopleTools 8.44 and above, so you cannot install PeopleBooks 8.50 into a pre-8.44 PIA site. However, after installing PeopleSoft Pure Internet Architecture 8.50, you can move your old PeopleBooks structure into the PSOL web module directory created during the PeopleSoft Pure Internet Architecture installation, and then install PeopleSoft PeopleTools PeopleBooks 8.50 on top of it.

Note. The default install mode for UNIX and Linux is a graphical interface. If your system is not configured for graphic-based programs, go to the next section for instructions for console mode installation.

To install the PeopleBooks software:

1. On UNIX and Linux, you must run both `psconfig.sh` and `setEnv.sh` in the current shell.

This is very important, as it sets the correct paths for JRE and Verity, which are needed for the installer to complete successfully.

- Go to *PS_HOME* and run the following command:

```
. ./psconfig.sh
```

- The location for `setEnv.sh` varies depending upon the operating system and web server platform.

For Oracle WebLogic, the location is `<PS_HOME>/webserve/<domain_name>/bin`.

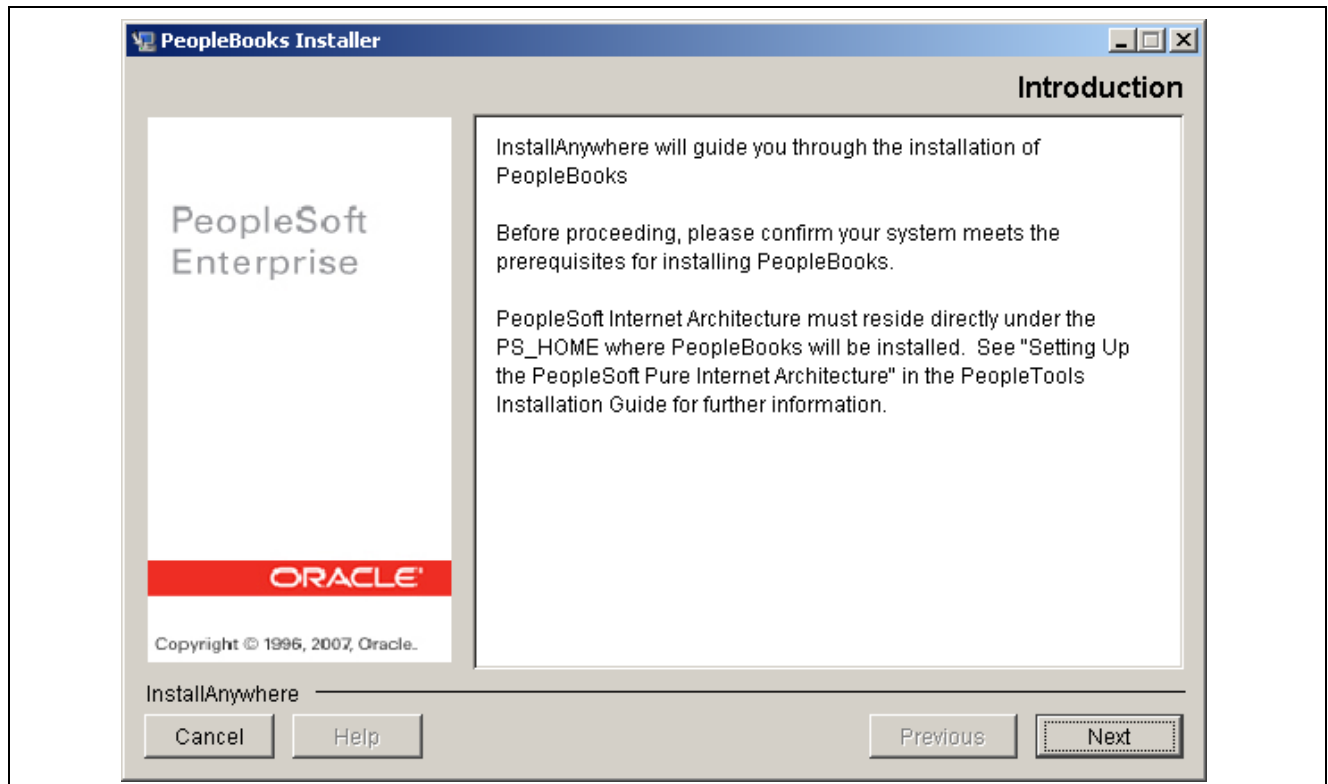
For IBM WebSphere, the location is `<PS_HOME>/webserve/<domain_name>/installedApps/<domain_name>NodeCell/<domain_name>.ear`.

2. For Microsoft Windows, open a command prompt and run `setEnv.cmd` (you can leave the command window open for the next step):

- For Oracle WebLogic, the location is `<PS_HOME>\webserve\<domain_name>\bin`.

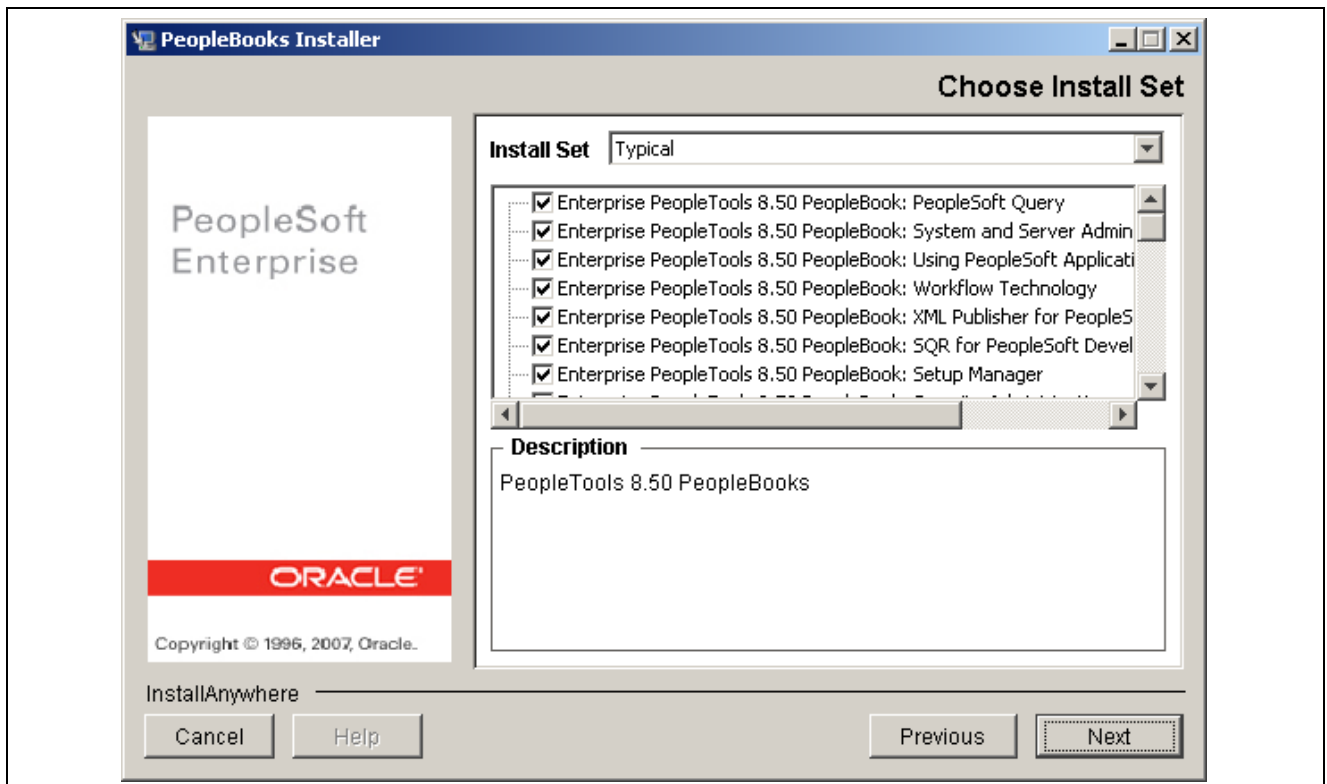
- For IBM WebSphere, the location is `<PS_HOME>\websrv\<domain_name>\installedApps\<domain_name>NodeCell\<domain_name>.ear`.
3. Go to the directory where you downloaded and extracted the PeopleBooks installation file, `PBK_INSTALL`. At the command line run the appropriate installer for your platform:
 - For Microsoft Windows, run `install.exe`
 - For UNIX or Linux, run `install.bin`
 4. Click Next on the Introduction window.

Note. The exact wording on the Introduction window depends upon the product name for the PeopleBooks that you are installing.



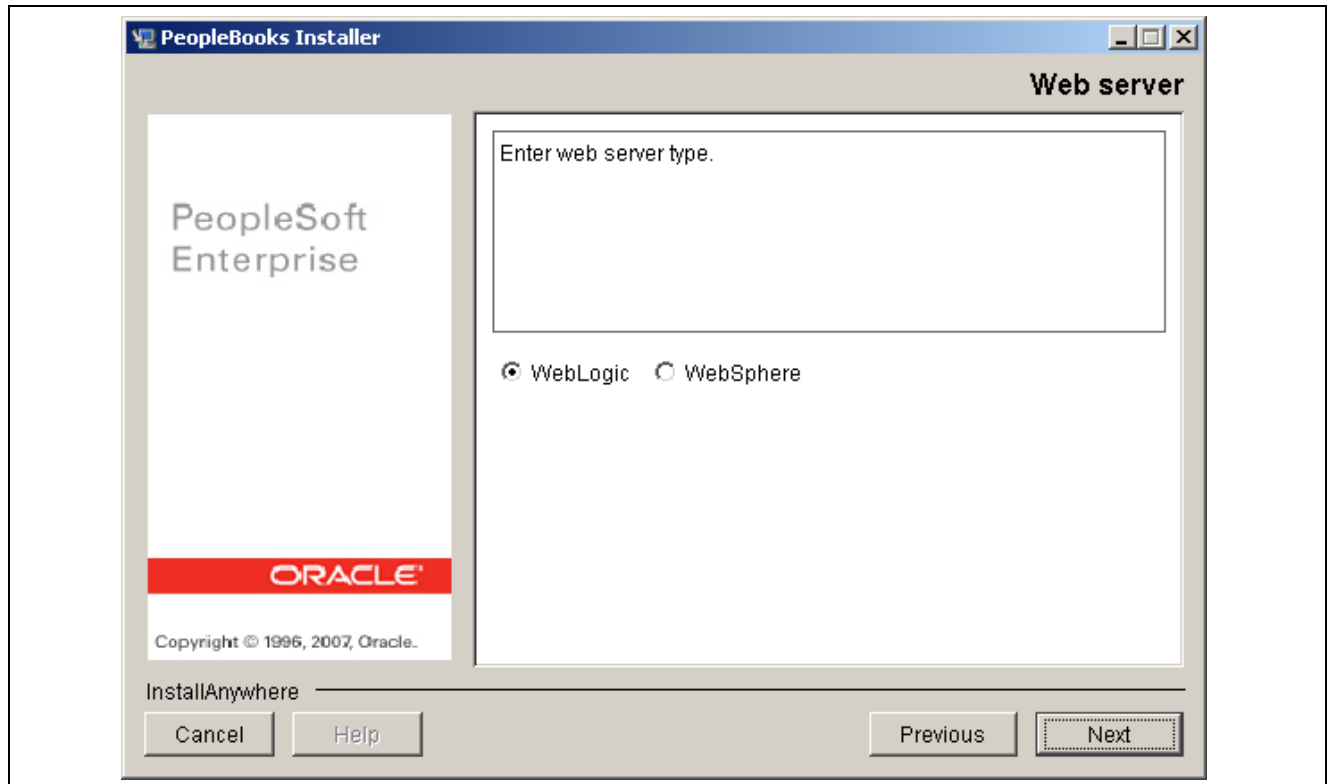
PeopleBooks Installer Introduction window

5. Select the install set, and choose the individual books you want, and click Next to continue.



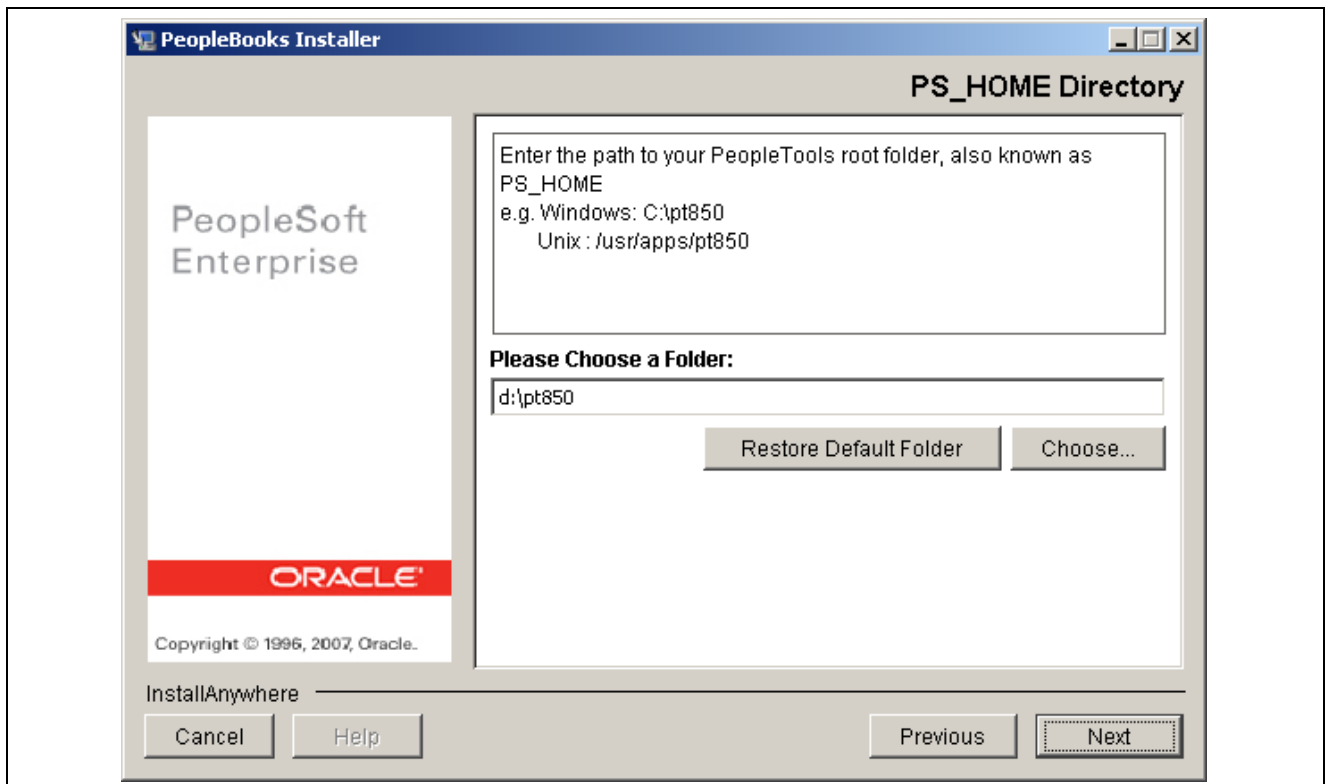
Choose Install Set window

- Select Typical install set to include all PeopleBooks.
 - Select Custom if you would like to exclude individual books, then clear the check boxes beside the books you would like to exclude.
6. Select the web server that you are using, either Oracle WebLogic or IBM WebSphere, and click Next.



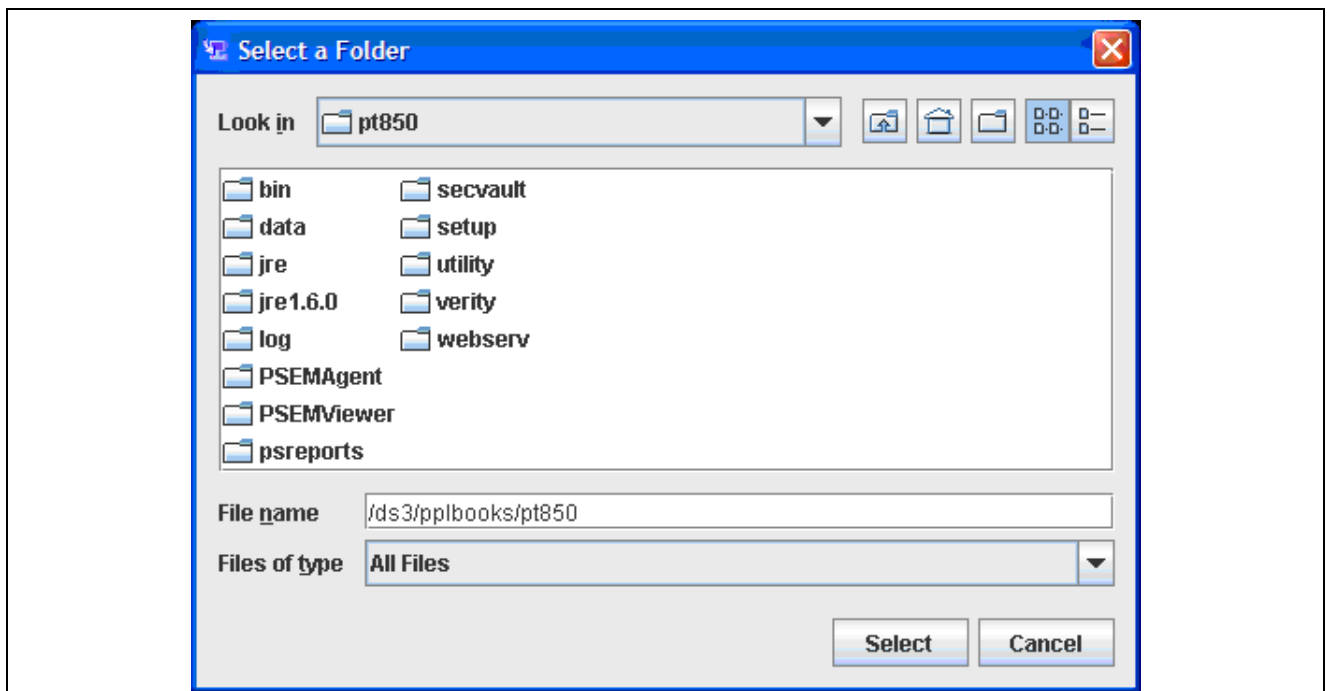
Web Server selection window

7. Specify the directory where you installed the PeopleSoft software, *PS_HOME*.
The following example for Microsoft Windows uses d:\pt850 as *PS_HOME*.



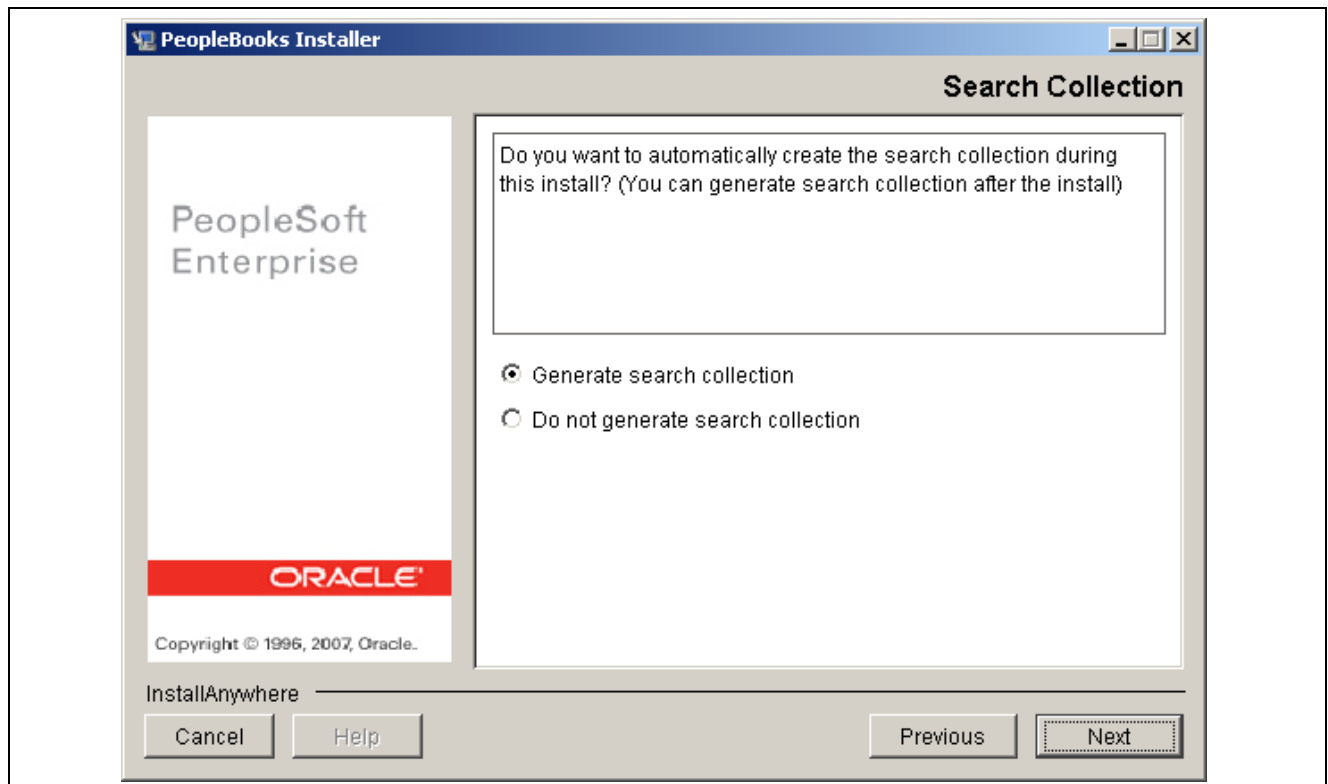
Specifying PS_HOME directory on Microsoft Windows

The following example for UNIX uses /ds3/pplbooks/pt850 as *PS_HOME*.



Specifying PS_HOME directory on UNIX

8. Choose one of the options for generating a search collection:



Search Collection window

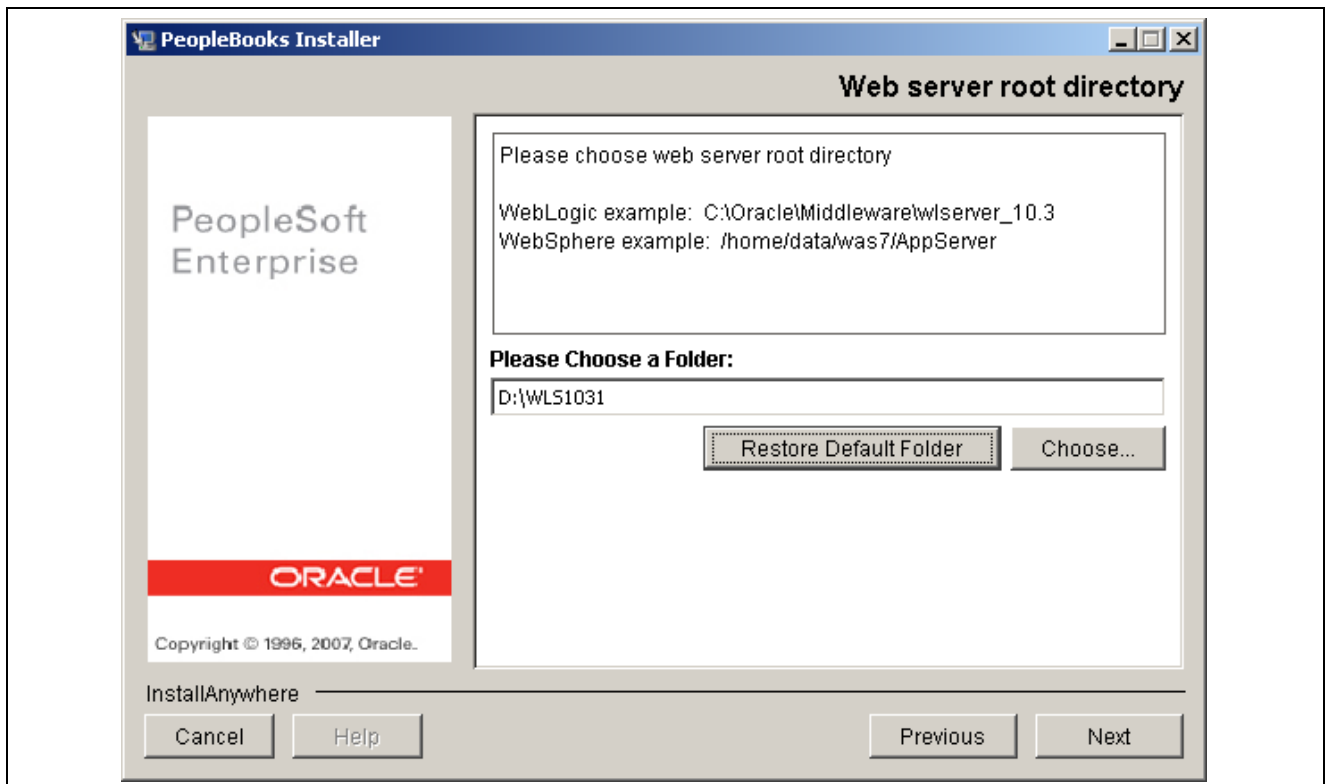
- Generate search collection.

You can generate or regenerate the search collections at any time after installation using the PSOL Manager utility.

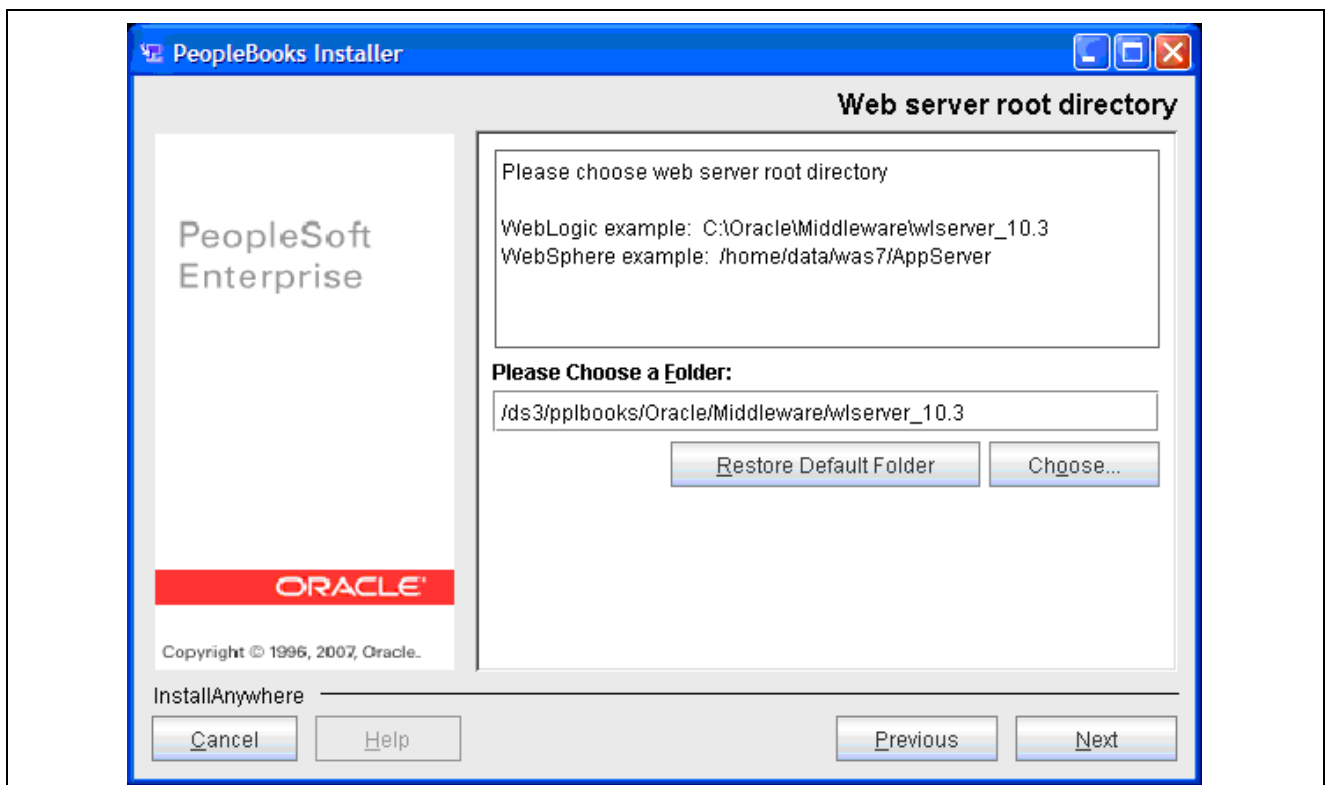
See Administering PeopleBooks.

- Do not generate search collection

9. Enter the directory where you installed the web server software, and click Next:



Web server root directory window on Microsoft Windows

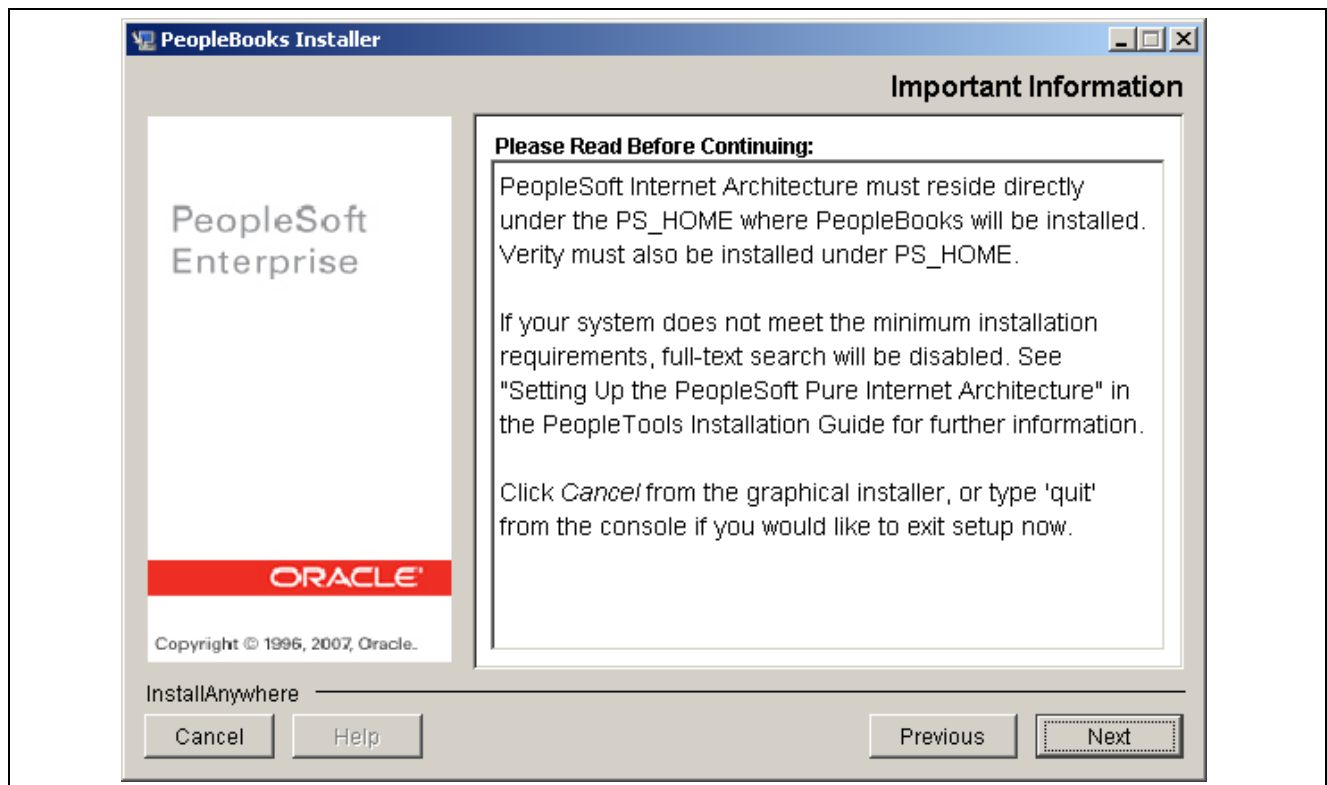


Web server root directory window on UNIX

For example:

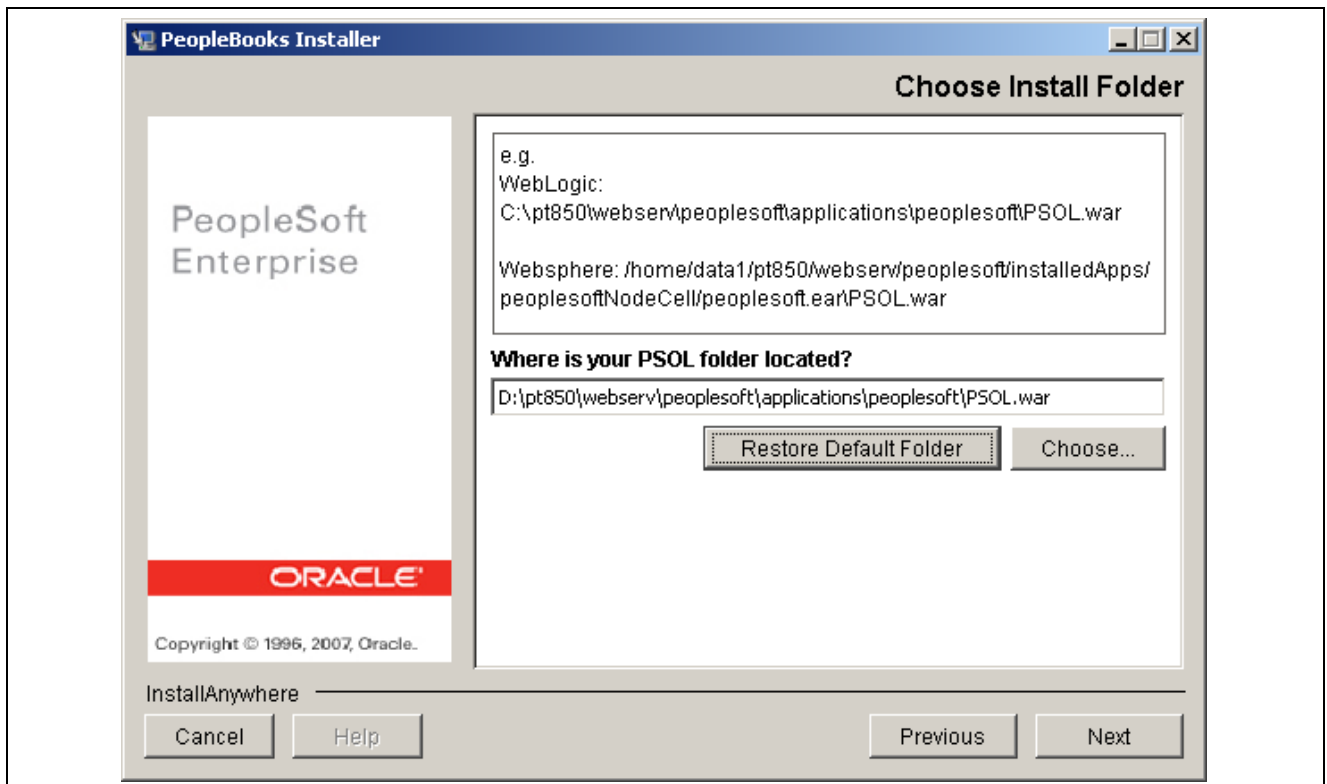
- For Oracle WebLogic on Microsoft Windows:
C:\Oracle\Middleware\wlserver_10.3
- For IBM WebSphere on Microsoft Windows:
C:\was7\AppServer
- For Oracle WebLogic on UNIX or Linux:
/ds3/pplbooks/Oracle/Middleware/wlserver_10.3
- For IBM WebSphere on UNIX or Linux:
/ds3/pplbooks/was7/AppServer

10. Read the information concerning the location of PeopleSoft Pure Internet Architecture and *PS_HOME*, and click Next.

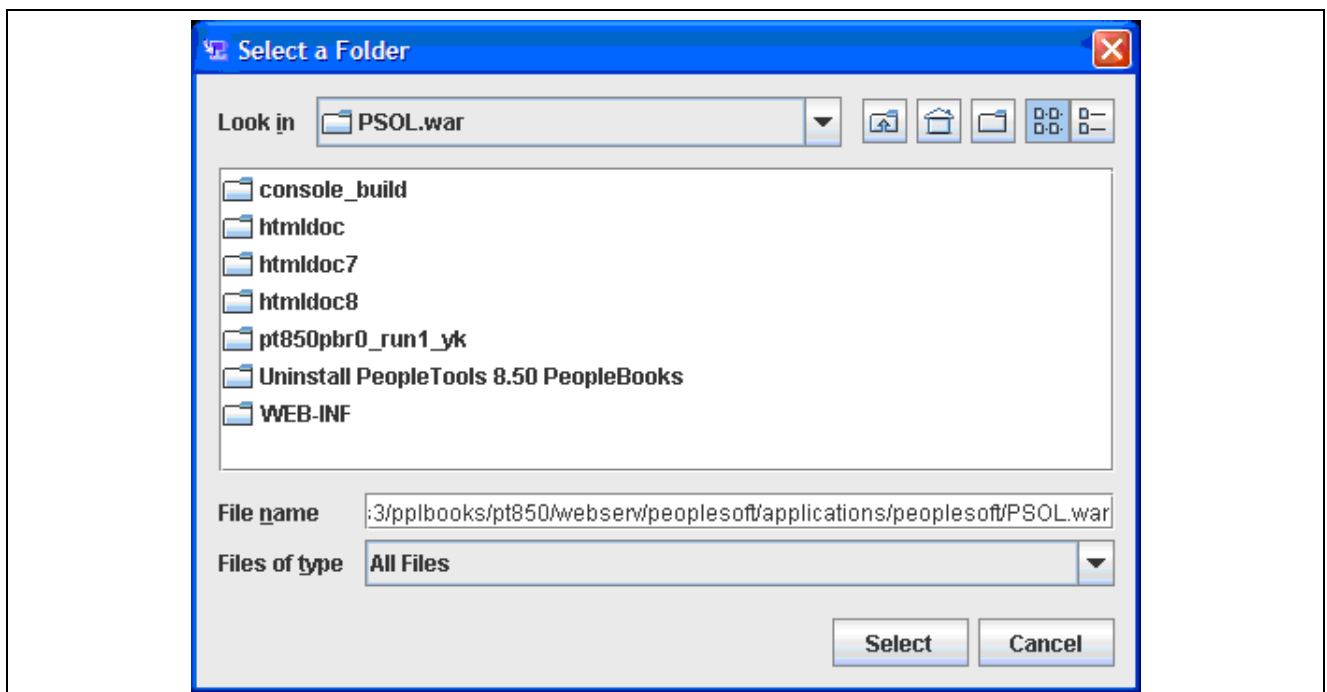


Important Information window concerning PS_HOME

11. Enter the path to the PSOL location, and click Next:



Specifying the PSOL folder on Microsoft Windows



Specifying the PSOL folder on UNIX

For example:

- Oracle WebLogic on Microsoft Windows:
C:\pt850\webserv\peoplesoft\applications\peoplesoft\PSOL.war

- IBM WebSphere on Microsoft Windows:

C:\pt850\websrv\peoplesoft\installedApps\peoplesoftNodeCell\peoplesoft.ear\PSOL.war

- Oracle WebLogic on UNIX or Linux:

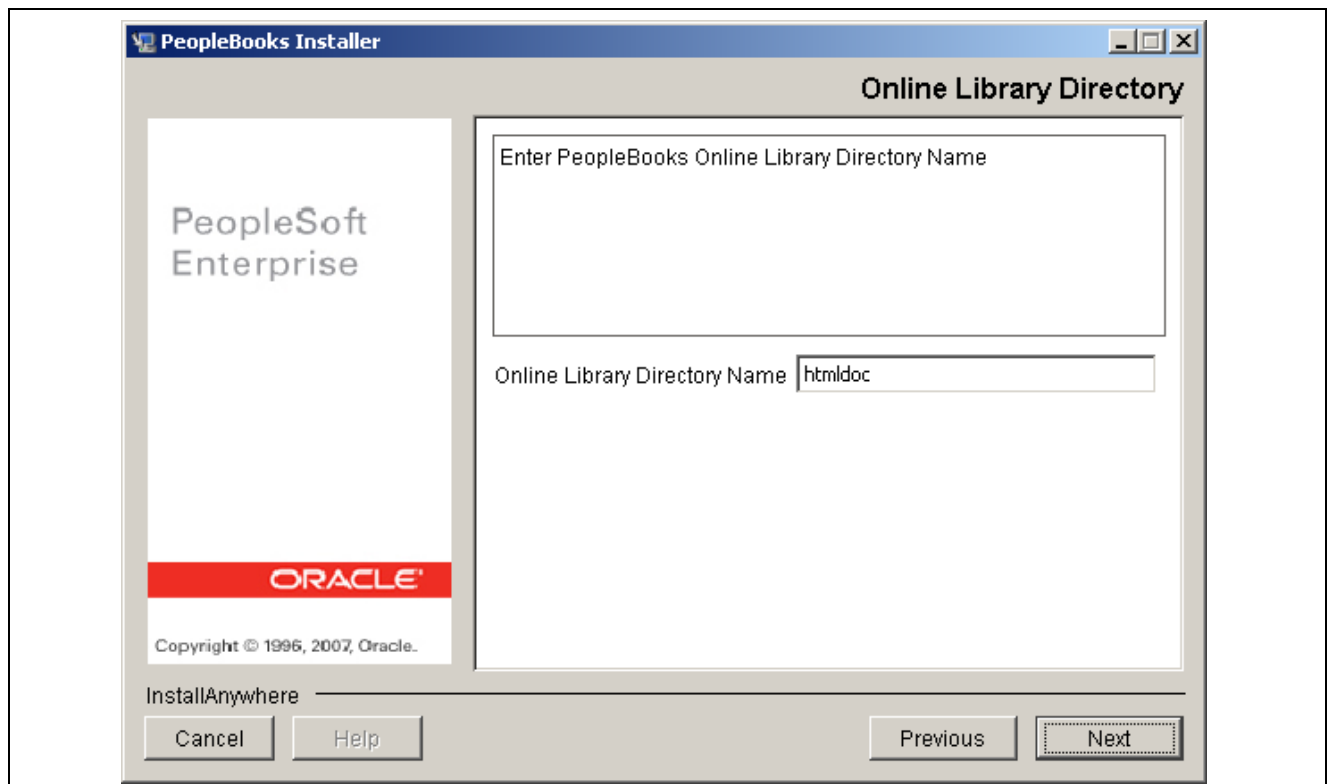
/ds3/pplbooks/pt850/websrv/peoplesoft/applications/peoplesoft/PSOL.war

- IBM WebSphere on UNIX or Linux:

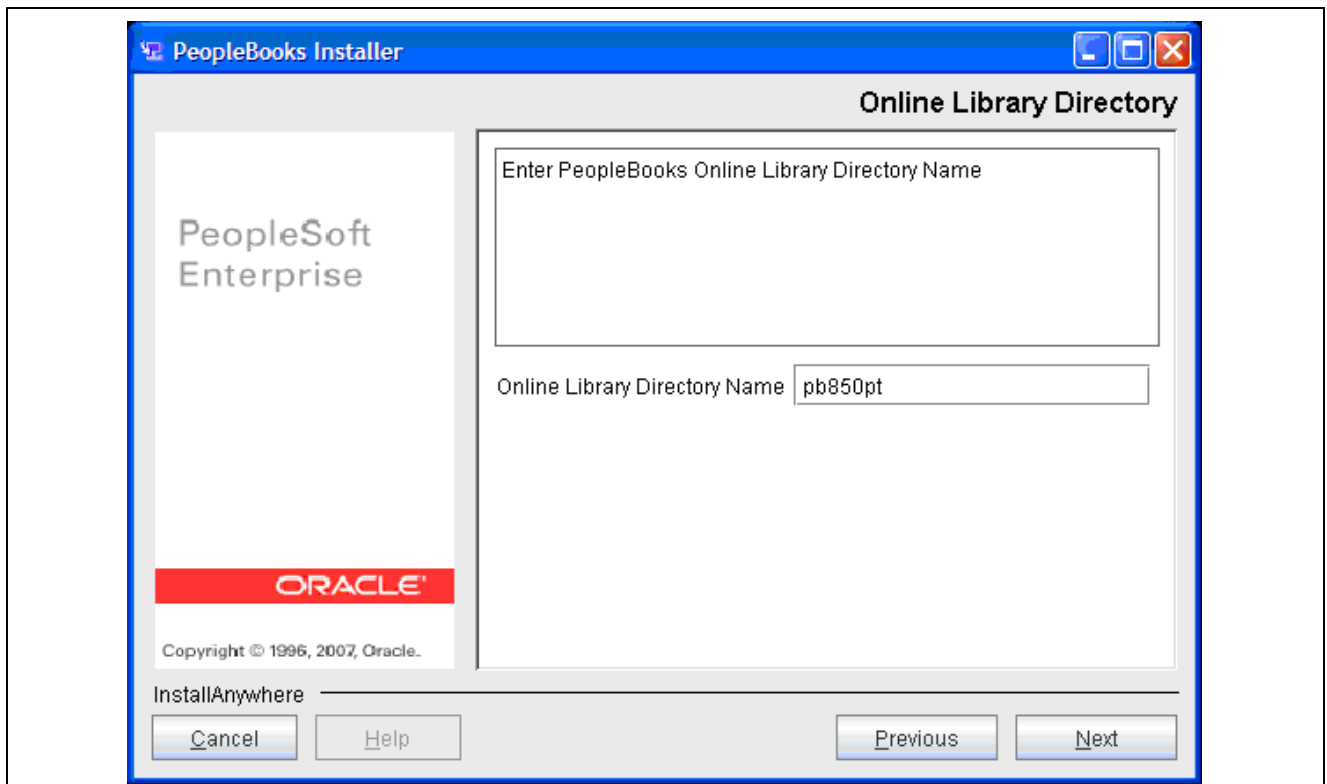
/ds3/pplbooks/pt850/websrv/peoplesoft/installedApps/peoplesoftNodeCell/peoplesoft.ear/PSOL.war

12. Enter the name of the folder that will store PeopleBooks and click Next.

This folder will reside directly beneath the PSOL folder location specified in the previous step. You can opt to use a directory name other than the default, `htmldoc`; it will be created automatically.

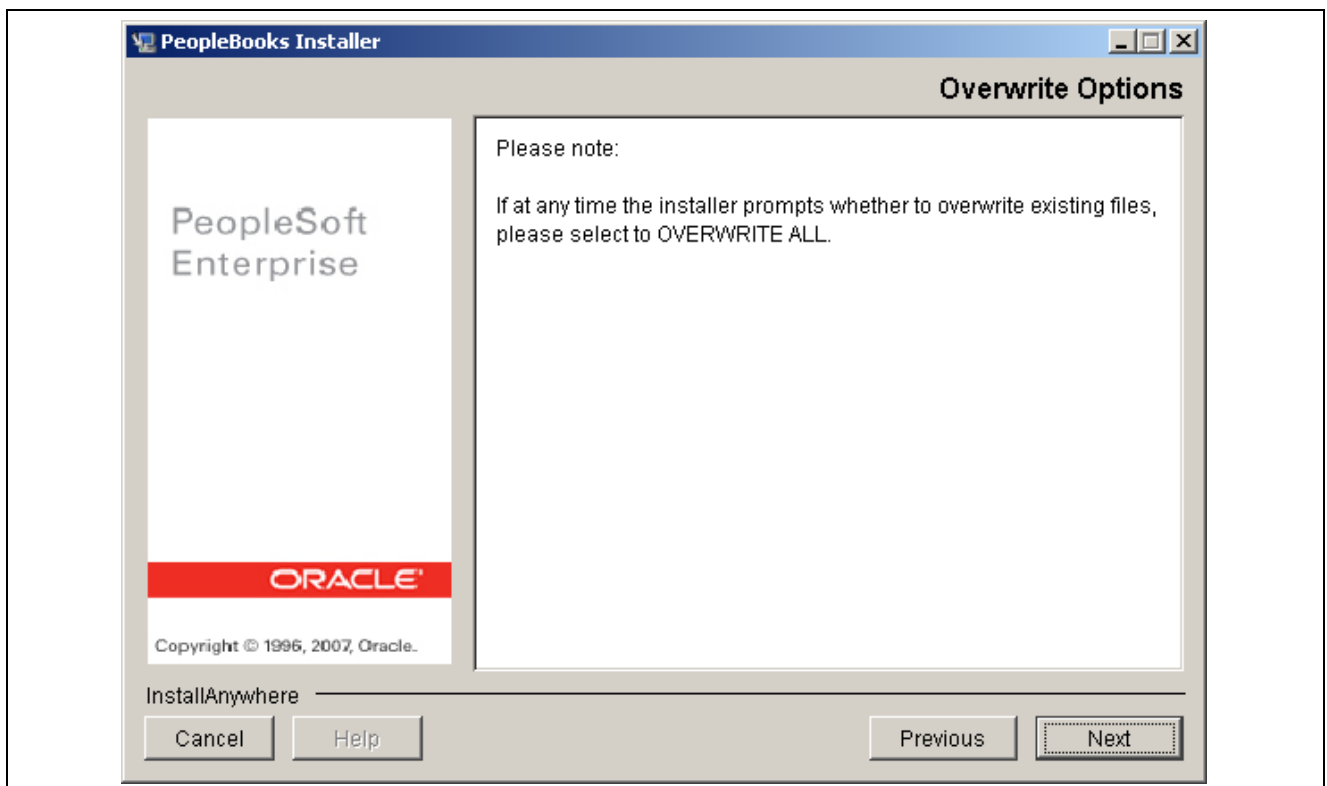


Online Library Directory window on Microsoft Windows

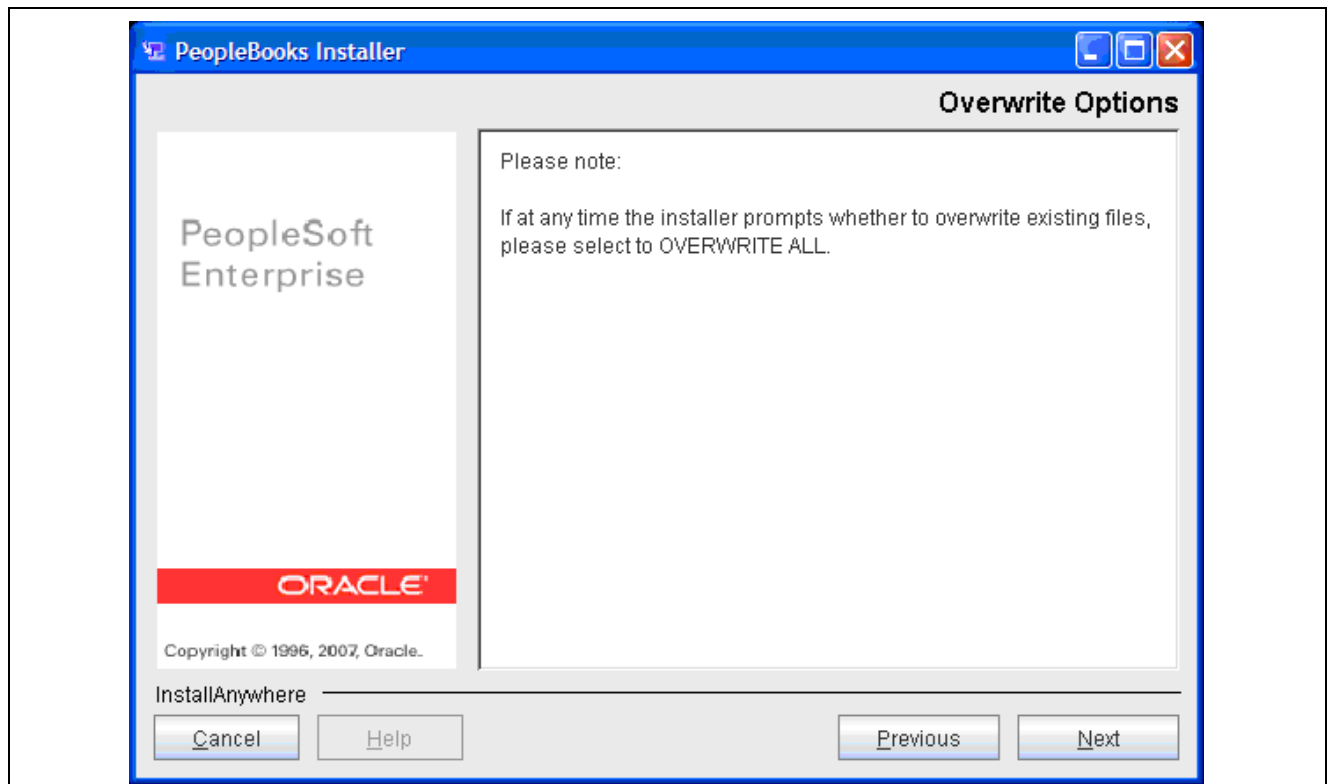


Online Library Directory window on UNIX

13. Read the message concerning overwriting and click Next.

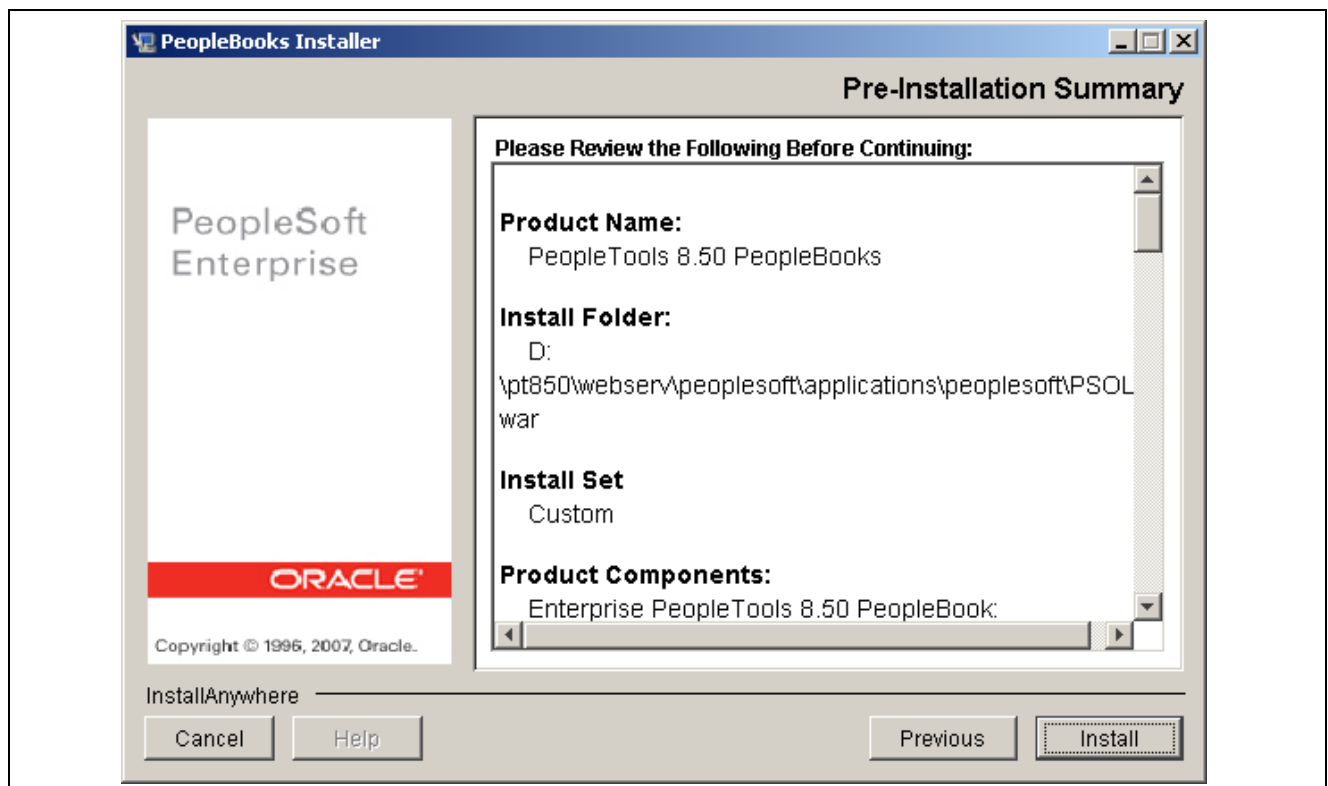


Overwrite Options window on Microsoft Windows



Overwrite Options window on UNIX

14. Confirm your selections and click Install to proceed.



Pre-Installation Summary window on Microsoft Windows

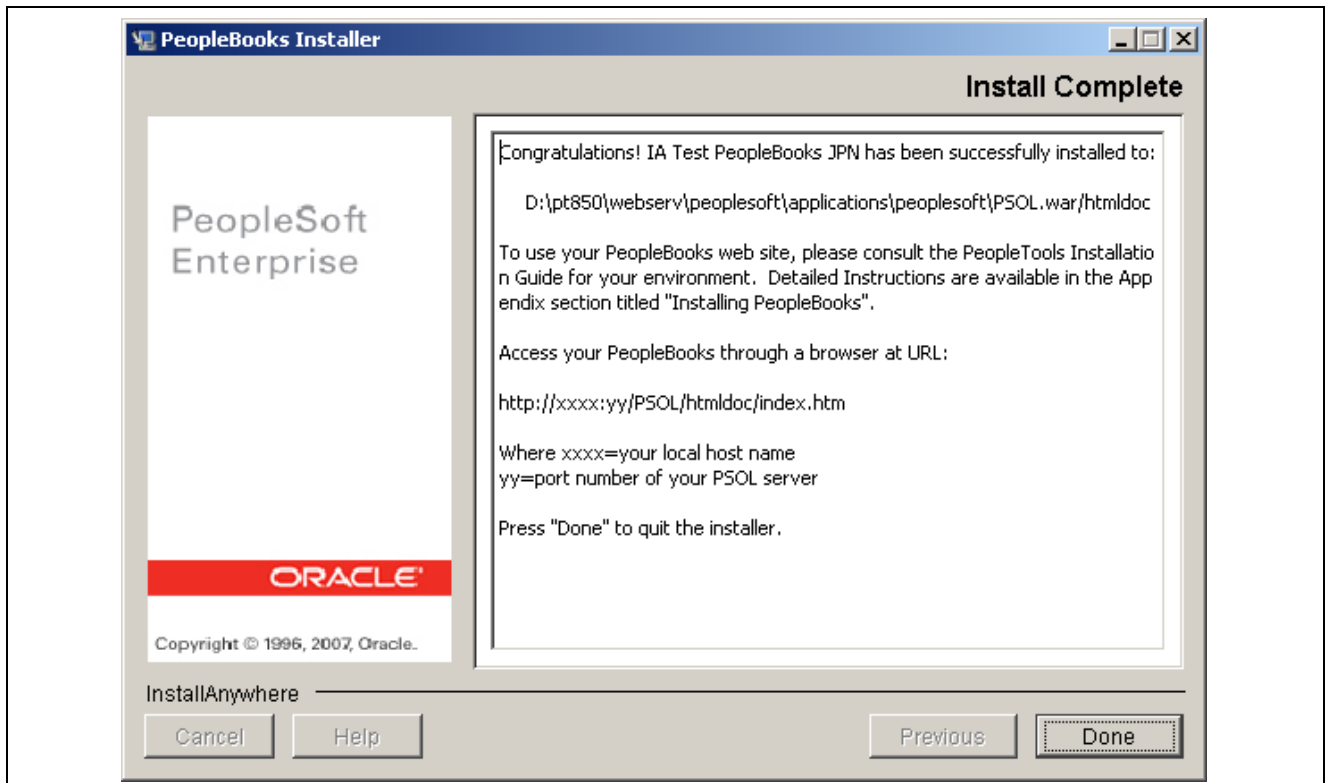
If you opted to build collections during the install process, you see a progress indicator while the search indexes build.

15. After the content has been installed (and collections generated, if applicable), click Finish to end the setup program.

The final screen gives a relative URL location of the PeopleBooks.

See the next section for information on the variables mentioned in this summary.

See Implementing the PSOL Server for PeopleBooks.



Information for User window

Task D-1-4: Installing the PeopleBooks Installation Software in Console Mode

Use the instructions in this section if your system is not configured for graphic-based programs.

To install PeopleBooks in console mode:

1. On UNIX and Linux, you must run both `psconfig.sh` and `setEnv.sh` in the current shell.

This is very important, as it sets the correct paths for JRE and Verity, which are needed for the installer to complete successfully.

- Go to `PS_HOME` and run the following command:

```
. ./psconfig.sh
```

- The location for `setEnv.sh` varies depending upon the operating system and web server platform.
For Oracle WebLogic, the location is `<PS_HOME>/webserver/<domain_name>/bin`.
For IBM WebSphere, the location is `<PS_HOME>/webserver/<domain_name>/installedApps/<domain_name>NodeCell/<domain_name>.ear`.
- 2. For Microsoft Windows, open a command prompt and run `setEnv.cmd` (you can leave the command window open for the next step):
 - For Oracle WebLogic, the location is `<PS_HOME>\webserver\<domain_name>\bin`.
 - For IBM WebSphere, the location is `<PS_HOME>\webserver\<domain_name>\installedApps\<domain_name>NodeCell\<domain_name>.ear`.
- 3. Go to the directory where you downloaded and extracted the PeopleBooks installation file, `PBK_INSTALL` and enter the command: `install.bin -i console`

Note. The exact wording of the introductory text depends upon the product name for the PeopleBooks that you are installing.

```
=====
PeopleTools 8.50 PeopleBooks          (created with InstallAnywhere)
-----
```

```
=====
Introduction
-----
```

```
InstallAnywhere will guide you through the installation of PeopleTools 8.50=>
PeopleBooks.
It is strongly recommended that you quit all programs before continuing this=>
installation.
Respond to each prompt to proceed to the next step in the installation.  If you=>
want to change something on a previous step, type 'back'.
You may cancel this installation at any time by typing 'quit'.
PRESS <ENTER> TO CONTINUE:
```

- 4. To install all delivered PeopleBooks, accept the default.
To exclude individual books, select option 2, Customize, and customize your list.

```
=====
Choose Install Set
-----
Please choose the Install Set to be installed by this installer.
->1- Typical
    2- Customize...
ENTER THE NUMBER FOR THE INSTALL SET, OR PRESS <ENTER> TO ACCEPT THE DEFAULT:
```

- 5. Press ENTER if your web server is Oracle WebLogic, or type the number 2 and press ENTER if you are using IBM WebSphere.

```
=====
Get User Input - Advanced Web Server
-----
```

Select from the options

- >1- WebLogic
- 2- Websphere

ENTER A COMMA-SEPARATED LIST OF NUMBERS REPRESENTING THE DESIRED CHOICES, OR⇒
PRESS <ENTER> TO ACCEPT THE DEFAULT:

6. Enter the location of your PeopleSoft PeopleTools home directory, generally referred to as *PS_HOME*.

=====

PS_HOME Directory

Enter the path to your PeopleTools root folder also known as PS_HOME e.g.

Windows: C:\pt850

UNIX: /usr/apps/pt850

PS_HOME (DEFAULT: /ds3/pplbooks/pt850):

7. Press ENTER to verify that the entry is correct.

PS_HOME Validation

Is this correct?

/ds3/pplbooks/pt850

- >1- Yes
- 2- No

ENTER THE NUMBER FOR YOUR CHOICE, OR PRESS <ENTER> TO ACCEPT THE DEFAULT:

8. Select one of the options to build collections:

=====

Advanced Search Collection

Do you want to automatically create the search collection during this install? ⇒
(You can generate a search collection after the install.)

- >1- Build search collection
- 2- Do not build search collection

ENTER A COMMA-SEPARATED LIST OF NUMBERS REPRESENTING THE DESIRED CHOICES, OR⇒
PRESS <ENTER> TO ACCEPT THE DEFAULT: 1

- Build search collection.

Note. You can generate or regenerate the search collections at any time after installation using the PSOL Manager utility.

See Administering PeopleBooks.

- Do not build search collection.

9. Press ENTER to verify your choice:

Collection Build Confirmation

You selected: Build search collection
If this is not correct, type 'back' and change your selection.

PRESS <ENTER> TO CONTINUE:

10. Enter the location of your web server root folder.

=====

Web server root directory

Enter the location of the web server root folder name. Examples:

Windows WebLogic: c:\Oracle\Middleware\wlserver_10.3

Unix WebLogic: /home/data1/Oracle/Middleware/wlserver_10.3

Windows Websphere: c:\was7\AppServer

Unix Websphere: /home/data/was7/AppServer

Web Server Root Folder Name (DEFAULT: /home/data1/Oracle/Middleware/wlserver_10.3):

11. Press ENTER to verify the web server root directory:

Web Server path validation

Is this correct?

/home/data1/Oracle/Middleware/wlserver_10.3

->1- Yes

2- No

ENTER THE NUMBER FOR YOUR CHOICE, OR PRESS <ENTER> TO ACCEPT THE DEFAULT:

12. Read the information concerning the location of PeopleSoft Pure Internet Architecture and *PS_HOME* and press ENTER:

Important Information

Please read before continuing:

PeopleSoft Internet Architecture must reside directly under the PS_HOME where⇒
PeopleBooks will be installed. Verity must also be installed under PS_HOME.

If your system does not meet the minimum installation requirements, full-text⇒
search will be disabled. See "Setting Up the PeopleSoft Pure Internet⇒
Architecture" in the PeopleTools Installation Guide for further information.

Click Cancel from the graphical installer, or type 'quit' from the console if⇒

you would like to exit setup now.

IMPORTANT INFORMATION COMPLETE. PRESS <ENTER> TO CONTINUE:

13. Enter the location of the PSOL folder in your PeopleSoft Pure Internet Architecture path:

=====

Choose Install Folder

Specify PSOL folder, located within your PeopleTools directory. Examples:

WebLogic: C:\pt850\webserv\peoplesoft\applications\peoplesoft\PSOL.war

Websphere: /home/data1/pt850/webserv/peoplesoft/installedApps/peoplesoftNode⇒
Cell/peoplesoft.ear\PSOL.war

Where is your PSOL folder located under PIA?

Default Install Folder: /home/data1/PeopleBooks

ENTER AN ABSOLUTE PATH, OR PRESS <ENTER> TO ACCEPT THE DEFAULT

: /ds3/pplbooks/pt850/webserv/peoplesoft/applications/peoplesoft/PSOL.war

14. Type Y (yes) to confirm the location:

INSTALL FOLDER IS:

/ds3/pplbooks/pt850/webserv/peoplesoft/applications/peoplesoft/PSOL.war

IS THIS CORRECT? (Y/N): Y

15. Enter the name of the folder that will store PeopleBooks and press ENTER.

This folder will reside directly beneath the PSOL folder location specified in the previous step. You can opt to use a directory name other than the default, htmldoc; it will be created automatically.

=====

Advanced Online Library Directory

Enter PeopleBooks Online Library Directory Name

PeopleBooks Online Library Name (DEFAULT: htmldoc):

16. Read the information about the overwrite options and press ENTER to continue:

Overwrite Options

Please note:

If at any time the installer prompts whether to overwrite existing files,⇒
please select to OVERWRITE ALL.

PRESS <ENTER> TO CONTINUE:

17. Confirm your selections and press ENTER to proceed.

=====

Preinstallation Summary

```

-----
Please Review the Following Before Continuing:
Product Name:
    PeopleTools 8.50 PeopleBooks
Install Folder;
    /ds3/pplbooks/pt850/webserv/peoplesoft/applications/peoplesoft/PSOL.war

Online Library Folder Name
    htmldoc

Disk Space Information (for Installation Target)
    Required: 78,369,123 bytes
    Available: 8,824,742,912 bytes
PRESS <ENTER> TO CONTINUE:

```

18. The installer will display an installation progress message, then prompt before collection build begins. Press ENTER to start collection build, and wait for completion.

```

=====
Full Search Collection Build
-----

The collection build is about to begin. Please press Enter to begin the=>
process, and be patient while the build completes. Each collection can take=>
as long as one hour to create.

No status messages will display during the process.

PRESS <ENTER> TO CONTINUE:

```

19. After the content has been installed (and collections generated, if applicable), the final screen gives a relative URL location of the PeopleBooks.

See the next section for information on the variables mentioned in this summary.

See Implementing the PSOL Server for PeopleBooks.

Click Finish to end the setup program.

```

=====
Installation Complete
-----

Congratulations. PeopleTools 8.50 PeopleBooks has been successfully installed=>
to:
/ds3/pplbooks/pt850/webserv/peoplesoft/applications/peoplesoft/PSOL.war/htmldoc

To use your PeopleBooks web site, please consult the PeopleTools Installation=>
guide for your environment.
Detailed instructions are available in the Appendix section titled "Installing=>
PeopleBooks".

Open your PeopleBooks at the URL:

```



```
http://xxxx:yy/PSOL/htmldoc/index.htm
where xxxx=localhostname of this server
yy=PSOL port number
PRESS <ENTER> TO EXIT THE INSTALLER:
```

Task D-2: Implementing the PSOL Server for PeopleBooks

This section discusses:

- Understanding PeopleBooks in the PeopleSoft Pure Internet Architecture
- Managing the PSOL Server
- Updating the Registry PATH Parameter

Understanding PeopleBooks in the PeopleSoft Pure Internet Architecture

If you are hosting PeopleBooks in a PeopleSoft Pure Internet Architecture installation that also hosts your PeopleSoft applications, you must run PeopleBooks, the PeopleSoft Online Library (PSOL) web module, as a separate server instance. The setup of the separate server differs slightly depending on the web server you are using:

- For Oracle WebLogic, you were instructed to install PeopleSoft Pure Internet Architecture as a Multiple Server Domain if installing PeopleBooks on the same machine as PeopleSoft PeopleTools. This means that PSOL is now configured to be run as a separate server (default port 6001).
- For IBM WebSphere, you were instructed to install PeopleSoft Pure Internet Architecture as a Multiple Server Domain if installing PeopleBooks on the same machine as PeopleSoft PeopleTools. This means that PSOL is already configured to run as a separate server. The port for the PSOL server is two numbers greater than the port number for PeopleSoft Pure Internet Architecture. For example, if port 80 was chosen as the port for PeopleSoft Pure Internet Architecture, the PSOL port will be 82.

See "Setting Up the PeopleSoft Pure Internet Architecture in GUI Mode," Installing the PeopleSoft Pure Internet Architecture in GUI Mode.

Task D-2-1: Managing the PSOL Server

This section discusses:

- Understanding the PSOL Admin Scripts
- Modifying the PSOL Admin Scripts
- Using the PSOL Admin Scripts for Oracle WebLogic
- Modifying the JRockit Memory Allocation for Linux
- Starting IBM WebSphere PSOL Components

Understanding the PSOL Admin Scripts

During the PeopleBooks installation, two script files were generated in the admin directory below your installation directory. You can use these scripts to manage your PSOL server.

Note. The PSOL script files will have a .bat extension on Microsoft Windows machines and a .sh extension on UNIX machines. The following discussion omits the file extensions.

The two PSOL script files are:

- `psolAdmin` — The command script used to start the PSOL server, stop the PSOL server, etc.
- `set_psol_env` — A configuration script used to store information about your PSOL environment.

Modifying the PSOL Admin Scripts

Before you use the `psolAdmin` script, you should check the configuration in the `set_psol_env` script and compare it against the variable descriptions below. Make any necessary changes according to your system environment. This script was created during the PeopleBooks installation and contains directory paths and other information required for launching the PSOL server properly. There are eight PSOL environment variables that you can verify and set accordingly:

Variable	Description
PSOL_SERVERNAME	This is the name of the server instance that runs PSOL. For Oracle WebLogic Multi Server Domain, this value is set to <i>PSOL</i> . For IBM WebSphere, it is set to <i>psol</i> .
PSOL_SERVERURL	This stores the URL of your Oracle WebLogic administration server domain and port. In some Multi Server Domain environments, it may be necessary to pass this value as an argument when starting the PSOL server. It is also necessary if the IP address of the PSOL server machine resolves to multiple values. In that case the URL should specify the proper IP address—for example: <code>http://55.234.667.91:9999</code>. Verify that the port number for the admin server matches <code>ADMINSERVER_PORT</code> as specified in <code>setEnv.cmd</code> or <code>setEnv.sh</code>. For IBM WebSphere, this value can be blank.
PSOL_SVC_NAME	<i>Oracle WebLogic only:</i> This is the name that will be used when creating a Windows service for PSOL. Note. On Oracle WebLogic, this name will be prepended with “<code>peoplesoft - </code>”..
PSOL_PSHOME	The location of your PeopleSoft PeopleTools home directory.

Variable	Description
PSOL_WEBSERVER_HOME	The location of your Oracle WebLogic or IBM WebSphere installation. For example: - For Oracle WebLogic on Microsoft Windows: C:\Oracle\Middleware\wlserver_10.3 - For IBM WebSphere on Microsoft Windows: C:\was7\AppServer - For Oracle WebLogic on UNIX or Linux: /ds3/pplbooks/Oracle/Middleware/wlserver_103. - For IBM WebSphere on UNIX or Linux: /ds3/pplbooks/was7/AppServer
PSOL_WEBSERVER_CMD_PATH	The directory where your web server command scripts are stored. For both Oracle WebLogic and IBM WebSphere, this is <PS_HOME>\webser<domain_name>\bin.
PSOL_ENV_SCRIPT	The path to the set_psol_env script (the file you are currently editing).
PSOL_WEBSERVER_TYPE	The web server you are running on.

Important! If you make any changes to set_env_psol, save your changes and then also save a backup copy of the set_psol_env script under another name, as the script will be recreated with any subsequent PeopleBooks installation.

Using the PSOL Admin Scripts for Oracle WebLogic

Once your scripts are edited and in the desired location, you can use psolAdmin to start and stop the PSOL server, as well as to install or uninstall a Windows service for PSOL.

Note. The following instructions assume that the script files are in the current working directory.

Enter each command at the command line. The command arguments must be in UPPERCASE. If you launch the script without an argument, explanatory text will be displayed.

Action	Command	Comment
Start the PSOL server	psolAdmin START	On Oracle WebLogic in a multi server domain, you must launch the administration server before starting PSOL. To do this, go to <PS_HOME>/webser/<domain_name>/bin, and run the startWebLogicAdmin command.
Stop the PSOL server	psolAdmin STOP	none
Create a Windows service for PSOL	psolAdmin INST_SVC	Follow instructions below to modify the Windows Registry: "Updating the Registry PATH Parameter"
Remove the PSOL Windows service	psolAdmin RMV_SVC	Stop the PSOL service before attempting to remove it.

Modifying the JRockit Memory Allocation for Linux

Full-text search using the JRockit that is installed with Oracle WebLogic requires minimum memory allocation at startup. If you are running on Linux, before attempting to open PeopleBooks and execute search, please perform the following:

1. Shut down all managed servers and the Oracle WebLogic server. Use the following command to stop Oracle WebLogic:

```
stopWebLogic.sh
```

Use the `netstat` command on your system to ensure the web server ports are completely shut down. For example, to check for a web server port number 6001:

```
netstat -an | grep 6001
```

2. Edit `<PS_HOME>/webserver/<domain_name>/bin/setEnv.sh` script by adding `-Xss256k` parameter to `JAVA_OPTIONS_LINUX` as follows:

Change this line:

```
JAVA_OPTIONS_LINUX="-jrockit -XnoOpt -XXnoJITInline -Xms512m -Xmx512m ->
Dtoplink.xml.platform=oracle.toplink.platform.xml.jaxp.JAXPPlatform ->
Dcom.sun.xml.namespace.QName.useCompatibleSerialVersionUID=1.0"
```

To this (the added text is in bold font):

```
JAVA_OPTIONS_LINUX="-jrockit -Xss256k -XnoOpt -XXnoJITInline -Xms512m -Xmx512m ->
Dtoplink.xml.platform=oracle.toplink.platform.xml.jaxp.JAXPPlatform ->
Dcom.sun.xml.namespace.QName.useCompatibleSerialVersionUID=1.0"
```

3. Save and close `setEnv.sh`.
4. Start the Oracle WebLogic server, and then the PSOL server, using the following commands:

```
start WebLogicAdmin
psolAdmin START
```

Starting IBM WebSphere PSOL Components

The PeopleSoft Pure Internet Architecture multiple server setup for IBM WebSphere automatically generates the web components for PSOL.

To start the IBM WebSphere PSOL server manually on Microsoft Windows, you can use the `psolAdmin` script as described above, or update the system environment variables, and then start the server.

To start the server manually on UNIX, change directory to the online library folder, admin subfolder. Then execute the command `psolAdmin START` or `psolAdmin STOP` as indicated above.

After the server starts successfully, PeopleBooks are available at the PSOL port.

Note. PSOL port number is two port numbers above PIA. For example, if PIA was built at port 80 then PSOL uses port 82.

The resulting default IBM WebSphere URL for access to the PeopleBooks website is:

`http://<machine_name>:<PSOL_port>/PSOL/html/doc/index.htm`

Task D-2-2: Updating the Registry PATH Parameter

When running PSOL as a service, the search fails on Windows Server 2003 and affects the Windows Registry. The workaround is:

1. Stop the existing PSOL service.
2. Go to START, RUN, REGEDIT.
3. Drill down into the following key in the registry:
[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\%SVCNAME%\Parameters]
4. Double-click, first the *Parameters* sub-key and then the *Path* sub-key.
5. Insert a semicolon (;) at the end of the line (no spaces in between) followed by the path to the verity folder. For example, append:
;C:\PT850\verity\winx86_nti40\bin
6. Next, append another semicolon, and the path to the psjniverity.dll:
;C:\PT850\webserve\peoplesoft\applications\peoplesoft\PSOL\WEB-INF\lib\winx86
7. Close REGEDIT.
8. Restart PSOL web server.

Search should now work properly when using the PSOL server port number in a browser.

Task D-3: Configuring Context-Sensitive Help

This section discusses:

- Enabling the Help Link from the Application Pages
- Enabling F1 Help

Task D-3-1: Enabling the Help Link from the Application Pages

Each page in your PeopleSoft applications includes a Help icon that, when clicked, opens a new browser window displaying help topics that discuss that page.

To enable the Help link from application pages:

1. In your PeopleSoft application, navigate to the PeopleTools, Web Profile, Web Profile Configuration page.
2. Click Search and select the Profile Name you specified during your PeopleSoft Pure Internet Architecture installation.
3. Change the value for the Help URL field by replacing the "helpweb server" string with the domain name and port number of your web server. Also, if you installed to a directory other than "html doc" (the default), replace "html doc" accordingly. For example:

If your PSOL server is named *mywebserver* and listens to port 5080, you would modify the default Help URL from:

```
http://helpweb server/html doc/f1search.htm?ContextID=%CONTEXT_ID%&LangCD=%LANG_=>
CD%
```

to:

```
http://mywebserver:5080/PSOL/html/doc/f1search.htm?ContextID=%CONTEXT_ID%&LangCD=<=>
%LANG_CD%
```

Note. The system resolves %CONTEXT_ID% to the page name from which you called help. The system resolves %LANG_CD% to the signon language of the user.

Note. If you do not want the Help icon to display in your applications, clear the Help URL field value.

Note. The default port for PSOL in a Oracle WebLogic multi-server domain installation is 6001.

4. Save and exit the Web Profile Configuration page.
5. Before testing help functionality, purge the browser cache on the client and close all web browsers.
Restart the application server and web server for PIA.
6. Test the help functionality by clicking the *Help* icon on a PeopleSoft application page.

Task D-3-2: Enabling F1 Help

This procedure describes how to enable F1 help for Application Designer, PeopleCode Editor, and other Windows-based PeopleSoft programs.

To enable F1 help:

1. Sign on to your PeopleSoft application using your browser.
2. Navigate to the PeopleTools, Utilities, Administration, PeopleTools Options page.
3. Enter the same URL as in the previous procedure (where <web_server>/<directory>/ reflects your installation) into the F1 Help URL field:

```
http://<web_server>/<directory>/f1search.htm?ContextID=%CONTEXT_ID%&LangCD=<=>
%LANG_CD%
```

4. Save the page.

Task D-4: Administering PeopleBooks

This section discusses:

- Understanding PeopleBook Administration
- Using the PSOL Manager Utility
- Creating and Recreating Search Collections
- Changing the PSOL Manager Password
- Specifying a Trusted Client

Understanding PeopleBook Administration

A special browser-based tool, `psolmanager.htm`, may assist you in administering your PeopleBooks web site.

For security purposes, this tool is disabled by default on installation. When enabled, you may use it to recreate collections upon demand, and view system parameters.

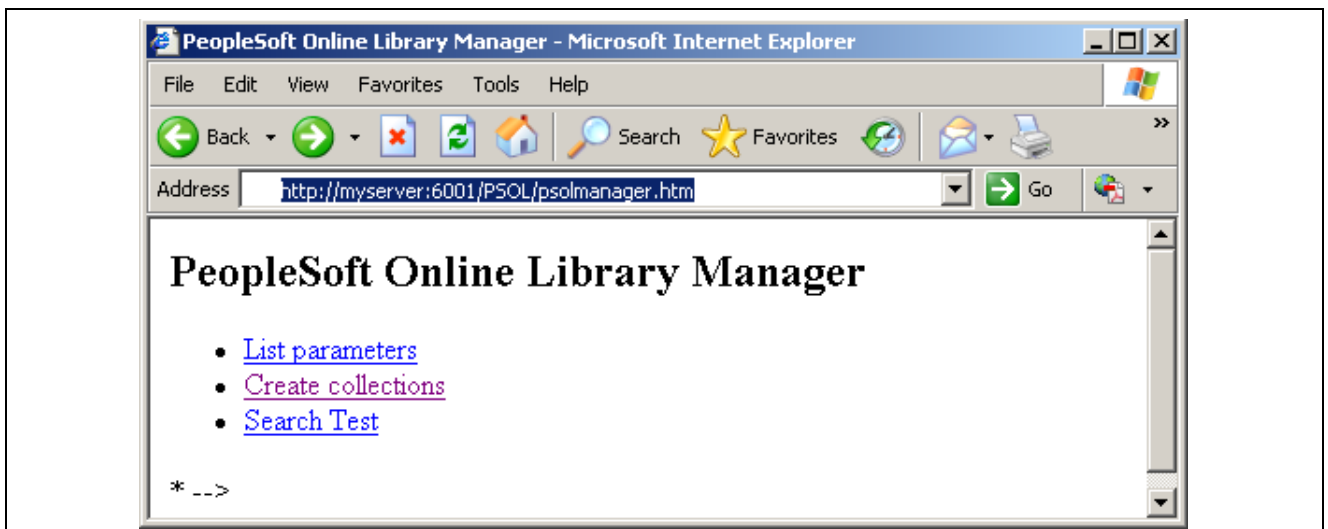
The file `psolmanager.htm` is delivered with PeopleBooks and installed at the “PSOL” directory level (above the `<docroot>` folder). This file is password protected. The initial password is set to “password,” but you can customize the password by editing an XML file in the PeopleSoft Online Library site.

Important! You should enable per-session cookies on your browser while using the PSOL Manager, or the password functionality may not work properly, causing a continual prompting for the password.

See [Changing the PSOL Manager Password and Specifying a Trusted Client](#).

Task D-4-1: Using the PSOL Manager Utility

To open the PSOL Manager, use your browser to navigate to `psolmanager.htm` directly under the PSOL folder (for example: `http://mydomain:6001/PSOL/psolmanager.htm`).



PeopleSoft Online Library Manager window

There are four operations that you can perform with this utility. Three of them are for search testing and debugging:

- List parameters.
Displays a list of the search servlet parameters and system settings relating to full-text search. This operation is password-protected.
- Create Collections
You will most often perform the Create Collections operation. You will want to rebuild your collections after adding or modifying any searchable content on the PeopleSoft Online Library site.

Note. When installing new PeopleBooks, you are given an option to rebuild search collections during the install. If you select this option, there is no need to use the PSOL Manager to rebuild the collections after installing the new PeopleBook content.

- Search Test.

Provides an HTML form from which you can test the search functionality.

Task D-4-2: Creating and Recreating Search Collections

After you click the Create Collections link and enter the password, then the following HTML form appears:

Create Collections

This page allows you to create or recreate search collections. It may take several minutes to an hour depending on the number of documents.
 Note: Invoking the search servlet during collection creation may cause errors. Please make sure that all library users are disconnected or that they don't use the search feature until the creation process is finished.

Collection creation(s) for:

PSOL Subfolder: All
 htmldoc

Doctype: All
 psbooks
 wla
 elbooks

Language: All
 eng
 ara
 bul
 cfr
 cro
 cze
 dan
 dut
 esp
 fin
 fra
 ger
 grk
 heb
 hun

Regenerate Booklist files ☐

Start

Create Collections window

You can rebuild the collections for the entire PeopleSoft Online Library website (PSOL Subfolder set to All), or to one or more individual subfolders (docroot directories). Use Ctrl-click to select multiple entries.

Within your subfolders, you can choose which doctypes should be included in the collection build. One default doctype is hardcoded into the form logic: psbooks. If you add new doctype folders, you can edit an XML file so that the new folders also appear in the drop-down list.

See Integrating Searching.

Finally, you can select the language folders that will be parsed in each PSOL subfolder.

When you have made your selections, click the Start button at the bottom of the page. The browser page will update with a status message when the build is complete.

Important! Be sure to have all PeopleSoft Online Library users disconnect or not use full-text searching while you are building collections.

Task D-4-3: Changing the PSOL Manager Password

The PSOL Manager password is defined in PSOL\WEB-INF\web.xml in the managerpassword parameter. Find this text:

```
<init-param>
<param-name>managerpasswd</param-name>
<param-value>password</param-value>
<description>
Password for this servlet.
<!-- Note password is clear text. -->
</description>
</init-param>
```

Change the text inside the <param-value> tags to reflect your new password. Then stop and restart the web server for your change to take effect. You can also set up PeopleSoft Online Library so that a particular client machine is trusted and doesn't need to provide the password.

Task D-4-4: Specifying a Trusted Client

In the web.xml file, in the <servlet><init-param> section, add this text:

```
<param-name>trustedclient</param-name>
<param-value>machine_name</param-value>
<description>
<!-- Client that doesn't need password authentication -->
</description>
```

where machine_name is the name of the client machine to be trusted. For example, if you plan to access PSOL Manager from the web server machine itself, you could enter "localhost".

APPENDIX E

Installing Web Application Deployment Tools

This appendix discusses:

- Prerequisites
- Installing the Web Application Deployment Tools on WebLogic in GUI Mode
- Installing the Web Application Deployment Tools on WebSphere in GUI Mode
- Installing the Web Application Deployment Tools on WebLogic in Console Mode
- Installing the Web Application Deployment Tools on IBM WebSphere in Console Mode
- Testing and Troubleshooting the Web Application Deployment

Prerequisites

This appendix includes instructions for installing the Web Application Deployment tools on Oracle WebLogic and IBM WebSphere. Complete the instructions for the web server you selected when you carried out the PeopleSoft PeopleTools installation. Typically, you would choose GUI mode for Microsoft Windows platforms and console mode for UNIX or Linux platforms.

Consult the product-specific installation guide for your product application to determine whether Web Application Deployment tools are required.

Before you install the Web Application Deployment tools, confirm that you have completed the following requirements.

If you use Oracle WebLogic as your web server, you must fulfill these requirements:

- Java 6 must be installed and working properly. Your PATH environment variable must include an entry for Java 6 (for example, <java6>/bin). If you do not install Java 6 the deployment will fail due to the absence of a Java compiler.
- You must install the PeopleSoft web server during the PeopleSoft PeopleTools installation.
- Oracle WebLogic 10.3.1 must be installed.

If you use IBM WebSphere as your web server, you must fulfill these requirements:

- Java 6 or above must be installed and working properly. You can use the Java software that is supplied with the PeopleSoft PeopleTools installation.
- You must install the PeopleSoft web server during the PeopleSoft PeopleTools installation.
- The IBM WebSphere 7.0 software must be installed and the web server must be up and running when you carry out the Web Application Deployment tools installation.

- If you are running on UNIX or Linux, run the Web Application Deployment install with a user who owns IBM WebSphere, and who owns *PS_HOME*. Here are two examples:
 - If IBM WebSphere is owned by "root" and group "system", the Web Application Deployment install must be run with "root" and group "system."
 - If WebSphere is owned by user "wsadmin" and group "wsadmin", then the Web Application Deployment install must be run with wsadmin and wsadmin as the user and group.

See Also

"Installing Web Server Products"

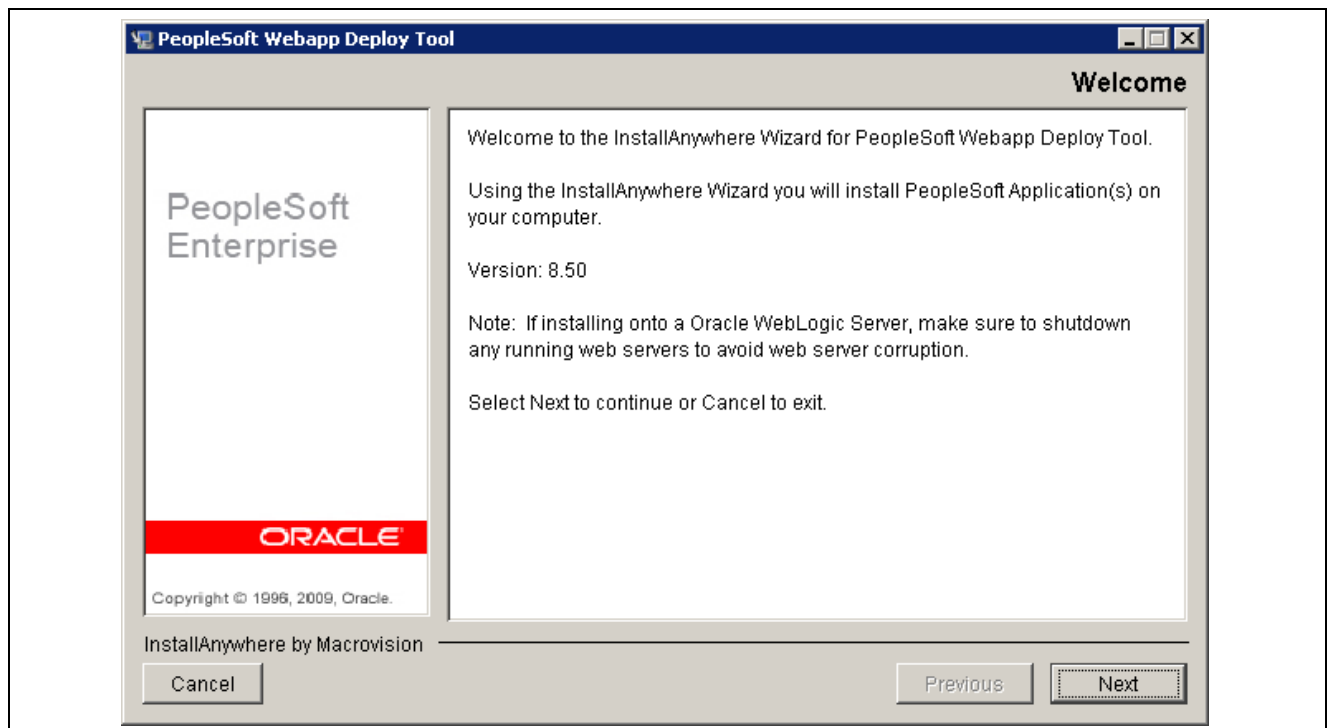
"Using the PeopleSoft Installer"

Enterprise PeopleTools 8.50 PeopleBook: System and Server Administration.

Task E-1: Installing the Web Application Deployment Tools on WebLogic in GUI Mode

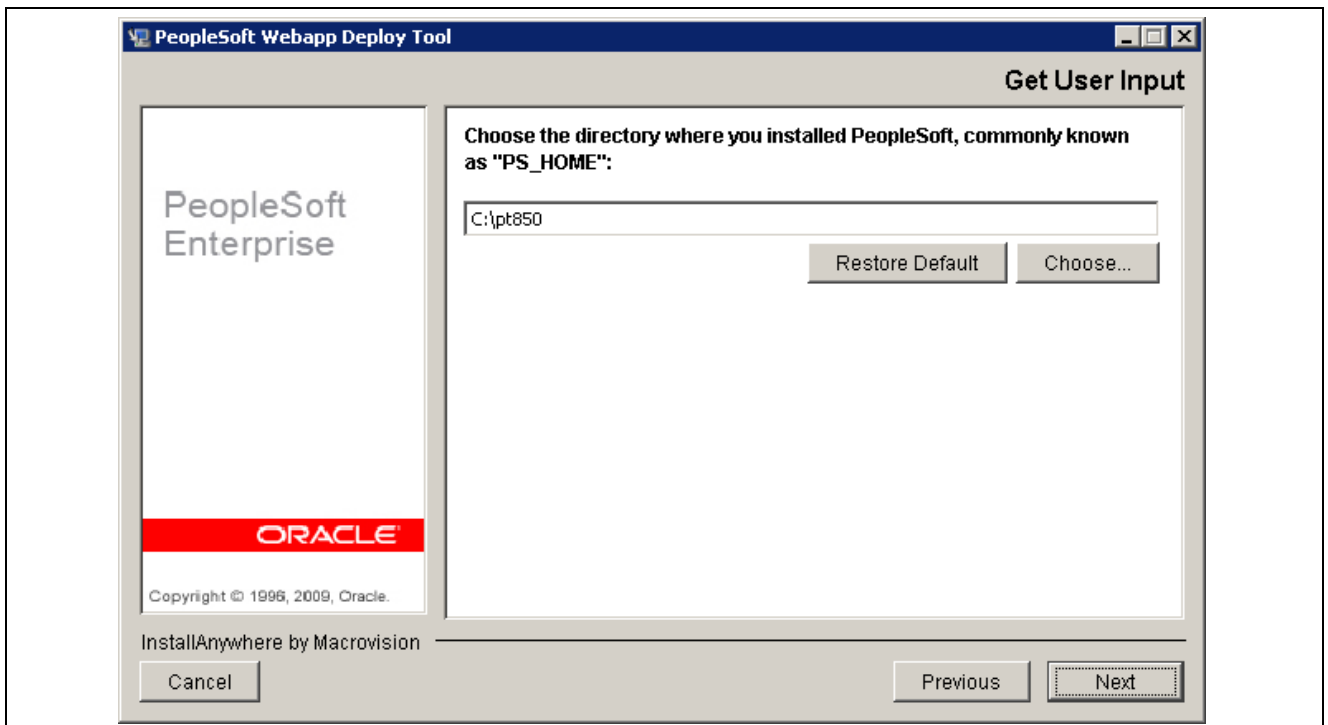
Use these instructions to install the Web Application Deployment Tools on WebLogic in GUI mode.

1. Copy the required Web Applications (EAR) files to *PS_HOME/setup/PsMpWebAppDeployInstall/archive*.
2. Navigate to *PS_HOME/setup/PsMpWebAppDeployInstall*.
3. Double-click on setup.bat.
4. Click Next on the Welcome window.



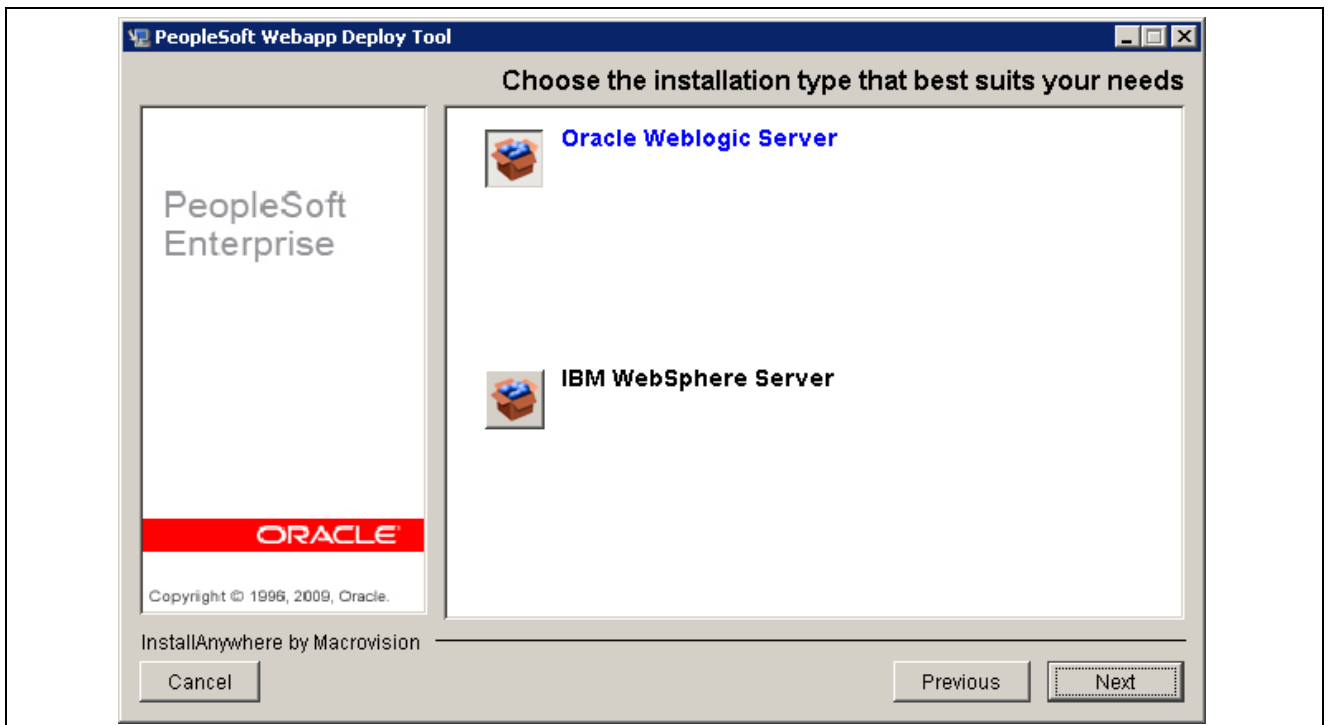
PeopleSoft Webapp Deploy Tool Welcome window

5. Enter the same *PS_HOME* directory that you specified when you ran the PeopleSoft PeopleTools Installer.



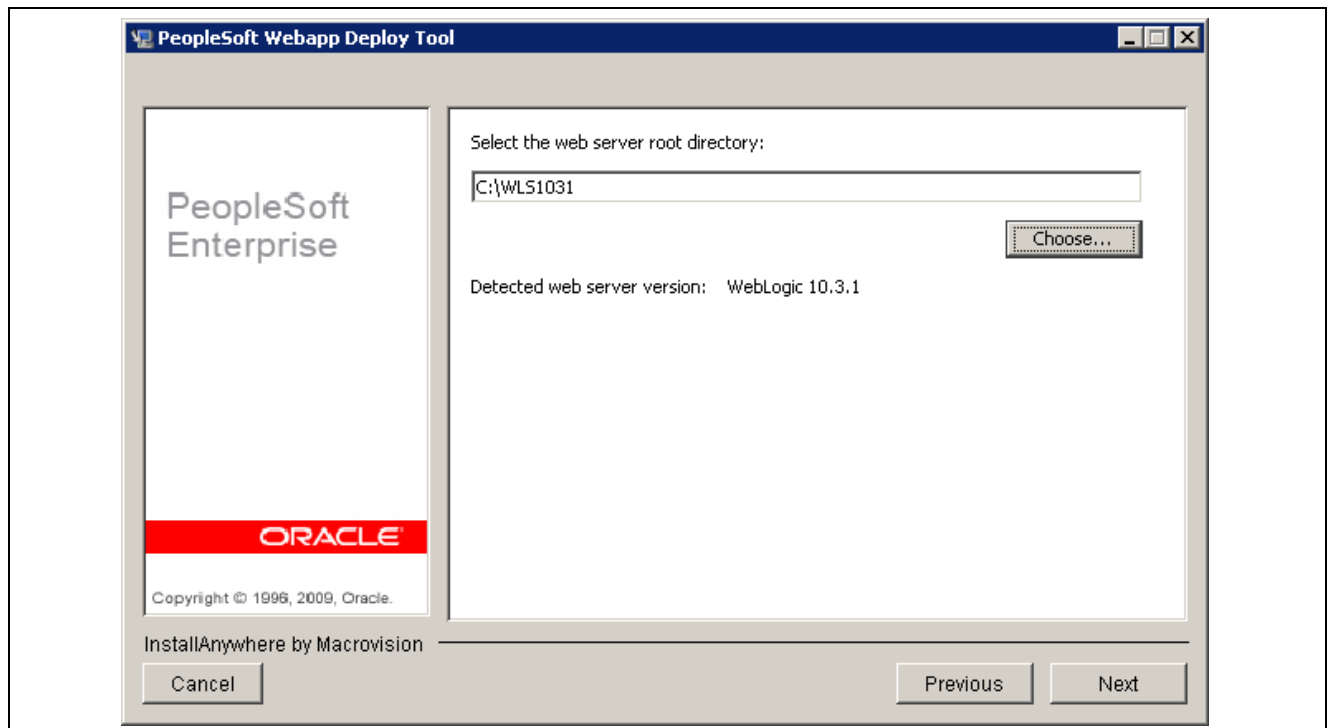
Entering PS_HOME for the WebApp Deploy Tool installation

6. Select Oracle Weblogic Server and click Next.



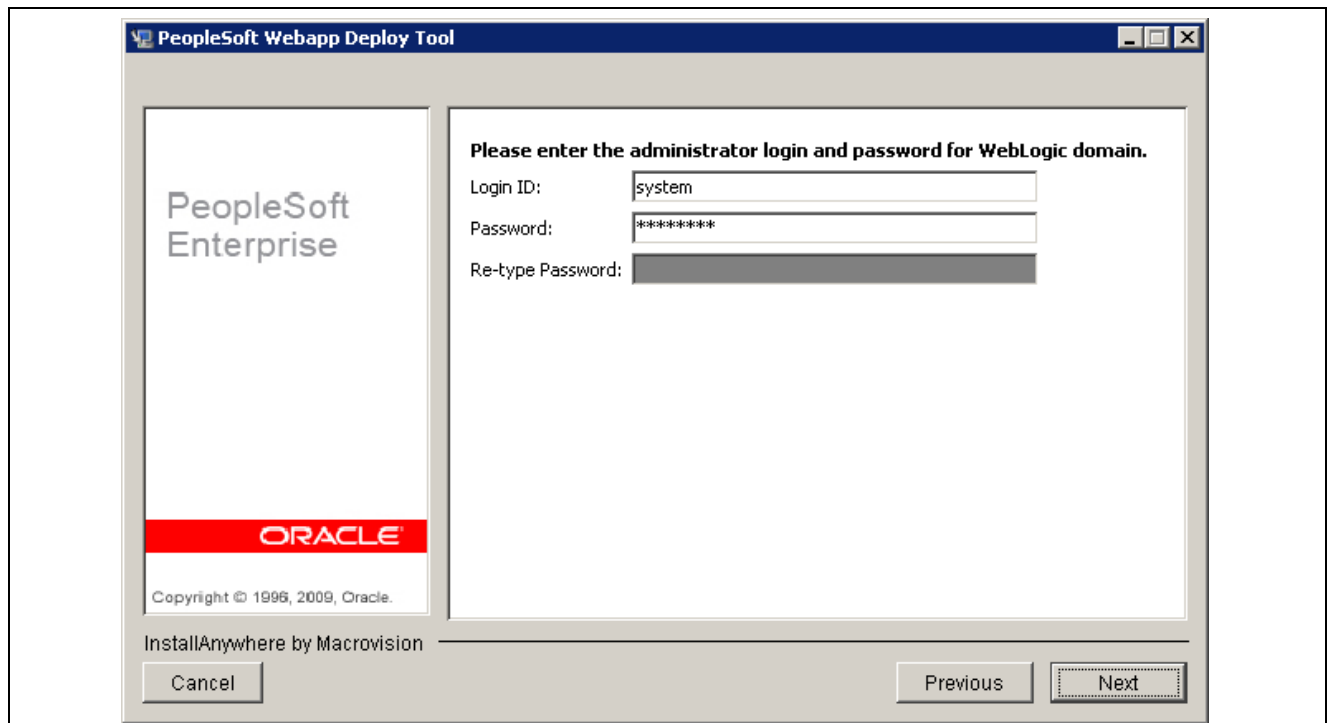
Selecting Oracle Weblogic Server for the PeopleSoft Webapp Deploy installation

7. Specify the root directory where you installed Oracle WebLogic, and click Next.



Specifying the Oracle WebLogic root directory for the PeopleSoft Webapp Deploy Tool installation

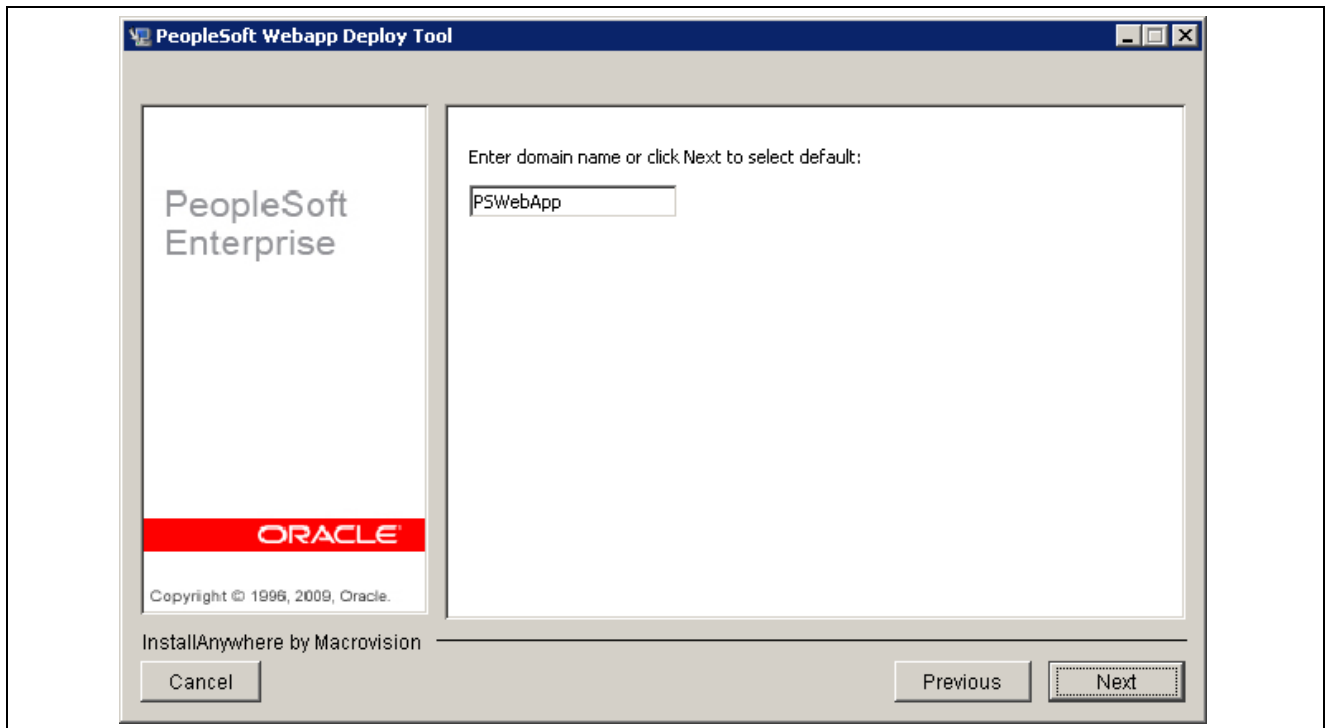
8. Enter the login ID and password for the new domain that you are creating. Click Next to continue.



Entering the WebLogic domain administrator login and password

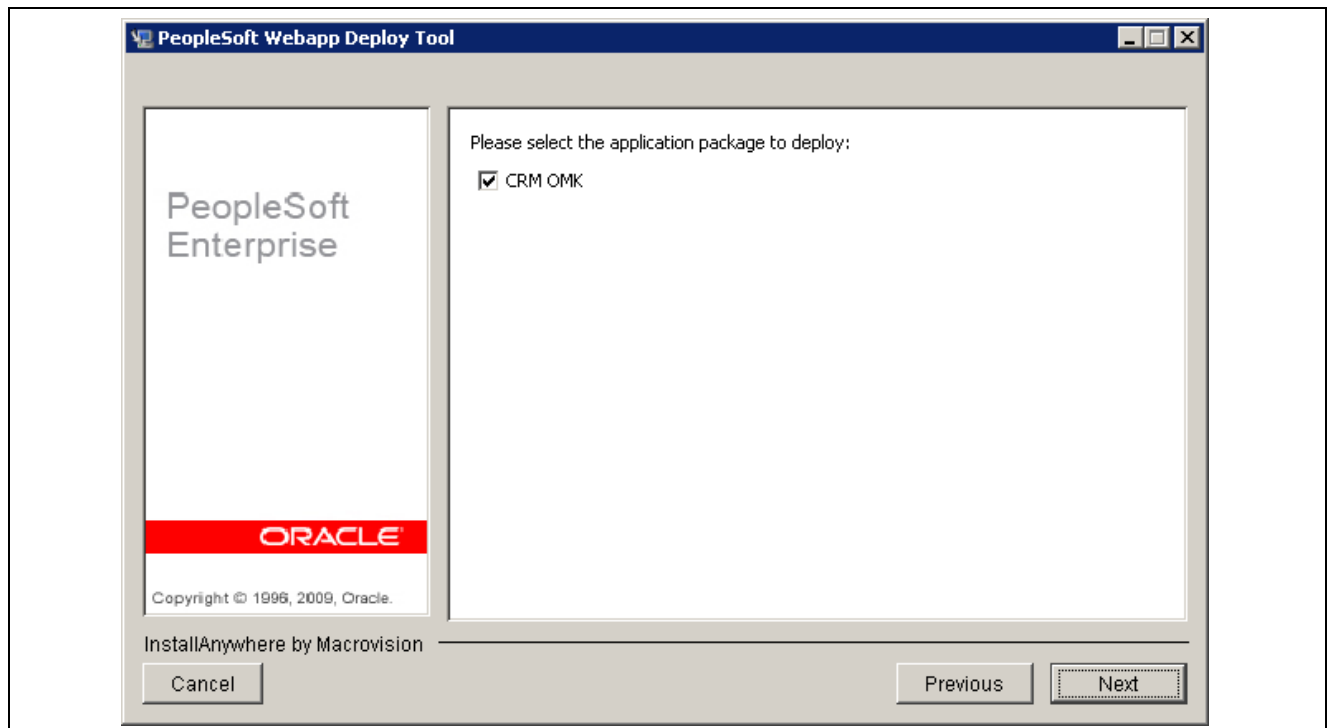
9. Enter a name for the Web Application Deploy domain, or accept the default name.
Use a fully qualified domain name, and do not use an IP address. Click Next to continue.

Important! The domain that you create for the Web Application Deploy cannot be the same as any existing PeopleSoft Pure Internet Architecture domains. Be sure you do not enter a name that you used for a PeopleSoft Pure Internet Architecture domain.



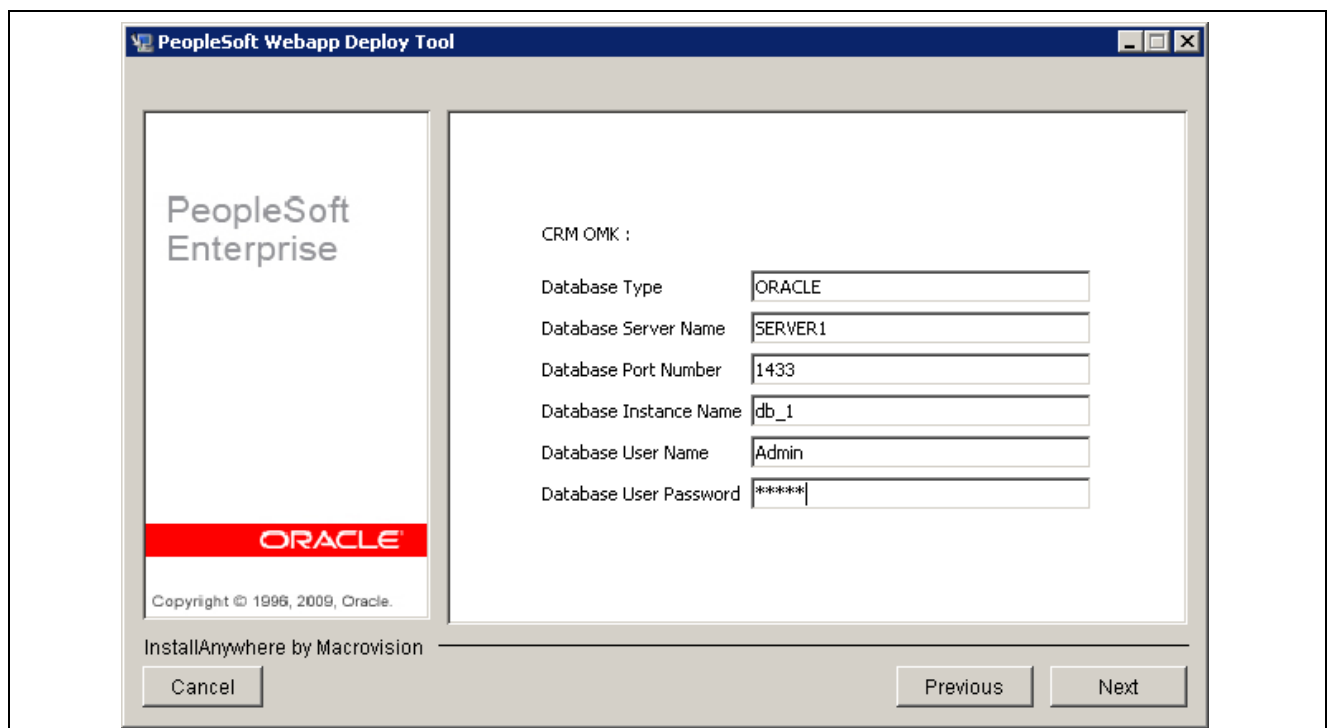
Entering domain name for the PeopleSoft Webapp Deploy Tool installation

10. The next window lists all of the available application packages (EAR files). Select the packages you want to install. *You must select at least one application package from this list.*



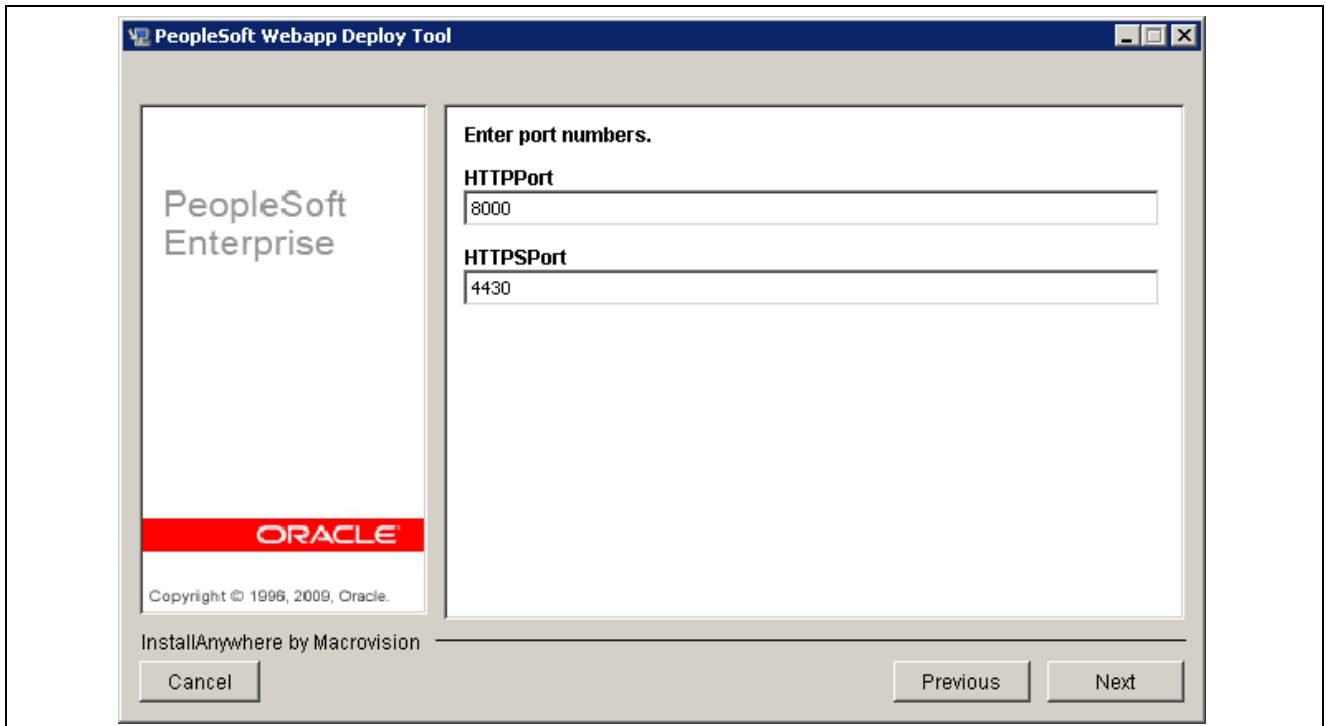
Selecting application packages for the PeopleSoft Webapp Deploy Tool installation

11. If the application(s) you selected in step 10 requires additional information, a window appears with entry fields for the required information. For example:



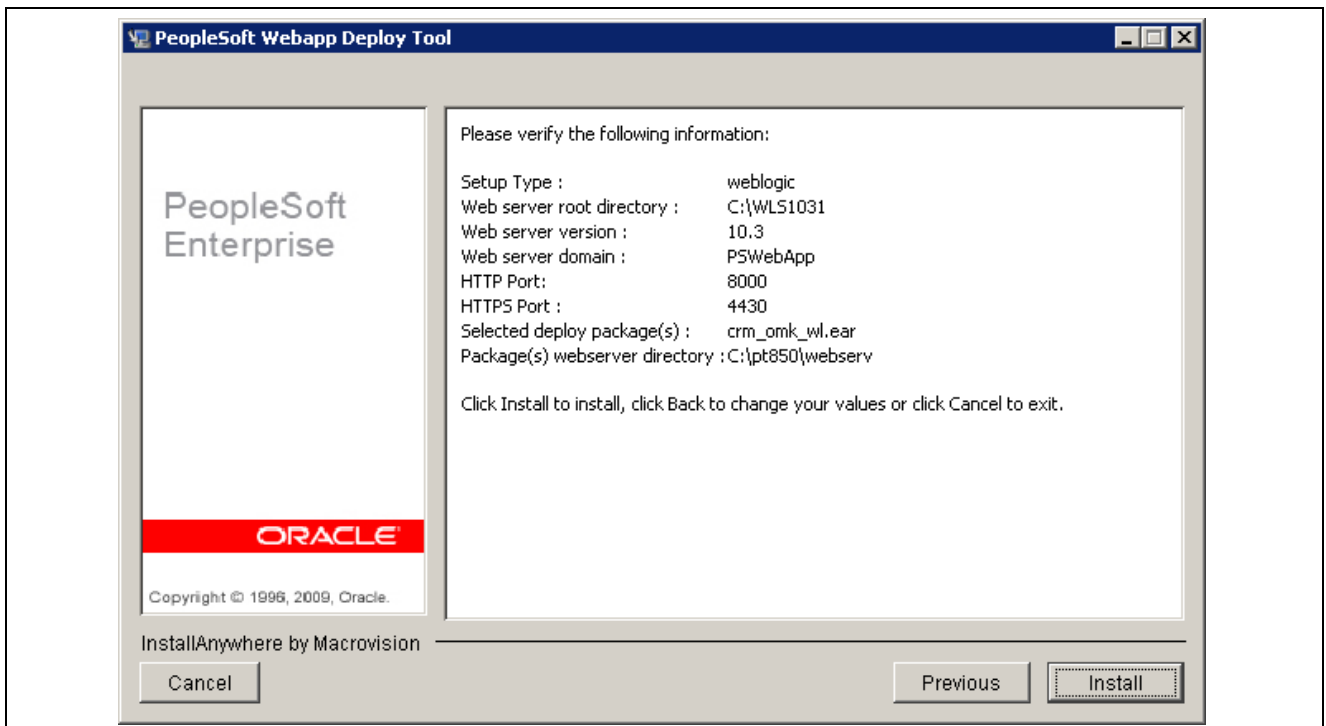
Specifying application information for the PeopleSoft Webapp Deploy Tool installation

12. Enter HTTP and HTTPS port numbers. Click Next to continue.



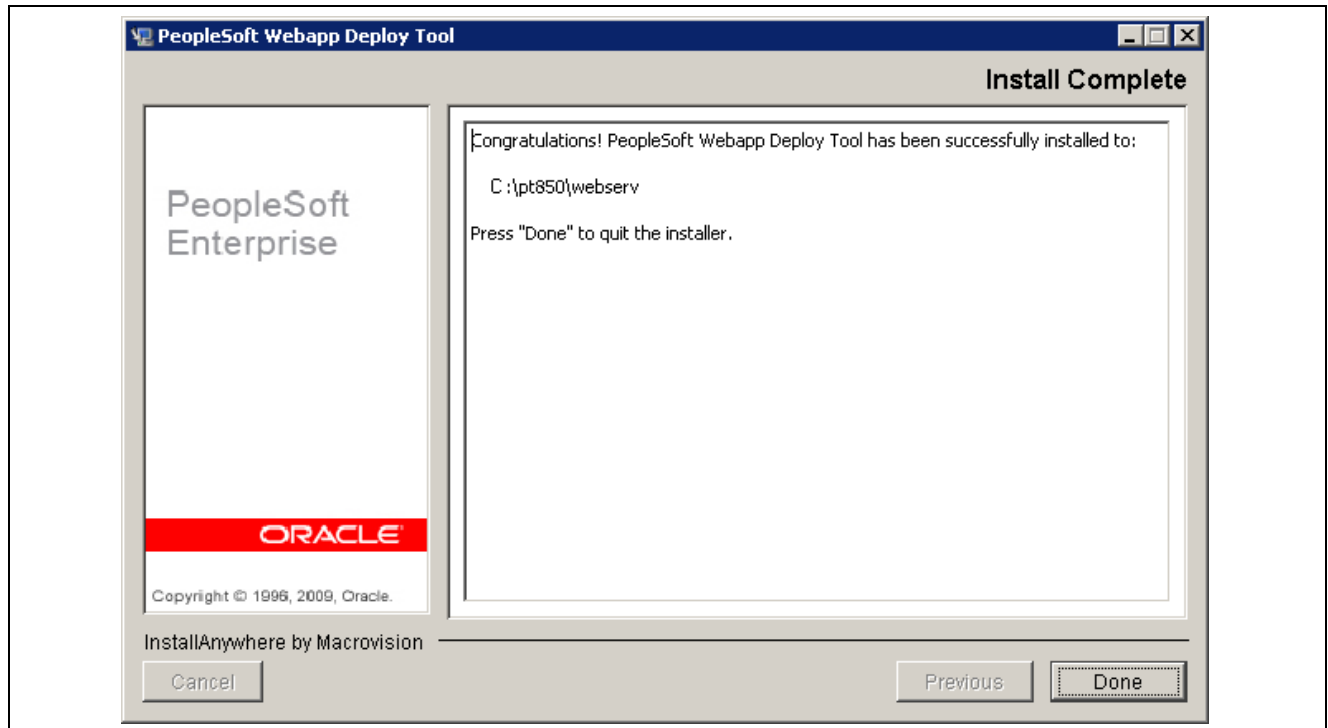
Entering port numbers for the PeopleSoft Webapp Deploy Tool installation

13. Verify your installation information on the summary screen that appears. Click Install to begin the installation, Previous to go back to make changes on an earlier window, or Cancel to exit the installation.



Verifying installation information on the PeopleSoft Webapp Deploy window

14. A confirmation screen appears when the installation completes. Click Done to exit the install shield wizard.

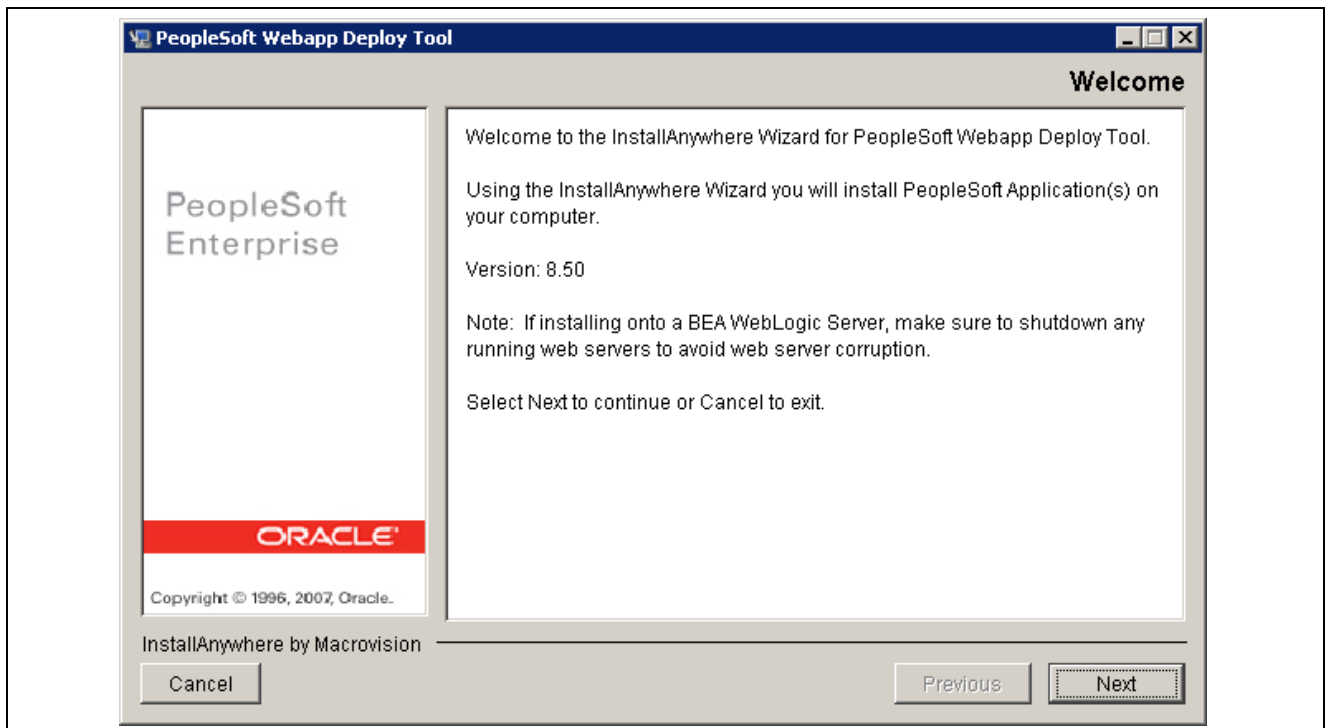


Final confirmation for the PeopleSoft Webapp Deploy Tool installation

Task E-2: Installing the Web Application Deployment Tools on WebSphere in GUI Mode

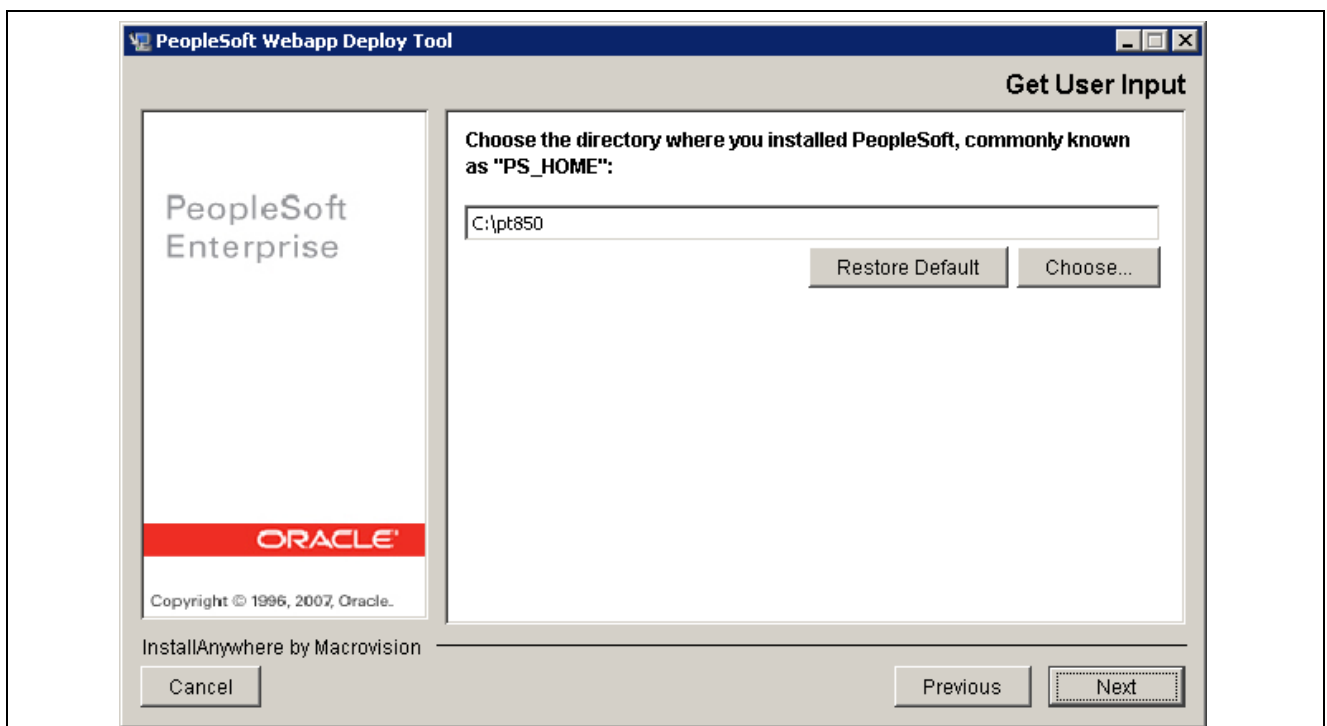
Use these instructions to install the Web Application Deployment Tools on WebSphere in GUI mode.

1. Copy the required Web Applications (EAR) files to *PS_HOME\setup\PsmPWebAppDeployInstall\archive*.
2. Start WebSphere on the server on which you plan to deploy the Web Application Deployment tools.
 - a. Select Start, Programs, IBM WebSphere, Application Server Network Deployment V7.0, Profiles, <profile_name>, First steps.
 - b. Select the link Start the server.
3. Navigate to *PS_HOME\setup\PsmPWebAppDeployInstall*.
4. Double-click on setup.bat.
5. Click Next on the Welcome page.



PeopleSoft Webapp Deploy Tool welcome window

6. Enter the same *PS_HOME* directory that you specified when you ran the PeopleSoft PeopleTools Installer and then click Next.



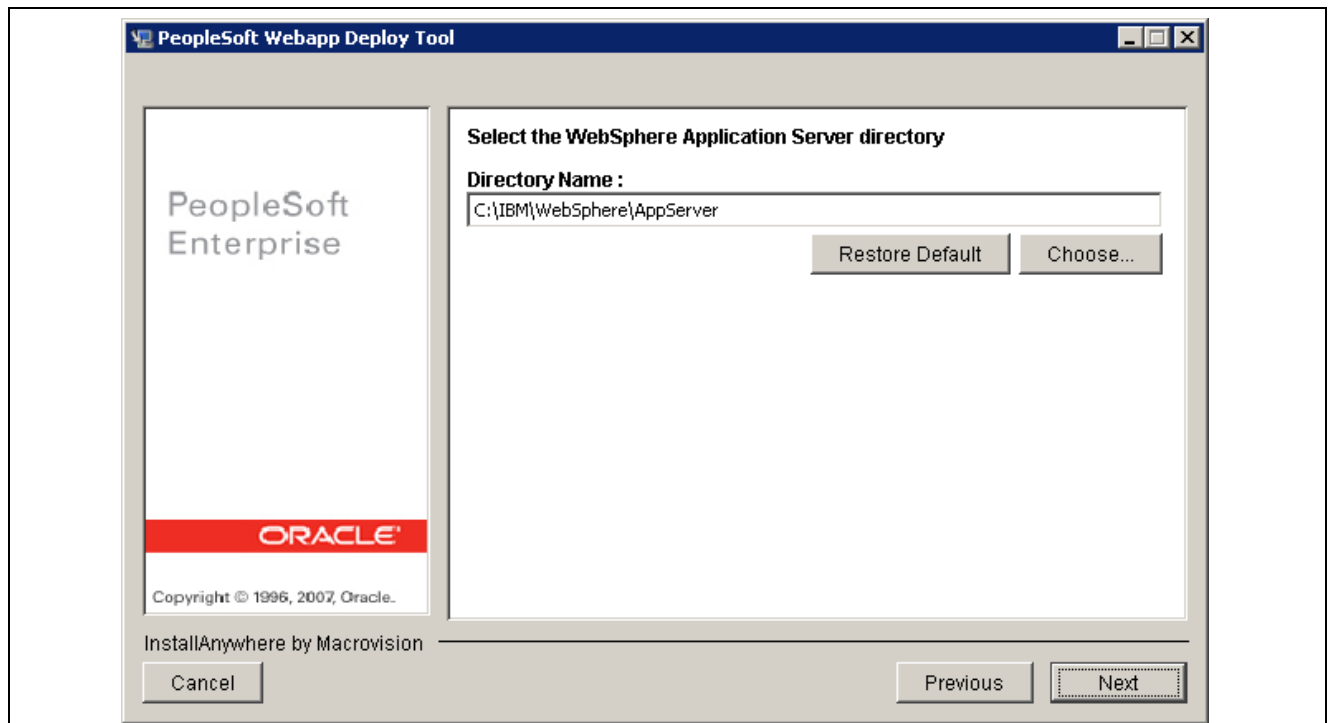
Entering PS_HOME on the PeopleSoft Webapp Deploy Tool window

7. Select IBM WebSphere Server and click Next.



Selecting IBM WebSphere on the PeopleSoft Webapp Deploy window

8. Specify the root directory where you installed WebSphere Application server.



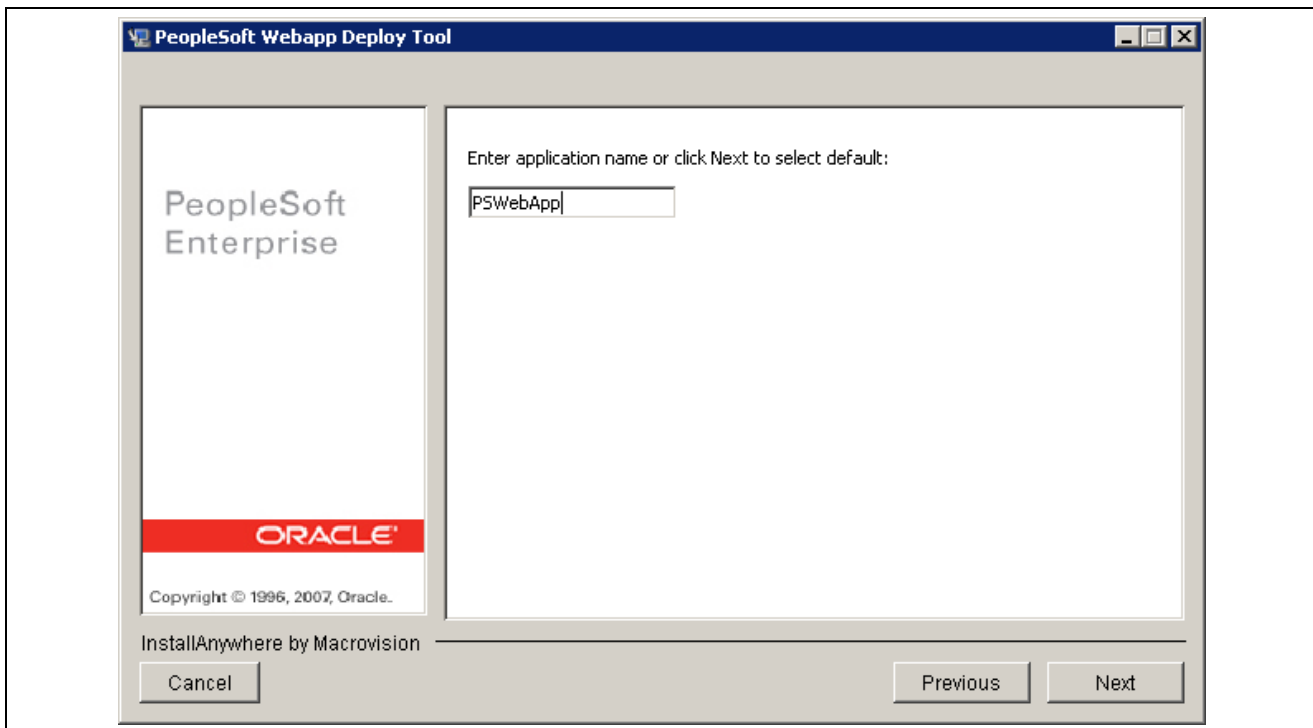
Specifying the WebSphere directory on the PeopleSoft Webapp Deploy window

Note. If the web server on which you are installing the Web Application Deployment tools is not up and running, you receive an error message at this point instructing you to start your web server.

See *Enterprise PeopleTools 8.50 PeopleBook: System and Server Administration*

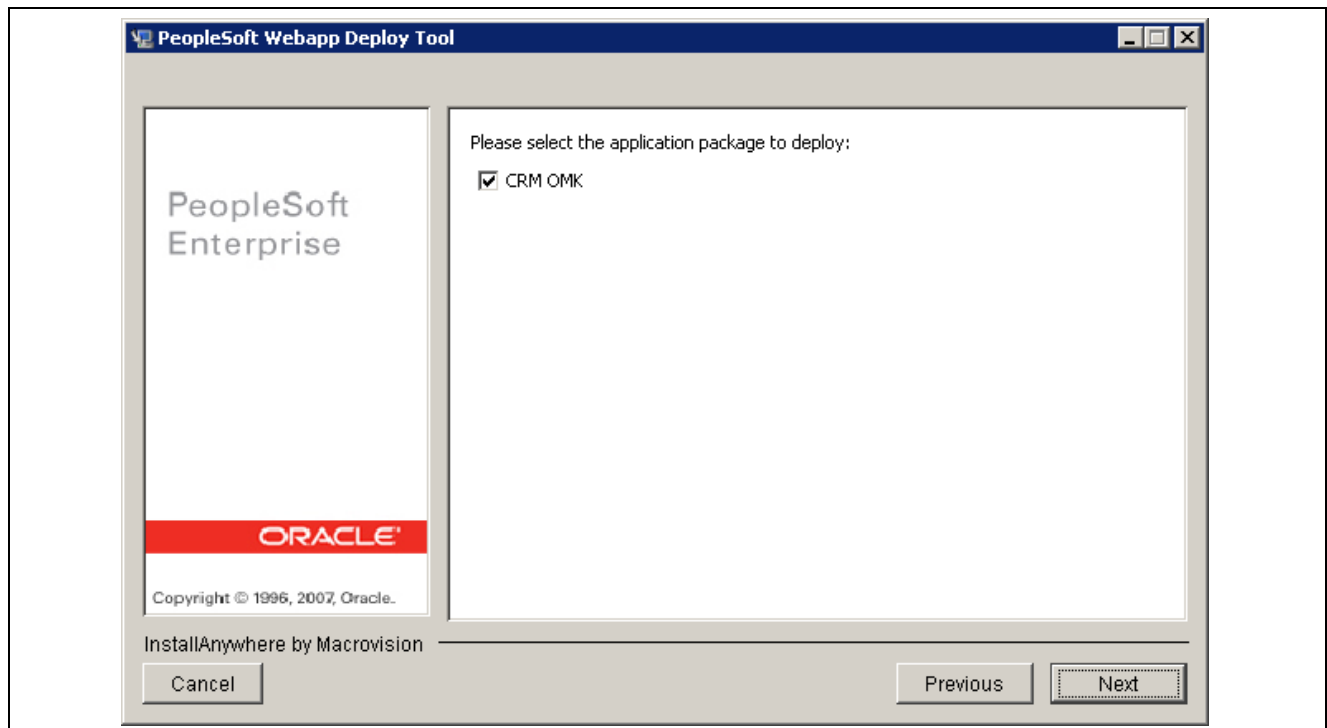
9. Enter a name for the Web Application Deploy domain, or accept the default name. Use a fully qualified domain name, and do not use an IP address. Click Next to continue.

Important! The domain that you create for the Web Application Deploy cannot be the same as any existing PeopleSoft Pure Internet Architecture domains. Be sure you do not enter a name that you used for a PeopleSoft Pure Internet Architecture domain.



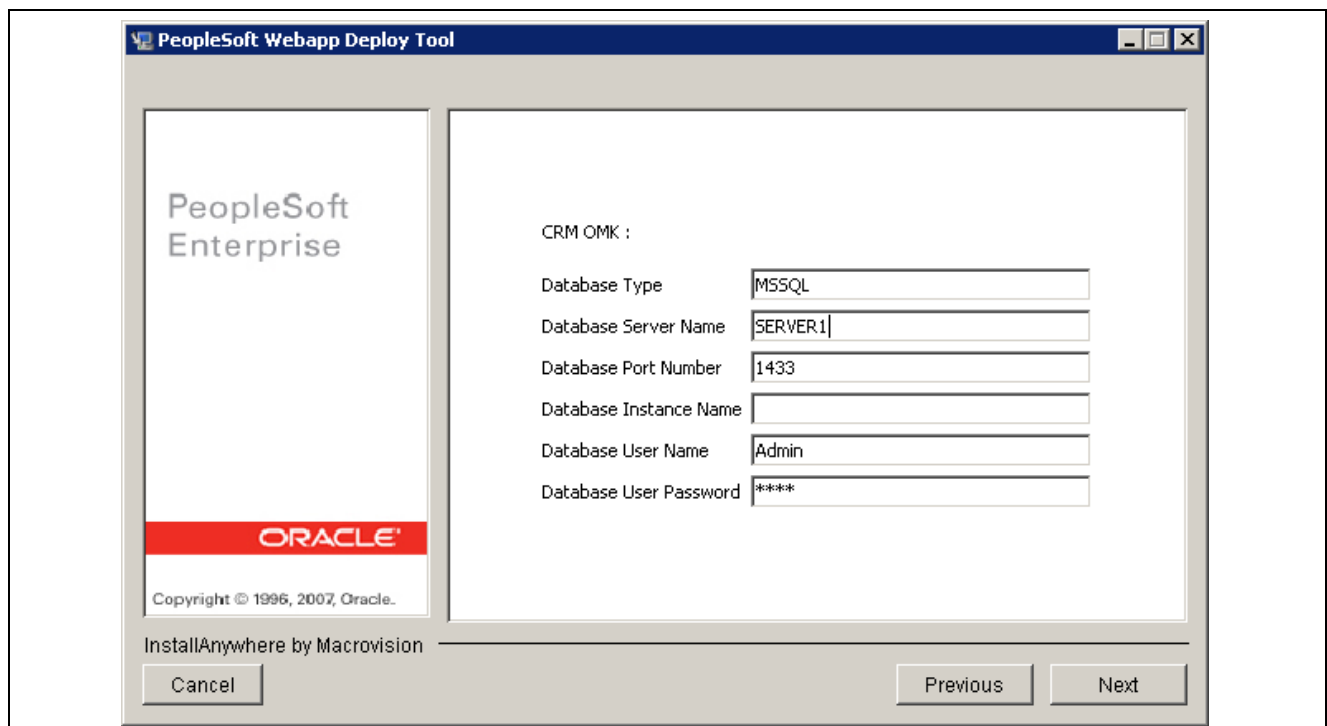
Entering application name on the PeopleSoft Webapp Deploy Tool window

10. The next window lists all of the available application packages (EAR files). Select the packages you want to install. *You must select at least one application package from this list.*



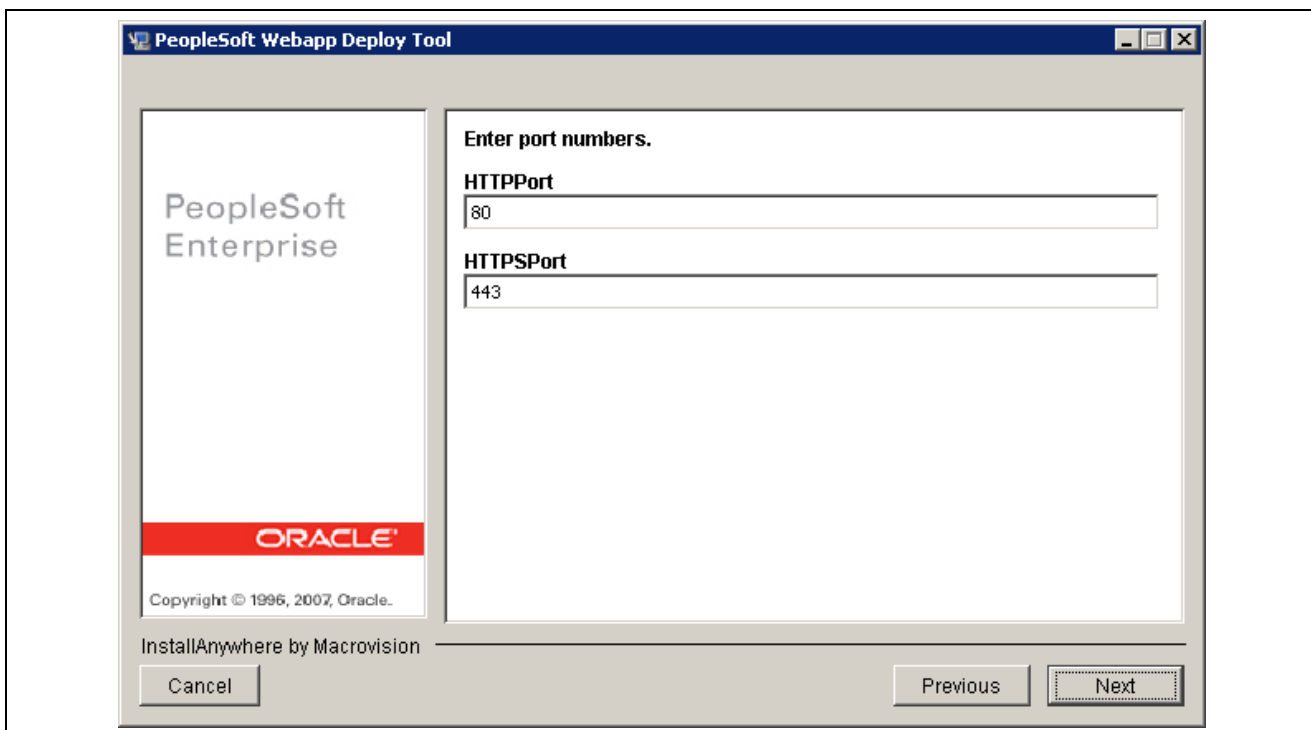
Selecting application packages on the PeopleSoft Webapp Deploy Tool window

11. If the application(s) you selected in the previous step requires additional information, a window appears with entry fields for the required information. For example:



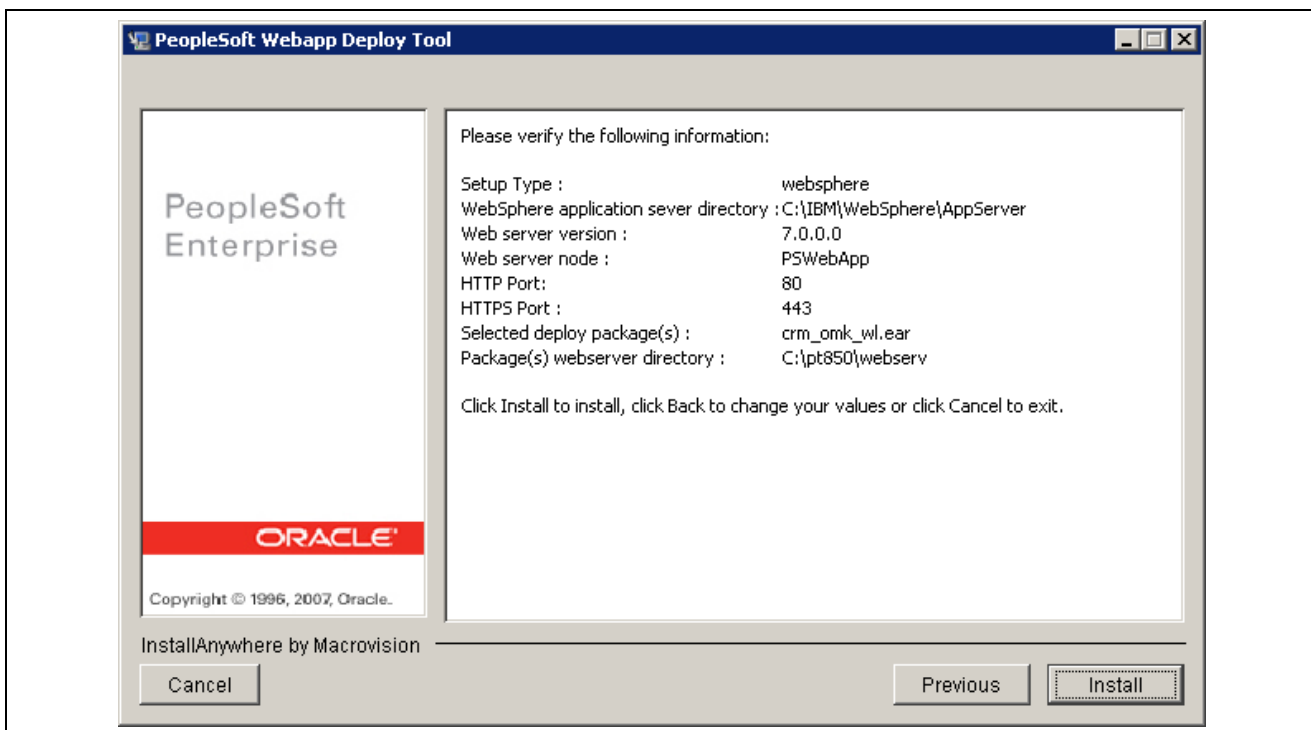
Specifying application information on the PeopleSoft Webapp Deploy Tool window

12. Enter HTTP and HTTPS port numbers. Click Next to continue.



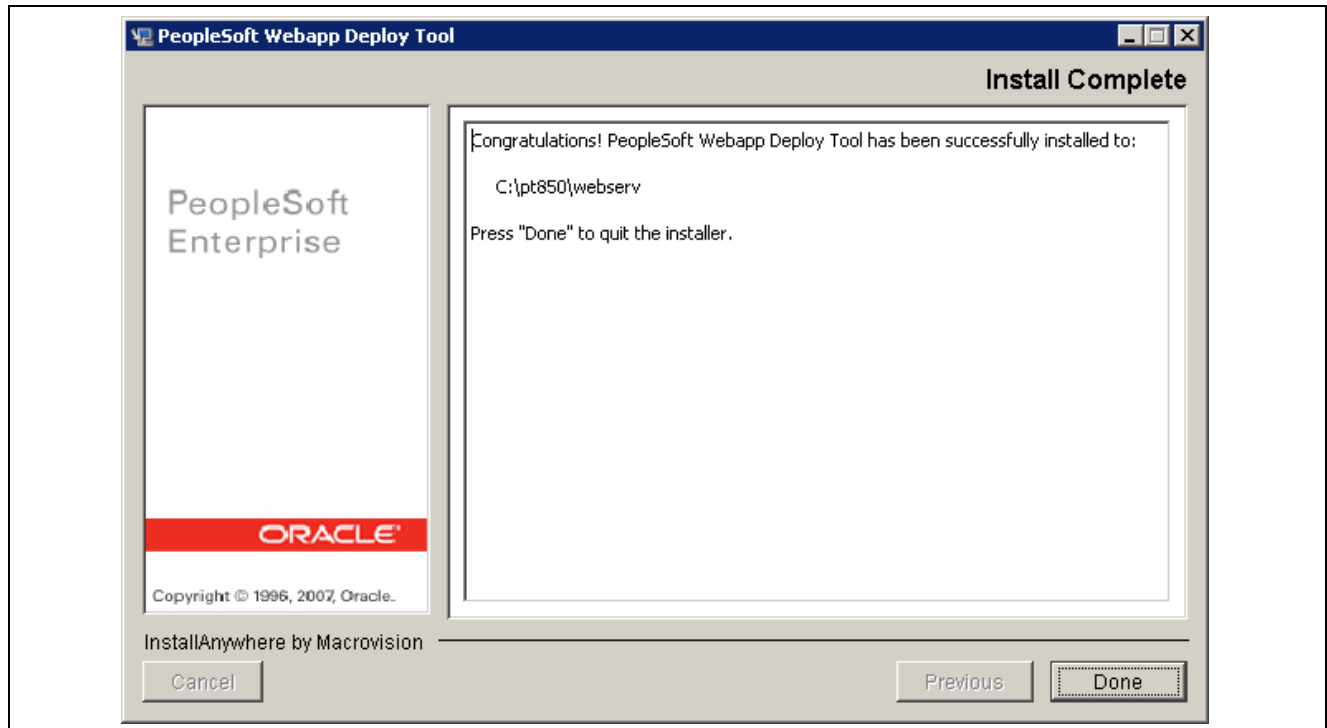
Entering port numbers on the PeopleSoft Webapp Deploy window

13. Verify your installation information on the summary screen that appears. Click Install to begin the installation, Previous to go back to make changes on an earlier window, or Cancel to exit the installation.



Verifying installation information on the PeopleSoft Webapp Deploy Tool window

14. A window appears with a progress indicator. A confirmation screen appears when the installation completes. Click Done to exit the install shield wizard.



Confirming installation on the PeopleSoft Webapp Deploy Tool window

Task E-3: Installing the Web Application Deployment Tools on WebLogic in Console Mode

Use these instructions to install the Web Application Deployment Tools on Oracle WebLogic in console mode.

Note. The console mode installation is typically used on UNIX platforms.

1. Copy the required Web Applications (EAR) files to *PS_HOME/setup/PsMpWebAppDeployInstall/archive*.
2. Set up the PeopleSoft environment by going to *PS_HOME* and running the following command:

```
../psconfig.sh
```

3. To run the installer, go to *PS_HOME/setup/PsMpWebAppDeployInstall*, and run the following command:

```
setup.sh -tempdir <temporary_directory> -javahome <java_directory>
```

Use the optional flag `-javahome <javahome>` if you installed the JRE/JDK files in a directory that is different than the vendor-defined JRE search path. .

4. You see a welcome message. Enter *1* to continue.

```
Welcome to the InstallShield Wizard for PeopleSoft Webapp Deploy Tool.
```

```
Using the InstallShield Wizard you will deploy PeopleSoft Application(s) on⇒
your computer.
```

```
Note: If installing onto a Oracle WebLogic Server, make sure to shutdown any⇒
```


running web servers to avoid web server corruption.

Select Next to continue or Cancel to exit.

Press 1 for Next, 3 to Cancel or 5 to Redisplay [1]

5. Choose the *PS_HOME* directory that you specified when you installed PeopleSoft PeopleTools. Enter *1* to continue.

Choose the directory where you installed PeopleSoft, commonly known as "PS_⇒
HOME":

Please specify a directory name or press Enter [/opt/PS_HOME]

Press 1 for Next, 2 for Previous, 3 to Cancel or 5 to Redisplay [1]

6. Enter *1* to select Oracle WebLogic Server, at the following prompt, and then enter *1* to continue.

Choose the setup type that best suits your needs.

->1- Oracle WebLogic Server

2- IBM WebSphere Server

To select an item enter its number, or 0 when you are finished: [0]

Press 1 for Next, 2 for Previous, 3 to Cancel or 5 to Redisplay [1]

7. Enter the directory where you installed Oracle WebLogic, and press ENTER to continue at the following prompt.

Select the web server root directory:

Please specify a directory name or press ENTER [/opt/bea_ps]

Note. You receive an error message if the correct Oracle WebLogic version is not found in the directory you enter.

8. Enter a name for the Web Application Deploy domain, or accept the default name. Use a fully qualified domain name, and do not use an IP address.

Enter domain name or click Next to select default:

[PSWebApp]

Important! The domain that you create for the Web Application Deploy cannot be the same as any existing PeopleSoft Pure Internet Architecture domains. Be sure you do not enter a name that you used for a PeopleSoft Pure Internet Architecture domain.

9. Enter the administrator login and password for your Oracle WebLogic domain, and press ENTER to continue.

Please enter the administrator login and password for WebLogic domain.

Login ID:

[system]

Password:

[password]

Re-type Password:

[password]

10. The next prompt lists all of the available application packages (EAR files). Enter the numbers beside the packages you want to install. *You must select at least one application package from this list.*

Please select the application package to deploy:

- >1- CRM Package
- 2- Financial Package

To select an item enter its number, or 0 when you are finished [0]:

11. Select the type of domain to create—single server, multi server, or distributed managed server.

See "Setting Up the PeopleSoft Pure Internet Architecture in Console Mode," Installing the PeopleSoft Pure Internet Architecture in Console Mode.

Please select the configuration to install.

- >1- Single Server Domain
- 2- Multi Server Domain
- 3- Distributed Managed Server

To select an item enter its number, or 0 when you are finished: [0]

- *Single Server Domain*

This configuration is intended for single user or very small scale, non-production environments.

- *Multi-Server Domain*

This configuration is intended for a production environment.

- *Distributed Managed Server*

This option is an extension of the Multi-Server Domain selection and installs the necessary files to boot a managed server. This option requires a Multi Server installation to be performed to some other location, which will contain the configuration for this managed server.

12. If the application(s) you selected in step 10 requires additional information, supply the necessary information at the next prompt. For example:

CRM OMK :

Database Type
[MSSQL]

Database Server Name
[]

Database Port Number
[0]

Database Instance Name
[]

Database User Name
[Admin]

Database User Password
[]

13. Enter HTTP and HTTPS port numbers.

Enter port numbers.

HTTP Port : [80] 8091

HTTPS Port : [443] 4431

14. Verify your installation information on the next prompt and press ENTER to begin the installation.
An indicator shows your installation progress.

Please verify the following information:

Setup Type : weblogic

Web server root directory : /opt/bea_ps

Web server version :10.3.1

Web server domain : PSWebApp

HTTP Port : 8091

HTTPS Port : 4431

Selected deploy package(s) : CRM Package.ear

Package(s) webserver directory : /opt/PS_HOME/webserv

15. After the installation is complete, you must deploy the Web Application Deploy tools. Use the following commands:

```
cd <PS_HOME>/webserv/<domain_name>
startPSWEBAPPS.sh
```

For *domain_name*, use the name you entered in step 8.

Note. You can choose to deploy at a later time using the same commands.

Task E-4: Installing the Web Application Deployment Tools on IBM WebSphere in Console Mode

Use these instructions to install the Web Application Deployment Tools on IBM WebSphere in console mode.

Note. The console mode installation is typically used on UNIX platforms.

1. Copy the required Web Applications (EAR) files to *PS_HOME/setup/PsMpWebAppDeployInstall/archive*.
2. Set up the PeopleSoft environment by going to *PS_HOME* and using the following command:

```
../psconfig.sh
```

3. Start IBM WebSphere on the server on which you plan to deploy the Web Application Deployment tools. Navigate to the bin directory under the directory where you installed IBM WebSphere, *WAS_HOME*. Use the following commands:

```
cd WAS_HOME/bin
startServer.sh server_name
```

4. To run the installer, go to *PS_HOME/setup/PsMpWebAppDeployInstall* and run the following command:

```
setup.sh -javahome <java_directory>
```

Use the optional flag `-javahome <java_directory>` if you installed the JRE/JDK files in a directory that is different than the vendor-defined JRE search path.

5. You see a Welcome message. Enter *I* to continue.

```
Welcome to the InstallShield Wizard for PeopleSoft Webapp Deploy Tool.
Using the InstallShield Wizard you will deploy PeopleSoft Application(s) on your
computer.
```

Note: If installing onto a Oracle WebLogic Server, make sure to shutdown any running web servers to avoid web server corruption.

Select Next to continue or Cancel to exit.

Press 1 for Next, 3 to Cancel or 5 to Redisplay [1]

6. Choose the same *PS_HOME* directory that you specified when you ran the PeopleSoft PeopleTools Installer.

```
Choose the directory where you installed PeopleSoft, commonly known as "PS_
HOME":
```

Please specify a directory name or press Enter [/opt/PS_HOME]

7. Enter 2, to select the IBM WebSphere Server, at the following prompt:

Choose the setup type that best suits your needs.

```
->1- Oracle WebLogic Server
    2- IBM WebSphere Server
```

To select an item enter its number, or 0 when you are finished: [0]

8. Enter the root directory where you installed IBM WebSphere at the following prompt, and press ENTER to continue:

Select the WebSphere Server directory:

Directory Name:

Please specify a directory name or press Enter [/opt/webserv]

Note. If the web server on which you are installing the Web Application Deployment tools is not up and running, you receive an error message at this point instructing you to start your web server.

See *Enterprise PeopleTools 8.50 PeopleBook: System and Server Administration*.

9. At the next prompts, enter a cell name, node name, and server name.
10. Enter a name for the Web Application Deploy domain, or accept the default name. Use a fully qualified domain name, and do not use an IP address. Press *I* to continue.

Enter domain name or click Next to select default:

[PSWebApp]

Important! The domain that you create for the Web Application Deploy cannot be the same as any existing PeopleSoft Pure Internet Architecture domains. Be sure you do not enter a name that you used for a PeopleSoft Pure Internet Architecture domain.

11. The next prompt lists all of the available application packages (EAR files). Enter the number corresponding to the packages you want to install. *You must select at least one application package from this list.*

Please select the application package to deploy:

->1- CRM Package
2- Financial Package

To select an item enter its number, or 0 when you are finished [0]:

12. If the application(s) you selected in the previous step requires additional information, supply the necessary information at the next prompt. For example:

CRM OMK :

Database Type

[MSSQL]

Database Server Name

[]

Database Port Number

[0]

Database Instance Name
[]

Database User Name
[Admin]

Database User Password
[]

13. Enter HTTP and HTTPS port numbers at the following prompt. Press */* to continue.

Enter port numbers.

HTTP Port: [80] 8091

HTTPS Port: [443] 4431

14. Verify your installation information at the next prompt and press ENTER to begin the installation. An indicator shows your installation progress.
15. A confirmation screen appears when the installation completes. Click Finish to exit the install shield wizard.
16. After the installation is complete, you must stop and start the IBM WebSphere server. Use the following commands:

```
cd WAS_HOME/bin
../stopServer.sh <server_name>
../startServer.sh <server_name>
```

For <server_name>, use the name of the IBM WebSphere server you used in step 3.

Task E-5: Testing and Troubleshooting the Web Application Deployment

Check the log file for any problems encountered during installation. The log file is saved in the following locations:

- If you installed on Oracle WebLogic, the log file is found in <PIA_HOME>/webserv/<domain_name>logs/*.log
- If you installed on IBM WebSphere, look in <WAS_HOME>/appserver/log/<server_name>*.log

If you need to start or stop Oracle WebLogic or IBM WebSphere, use the commands given in the chapter on installing the PeopleSoft Pure Internet Architecture.

See "Setting Up the PeopleSoft Pure Internet Architecture (in GUI Mode or Console Mode)," Testing the PeopleSoft Pure Internet Architecture Installation.

APPENDIX F

Setting Up a Unicode Database

This appendix discusses:

- Prerequisites
- Defining Conversion Pages for Unicode Conversion Services
- Fulfilling Connectivity Requirements

Prerequisites

PeopleSoft PeopleTools 8.50 Unicode support for the z/OS operating system requires the following:

- DB2 UDB for z/OS V8.1 (minimum) in New Function Mode
- IBM z/OS 1.6 (minimum)
- Search on My Oracle Support for a list of mandatory APARs and PTFs.

See “Important PTFs for PeopleSoft on DB2 UDB for z/OS,” My Oracle Support.

Task F-1: Defining Conversion Pages for Unicode Conversion Services

The following conversion images must be defined to successfully operate a PeopleSoft Unicode database:

- CCSID 367 (7-bit ASCII) <-> ASCII & EBCDIC System CCSID(s)
- CCSID 1208 (UTF-8) <-> ASCII & EBCDIC System CCSID(s)
- CCSID 1200 (UTF-16) <-> ASCII & EBCDIC System CCSID(s)
- Client CCSID(s) <-> Unicode CCSIDs (367, 1208, 1200)
- CCSID 367 <-> CCSID 1047
- CCSID 1200 <-> CCSID 1047
- CCSID 1208 <-> CCSID 1047

Task F-2: Fulfilling Connectivity Requirements

Set DB2CodePage to 1208 for Unicode databases as follows:

1. From a command prompt issue the db2set command:

```
c:\apps\DB\DB20DBC8\bin db2set DB2CODEPAGE=1208
```

2. Issue the following command to verify that it has been set:

```
C:\Apps\DB\db2odbc8>db2set -all
```

Sample output:

```
[e] DB2PATH=C:\Apps\DB\db2odbc8
```

```
[i] DB2INSTPROF=c:\Apps\DB\db2odbc8
```

```
[i] DB2CODEPAGE=1208
```


APPENDIX G

Using the PeopleSoft Tablespace DDL Automation Assistance Tool

This appendix discusses:

- Understanding the PeopleSoft Tablespace DDL Automation Assistance Tool
- Understanding PSTAAT Workstation Requirements
- Understanding the PSTAAT Graphical User Interface
- Understanding the Various PSTAAT Input and Output Files
- Using PSTAAT to Create TBDDL and IXDDL
- Using PSTAAT to Customize DDL
- Using PSTAAT to Reassign Temporary Tables to Additional Tablespaces
- Using PSTAAT to Isolate Other Tables to Individual Tablespaces
- Using PSTAAT to Convert EBCDIC DDL to Unicode DDL
- Using PSTAAT to Install PeopleSoft Databases

Understanding the PeopleSoft Tablespace DDL Automation Assistance Tool

The PeopleSoft Tablespace DDL Automation Assistance tool (PSTAAT) is a DDL script parsing utility intended to assist you in customizing your PeopleSoft PeopleTools and Application DDL. The utility provides greater flexibility in allowing you to override the supported PeopleSoft PeopleTools DDL parameters for DB2 z/OS so that they more closely fit your shop standards, and to better optimize the mapping of tables among tablespaces and databases.

Note. The use of PSTAAT to customize the installation DDL is optional. You may elect not to use PSTAAT and complete the installation of your database as documented in the chapter, “Creating a Database.” The next several sections describe the basic functions of this utility. Be sure to review the final section, Using PSTAAT to Install PeopleSoft Databases, before attempting to use PSTAAT for the first time.

PSTAAT serves the following functions:

- Generates the TBDDL and IXDDL scripts for the *traditional* installation.

PSTAAT is capable of dynamically creating the default TBDDL and IXDDL scripts. Note that the TBDDL and IXDDL scripts created by PSTAAT will be identical to those found with your installation files. You are free to optimize either set of scripts with PSTAAT.

See "Creating a Database."

- Optimizes DDL for installation.

PSTAAT may be used to parse and rewrite the default xxDDL, TBDDL, and IXDDL scripts to more optimally distribute the PeopleSoft PeopleTools and Applications objects among additional tablespaces and databases. It provides basic override capability of certain tablespace DDL parameters, and allows you to control the number of tables created per tablespace, and the number of tablespaces created per database.

- Beginning with PeopleSoft Enterprise 9.0 Applications, PSTAAT will replace the previously delivered "enhanced" installation scripts.

PSTAAT will be used to isolate Application Engine temporary tables and other tables intended to be used with the %UpdateStats metaSQL function to individual tablespaces. As a result, the X1DDL.SQL, X2DDL.SQL, and X3DML.DMS scripts will no longer be delivered with the PeopleSoft Enterprise 9.0 Application installation media.

- Converts EBCDIC DDL data types to Unicode DDL data types.

PSTAAT may be used to "convert" EBCDIC DDL data types to those data types required to create a PeopleSoft Unicode database. Note that this is simply one step in a multi-step process when converting an EBCDIC PeopleSoft environment to Unicode. Complete instructions for converting an EBCDIC PeopleSoft environment to Unicode are beyond the scope of this manual. For more details, consult the white paper titled Converting a PeopleSoft Enterprise Database from EBCDIC to Unicode Encoding Scheme on DB2 for z/OS.

See "Converting a PeopleSoft Enterprise Database from EBCDIC to Unicode Encoding Scheme on DB2 for z/OS," Oracle Applications Standard Benchmark, http://www.oracle.com/apps_benchmark/doc/peoplesoft/white-paper/ebcdic-unicode-encoding-scheme-db2-zos-white-paper.pdf

Understanding PSTAAT Workstation Requirements

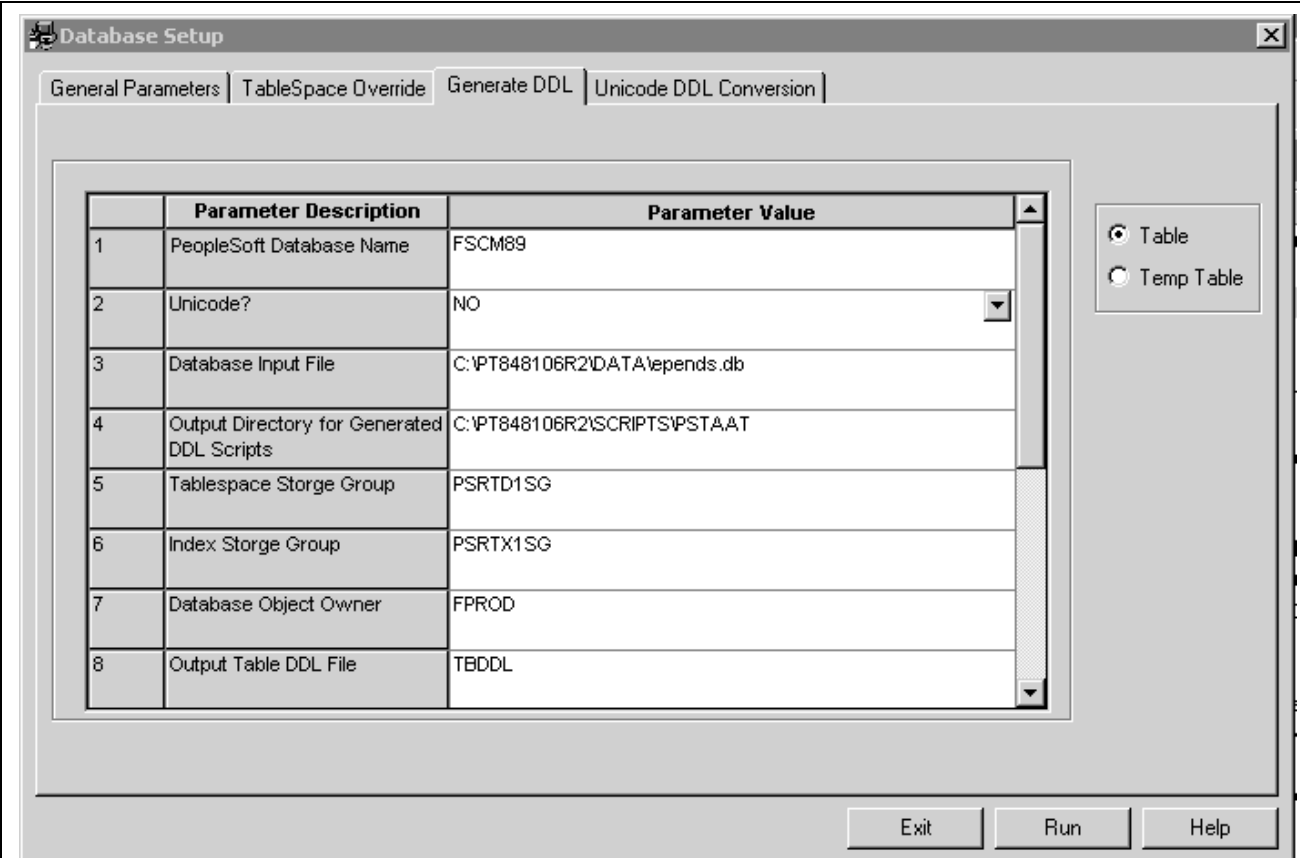
PSTAAT is a C++ Microsoft Windows application. It automatically invokes both Data Mover and Application Designer in command line mode depending on the particular functionality that is being used.

- PSTAAT must run from a PeopleSoft PeopleTools Install Workstation, or traditional Windows-based development client. For more details regarding the requirements of such a workstation, review the chapter titled The PeopleTools Development Environment in the Enterprise PeopleTools Hardware and Software Requirements guide.
- Both Data Mover and Application Designer require DB2 Connect, and thus it must also be installed on the client workstation from which you intend to run PSTAAT. See the appendix "Installing and Configuring DB2 Connect," for more details regarding the installation and configuration of DB2 Connect.
- The PeopleSoft PeopleTools Installer will place the PSTAAT executable file in the *PS_HOME\bin\client\winx86* directory of the PeopleSoft PeopleTools Install Workstation, file server, or Windows-based two-tier development client.

Understanding the PSTAAT Graphical User Interface

This section describes the tabs found on the PSTAAT graphical user interface (GUI) and the input expected for each text box.

Generate DDL tab:



The image shows a 'Database Setup' dialog box with four tabs: 'General Parameters', 'TableSpace Override', 'Generate DDL' (selected), and 'Unicode DDL Conversion'. The 'Generate DDL' tab contains a table with 8 rows of parameters. To the right of the table are two radio buttons: 'Table' (selected) and 'Temp Table'. At the bottom right are three buttons: 'Exit', 'Run', and 'Help'.

	Parameter Description	Parameter Value
1	PeopleSoft Database Name	FSCM89
2	Unicode?	NO
3	Database Input File	C:\PT848106R2\DATA\epends.db
4	Output Directory for Generated DDL Scripts	C:\PT848106R2\SCRIPTS\VPSTAAT
5	Tablespace Storage Group	PSRTD1SG
6	Index Storage Group	PSRTX1SG
7	Database Object Owner	FPROD
8	Output Table DDL File	TBDDL

Database Setup page: Generate DDL tab (1 of 2)

	Parameter Description	Parameter Value
7	Database Object Owner	FPROD
8	Output Table DDL File	TBDDL
9	Output Index DDL File	
10	Application Designer Project Name	
11	Application Designer Output Log File	
12	User ID	PSOFT
13	Password	*****

☒ Table
☐ Temp Table

Exit Run Help

Database Setup page: Generate DDL tab (2 of 2)

Table and Temp Table radio buttons

Enable the Temp Table radio button to generate a DDL script for the creation of Application Engine temporary tables and indexes. Enable the Table radio button to generate a DDL script for the creation of all other table and index types.

(1) PeopleSoft Database Name

This is the logical database name of the PeopleSoft database to be created. It *must* match the alias cataloged in DB2 Connect as shown in the Configuration Assistant (see figure below).

Alias	Name	Target D...	Location	Direct...	Proto...	Instance
FSCM89	DCSA475F	DB2DS4I	NDE9211B	Remote	TCP/IP	NDE9211

Configuration Assistant page

(2) Unicode?

Indicates whether PSTAAT should create DDL with EBCDIC or Unicode data types.

(3) Database Input File

Name of the database input file located in *PS_HOME\data*.

(4) Output Directory for Generated DDL Scripts	Specify a folder on the workstation where PSTAAT will store the generated DDL scripts.
	Note. The path must already exist—PSTAAT will not create it for you.
(5) Tablespace Storage Group	Storage group to be used for tablespace data sets
(6) Index Storage Group	Storage group to be used for Index data sets.
(7) Database Object Owner	The name of the table owner ID as previously determined from the “Preparing for Installation” chapter. This value qualifies all tables as belonging to the logical PeopleSoft database. This value will be stored in the Creator field of SYSIBM.SYSTABLES.
(8) Output Table DDL File	Name of the output file that contains DDL to create all tables. (TBDDL.SQL)
(9) Output Index DDL File	Name of the output file that contains DDL to create all indexes. (IXDDL.SQL)
(10) Application Designer Project Name	Name of PeopleSoft PeopleTools project that contains the temporary table record definitions. This is only used when creating temporary table DDL. See Using PSTAAT To Reassign Temporary Tables To Additional Tablespaces.
(11) Application Designer Output Log File	Application Designer log file. This is only used when creating Application Engine temporary table DDL. See Using PSTAAT To Reassign Temporary Tables To Additional Tablespaces.
(12) User ID	The userid specified must either be a valid mainframe ID such as the database Access ID, or a PeopleSoft user ID depending on which of the Table/Temp Table radio buttons has been enabled. Recall from the section titled Understanding PSTAAT Workstation Requirements, that PSTAAT invokes Data Mover and Application Designer, which in turn make connections to the DB2 z/OS database server through DB2 Connect. When creating the TBDDL.SQL and IXDDL.SQL, the Table radio button must be enabled. PSTAAT will invoke Data Mover in bootstrap mode to extract the default table and index DDL, thus this ID must be a valid mainframe ID such as the Access ID because it will be validated by your security software package (RACF, Top Secret, and so on). When creating temporary table DDL with the Generate DDL tab, the Temp Table radio button must be enabled. In this case, PSTAAT will invoke Application Designer through a command line, thus the ID passed will be validated by PeopleSoft security. This id must be a valid PeopleSoft user id such as VP1 or PS.
(13) Password	This is the password that matches the ID supplied for input parameter 12 (above).

General Parameters Tab:

PSTAAT is a text parsing and DDL generation utility. It requires input files such as the default TBDDL.SQL and IXDDL.SQL scripts to operate. PSTAAT parses the text of the original files to create new versions of each script using the input supplied for the parameters below to override default values.

Database Setup

General Parameters | TableSpace Override | Generate DDL | Unicode DDL Conversion

	Parameter Description	Parameter Value
1	Input Directory for DDL Scripts	C:\PT848106R2\SCRIPTS\VPSTAAT
2	Input Database/Tablespace DDL File	EPDDL.SQL
3	Input Table DDL File	TBDDL.SQL
4	Input Index DDL File	IXDDL.SQL
5	Input Temp Table DDL File	
6	Input Individual Table File	
7	Output Directory for Generated DDL Scripts	C:\PT848106R2\SCRIPTS\VPSTAAT
8	Primary Database Prefix	FSCM

Exit Run Help

Database Setup page: General Parameters tab (1 of 3)

Database Setup

General Parameters | TableSpace Override | Generate DDL | Unicode DDL Conversion

	Parameter Description	Parameter Value
9	Database Object Owner	FPROD
10	Maximum Number of Tablespaces per Database	20
11	Maximum Number of Tables per Tablespace (Regular)	30
12	Maximum Number of Tables per Tablespace (Large)	1
13	Commit Frequency	10
14	Recalculate Tablespace Allocation?	YES
15	Minimum PRIQTY/SECQTY Allocation	720
16	Bufferpool for PeopleTools Tables	BP1

Exit Run Help

Database Setup page: General Parameters tab (2 of 3)

	Parameter Description	Parameter Value
17	Bufferpool for Application Tables	BP3
18	Bufferpool for 32K Tables	BP32K1
19	Bufferpool for Indexes	BP5
20	Bufferpool for Temp Tables	BP7
21	Tablespace Storage Group	PSRTD1SG
22	Index Storage Group	PSRTX1SG
23	Segment Size	4
24	Close Data Set?	NO

Exit Run Help

Database Setup page: General Parameters tab (3 of 3)

- (1) Input Directory for DDL Scripts** Enter the path that contains the mandatory DDL input files. (See input parameters 2-6 below.) Note that a value for this Input text box is also required to use the Unicode DDL Conversion Tab.
- (2) Input Database/Tablespace DDL File** The name of the default database, tablespace, and stogroup DDL file for the traditional installation path. (The xxDDL.SQL script.)
- (3) Input Table DDL File** A TBDDL.SQL DDL script such as one that was created by the Generate DDL tab or delivered with the installation.
- (4) Input Index DDL File** An IXDDL.SQL DDL script such as one that was created by the Generate DDL tab or delivered with the installation.
- (5) Input Temp Table DDL File** Temporary table DDL script as generated by Application Designer.
- (6) Input Individual Table File** Input file of non-temporary PeopleSoft PeopleTools and Application tables for which the %UpdateStats metaSQL function is called.
- (7) Output Directory for Generated DDL Scripts** Enter the path where you would like PSTAAT to write the newly generated output DDL scripts. Note that a value for this Input text box is also required to use the Unicode DDL Conversion Tab.
- (8) Primary Database Prefix** Prefix to be used as the constant portion of the naming convention for the individual databases (DBDs) that comprise the “logical” PeopleSoft database. PSTAAT will use the prefix entered here as the first part of the database

	naming convention. It will generate an ascending sequence for the remainder of the eight characters to be used for the DB2 z/OS database name. We recommend a primary database prefix of five characters or less.
(9) Database Object Owner	Enter the 'owner' id that will qualify each of the objects in the logical PeopleSoft database. This is the name previously determined from the "Preparing for Installation" chapter. It will be the value stored in the Creator field of SYSIBM.SYSTABLES.
(10) Maximum Number of Tablespaces per Database	Enter the maximum number of tablespaces that you want PSTAAT to allocate per database.
(11) Maximum Number of Tables per Tablespace (Regular)	Enter the maximum number of tables that you want PSTAAT to allocate per tablespace.
(12) Maximum Number of Tables per Tablespace (Large)	Enter the desired maximum number of tables per tablespace for those tables assigned to the xxLARGE tablespaces by default. These have been identified as high growth tables. An input value of one (1) would segregate each of the tables delivered in these tablespaces to its own tablespace.
(13) Commit Frequency	An explicit commit is issued after each table and index is created in the default DDL scripts. It is possible to vary the commit frequency between tables and indexes with this input parameter. A commit frequency of 10, for example, will indicate that PSTAAT should force an explicit commit after approximately every ten DDL statements.
(14) Recalculate Tablespace Allocation	Indicates whether you want PSTAAT to recalculate the Primary and Secondary space allocations for tablespaces, or use the defaults as indicated in the xxDDL script. For more details regarding the algorithm used to recalculate PRI and SEC space allocation, see the section titled Using PSTAAT to Customize DDL; Recalculating Primary and Secondary Space Allocations and Setting a Minimum Secondary Space Allocation.
(15) Minimum PRIQTY/SECQTY Allocation	Allows you to specify a minimum Primary and Secondary space allocation for tablespaces when allowing PSTAAT to recalculate the Primary and Secondary allocations. See the section titled Recalculating Primary and Secondary Space Allocations and Setting a Minimum Secondary Space Allocation for more details regarding the manner in which PSTAAT uses this input parameter.
(16) Bufferpool for PeopleTools Tables	PSTAAT will allocate PeopleSoft PeopleTools tables to this bufferpool.
(17) Bufferpool for Application Tables	PSTAAT will allocate Application tables to this bufferpool.
(18) Bufferpool for 32K Tables	Indicate the particular 32K bufferpool to be used for tables automatically allocated to 32K bufferpools.
(19) Bufferpool for Indexes	PSTAAT will allocate index data sets to this bufferpool.
(20) Bufferpool for Temp Tables	PSTAAT will allocate Temporary Tables to this bufferpool.

(21) Tablespace Storage Group	Stogroup to be used for tablespaces.
	Note. All tablespaces will be created using this stogroup. PSTAAT is not capable of assigning multiple tablespace stogroups.
(22) Index Storage Group	Stogroup to be used for indexes.
	Note. All indexes will be created using this stogroup. PSTAAT is not capable of assigning multiple index stogroups.
(23) Segment Size	Select a default segment size to be used for all tablespaces.
(24) Close Data Set?	Default close rule for VSAM data sets.
	Note. All tablespaces will use this close rule.

Note. LOCKSIZE does not appear as an override parameter on the GUI. LOCKSIZE is controlled automatically by PSTAAT. Those tables originally delivered in tablespaces set to a LOCKSIZE of ROW will be remapped to tablespaces also set to a LOCKSIZE of ROW automatically. All other tablespace DDL will be generated with a LOCKSIZE of ANY.

TableSpace Override Tab:

The Tablespace Override tab works in conjunction with the General Parameters tab. After completing the General Parameters tab, click the TableSpace Override tab to determine the exact object mapping as delivered by the default (traditional) installation.

PSTAAT determines the values in the TableSpace Override grid by parsing the following input from the General Parameters tab:

- Input Database/Tablespace DDL File, also known as the xxDDL script (General Parameters tab, parameter 2).
- Input Table DDL File, or TBDDL.SQL script (General Parameters tab, parameter 3).

	TableSpace	Table Count	PRIQTY	SECQTY	New Name
1	PTTBL	1211	100800	7200	
2	PTPRC	53	1440	1440	
3	PTPRJWK	1	1440	1440	
4	PTAPP	581	43200	4320	
5	PTAPPE	28	7200	1440	
6	PTAUDIT	1	1440	1440	
7	PTTREE	15	14400	1440	
8	PTTLRG	34	172800	8640	
9	PTAMSG	52	7200	1440	
10	PSIMAGE	174	172800	8640	
11	PSIMGR	9	7200	1440	
12	PTWORK	52	7200	1440	
13	PSWORK	0	7200	1440	

Database Setup page: TableSpace Override tab

Tablespace

There is one row in the grid for each tablespace found in the xxDDL script. The name of each tablespace is listed in this column.

Table Count

This is the number of tables that will be assigned to the tablespace by the default installation.

PRIQTY

Default Primary space allocation for the tablespace.

SECQTY

Default Secondary space allocation for the tablespace.

New Name

Allows you to override the default tablespace name with a custom tablespace name. Although it is possible to completely override the name of any tablespace, for documentation purposes, we recommend that you use the default PSTAAT behavior of using part of the default tablespace name as a prefix in generating new tablespace names for you. Use of the New Name input parameter is required in a specific circumstance that is documented later in this appendix. See Understanding How PSTAAT Assigns An Object Naming Convention later in this appendix for a more detailed explanation of how PSTAAT determines the tablespace naming convention.

Run Button

Click the Run button to optimize the DDL. PSTAAT will recreate the table-tablespace-database mapping based on the input parameters supplied in the General Parameters tab.

Unicode DDL Conversion tab:

The Unicode DDL Conversion Tab is used to 'convert' EBCDIC DDL data types to those data types required to create a PeopleSoft Unicode database. Note that this is simply one step in a multi-step process when converting an EBCDIC PeopleSoft environment to Unicode. Complete instructions for converting an EBCDIC PeopleSoft environment to Unicode are beyond the scope of this guide.

See "Converting a PeopleSoft Enterprise Database from EBCDIC to Unicode Encoding Scheme on DB2 for z/OS," Oracle Applications Standard Benchmark, http://www.oracle.com/apps_benchmark/doc/peoplesoft/white-paper/ebcdic-unicode-encoding-scheme-db2-zos-white-paper.pdf

	Parameter Description	Parameter Value
1	Input EBCDIC Database/Tablespace DDL File	EPDDL.SQL
2	Input EBCDIC Table DDL File	PSTABLES.SQL
3	Output Unicode Database/Tablespace DDL File	UNICODE_EPDDL.SQL
4	Output Unicode Table DDL File	TBDDL.U
5	Remove 'DROP TABLE' DDL?	YES

Exit Run Help

Database Setup page: Unicode DDL Conversion tab

(1) Input EBCDIC/Tablespace DDL File

Enter the name of the EBCDIC Database/Tablespace DDL script (that is, xxDDL.SQL) for conversion. Note that the path where this file is located must be entered in input box 1 (Input Directory for DDL scripts) of the General Parameters tab.

(2) Input EBCDIC Table DDL File

Enter the name of the EBCDIC table DDL script to be converted to Unicode data types. This can be a DDL script created from an Application Designer project that contains PeopleSoft PeopleTools record definitions; or, a default TBDDL.SQL script. Note that this file must also be located in the folder specified by input parameter 1 (Input Directory for DDL scripts) on the General Parameters tab.

See "Converting a PeopleSoft Enterprise Database from EBCDIC to Unicode Encoding Scheme on DB2 for z/OS," Oracle Applications Standard Benchmark, http://www.oracle.com/apps_benchmark/doc/peoplesoft/white-paper/ebcdic-unicode-encoding-scheme-db2-zos-white-paper.pdf

- (3) Output Unicode Database/Tablespace DDL File** Enter the name of the newly generated DDL script for creating databases, tablespaces, and stogroups using the Unicode encoding scheme. This output file will be written to the folder identified by input parameter 7, Output Directory for Generated DDL scripts on the General Parameters tab.
- (4) Output Unicode Table DDL File** Enter the name of the newly created DDL script to create tables for storing data using the Unicode encoding scheme. This output file will also be written to the folder specified by input parameter 7, Output Directory for Generated DDL scripts on the General Parameters tab.
- (5) Remove 'Drop Table' DDL** DDL created by Application Designer (when building a PeopleSoft PeopleTools project) may contain Drop Table statements for tables that Application Designer has determined already exist. When *YES* is selected from the drop down, PSTAAT will comment the Drop Table statements in the newly generated DDL. When *NO* is selected, the Drop Table statements are left uncommented in the new DDL script.

Understanding the Various PSTAAT Input and Output Files

PSTAAT is completely file driven. Although PSTAAT invokes Data Mover and Application Designer, each of which require a connection to the database server, PSTAAT itself does not communicate directly with DB2 z/OS and thus it is not capable of querying DB2. PSTAAT operates entirely by parsing various types of files (primarily DDL scripts), and then rewriting those files based on the input parameters specified in the General Parameters tab.

The following table describes the various input files:

GUI Tab	File	Description
Generate DDL Tab	Database Input File	Located in <i>PS_HOME</i> data. This is the same file used by Data Mover to populate the PeopleSoft database.
General Parameters Tab	Input Database/Tablespace DDL File	The name of the default database, tablespace, and stogroup DDL script (i.e. xxDDL.SQL)
	Input Table DDL File	The TBDDL.SQL DDL script that was generated from the Generate DDL tab or delivered with the installation files.
	Input Index DDL File	The IXDDL.SQL DDL script that was generated from the Generate DDL tab or delivered with the installation files.
	Input Temp Table DDL File	A temporary table DDL script as generated by Application Designer.
	Input Individual Table File	Input file of non-temporary PeopleSoft PeopleTools and Application tables for which the %UpdateStats metaSQL function is called. This file is delivered with the installation files.

GUI Tab	File	Description
Unicode Conversion Tab	EBCDIC/Tablespace DDL File	An EBCDIC default database, tablespace, and stogroup DDL script (i.e. xxDDL.SQL).
	Input EBCDIC Table DDL File	An EBCDIC table DDL script to be converted to Unicode data types. This can be a DDL script created from an Application Designer project that contains PeopleSoft PeopleTools record definitions; or, a default TBDDL.SQL script. See "Converting a PeopleSoft Enterprise Database from EBCDIC to Unicode Encoding Scheme on DB2 for z/OS," Oracle Applications Standard Benchmark, http://www.oracle.com/apps_benchmark/doc/peoplesoft/white-paper/ebcdic-unicode-encoding-scheme-db2-zos-white-paper.pdf

The following table describes the various output (new) files:

GUI Tab	File	Description
Generate DDL Tab PSTAAT will write five files to the folder specified in 'Output Directory for Generated DDL Scripts', input parameter four (4), of the Generate DDL tab.	Output Table DDL File Log File	Default table DDL script (i.e. TBDDL.SQL). The actual script name will depend on the value entered in Output Table DDL File, parameter eight (8), of the Generate DDL tab. To maintain consistency with previous releases of PeopleSoft PeopleTools, we recommend that you name the Table DDL script 'TBDDL.SQL' as shown in the examples in these instructions. A file with extension ".log" is also created with a name similar to the table DDL script (i.e. TBDDL.log). Each table name is written to this output log as Data Mover 'extracts' the table DDL from the database input file.

GUI Tab	File	Description
	Output Index DDL File Log File	Default index DDL script (i.e. IXDDL.SQL). The actual script name will depend on the value entered in Output Index DDL File, parameter nine (9), of the Generate DDL tab. To maintain consistency with previous releases of PeopleSoft PeopleTools, we recommend that you name the Index DDL script 'IXDDL.SQL' as shown in the examples in these instructions. A file with extension ".log" is also created with a name similar to the index DDL script (i.e. IXDDL.log). Each index name is written to this output log as Data Mover 'extracts' the index DDL from the database input file.
	pstaatExtractDDL.DMS	Data Mover extract script generated by PSTAAT. This is the actual script passed to Data Mover for the extraction of the default table and index DDL (TBDDL.SQL and IXDDL.SQL).
General Parameters and Tablespace Override Tabs PSTAAT will write several new DDL scripts to the folder specified in 'Output Directory for Generated DDL Scripts', parameter seven (7), of the General Parameters tab. Each will be prefaced with a lower case 'n'. In addition to the DDL scripts, PSTAAT also produces a log file.	nXXDDL.SQL	This is the new tablespace and database (DBD) DDL script. Non-temporary tables will be re-mapped among these tablespaces and databases based on the input parameters supplied to the General Parameters tab (that is, parameters 10-12; Maximum Number of Tables per Tablespace; Maximum Number of Tablespaces per Database, Bufferpool allocations, and so on).
	nTBDDL.SQL	This is the new table DDL script. Non-temporary tables will be re-mapped among the tablespaces and databases found in the new nXXDDL.SQL script. The object mapping is based on the input parameters supplied to the General Parameters tab.
	nIXDDL.SQL	This is the new index DDL script for all tables except temporary tables.

GUI Tab	File	Description
	nTEMP.SQL	This is the new temporary table DDL script. It contains DDL to create temporary tables and indexes. Tables will be re-mapped among the tablespaces and databases generated in the tXXDDL.SQL script (see below) The DBD mapping is based on the input parameters supplied to the General Parameters tab. Tablespace names for temporary tables only, are hard-coded with the following naming convention: TMPnnnn, where nnnn is an ascending sequence number. Note. This file is produced only when the Input Temp Table DDL File parameter has been entered. See the task Using PSTAAT To Reassign Temporary Tables To Additional Tablespaces elsewhere in this appendix for further details.
	tXXDDL.SQL	This script contains database and tablespace DDL for temporary tables
	PTlog.txt	This log file summarizes the re-mapped object counts by tablespace and database in the new nXXDL.SQL and nTBDDL.SQL scripts. See the sample PTlog.txt output following this table. Note. The PTlog.txt log file contains non-temporary tables <i>only</i>.
Unicode Conversion Tab	Output Unicode Database/Tablespace DDL File	This is the new Database/Tablespace DDL script for creating databases and tablespaces. All 'Create Database' DDL statements are appended to include 'CCSID Unicode'.
	Output Unicode Table DDL File	This is the new table DDL script with the converted Unicode data types. Note that all character and long character fields are converted to vargraphic and long vargraphic respectively; while date, integer, small integer, decimal, timestamp, and long varchar for bit data types remain unchanged.

Sample PTlog.txt output:

Database Summary:

PeopleSoft Primary Database: PSDB

Name	TableSpace	Count

PSDB0000	20
PSDB0001	20
PSDB0002	20
PSDB0003	20
PSDB0004	20
PSDB0005	20
PSDB0006	20
PSDB0007	20
PSDB0008	20
PSDB0009	20
PSDB000A	20
PSDB000B	20
Etc..	

Tools TableSpace Summary:

Name	Database	Table Count
PTTBL		
PTTBL01	PSDB0000	30
PTTBL02	PSDB0000	30
Etc..		

Application TableSpace Summary:

Name	Database	Table Count
OMAPP		
OMAPP01	PSDB000H	30
OMAPP02	PSDB000H	30
Etc.		
EXLARGE		
EXLARG01	PSDB0020	1
Etc.		

Task G-1: Using PSTAAT to Create TBDDL and IXDDL

The Generate DDL tab of the PSTAAT interface is capable of extracting TBDDL.SQL and IXDDL.SQL scripts from the database import file located in *PS_HOME\data*. Note that the TBDDL and IXDDL scripts extracted from PSTAAT will be identical to those delivered with the installation files. You are free to use either set of scripts

Perform this task on a workstation with the ability to connect to the DB2 z/OS database server. PSTAAT will invoke Data Mover to extract the default table and index DDL from the database file. Data Mover requires DB2 Connect. Recall that the User ID and Password input parameters require a valid mainframe ID (such as the database Access ID) and password because Data Mover will be invoked in bootstrap mode. Your mainframe security package (such as RACF or Top Secret) must be able to authenticate this ID.

To create the TBDDL.SQL and IXDDL.SQL scripts:

1. Start PSTAAT by double-clicking the PSTAAT executable file found in *PS_HOME\bin\client\winx86*.
2. Enter input values for parameters 1-9; and 12-13 of the Generate DDL tab.

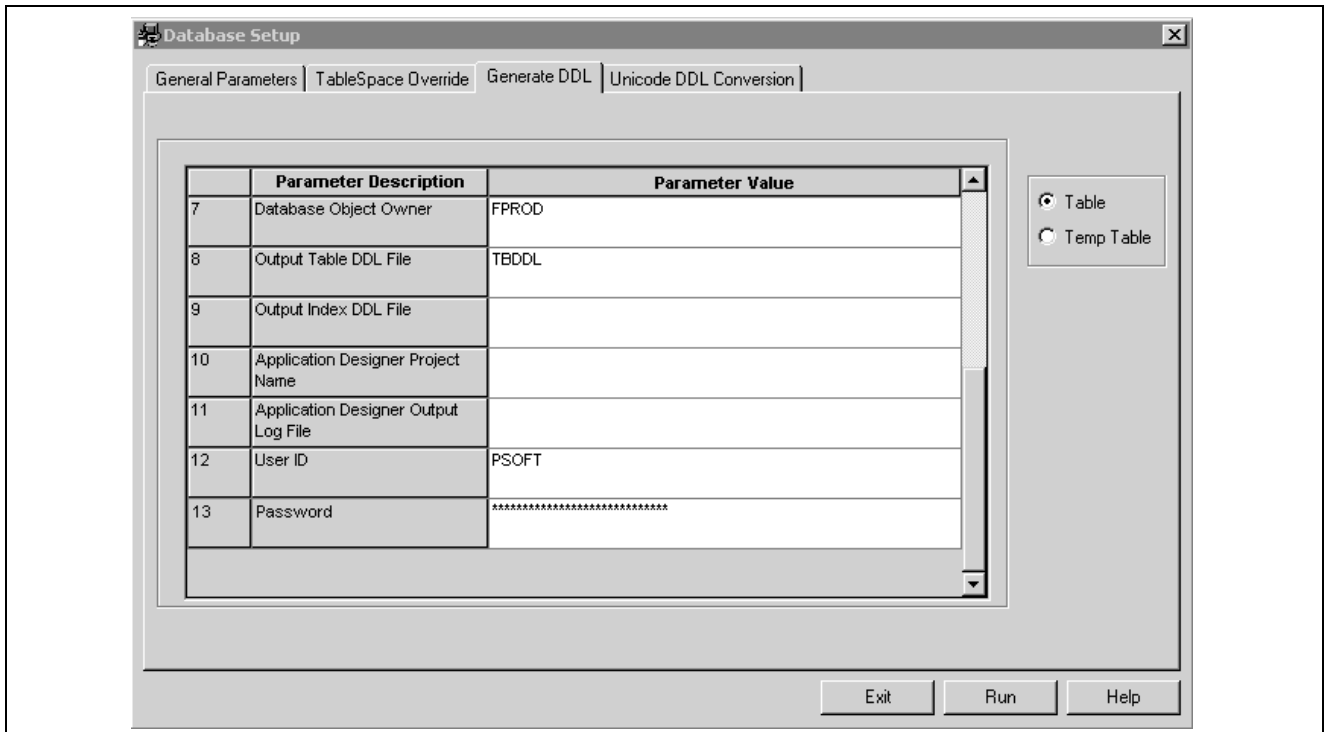
Refer to Generate DDL tab Input Parameters under the section titled Understanding the PSTAAT Graphical User Interface for a detailed explanation of each input parameter. To maintain consistency with previous releases of PeopleSoft PeopleTools, we recommend that you use *TBDDL* and *IXDDL* as the DDL script file names for input parameters eight (8) and nine (9).

3. Select the Table radio button.
4. Click the Run button.

The screenshot shows the 'Database Setup' dialog box with the 'Generate DDL' tab selected. The dialog contains a table with 8 rows of parameters and their values. To the right of the table are two radio buttons: 'Table' (selected) and 'Temp Table'. At the bottom right are three buttons: 'Exit', 'Run', and 'Help'.

	Parameter Description	Parameter Value
1	PeopleSoft Database Name	FSCM89
2	Unicode?	NO
3	Database Input File	C:\PT848106R2\DATA\epends.dlb
4	Output Directory for Generated DDL Scripts	C:\PT848106R2\SCRIPTS\PSTAAT
5	Tablespace Storage Group	PSRTD1SG
6	Index Storage Group	PSRTX1SG
7	Database Object Owner	FPROD
8	Output Table DDL File	TBDDL

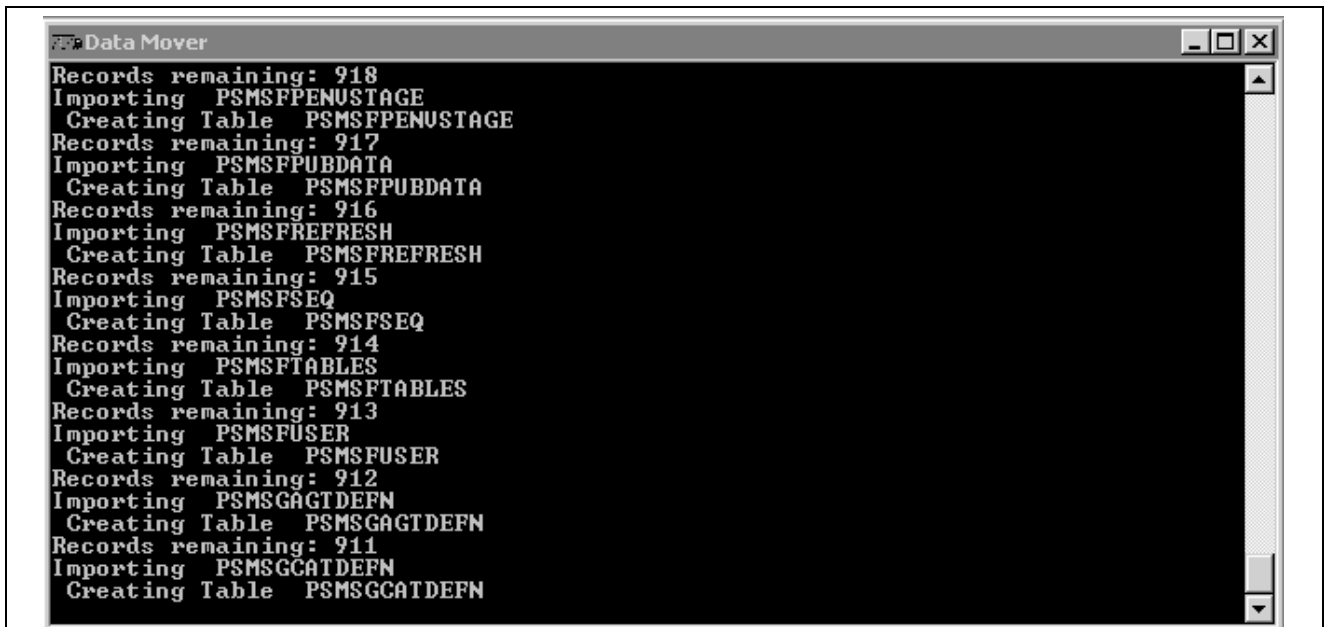
Generate DDL page (1 of 2)



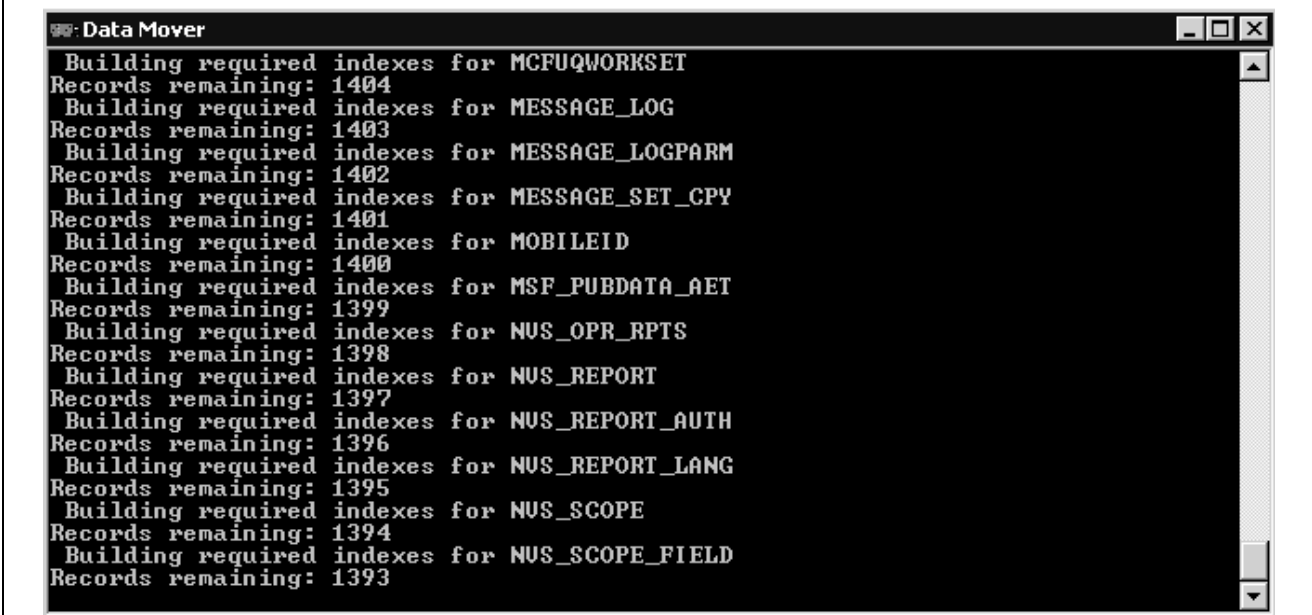
Generate DDL page (2 of 2)

Clicking the run button invokes Data Mover. Data Mover will open a window similar to the following as it writes the TBDDL and IXDDL scripts to the path specified in input parameter four (4), Output Directory for Generated DDL Scripts. Table DDL is extracted first, followed by the index DDL.

Note. ‘Creating Table ..’ and ‘Building required indexes for..’ messages will scroll to the output window as Data Mover generates the DDL. These windows will close automatically as soon as Data Mover has completed. Data Mover is simply writing the DDL to an output file—it is *not* creating any database objects in the DB2 subsystem.



Data Mover extracting Table DDL



```
Data Mover
Building required indexes for MCFUQWORKSET
Records remaining: 1404
Building required indexes for MESSAGE_LOG
Records remaining: 1403
Building required indexes for MESSAGE_LOGPARM
Records remaining: 1402
Building required indexes for MESSAGE_SET_CPY
Records remaining: 1401
Building required indexes for MOBILEID
Records remaining: 1400
Building required indexes for MSF_PUBDATA_AET
Records remaining: 1399
Building required indexes for NUS_OPR_RPTS
Records remaining: 1398
Building required indexes for NUS_REPORT
Records remaining: 1397
Building required indexes for NUS_REPORT_AUTH
Records remaining: 1396
Building required indexes for NUS_REPORT_LANG
Records remaining: 1395
Building required indexes for NUS_SCOPE
Records remaining: 1394
Building required indexes for NUS_SCOPE_FIELD
Records remaining: 1393
```

Data Mover extracting Index DDL

Note. At this point, you have the option of executing the default TBDDL.SQL and IXDDL.SQL scripts as directed by the “Creating a Database” chapter; or you may continue to use PSTAAT to optimize them as described in the subsequent sections of this appendix.

Task G-2: Using PSTAAT to Customize DDL

This section discusses:

- Understanding How PSTAAT Assigns an Object Naming Convention
- Choosing a Primary Database Prefix and Maximum Number of Tables per Tablespace and Tablespaces per Database
- Using the New Name Parameter to Override Tablespace Name
- Customizing DDL Scripts
- Recalculating Primary and Secondary Space Allocations and Setting a Minimum Secondary Space Allocation With PSTAAT
- Using PSTAAT to Override the Default Bufferpool Assignment
- Using PSTAAT to Override the Default Segment Size
- Validating Input

Understanding How PSTAAT Assigns an Object Naming Convention

For databases, PSTAAT uses the Primary Database Prefix of the General Parameters tab as a constant when deriving the naming convention to be used for the individual physical databases that will comprise the logical PeopleSoft database. PSTAAT will use the prefix entered here as the first part of the database naming convention, and generate an ascending sequence for the remainder of the eight character DB2 z/OS database name.

For example, entering *HCMPD* as the Primary Database Prefix on the General Parameters tab allows PSTAAT to use the remaining three “free” characters to generate database names with the following ascending naming convention:

HCMPD000, HCMPD001, HCMPD002, HCMPD003, ...HCMPD009, HCMPD00A, HCMPD00B...etc.

Choosing a Primary Database Prefix and Maximum Number of Tables per Tablespace and Tablespace per Database

Databases:

Note. Depending on the desired number of tables to be assigned per tablespace, desired number of tablespaces to be assigned per database, and the total number of tables to be created; entering a Primary Database Prefix value greater than five characters may cause PSTAAT to exhaust the possible unique values to use in generating the ascending sequence. *This can result in duplicate database names, causing the DDL to fail when it is ultimately executed on the DB2 z/OS database server.*

A primary database prefix of three characters—five characters at the most, is highly recommended to prevent duplicate database names in the generated DDL script.

Note. The maximum number of databases that can be created in a DB2 subsystem is approximately 65,271 (see Appendix A of the DB2 UDB for z/OS SQL Reference for details). Be aware that it is possible to reach this limit when using PSTAAT to install large PeopleSoft applications and in doing so, allocating very few tables per tablespace and grouping very few tablespaces per database. Hence, a complete one table per tablespace, one tablespace per database configuration may not be possible depending on the number of tables contained in the application. It is also possible to reach the internal DB2 database limit in situations where PeopleSoft applications share the subsystem with other applications.

IBM has suggested the following very general guidelines with respect to ‘object mapping’ for DB2 z/OS:

- If possible, create no more than 50 tables per individual physical database.
- Try to limit the total number of objects created per database descriptor (DBD) to no more than 1000. Objects that constitute the DBD include but are not limited to all tablespaces, tables, indexes, index spaces, relationships, and so on, that reside in a single physical DB2 database.

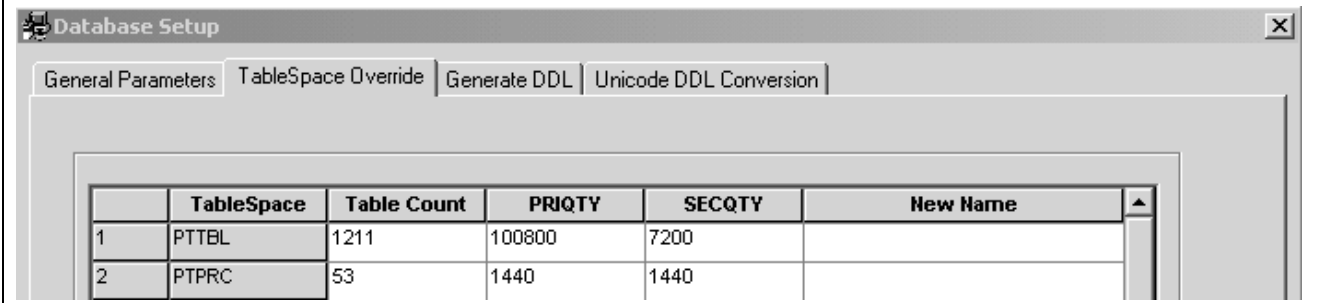
Note that these are only general guidelines and may not be adequate for every installation.

Tablespaces:

The tablespace naming convention is controlled internally by PSTAAT. PSTAAT derives an ascending sequence for tablespace names similarly to the manner in which it does so for database names. Depending on the length of the default tablespace name and the number of tables to be assigned per tablespace, PSTAAT will use up to five or six characters of the default tablespace name, and then append an ascending sequence for the remainder of the eight character DB2 z/OS tablespace name.

For example, the Tablespace Override tab (below) indicates that there are 1,211 tables by default in tablespace PTTBL. Requesting a one table per tablespace configuration by entering one (1) in the Maximum Number of Tables per Tablespace text box of the General Parameters tab causes PSTAAT to create 1,211 tablespaces—one for each table delivered in tablespace PTTBL. The 1,211 tablespaces will be named as follows:

PTTBL01, PTTBL02, PTTBL03, PTTBL04...PTTBL0A, PTTBL0B...etc., through PTTBLXN



	TableSpace	Table Count	PRIQTY	SECQTY	New Name
1	PTTBL	1211	100800	7200	
2	PTPRC	53	1440	1440	

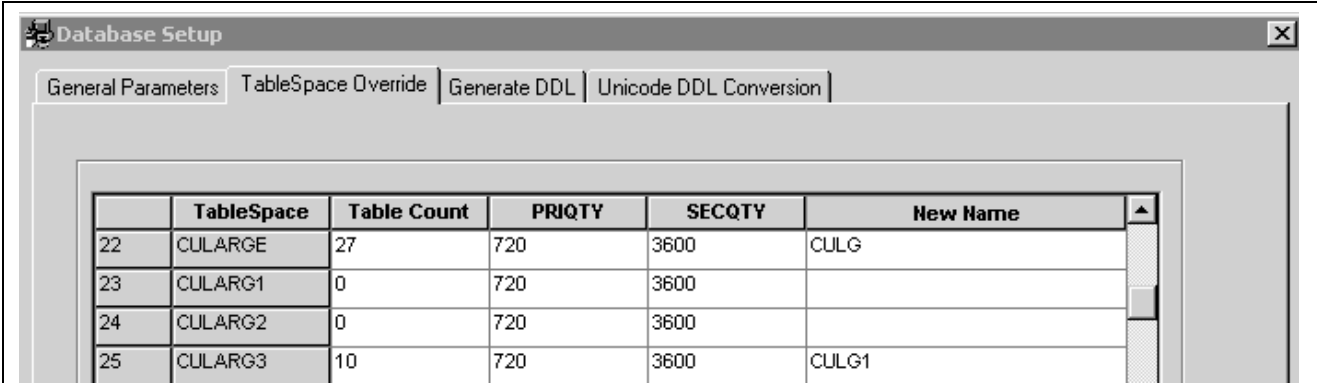
Reviewing Table Count on the TableSpace Override tab

Using the New Name Parameter to Override Tablespace Name

As indicated previously, this input parameter, found on the Tablespace Override tab, allows you to override the default tablespace name with a custom tablespace name. Although it is possible to completely override the name of any tablespace, we do recommend that you allow PSTAAT to determine new tablespace names for you except for the circumstance described in this section.

Use this information to prevent duplicate Tablespace names when the default xxDDL script contains similarly named Tablespace:

Some of the delivered xxDDL.SQL scripts contain default tablespace names that are similar to the naming convention used by PSTAAT. The following example is from the EPDDL.SQL script:



	TableSpace	Table Count	PRIQTY	SECQTY	New Name
22	CULARGE	27	720	3600	CULG
23	CULARG1	0	720	3600	
24	CULARG2	0	720	3600	
25	CULARG3	10	720	3600	CULG1

Using the New Name parameter on the TableSpace Override tab

Because PSTAAT may use up to five or six of the original characters when determining the new tablespace name, it is possible that PSTAAT will create duplicate tablespace names when it encounters multiple tablespaces in the default xxDDL.SQL script named with as many identical, consecutive characters. For example:

CULARGE, CULARG1, CULARG2, CULARG3

To prevent duplicate tablespace names in this circumstance, review the list of default tablespace names in the TableSpace Override grid before clicking the Run button in the procedure below to generate optimized DDL. Add an override value to the New Name text box next to any series of tablespaces for which the default naming convention includes 5 or more identical consecutive characters. PSTAAT will substitute the specified override value when it is generating tablespace names for optimized DDL.

Task G-2-1: Customizing DDL Scripts

PSTAAT can assist you in the following:

- Customizing the DDL by allowing you to override the supported PeopleSoft PeopleTools DDL parameters for DB2 z/OS so they more closely fit standards at your site.
- Creating a more optimal mapping of non-temporary tables among tablespaces and databases.
- Isolating temporary tables and certain Application and PeopleSoft PeopleTools tables to individual tablespaces for use with the %UpdateStats metaSQL function and to enhance concurrency.

To optimize the default xxDDL.SQL, TBDDL.SQL, and IXDDL.SQL scripts:

1. If it is not already running, start PSTAAT by double-clicking on the executable file found in *PS_HOME\bin\client\winx86*.
2. Select the General Parameters tab.
3. Enter the desired General Parameters input values.

For a detailed explanation of each of these input parameters, refer to the previous section titled General Parameters Tab Input under the section called Understanding the PSTAAT Graphical User Interface.

4. Click the Tablespace Override tab to view the table count per tablespace as defined by the default xxDDL.SQL and TBDDL.SQL scripts; and the default Primary and Secondary space allocations.
5. Click the Run button.

PSTAAT will parse the default xxDDL, TBDDL, IXDDL and Temp scripts, and the Individual table file table script (input parameters 2-6), and write the corresponding new DDL scripts.

6. View the PTlog.txt file to see the database and tablespace names generated by PSTAAT, and the new object count per tablespace and database.

If you are unsatisfied with the object mapping and want to regenerate the DDL, you may do so by repeating steps 2-6 above using new input parameters. Each of the output scripts (nTBDDL.SQL, nIXDDL.SQL, Temp, and nXXDDL.SQL and so on) will be rewritten.

See the previous sections for important details to keep in mind when choosing the primary database prefix, table and tablespace counts per DBD, Bufferpool allocations, and the default Segsize.

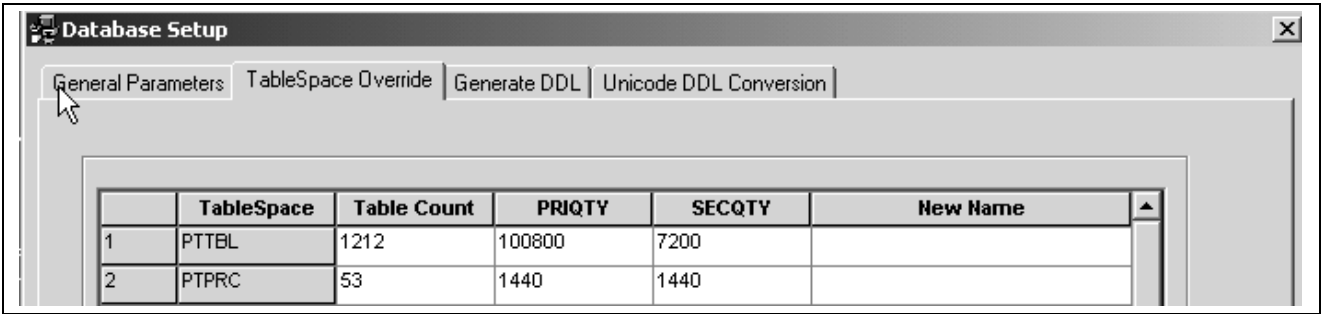
See Understanding How PSTAAT Assigns an Object Naming Convention.

See Choosing a Primary Database Prefix and Maximum Number of Tables per Tablespace and Tablespaces per Database.

See Using the New Name Parameter to Override Tablespace Name.

Task G-2-2: Recalculating Primary and Secondary Space Allocations and Setting a Minimum Secondary Space Allocation With PSTAAT

As PSTAAT parses the Database and Tablespace DDL script (xxDDL.SQL) and writes new tablespace DDL based on the table count provided, it always applies the original primary and secondary space allocation to each new tablespace that is generated unless the Recalculate Tablespace Allocation text box (General Parameters) is set to *YES*. The original primary and secondary allocations as read from the xxDDL.SQL input file are always displayed in the Tablespace Override tab.

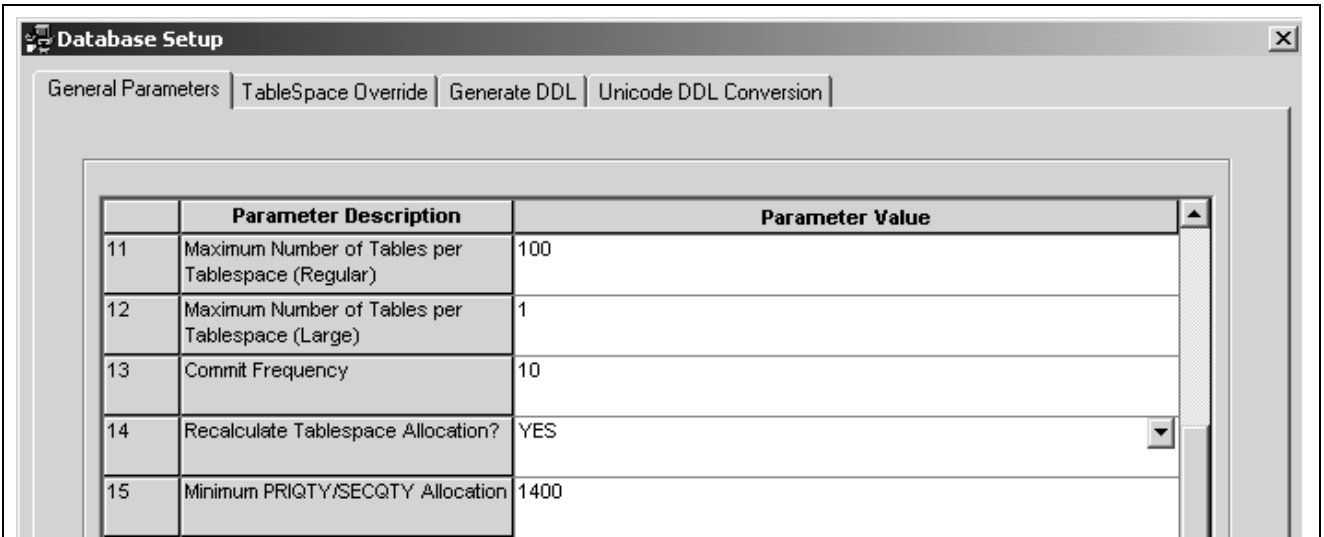


	TableSpace	Table Count	PRIQTY	SECQTY	New Name
1	PTTBL	1212	100800	7200	
2	PTPRC	53	1440	1440	

Reviewing primary and secondary space allocations on the TableSpace Override tab

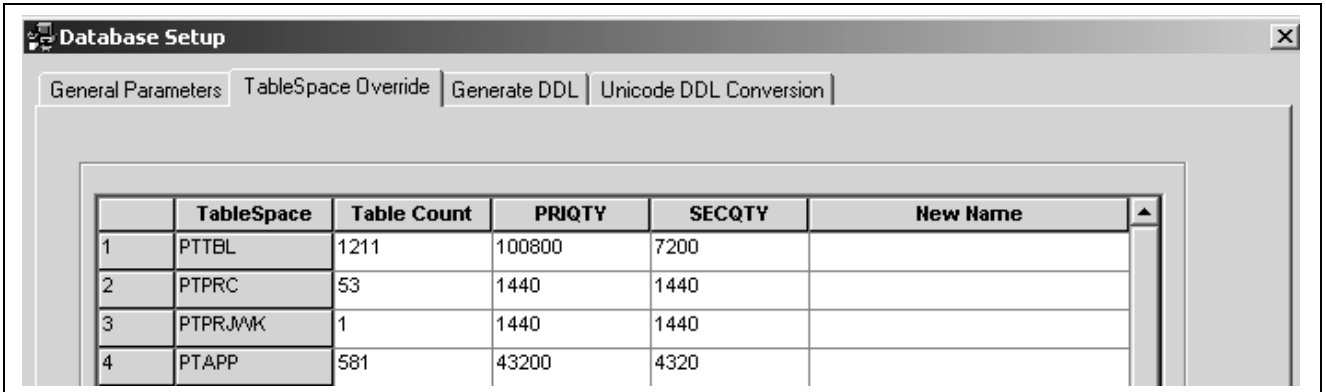
Once again using PTTBL as an example, and a hypothetical value of one (1) for input parameter ten (10) of the General Parameters tab, Maximum Number of Tables per Tablespace (Regular), PSTAAT will create all 1,211 individual tablespaces for each table originally assigned to PTTBL with the original Primary and Secondary space allocations of 100800 and 72000, respectively.

The default allocation may be less than ideal for each of the 1,211 tables when assigned to an individual tablespace. PSTAAT will thus recalculate these allocations when Input parameter 14, Recalculate Tablespace Allocation, is set to *YES*, and a value is provided for Minimum PRIQTY/SECQTY Allocation. The recalculation method is described below using tablespaces PTTBL and PTAPP as examples.



	Parameter Description	Parameter Value
11	Maximum Number of Tables per Tablespace (Regular)	100
12	Maximum Number of Tables per Tablespace (Large)	1
13	Commit Frequency	10
14	Recalculate Tablespace Allocation?	YES
15	Minimum PRIQTY/SECQTY Allocation	1400

Setting up recalculation of tablespace allocation on General Parameters tab



	TableSpace	Table Count	PRIQTY	SECQTY	New Name
1	PTTBL	1211	100800	7200	
2	PTPRC	53	1440	1440	
3	PTPRJWK	1	1440	1440	
4	PTAPP	581	43200	4320	

Reviewing allocations on TableSpace Override tab

Example with Tablespace PTTBL:

PSTAAT creates DDL for 13 tablespaces each with a PRIQTY of 7753 and SECQTY of 5538.

```
CREATE TABLESPACE   PTTBL01 IN HCMPD000
    USING STOGROUP PSRTD1SG PRIQTY 7753 SECQTY 5538
    FREEPAGE   20 PCTFREE 0
    SEGSIZE   4 BUFFERPOOL BP1 LOCKSIZE ANY CLOSE NO ;
```

- 1211 tables / 100 tables per tablespace = 13 tablespaces
- PRIQTY becomes 7753 (100800 / 13)
- SECQTY becomes 5538 (72000 / 13)
- The value for Input Parameter 15, Minimum PRIQTY/SECQTY Allocation (1440) was not used because it is less than the SECQTY calculated by PSTAAT.

Example with Tablespace PTAPP:

PSTAAT creates DDL for six tablespaces each with a PRIQTY of 7200 and SECQTY of 1440.

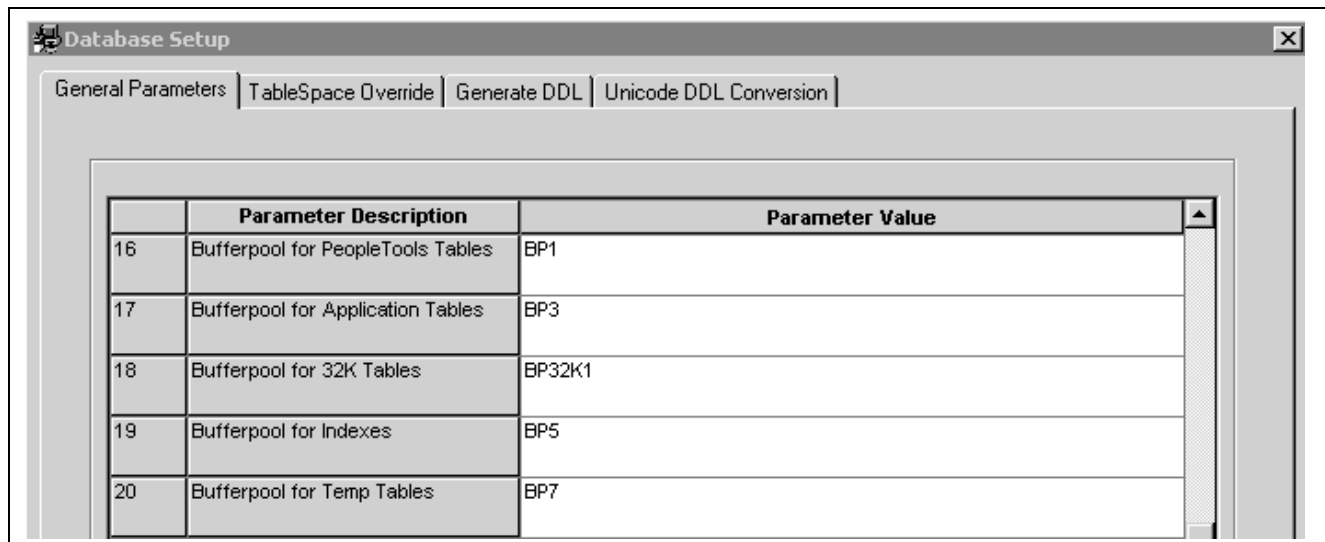
```
CREATE TABLESPACE   PTAPP01 IN HCMPD001
    USING STOGROUP PSRTD1SG PRIQTY 7200 SECQTY 1440
    FREEPAGE   20 PCTFREE 0
    SEGSIZE   4 BUFFERPOOL BP1 LOCKSIZE ANY CLOSE NO ;
```

- 581 tables / 100 tables per tablespace = 6 tablespaces
- PRIQTY becomes 7200 (43200 / 6)
- The value for Input Parameter 15, Minimum PRIQTY/SECQTY Allocation, is substituted (1440) in this case because it is greater than the quantity calculated by PSTAAT: (4320 / 6 = 720).

Note. PSTAAT will always choose the greater value between the value that it calculates and the value specified in the Minimum PRIQTY/SECQTY Allocation text box.

Task G-2-3: Using PSTAAT to Override the Default Bufferpool Assignment

It is possible to override the default bufferpool assignments found in the xxDDL.SQL script with PSTAAT as follows:



Reviewing bufferpool assignments on General Parameters tab

- PeopleSoft PeopleTools tables and Application tables will be assigned to two separate bufferpools. Note that all PeopleSoft PeopleTools tables will be assigned to the bufferpool specified for General Parameters tab, Input parameter 16; and all Applications tables will be assigned to the bufferpool specified for Input parameter 17.
- Determine the specific 32 KB bufferpool (such as BP32K, BP32K1, and BP32K2) that you want to use for those objects that require a 32 KB bufferpool and enter it into input parameter 18. Certain PeopleSoft PeopleTools and Applications tables are assigned to BP32K via the default xxDDL.SQL and TBDDL.SQL scripts because their row length requires the larger page size. PSTAAT will substitute the value of input parameter 18 for each table originally assigned to BP32K in the default script.
- Indexes will be assigned to a specific bufferpool (Input parameter 19).
- Temporary tables will be assigned to a specific bufferpool (Input parameter 20).

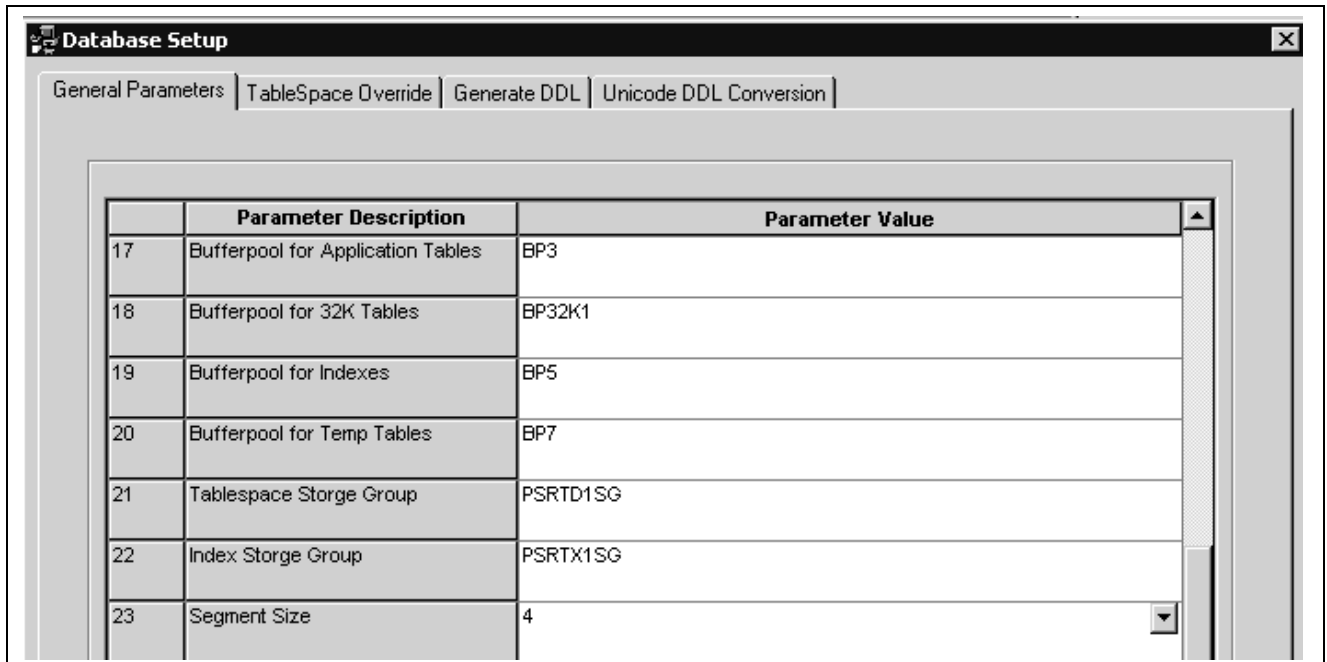
The default Unicode xxDDL.U.SQL script alternates bufferpool assignments between BP8K0, BP8K1, BP8K2, and BP8K3. When given an xxDDL.U.SQL script as input, PSTAAT simply substitutes the values of input parameters 16-20 for the default assignments in the original Unicode script. Be careful to specify legitimate 8 KB bufferpools when optimizing a *Unicode* xxDDL.U.SQL with PSTAAT. PSTAAT will not validate the validity of the bufferpools specified in the graphical user interface for a Unicode installation.

Note. You must enter legitimate, active bufferpools for input parameters 16-20, or the DDL generated by PSTAAT will fail. PSTAAT will not validate the syntax or legitimacy of the bufferpools entered for any of these input parameters.

The bufferpool override capability of PSTAAT is merely intended to provide a modest level of additional flexibility in making bufferpool assignments over the default assignments found in the xxDDL.SQL scripts. It is not possible for PSTAAT to determine an optimal run time configuration for production environments based on its script parsing and reformatting capabilities.

Task G-2-4: Using PSTAAT to Override the Default Segment Size

It is possible to override the default SEGSIZE assignment for each tablespace found in the xxDDL.SQL script with PSTAAT as follows:



Reviewing segment size on General Parameters tab

- Select a valid SEGSIZE from the drop-down list box provided for input parameter 23 of the General Parameters tab.
- PSTAAT will substitute the value selected from the list box of input parameter 23 for the SEGSIZE of *all* tablespaces.

Note. Obviously, using the same SEGSIZE value for all tablespaces leads to a less than optimal configuration for a production run-time environment. Using a particularly large SEGSIZE for a table that consumes few pages will waste excessive amounts of disk space.

Similar to the bufferpool override capability of PSTAAT, the SEGSIZE override is merely intended to provide a modest level of additional flexibility in making SEGSIZE assignments over the default assignments found in the xxDDL.SQL scripts. It is not possible for PSTAAT to provide an optimal run time configuration for a production environment based on its script parsing and reformatting capabilities.

For more details regarding the use of the SEGSIZE parameter, consult the DB2 UDB for z/OS Administration Guide.

Task G-2-5: Validating Input

As previously alluded, PSTAAT is not capable of validating the legitimacy of certain input parameters that will ultimately be substituted into the reformatted nxxDDL.SQL, nTBDDL.SQL, and nIXDDL.SQL scripts.

Warning! Caution must be exercised when entering certain input parameters because PSTAAT does not validate the syntax or legitimacy of these items. Please review all DDL scripts generated by PSTAAT before executing them.

Invalid input for the following parameters could lead to DDL that will fail when executed on the DB2 z/OS database server:

Generate DDL Tab:

- **Input Parameter 1: PeopleSoft Database Name**
PSTAAT is incapable of determining whether the logical database name that you have chosen already exists in PS.PSDBOWNER, nor can it validate that it has been properly cataloged with DB2 Connect.
- **Input Parameters 5 and 6: Tablespace and Index Storage Group**
PSTAAT is not capable of pre-determining whether the STOGROUPs provided exist in the DB2 subsystem, nor can it validate the names for the presence of typographical errors.
- **Input Parameter 7: Database Object Owner**
PSTAAT is incapable of determining whether the value entered as the Database Object Owner has already been used within the DB2 zOS subsystem for a non-PeopleSoft application. Using an owner id previously used by a non-PeopleSoft application can create problems when auditing the PeopleSoft database. PSTAAT is also incapable of determining whether the proper security setup steps have been completed with respect to the Database Object Owner. Review the section Understanding Database Creation in the first chapter for more details regarding the specific requirements of the Owner Id.

See "Preparing for Installation," Planning Database Creation.

- **Input Parameter 10: Application Designer Project Name**
PSTAAT is incapable of determining whether this project exists in the PeopleSoft database. This project must already exist, as PSTAAT will pass the project name directly to Application Designer to create temporary table DDL.
Any error messages that indicate a problem with the Application Designer project are directed to the log file specified in the Logging tab of the Build Settings dialog. Here is an example of the log file error output:

```
PeopleSoft Project Command Line
Build Project
Project Name: WRONG
Tools Release: 8.50
-CT Source Database Type = DB20DBC
-CD Source Database Name = PTAAT848
-CO Source Database Operator = QEDMO
```

```
Project WRONG is not valid or does not exist in the database.
Error - failure in command line build
```

See Using PSTAAT to Isolate Temporary Tables To Individual Tablespaces.

- **Input Parameters 12 and 13: User Id and Password**
PSTAAT will pass the user id and password entered in input parameters 12 and 13 directly to a command line initiated Data Mover or Application Designer task depending on the settings of the Table/Temporary Table radio buttons. Data Mover or Application Designer (not PSTAAT) will subsequently make a connection to DB2 z/OS through DB2 Connect when creating the default TBDDL.SQL and IXDDL.SQL scripts, or creating temporary table DDL.
PSTAAT is incapable of validating the accuracy of the user ID and password prior to passing them on to Data Mover or Application Designer. Both the Data Mover task initiated to extract default table and index DDL, and the Application Designer task initiated to create temporary tables run asynchronously to PSTAAT, and there will be no Windows message boxes sent to the workstation in the event that the user id and password combination is invalid.

- Invalid ID and/or password passed to Data Mover:

When attempting to extract table and index DDL with an invalid ID or password, an error message is displayed temporarily as Data Mover scrolls data to its output window (see Using PSTAAT to Create TBDDL and IXDDL); and the task will end without generating DDL. In most cases, if PSTAAT runs but fails to generate the TBDDL.SQL and IXDDL.SQL, the cause will be an incorrect user id-password combination, or a failed Data Mover connection to DB2 z/OS due to problems with the DB2 Connect configuration.

- Invalid ID and/or password passed to Application Designer:

When creating temporary table DDL, any messages issued by Application Designer due to an invalid ID and/or password will be written to the log file specified for input parameter 11, Application Designer Output Log File.

General Parameters Tab:

- Input Parameter 8: Primary Database Prefix

PSTAAT is incapable of determining whether the value supplied as the Primary Database Prefix will cause database names to be generated that already exist in the DB2 z/OS subsystem as it creates the new nxxDDL.SQL script.

- Input Parameter 9: Database Object Owner

The same restrictions apply to those for input parameter 7 of the Generate DDL tab (see above).

- Input Parameters 16-20: Bufferpool Overrides

PSTAAT cannot validate the syntax or legitimacy of the bufferpools entered for any of these input parameters. It cannot determine whether a particular bufferpool has been activated in the DB2 subsystem, or whether 32 KB or 8 KB bufferpools have been supplied when required. See the section titled Using PSTAAT to Override the Default Bufferpool Assignment for additional details.

- Input Parameters 21-22: Tablespace and Index Storage Groups

The same restrictions apply to those for input parameters 5 and 6 of the Generate DDL tab (see above).

Task G-3: Using PSTAAT to Reassign Temporary Tables to Additional Tablespaces

Prior to PeopleSoft PeopleTools 8.48, the following scripts were delivered with the installation files to group temporary tables and non-temporary Application tables intended to be used with the %UpdateStats metaSQL function into separate tablespaces: X1DDL.SQL, X2DDL.SQL, and X3DML.DMS. Each base temporary table and its iterations were grouped together into a single tablespace. Executing these scripts, known as the “enhanced” installation, was optional although many customers chose to do so to improve the performance and concurrency of Application Engine and %UpdateStats processing. Starting with PeopleSoft PeopleTools 8.48, the X1DDL.SQL, X2DDL.SQL, and X3DML.DMS scripts are no longer delivered with the installation files, and PSTAAT will be used to reassign temporary table instances to additional tablespaces.

Here is an overview of the process:

1. Generate the temporary table and index DDL from an Application Designer project.
2. Create the project must as described in the task Building the Temporary Tables and their Indexes (steps 1-8).

See "Creating a Database" Building Temporary Tables.

3. After the project has been created:

Use PSTAAT to invoke Application Designer through the command line to build the project (write the table DDL script). This procedure is described below.

OR

Build the project manually by selecting the Build Script File option on the Build Execute Options dialog box as described in the task Building the Temporary Tables and their Indexes (steps 9-18).

See "Creating a Database" Building Temporary Tables.

The result is identical whether you let PSTAAT call Application Designer to build the project, or build it yourself (by following steps 1-18 of the task Building the Temporary Tables and their Indexes)—the default temporary table and index DDL file.

4. Use PSTAAT to parse the default temporary table DDL, create the additional databases, and remap the tablespace assignments.

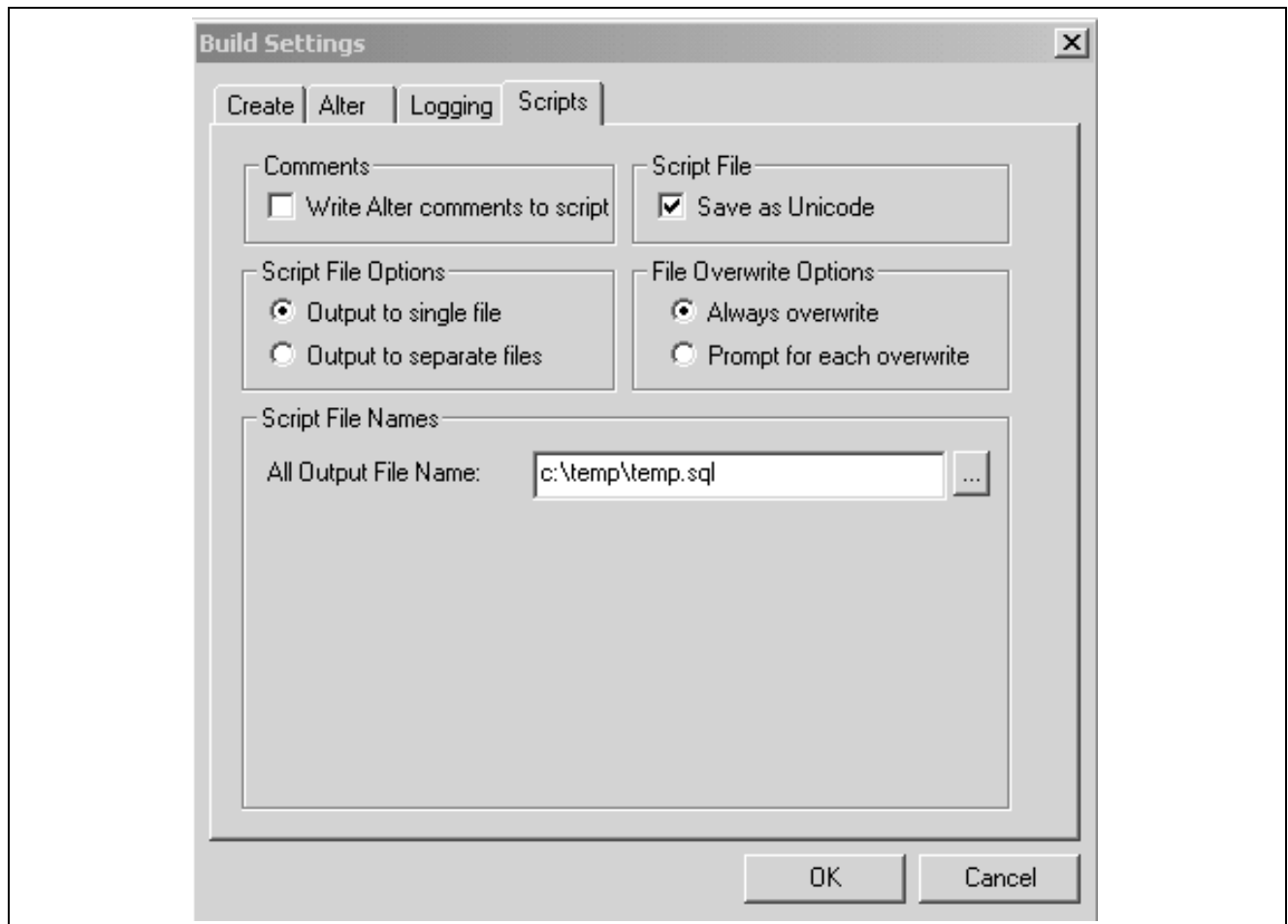
Instructions for obtaining the default temporary DDL script by allowing PSTAAT to invoke Application Designer to build the project follow:

1. Start PSTAAT by double-clicking on the PSTAAT.exe found in *PS_HOME\bin\client\winx86*.
Select the Generate DDL tab.
2. Enter the name of the database into Parameter 1, PeopleSoft Database Name on the Generate DDL tab.
Recall that a database connection is required to invoke Application Designer, so this database name must match the alias name cataloged with DB2 Connect.
3. Create an Application Designer project that contains the temporary table object definitions as described in steps 1-8 of the task Building the Temporary Tables and their Indexes.
Save the project name as TEMPTBL.
4. From Application Designer, choose Build, Project.
5. In the Build Settings dialog box, enter a log file name on the Logging tab, and check Log to File if it is not already checked.
Enter the name of this log file into Parameter 11, Application Designer Output Log File, of the Generate DDL tab of PSTAAT.



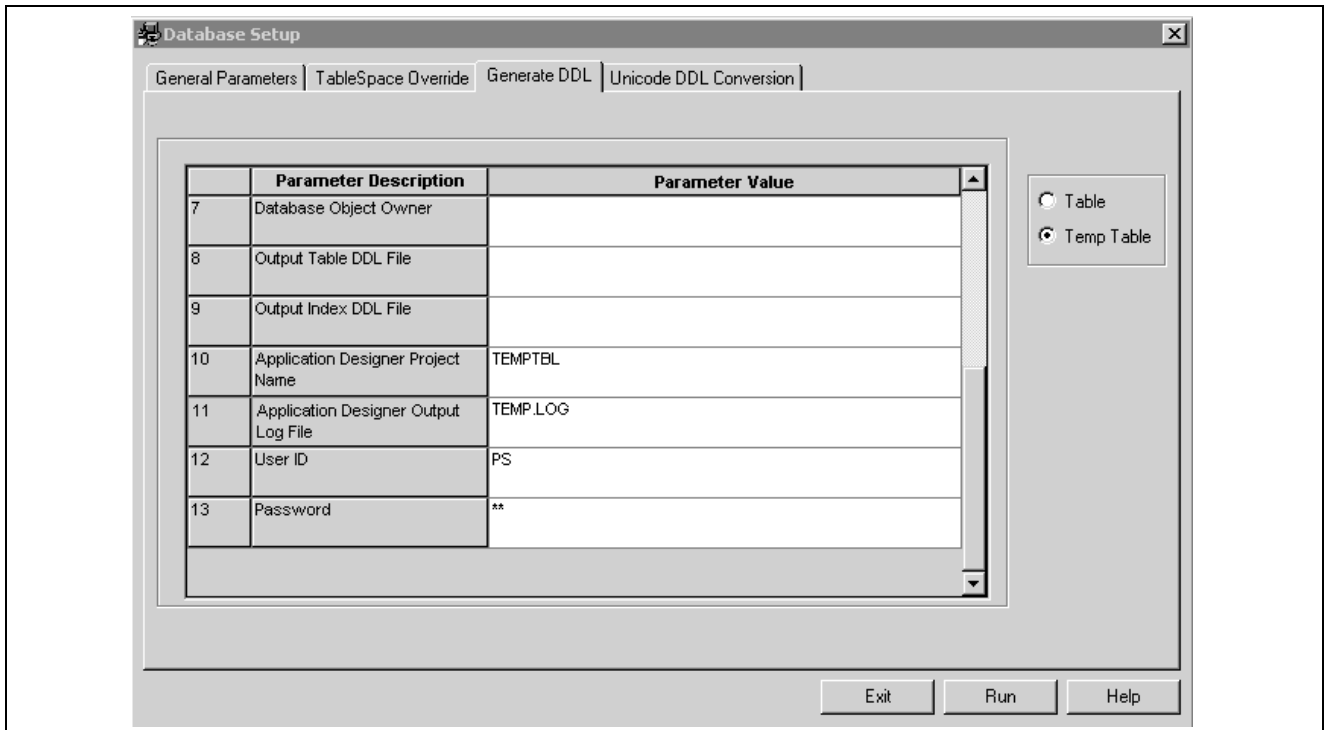
Build Settings dialog box: Logging tab

6. Select the Scripts tab of the Build Settings dialog box.
7. Select the Output to a single file radio button under Script File Options, and enter a script name for the DDL file to be created under Script File Names. The temporary table DDL script will be written to this location. You may close Application Designer now.



Build Settings dialog box: Scripts tab

8. Enter the name of the project (TEMPTBL) into Parameter 10, Application Designer Project Name, of the Generate DDL tab of PSTAAT
9. Enter a valid PeopleSoft user id and password combination (for example, VP1/VP1 or PS/PS) into input Parameters 12 and 13.
10. Select the Temp Table radio button on the Generate DDL tab of PSTAAT.



Selecting Temp Table option on the Generate DDL tab

- Click the Run button.

PSTAAT will invoke Application Designer via command line to build the project, and create the default temporary table DDL. If you closed Application Designer after creating the TEMPDBL project, you will briefly see the PeopleSoft PeopleTools splash screen as PSTAAT invokes Application Designer to build the TEMPDBL project and generate the default temporary table DDL script. This will be the only visual cue that Application Designer has been invoked. Note that you will not see the splash screen if you left Application Designer running after creating the TEMPDBL project.

- Look for the temporary table DDL script in the folder specified on the Scripts tab of the Build Settings dialog box (see step 7 above).
- Select the General Parameters Tab of PSTAAT to reassign the temporary tables to additional tablespaces and databases.
- Copy the default temporary table DDL script just created (TEMP.SQL in the example shown) to the location specified in Parameter 1, Input Directory for DDL scripts on the General Parameters tab.
- Enter the name of the temporary table DDL script (TEMP.SQL) for Parameter 5, Input Temp DDL File of the General Parameters tab.
- Fill in all of the remaining General Parameters tab inputs.

Review these sections for more details on the General Parameters tab and its input parameters: Understanding the PSTAAT Graphical User Interface, Understanding the Various PSTAAT Input and Output Files, and Using PSTAAT to Customize DDL.

- Click the TableSpace Override tab, and then click the Run button.

PSTAAT will write the following files to the Output Directory for Generated DDL Scripts:

```
tXXDDL .SQL
nTEMP .SQL
nXXDDL .SQL
```

nTBDDL.SQL
 nIXDDL.SQL
 Pt log.txt

See the Output Files section of Understanding the Various PSTAAT Input and Output Files.

nTEMP.SQL is the “new” temporary table DDL script. tXXDDL.SQL contains database and tablespace DDL for the temporary tables found in nTEMP.SQL.

Tables will be re-mapped as follows:

- The DBD (database) mapping is based on the input parameters supplied to the General Parameters tab.
- Tablespace names within the tXXDDL.SQL script are hard-coded with the following naming convention:

TMPnnnn

where nnnn is an ascending sequence number.

- PRI and SEC quantities are hard-coded (720 and 1400 respectively). You are free to customize them for your environment prior to executing the DDL.
- Bufferpool assignment, CLOSE rule, and SEGSIZE are determined by the input specified on the General Parameters tab.

Sample tablespace DDL:

```
CREATE TABLESPACE   TMP0001 IN Q848107G
      USING STOGROUP PSRTD1SG PRIQTY 720 SECQTY 1400
      FREEPAGE   10 PCTFREE 0
      SEGSIZE   4 BUFFERPOOL BP1 LOCKSIZE ANY CLOSE YES ;
```

Task G-4: Using PSTAAT to Isolate Other Tables to Individual Tablespaces

PSTAAT is also capable of isolating certain non-temporary PeopleSoft PeopleTools and Application tables, for which the %UpdateStats metaSQL function is called, to individual tablespaces. Beginning with PeopleSoft Enterprise 9.0 Applications, PSTAAT will replace the previously delivered “enhanced” installation scripts.

A list of such tables is contained in the xxENHANCED.txt text file, where xx is the standard PeopleSoft Enterprise two character Application prefix (HC for HRCS, EP for FSCM, PF for EPM, CR for CRM, and PA for Portal). The xxENHANCED.txt file is located in the *PS_HOME*\scripts directory of the installation files.

Note. There may not be an xxENHANCED.txt file for all PeopleSoft Enterprise Applications (such as the Portal).

To remap these tables to individual tablespaces, use the PSTAAT General Parameters tab as follows:

1. Enter the name of the xxENHANCED.txt file as the input for parameter 6, Input Individual Table File, on the General Parameters tab
2. Copy the xxENHANCED.txt file from *PS_HOME*\scripts to the location specified in Parameter 1, Input Directory for DDL scripts on the General Parameters tab.
3. Enter the remaining input parameters required by the General Parameters tab.

Review the following sections for more details on the General Parameters tab and its input parameters: Understanding the PSTAAT Graphical User Interface, Understanding the Various PSTAAT Input and Output Files, and Using PSTAAT to Customize DDL.

4. Click the Tablespace Override tab and click the Run button.

PSTAAT will write the following files to the Output Directory for Generated DDL:

Scripts: nTEMP.SQL, nXXDDL.SQL, nTBDDL.SQL, nIXDDL.SQL, Ptlog.txt

See the output files section of Understanding the Various PSTAAT Input and Output Files for an explanation of each file.

These tables will be remapped in the nXXDDL.SQL, nTBDDL.SQL and nIXDDL.SQL files based on the input parameters supplied to the General Parameters tab. PSTAAT will derive tablespace names by using the first three to five characters of the original tablespace name, followed by an ascending sequence number.

Task G-5: Using PSTAAT to Convert EBCDIC DDL to Unicode DDL

This section discusses:

- Understanding the EBCDIC DDL to Unicode DDL Conversion
- Creating Database, Tablespace, and Table Shell DDL for an EBCDIC to Unicode Database Conversion

Understanding the EBCDIC DDL to Unicode DDL Conversion

This section can be ignored entirely if you do not intend to store data using the Unicode encoding scheme in your PeopleSoft database. Likewise, if you intend to install and import a Unicode database from scratch, ignore this section and instead follow the standard instructions for installing a Unicode database previously documented in this Enterprise PeopleTools Installation Guide for DB2 UDB for z/OS.

However, if you have an EBCDIC database that *already exists* and you wish to convert that database to the Unicode encoding scheme, please continue with this section.

Converting an existing EBCDIC PeopleSoft database to a Unicode database requires a multi-phase process that is documented in the white paper titled “Converting a PeopleSoft Enterprise Database from EBCDIC to Unicode Encoding Scheme on DB2 for z/OS.” See this white paper for complete details on completing an EBCDIC to Unicode encoding scheme conversion. One such step of this process with which PSTAAT is able to assist, is the “conversion” of the EBCDIC data types to Unicode data types within PeopleSoft PeopleTools and Application DDL. Specifically, DDL produced from the Unicode DDL Conversion tab of PSTAAT offers an additional option in creating the DDL scripts required to create the Unicode shell as described in Phase One, Creating the Unicode Database Shell, of the EBCDIC to Unicode conversion white paper. See the following sections of the “Converting a PeopleSoft Enterprise Database from EBCDIC to Unicode Encoding Scheme on DB2 for z/OS” white paper for instructions on running the scripts that can be created either by the method described here with PSTAAT, or the method described in the conversion white paper:

- Phase One – Unicode Database Shell
- Creating Create Table and Create Index DDL for the Target Unicode Database
- Creating A DDL Script to Build the Target Unicode Physical Databases
- Creating A DDL Script to Build the Target Unicode Tablespaces

- Creating The Unicode Logical Database Shell

See "Converting a PeopleSoft Enterprise Database from EBCDIC to Unicode Encoding Scheme on DB2 for z/OS," Oracle Applications Standard Benchmark, http://www.oracle.com/apps_benchmark/doc/peoplesoft/white-paper/ebcdic-unicode-encoding-scheme-db2-zos-white-paper.pdf

Task G-5-1: Creating Database, Tablespace, and Table Shell DDL for an EBCDIC to Unicode Database Conversion

When supplied with EBCDIC Database/Tablespace (xxDDL.SQL) and table DDL scripts (TBDDL.SQL) as input, PSTAAT is capable of parsing and recreating them with the necessary data types for creating the Unicode shell database. For the table DDL script, PSTAAT converts all character and long character fields to vargraphic and long vargraphic respectively; while date, integer, small integer, decimal, timestamp, and long varchar for bit data types remain unchanged. All 'Create Database' DDL within the Database/Tablespace script will be appended with 'CCSID Unicode'.

Note. The following instructions are divided into two procedures.

To use PSTAAT to convert EBCDIC DDL to Unicode DDL, begin by inserting *all* of the record definitions contained in the EBCDIC database into an Application Designer project, and then create the EBCDIC DDL for all tables and indexes in the database:

1. Open Application Designer.
2. Choose File, New.
In the New dialog box, select Project, and then click OK.
3. Choose Insert, Definitions into Project.
4. Set Definition Type to Records, and Type to All Records.

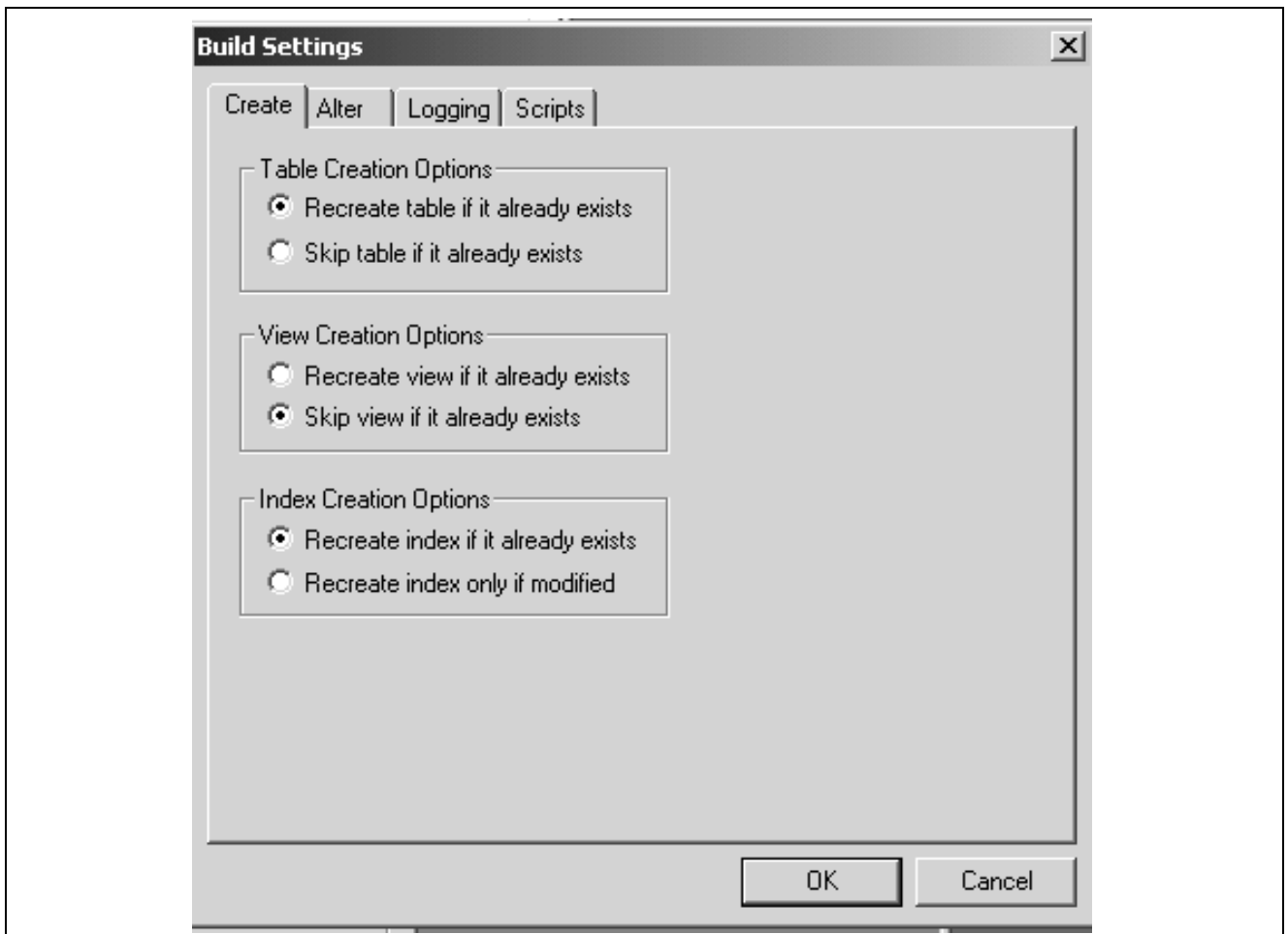
Note. Selecting All Records will insert views, sub-records, dynamic views and derived records in addition to table and temporary table definition types into the project. This is necessary to capture both the table and temporary table definition types in a single DDL file for PSTAAT. These are the two table types that will require the data type conversion from char to vargraphic and so on. Although these other definition types exist in the project, Application Designer will write table and index DDL for the table and temporary table definition types *only* based on the Build options that will be selected in a subsequent step.

5. Press ENTER, or click Insert and then click the Select All button.
This selects all of the records.
6. Click Insert to insert all records into the new project.
7. Click Close to close the Insert into Project dialog box.
8. Before building the project, save it.
Choose File, Save Project As and enter a project name.
9. Choose Build, Project.
The Build dialog box appears.
10. In the Build Options group, select the Create Tables check box.
The Create Index check box is checked by default.
11. Select Build script file to direct the DDL to a file.

12. Click the Settings button.

The Build Settings dialog box appears.

13. On the Create tab, select the following:

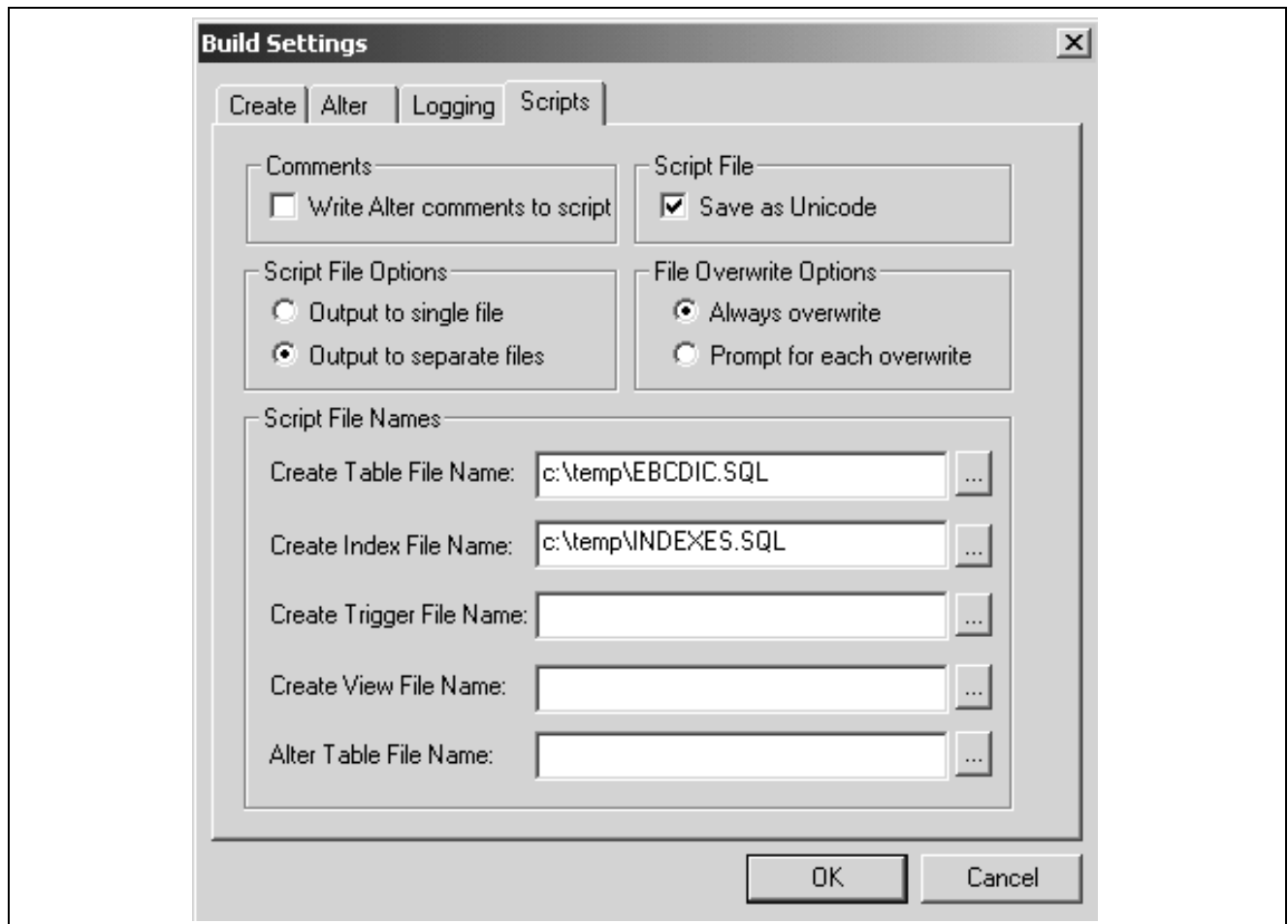


Build Settings dialog box: Create tab

- Recreate table if it already exists under Table Creation Options
- Skip view if it already exists under View Creation Options
- Recreate index if it already exists under Index Creation Options

14. Select the Scripts tab, and select Output to Separate Files under Script File Options.

15. Under Script File Names, specify the path and filename for the output files that will contain the table and index DDL.



Build Settings dialog box: Scripts tab

16. Click OK to accept the build settings.

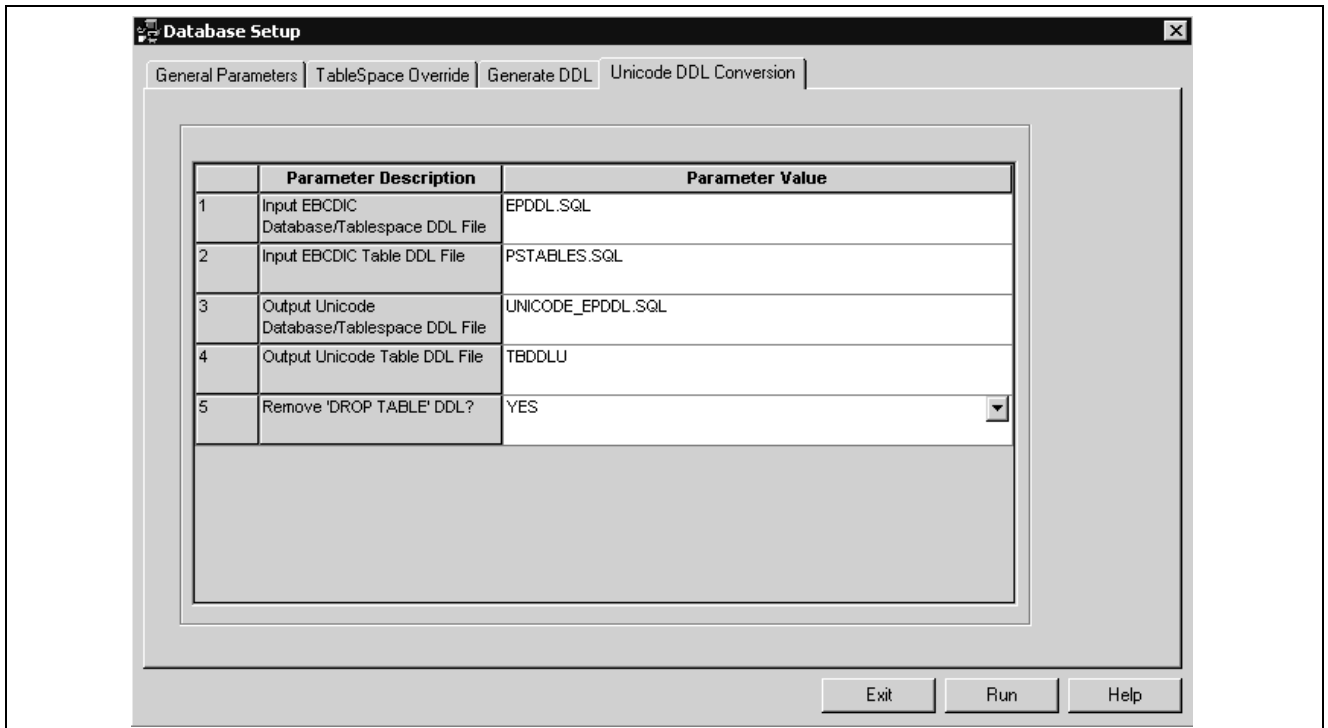
17. Click Build to create the table and index DDL script.

Disregard the subsequent warning message about “potentially destructive settings.” The output is directed to a script only. Database objects will not be dropped.

18. After the script generation process has finished, click Close in the Build Progress dialog box to return to Application Designer.

After completing the previous steps:

1. Start PSTAAT by double clicking on the PSTAAT.exe found in *PS_HOME\bin\client\winx86*.
Click on the Unicode DDL Conversion tab.
2. Enter the EBCDIC Database/Tablespace DDL script (xxDDL.SQL) name into input parameter 1, Input EBCDIC Database/Tablespace DDL File, of the Unicode DDL Conversion tab.
3. Enter the name of the EBCDIC table DDL script that was just created by Application Designer in input parameter 2, Input EBCDIC Table DDL File, of the Unicode DDL Conversion tab. (EBCDIC.SQL in the example shown above.)
4. Enter Output file names for input parameters three (3) and four (4) of the Unicode DDL Conversion tab. These will become the names of the new DDL scripts.



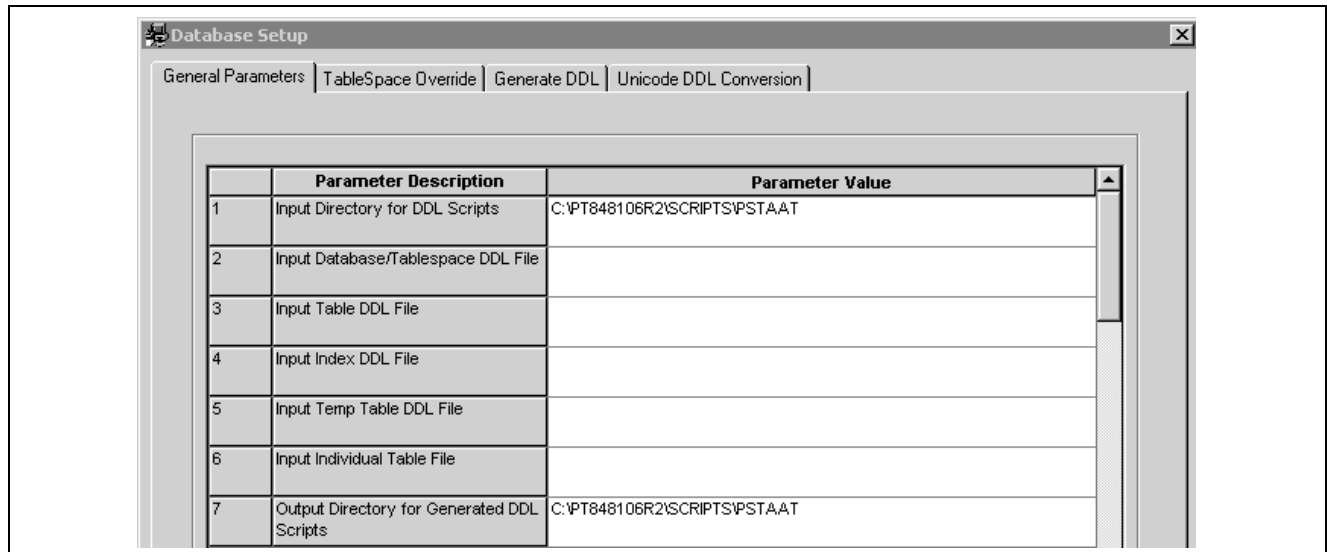
Specifying output files on Unicode DDL conversion tab

5. Select YES from the drop-down list box in input parameter five (5), Remove 'Drop Table' DDL.

The Recreate table if it already exists option was set earlier in the Build Settings dialog box when the project was built so that Application Designer would create DDL for all record definitions for which a table exists in the database. Application Designer thus generates 'Drop Table' DDL prior to each 'Create table' DDL statement in the script. Choosing YES from this list box instructs PSTAAT to put comment marks prior to each Drop Table statement in the new Unicode table DDL script. This will prevent the EBCDIC tables from being dropped when the new Unicode DDL scripts are executed. Again, refer to the previously mentioned EBCDIC to Unicode conversion white paper before executing these scripts.

6. Click the General Parameters tab and enter the directory location of the EBCDIC Database/Tablespace script and the EBCDIC table DDL script (to be converted) into parameter 1 (Input Directory for DDL scripts).

Enter the Output Directory for the new Unicode shell database scripts into parameter 7 (Output Directory for Generated DDL Scripts).



Specifying input and output directories on General Parameters tab

7. Click the Run button on the Unicode Conversion Tab.

The new scripts will be written to the path specified in the Output Directory for Generated DDL Scripts on the General Parameters tab.

Note. All tablespaces in the converted tablespace DDL (nXXDDL.SQL) will be allocated to BP8K1 by default. The General Parameters tab can be used to further optimize the DDL and assign additional 8 KB bufferpools.

8. Continue with the rest of the process documented in the “Converting a PeopleSoft Enterprise Database from EBCDIC to Unicode Encoding Scheme on DB2 for z/OS” white paper.

See "Converting a PeopleSoft Enterprise Database from EBCDIC to Unicode Encoding Scheme on DB2 for z/OS," Oracle Applications Standard Benchmark, http://www.oracle.com/apps_benchmark/doc/peoplesoft/white-paper/ebcdic-unicode-encoding-scheme-db2-zos-white-paper.pdf

Task G-6: Using PSTAAT to Install PeopleSoft Databases

Previous sections of this Appendix describe the individual tabs of the PSTAAT graphical user interface and their various functions to either generate default DDL, or optimize default DDL. This section describes several important points to consider when using PSTAAT.

We recommend that you use PSTAAT to create environments that are more production-capable after you first become thoroughly familiar with the default installation process.

PSTAAT operates independently of the PeopleSoft PeopleTools metadata, has no direct knowledge of the data model of the individual Applications, and no mechanism itself to communicate directly with a DB2 z/OS database server. Its primary capability is that of parsing DDL input files, and subsequently rewriting modified versions of those files for output. Because Application Designer is required to create temporary table DDL from a project containing record definitions, you must obviously complete enough of the installation steps to successfully connect Application Designer to the database. Additionally, because most customer installations will include multiple database environments, including one Demo copy of each Application, you may find it most convenient to use PSTAAT to create additional more production-worthy environments than the default installation process is capable of producing. PSTAAT can be used effectively to create such an environment as follows:

See "Creating a Database," Building Temporary Tables.

1. First, create and import a complete Demo environment without optimizing the DDL.
Obtain the default TBDDL.SQL and IXDDL.SQL scripts from the installation files, or use the Generate DDL tab of PSTAAT to create them.
2. Obtain a DDL script for temporary tables by building (script only) an Application Designer project (DDL script only) from the Demo environment created in step one (above) as directed in the task Building the Temporary Tables and their Indexes.

See "Creating a Database," Building Temporary Tables.

3. Collect the following files for input to PSTAAT:

xxENHANCED.txt file for your application
xxDDL
TBDDL.SQL
IXDDL.SQL
Temporary table DDL script

See Using PSTAAT To Reassign Temporary Tables To Additional Tablespaces and Using PSTAAT to Isolate Other Tables to Individual Tablespaces.

4. Fill in *all* 24 text boxes of the General Parameters tab, and use the Tablespace Override tab to optimize the DDL as described in the previous sections of this appendix.
5. FTP the DDL generated from PSTAAT to the mainframe (HLQ.PSVVV.DDLIB) and make any other desired modifications.
6. Execute the DDL using DSNTEP2, or some other batch SQL processor.
7. Save a copy of the DDL scripts generated from PSTAAT in *PS_HOME*\scripts on the file server.
8. Continue with the rest of the process as documented in the Enterprise PeopleTools 8.50 Installation Guide for DB2 UDB for z/OS.

Other important considerations when using PSTAAT:

- Be sure to run the SETSPACE and SETTMPIN SQRs as directed after successfully executing all DDL as documented in this installation guide.
- PeopleSoft upgrade processes may attempt to create new tables in the default tablespaces. These scripts will fail if the default tablespace does not exist. To prevent failures during an upgrade, execute the default xxDDL.SQL script so the vanilla tablespaces exist in each of your environments. You may reduce the primary space allocations on these tablespaces to avoid excessive waste of disk space.
- As indicated previously, always store a copy of all PSTAAT modified DDL in the *PS_HOME*\scripts folder of the PeopleSoft PeopleTools file server.

APPENDIX H

Using the XSLT Mapper with Oracle BPEL Process Manager

This appendix discusses:

- Understanding the XSLT Mapper
- Installing the Needed Version of JDeveloper
- Setting Up the XSLT Mapper

Understanding the XSLT Mapper

The Extensible Stylesheet Language Transformation (XSLT) mapper is intended for application developers and consultants who write PeopleSoft Application Engine programs of type “transform.” The XSLT mapper allows you to write transformation programs without hard-coding each XSLT step. The XSLT mapper is integrated with JDeveloper. Install any of the supported JDeveloper versions (10.1.2 or 10.1.3) and specify the JDeveloper location in PeopleSoft Configuration Manager.

This section assumes that you have installed the PeopleSoft workstation.

See Also

"Setting Up the Install Workstation"

Enterprise PeopleTools 8.50 PeopleBook: Integration Broker, "Applying Filtering, Transformation and Translation"

Task H-1: Installing the Needed Version of JDeveloper

To download JDeveloper, and for installation instructions, refer to the Oracle JDeveloper web site.

See Oracle JDeveloper web site, <http://www.oracle.com/technology/products/jdev/index.html>

Task H-2: Setting Up the XSLT Mapper

To use the XSLT mapper, use PeopleSoft Configuration Manager to specify the installation directory and classpath for JDeveloper.

See *Enterprise PeopleTools 8.50 PeopleBook: Integration Broker*, "Developing Transforms Using Oracle XSL Mapper."

Index

A

- access ID
 - reviewing requirements 9
- additional languages 15
- ALTER AUDIT
 - running as part of updating database to latest PeopleSoft PeopleTools release 237
 - running during database creation 275
- alter PeopleSoft PeopleTools tables
 - as part of updating database to latest PeopleSoft PeopleTools release 237
- Application Messaging objects
 - deleting obsolete 252
 - saving 251
- application server 6
 - configuring domain processes 294
 - configuring domains, UNIX 296
 - configuring domains, Windows 283
 - creating domains, UNIX 296
 - creating domains, Windows 283
 - getting started, UNIX 295
 - getting started, Windows 282
 - importing configuration, UNIX 300
 - importing configuration, Windows 287
 - reconfiguring a domain, UNIX 302
 - reconfiguring a domain, Windows 289
 - setting up on UNIX or Linux 293
 - setting up on Windows 281
 - specifying domain parameters, UNIX 302
 - specifying domain parameters, Windows 289
 - starting domains, UNIX 296
 - starting domains, Windows 283
- application server administrator for Oracle Tuxedo
 - designating on Windows 107
- Application software
 - installing 168, 174
- Asian languages
 - configuration issues on UNIX 305
 - configuration issues on Windows 292
- auditing database 274

- authentication domains, using in console mode 343
- authentication domains, using in GUI mode 309

B

- backing up servers and workstations 28
- backups 28
- base language
 - changing 274
 - choosing 14
- base time zone option 339, 361
- batch server 7
 - setting up on z/OS 186
- binding Windows SQR for PeopleSoft 176
- BOE_Admin, adding users and roles 518
- BOE_Viewing, adding users and roles 518
- BOETOCR project 553
- bufferpools, using PSTAAT to override 735
- BusinessObject Enterprise XI 3.1
 - obtaining files from E-Delivery 445
- BusinessObjects Enterprise XI 3.1
 - changing Report Repository data source 551
 - creating a web server on UNIX or Linux 502
 - creating a web server on Windows 462
 - enabling logging 553
 - entering license keys 537
 - environment variables 458
 - installation overview 452
 - installing on UNIX or Linux 506
 - installing on Windows 474
 - PeopleSoft permission lists 549
 - PeopleSoft roles 549
 - PeopleSoft users 549
 - prerequisites 458
 - removing installation 556
 - Report Repository 551

C

- CBLBLD.BAT 578

- CBLMAKE.BAT 580
- CCSID 20
- Central Management Console, BusinessObjects Enterprise XI 3.1 458
- Change Assistant, *See* PeopleSoft Change Assistant
- character set 15
- CIA, *See* PeopleSoft Change Impact Analyzer
- CLI/ODBC trace
 - setting 654
- client setup 183
- CMC, *See* Central Management Console
- CMTSTAT/IDTHTOIN 19
- COBOL
 - compiling on UNIX 586
 - compiling on Windows 578
 - compiling on z/OS 200
 - distributing binaries 582
 - link-editing on z/OS 200
 - linking 588
 - modifying \$COBDIR/etc/cobopt 585
 - modifying \$COBDIR/etc/cobopt64 585
 - modifying liblist 584
 - recompiling 588
 - setting up for Remote Call 283, 296
- COBOL compiler
 - installing on UNIX or Linux 135
 - installing on Windows 127
- COBOL, when to install 20
- cobopt file, modifying 585
- compiling COBOL
 - on UNIX 586
 - on Windows 578
 - on z/OS 200
- compiling DB2 COBOL
 - on z/OS 199
- configuration
 - DB2 UDB for z/OS subsystem 18
 - planning initial 4
- Configuration Manager
 - Client Setup tab 183
 - editing profiles 181
 - starting 180
 - startup options 180
- connect ID 23
- connect strategy 23
- CRT files 146
- CRTOBOE project 518

- CRTOBOE script 518
- Crystal 2008, switching back from BusinessObjects Enterprise XI 3.1 553
- Crystal Reports 2008
 - installing 446
- Crystal Reports 2008 sp1
 - obtaining files from E-Delivery 445
- Crystal Reports formats, converting 559
- Crystal Runtime, installing 183

D

- data field length checking option 339, 361
- Data Mover
 - import script, creating 214
 - running additional scripts 268
 - running scripts 221
- database
 - auditing 274
 - creating 208
 - multiple-database strategy 10
 - names 10
 - naming conventions 11
 - planning creation of 9
 - server 6
 - setting up connectivity 22
 - updating database name and type 339, 361
 - updating to latest PeopleSoft PeopleTools release 226
 - verifying connectivity 283, 296
- database installation
 - planning 202
- database name
 - customizing 209
- database server
 - overview 6
 - transferring files to 192
 - verifying sizing 18
- Database Setup 215
- Daylight Savings Time, updating Oracle WebLogic 60
- DB2 COBOL
 - compiling on z/OS 199
 - link-editing on z/OS 199
- DB2 Connect
 - confirm ODBC settings 652
 - defining architecture 624
 - installing and configuring 623
 - setting CLI/ODBC trace 654

- DB2 Connect Enterprise Edition,
 - using 625
- DB2 Connect gateway
 - configuring 214
- DB2 Connect Gateway
 - configuring on UNIX 652
 - configuring on Windows 629
- DB2 Connect Personal Edition, using 625
- DB2 plans
 - binding 273
- DB2 UDB for z/OS
 - subsystem configuration 18
- DB2CodePage 651
- DBSetup 215
- dddaudit.sqr 274
- DDF
 - setting up on the mainframe 627
- DDL scripts
 - transferring to z/OS 205
- DDL, customizing with PSTAAT 730
- DECIMAL 20
- decimal arithmetic precision 19
- deploying war files manually 555
- Distribution Agent
 - starting on UNIX 400
 - starting on Windows 371
 - starting on z/OS 422
- DMS script 214
 - See Also* Data Mover
- documentation
 - assembling installation related 2
 - installing PeopleBooks 657
- DSMAX 19

E

- E-Delivery
 - obtaining files for BusinessObjects
 - Enterprise XI 3.1 445
 - obtaining files for Crystal Reports 2008
 - sp1 445
 - obtaining files for Oracle Tuxedo 105
 - obtaining files for Oracle WebLogic 32
 - obtaining files for WebSphere 66
 - obtaining installation files for Micro
 - Focus Net Express 127
 - obtaining installation files for Micro
 - Focus Server Express 136
 - obtaining PeopleSoft installation
 - files 147
- e-Delivery, obtaining installation files 2

- EBCDIC
 - converting to Unicode with
 - PSTAAT 745
- EDM pool 18
- Energy Policy Act of 2005, updating Oracle
 - WebLogic 60
- environment variables
 - setting 379
 - setting for application server
 - configuration 295
 - setting for BusinessObjects Enterprise
 - XI 3.1 458

F

- feed options table, populating 250
- file server 5
 - installing PeopleSoft PeopleTools 173
- files
 - GNT and INT 581

G

- GNT files 581
- granting access to USS files 198

H

- hardware and software requirements 3
- hosted PeopleBooks
 - introduction 657
 - setting up 658
 - setting up as server 659

I

- IBM HTTP Server, installing 87
- IBM WebSphere
 - installing PeopleSoft Pure Internet
 - Architecture in console mode 350
 - starting and stopping 333, 355
 - verifying PIA installation 333, 355
- IHS, *See* IBM HTTP Server
- indexes
 - creating 225
- install workstation
 - prerequisites 179
- installation
 - mapping directories for z/OS 196
- installation table, updating 339, 361
- installing
 - PeopleSoft PeopleTools 160
- INT files 581

Integration Broker, updating 250
 Internet Architecture (PeopleSoft), *See*
 PeopleSoft Pure Internet Architecture
 IXDDL.SQL script, creating with
 PSTAAT 727

J

JCLs
 customizing job cards 437
 editing a shell template 435
 editing for Process Scheduler
 server 434
 JDBC drivers for PeopleSoft Change
 Impact Analyzer 605
 JDeveloper, integration with XSLT
 mapper 753

L

laser printer 9
 liblist, modifying 584
 license
 entering for BusinessObjects Enterprise
 XI 3.1 537
 understanding BusinessObjects
 Enterprise XI license keys 460
 license codes, obtaining 145
 License Management Facility for Micro
 Focus Server Express 136
 link-editing
 COBOL on z/OS 200
 DB2 COBOL on z/OS 199
 linking COBOL 588
 log files
 finding for WebSphere Application
 Server 86
 logical drive
 creating 172

M

manual file transfer 196
 mapping logical drive 172
 media packs, downloading from
 E-Delivery 2
 message data, cleaning obsolete 228
 Micro Focus Net Express 127
 obtaining installation files 127
 Micro Focus Server Express 135
 obtaining installation files 136

Microsoft Excel, running from
 PS/nVision 390
 Microsoft Office 22
 multi-currency option 339, 361
 multilanguage files
 loading 169, 175
 multilingual database issues 215
 multilingual objects
 updating PeopleSoft PeopleTools 232
 multilingual strategy
 planning 13
 multilingual system database
 installing 268
 multiple-database strategy 10

N

Navigation Collection data
 converting 249
 new tablespaces
 migrating records to 240
 NLSPATH environment variable 379
 node transaction data
 deleting 252
 saving 251
 non-Unicode databases 16

O

ODBC driver, installing 183
 Oracle Tuxedo
 checking Windows Services 118
 checklist for installing on UNIX 121
 designating the owner on UNIX 122
 designating the Windows application
 server administrator 107
 ensuring coexistence 125
 installing on UNIX 122
 installing on Windows 107
 obtaining files for installation 105
 prerequisites for installing 104
 setting up Windows services 119
 uninstalling from UNIX 121
 uninstalling from Windows 105
 verifying installation on Windows 120
 verifying server installation on
 UNIX 125
 Oracle WebLogic
 installing 31
 installing in GUI mode 33

- installing on AIX, HP-UX Itanium, or HP-UX PA-RISC 49
- installing on Linux or Solaris 41
- installing on Windows 33
- installing PeopleSoft Pure Internet Architecture in console mode 344
- installing PeopleSoft Pure Internet Architecture in GUI mode 310
- obtaining files from E-Delivery 32
- removing installation in console mode 63
- removing installation on Microsoft Windows 61
- silent mode installation on AIX and HP-UX 56
- silent mode installation on Linux or Solaris 47
- starting and stopping 332, 355
- updating for Daylight Savings Time change 60
- upgrading JDK and JRockit after installation 57
- owner ID
 - granting privileges to 208
 - processing option 11

P

- Pagelet Wizard data
 - converting 249
- partitioned datasets
 - z/OS 192
- patches with database projects,
 - applying 236
- PATH environment variable 379
- PeopleBooks
 - configuring context sensitive help 683
 - enabling F1 help 684
 - implementing a PSOL server 679
 - installation overview 657
 - installing 658
 - obtaining from Oracle E-Delivery 660
- PeopleSoft application, installing 168, 174
- PeopleSoft Change Assistant
 - firewall settings 597
 - installing 592
 - introduction 28
 - setting email options 599
 - setting environment management options 600
 - setting up web services options 599
 - specifying Change Assistant options 598
 - verifying environment variable 597
- PeopleSoft Change Impact Analyzer
 - installing 605
 - introduction 28
- PeopleSoft Enterprise license codes 145
- PeopleSoft Installer
 - running 148
 - running in console mode 160
 - running in GUI mode 150
- PeopleSoft integration with
 - BusinessObjects Enterprise XI 3.1
 - permission lists, roles, and users 549
- PeopleSoft PeopleTools
 - applying patched database objects 236
 - installing on the file server 173
- PeopleSoft PeopleTools database objects
 - deleting obsolete 234
 - updating 230
- PeopleSoft PeopleTools multilingual objects
 - updating 232
- PeopleSoft PeopleTools system data
 - updating 245
- PeopleSoft PeopleTools system database
 - installing multilingual 268
- PeopleSoft PeopleTools system tables
 - updating 228
- PeopleSoft PeopleTools tables
 - altering 237
- PeopleSoft Pure Internet Architecture 350
 - installing in console mode on Oracle WebLogic 344
 - installing in GUI mode on WebSphere 322
 - installing on Oracle WebLogic in GUI mode 310
 - installing on WebSphere in console mode 349
 - installing on WebSphere in GUI mode 321
 - testing the installation, console mode 354
 - testing the installation, GUI mode 332
 - uninstalling on WebSphere in console mode 354
 - uninstalling on WebSphere in GUI mode 331

- using authentication domains in console mode 343
 - using authentication domains in GUI mode 309
- PeopleSoft Server Transfer Program 186, 192
- PeopleSoft servers 144
- PeopleSoft system tables
 - updating 272
- PeopleSoft Tablespace DDL Automation Assistance tool
 - creating TBDLL and IXDDL scripts 727
 - customizing DDL 730
 - entering input and output parameters 712
 - functions 711
 - graphical user interface 712
 - input and output files 723
 - overriding default bufferpool assignment 735
 - overriding default segment size 736
 - setting space allocations 734
 - using to reassign temporary tables 739
 - workstation requirements 712
- PeopleSoft Tablespace DDL Automation Assistance Tool
 - converting EBCDIC DDL to Unicode DDL 745
- PeopleSoft triggers
 - creating 265
- PeopleTools Development Environment 5
- PeopleTools programs
 - assembling 199
- PIA, *See* PeopleSoft Pure Internet Architecture
- PIA_HOME
 - defining 7
- planning
 - connect strategy 23
- plug-ins for WebSphere 94
- Portal objects
 - converting 248
- primary authorization ID 12
- printer 9
- Process Scheduler server
 - configuring 430
 - configuring [Application Engine] section 434
 - configuring [OS390 Config] section 432
 - configuring [Process Scheduler] section 433
 - configuring [Startup] section 431
 - configuring for Word for Windows 389
 - creating on UNIX 408
 - creating on Windows 380
 - creating on z/OS 429
 - customizing job cards in JCL 437
 - editing JCLs 434
 - ODBC initialization file 428
 - overview 7
 - reconfiguring on UNIX 411
 - reconfiguring on Windows 384
 - Report Repository, on UNIX 397
 - Report Repository, on Windows 368
 - Report Repository, on z/OS 420
 - setting authorization 416
 - setting up distribution settings on UNIX 405
 - setting up distribution settings on Windows 377
 - setting up distribution settings on z/OS 426
 - setting up Process Scheduler Server Agent on UNIX 407
 - setting up Process Scheduler Server Agent on Windows 379
 - setting up Process Scheduler Server Agent on z/OS 427
 - setting up security on UNIX 396
 - setting up security on Windows 364
 - setting up security on z/OS 418
 - starting 439
 - starting as Windows service 386
 - stopping 441
 - verifying status on UNIX 412
 - verifying status on Windows 385
 - verifying status on z/OS 440
- product modules
 - adding 611
- profile
 - editing default 181
- PS_CFG_HOME
 - default locations 8
 - defining 7
- PS_HOME, defining location 7
- PS/nVision, setting up 390
- PSADMIN

- and application server domains,
 - UNIX 296
- and application server domains,
 - Windows 283
- importing application server domain
 - with, UNIX 300
- importing application server domain
 - with, Windows 287
- psappsrv.cfg, using to import application
 - server domain 287, 300
- pscfg.exe 180
- PsCIA, *See* PeopleSoft Change Impact
 - Analyzer
- PSCONFIG.SH shell script
 - running for the batch environment 198
- pscrconv.exe
 - converting Crystal Reports 561
- pscvtrpt 560
- PSMV.SH shell script 198
- psodbccrinst.exe 183
- PSOL Manager
 - changing the password 687
 - specifying a trusted client 687
- PSOL Manager utility 684
- PSOL scripts, managing 679
- psolAdmin script 679
- psolmanager.htm 684
- PSSTYLEDEF, updating 253
- PSTAAT, *See* PeopleSoft Tablespace DDL
 - Automation Assistance tool
- PTGENDLL.DMS sample script
 - customizing 613
 - using 613
- PTSYS database
 - extracting DDL for 613
- PTUPGIBCLONE project 251
- PTUPGIBDELETE project 252

Q

- QAS, *See* Query Access Services
- Query Access Services
 - overview 456
- query headings
 - converting 248

R

- recompiling COBOL 588
- records
 - migrating to new tablespaces 240

- Remote Call
 - setting up COBOL for 283, 296
- REN server
 - configuring for UNIX 298
 - configuring for Windows 285
- Report Manager
 - setting up sending and receiving of report
 - folders on UNIX 406
 - setting up sending and receiving of report
 - folders on Windows 378
 - setting up sending and receiving of report
 - folders on z/OS 427
- report node
 - defining to use FTP on UNIX 403
 - defining to use FTP on Windows 375
 - defining to use FTP on z/OS 424
 - defining to use HTTP/HTTPS on
 - UNIX 401
 - defining to use HTTP/HTTPS on
 - Windows 372
 - defining to use HTTP/HTTPS on
 - z/OS 423
 - defining to use XCOPY 374
- Report Repository
 - enabling on UNIX 400
 - enabling on Windows 371
 - enabling on z/OS 422
 - selecting transfer protocol on
 - UNIX 400
 - selecting transfer protocol on
 - Windows 371
 - selecting transfer protocol on z/OS 422
 - setting up single signon on UNIX 399
 - setting up single signon on
 - Windows 370
 - setting up single signon on z/OS 421
- Report Repository, UNIX 397
- Report Repository, Windows 368
- Report Repository, z/OS 420
- response file
 - using for WebSphere silent mode
 - installation 84
- RPT conversion utility
 - converting Crystal Reports 561
 - introduction 560
- Rules Editor, installing 605
- RUNSTATS 255

S

- SCCSID 20

- Schema data, converting 252
- search collection, creating 686
- secondary authorization ID 12
- Server Transfer Program 186, 192
- servers
 - PeopleSoft types 144
 - setting the SMTP server 599
 - supported combinations 144
- set_psol_env script 679
- SETSPACE.SQR
 - running 258
- Setup Manager
 - configuring 389
 - converting 249
- shared assemblies on Windows 146
- shell JCLs
 - editing 435
- single signon
 - for Report Repository access on UNIX 399
 - for Report Repository access on Window 370
 - for Report Repository access on z/OS 421
- sort order option 339, 361
- SQR 21
 - binding the DB2 plan 199
 - database auditing 274
 - installing for z/OS 198
 - running 269
- storage enhancements
 - z/OS 26
- storage groups
 - creating 208
- supporting applications
 - COBOL 21
 - installing 20
 - SQR 21
- sysaudit.sqr 274
- system tables
 - updating 272

T

- tables
 - building temporary 261
 - creating 213
 - setting number of 260
 - system, updating 272
 - temporary 205
- tablespace

- overriding default segment size with PSTAAT 736
- tablespaces
 - creating 208
 - recalculating space allocations with PSTAAT 734
- TBDDL.SQL script, creating with PSTAAT 727
- TCP/IP
 - configuring on the client 628
- temporary tables 205
 - building 261
 - building indexes 261
 - setting number of 260
 - structure 258
 - using PSTAAT to reassign 739
- time zone updater for Oracle WebLogic 60
- transfer parameters, reviewing examples 186
- transferring files
 - manually 196
 - to database server 192
 - under z/OS 192
- transformation programs, PeopleSoft Application Engine 753
- triggers
 - creating 265
- TrueType fonts
 - installing TrueType fonts on UNIX or Linux 512
- TrueType Fonts
 - installing TrueType fonts on Windows 501
- TUXDIR environment variable 379
- Tuxedo, *See* Oracle Tuxedo

U

- Unicode databases
 - choosing when selecting a character set 16
 - setting up 709
- uninstalling WebSphere 87
- updates and fixes 17
- %UpdateStats 202
 - disabling 279
- updating database 226
- updating PeopleSoft PeopleTools
 - database objects 230
 - multilingual objects 232

- Navigation Collection data 249
- Pagelet Wizard Data 249
- Portal objects 248
- query headings 248
- Setup Manager 249
- system data 245
- system tables 228
- UPG844PORTAL Application Engine
 - program 248
- UPGPT846PP Application Engine
 - program 249
- UPGPT848IBUG, running 251
- UPGPT848PP Application Engine
 - program 250
- UPGPT850PTFP, running 250
- UPGPTSMDAT Application Engine
 - program 249
- UPGQRYDUPHED Application Engine
 - program 248
- user IDs
 - z/OS 24
- user interface, changing 253
- users for BusinessObjects Enterprise 518
- USS environment variables
 - setting up 198

V

- Verity
 - installing in console mode 166
 - installing in GUI mode 163
- Verity for PeopleSoft Enterprise Integration,
 - installing 162
- Verity Integration kit, installing 162
- VERSION Application Engine
 - program 273
- views
 - creating 255
- volatile table attribute 261

W

- wdeploy tool 555
- Web Application Deployment tools 689
 - installing on IBM WebSphere in console
 - mode 706
 - installing on Oracle WebLogic in console
 - mode 702
 - installing on WebLogic in GUI
 - mode 690

- installing on WebSphere in GUI
 - mode 696
- web server
 - supported types 8
- WebLogic, *See* Oracle WebLogic
- WebSphere
 - installing PeopleSoft Pure Internet
 - Architecture in GUI mode 322
 - obtaining installation files from
 - E-Delivery 66
 - uninstalling PeopleSoft Pure Internet
 - Architecture in console mode 354
 - uninstalling PeopleSoft Pure Internet
 - Architecture in GUI mode 331
- WebSphere Application Server
 - finding log files 86
 - installing 64
 - installing in silent mode 84
 - installing plug-ins 94
 - obtaining 65
 - prerequisites 65
 - uninstalling 87
- WebSphere Profile Management Tool 76
- Windows service
 - Oracle Tuxedo 118
 - starting Process Scheduler as 386
- Windows-based clients 5
- Word for Windows
 - configuring Process Scheduler for 389
- workstations 5
- WSDL data, converting 252

X

- X1DDL.SQL, replaced by PSTAAT 739
- X2DDL.SQL, replaced by PSTAAT 739
- X3DML.DMS, replaced by PSTAAT 739
- XSLT mapper 753

Z

- z/OS
 - mapping installation directories 196
 - partitioned datasets 192
 - preinstallation worksheet 186
 - storage enhancements 26
- z/OS user IDs 24

