PeopleSoft®

EnterpriseOne Xe Package Management PeopleBook

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Overview of Package Management

The *Configuration Planning and Setup* suite is designed for Configurable Networking Computing (CNC) specialists, OneWorld system administrators, and network/server administrators. The assumption throughout these guides is that the initial OneWorld installation is complete and the standard data sources, path codes, and environments are defined. Use the information in these guides to make changes or additions to the configuration setup after the initial installation.

The *Configuration Planning and Setup* suite consists of the following guides:

- *Configurable Network Computing Implementation Guide*. This guide is written primarily for CNC specialists and contains information about the following topics:
  - Middleware
  - Understanding and verifying data sources
  - Creating path codes and environments
  - Object Configuration Manager
  - Understanding the different modes of processing
  - Typical OneWorld customer configuration
- *System Administration Guide*. This guide is written primarily for OneWorld system administrators and contains information about the following topics:
  - Setting up data replication
  - Setting up printers
  - Working with Servers
  - Setting up user profiles and security
  - Working with data dictionary and vocabulary overrides
  - Understanding transaction processing
  - Working with media objects and imaging
  - Using the universal table browser
  - OneWorld naming conventions
  - jde.ini file
- *Package Management Guide*. This guide is written primarily for OneWorld system administrators and others who manage custom modifications to the OneWorld environments. *Package Management* contains information about the following topics:
  - Package management planning and setup

    - OneWorld modification rules
    - Object management
    - Package Build
    - Deployment
    - Multitier deployment
- *Server and Workstation Administration Guide*. This guide is written primarily for network administrators and contains information about the following topics:
    - Snapshot (multiclient installer)
    - Server administration
    - Troubleshooting the workstation and the server

Although every attempt has been made to organize the information in the *Configuration Planning and Setup* suite according to related tasks, you may find that the information needed to perform the various duties for a position is described in more than one guide. For example, the person who is responsible for setting up path codes, environments, and data sources (described in the *Configurable Network Computing Implementation Guide*) might also be responsible for building and deploying packages (described in the *Package Management Guide*).

The *Configuration Planning and Setup* suite is the central location for all CNC-related tasks except:

- Initial installation of OneWorld. See the *OneWorld Installation Guide.*
- OneWorld upgrade and cumulative updates. See the *OneWorld Upgrade Guide.*
- Network infrastructure and third-party software setup and maintenance. This information is provided by the applicable software or hardware vendor. J.D. Edwards does not provide documentation.

You do not need a complete understanding of the installation process to perform configuration planning and setup tasks. However, in order to use the *Configuration Planning and Setup* guides it is important that you understand what the installation accomplishes.

Understanding OneWorld Roles

The OneWorld implementation methodology defines specific roles:

- CNC consultant and CNC administrator
- Custom solution consultant and application developer
- Application consultants and application project leaders

- Hardware, network, and third-party software consultants and administrators

Each of these roles is performed by both a consultant and a customer. After implementation, the role of the consultant is diminished. Therefore, it is critical that customers receive adequate training for each of the roles they assume.

CNC Consultant and CNC Administrator

The CNC consultant and CNC administrator are involved in installing OneWorld and setting up environments, users, security, distributed processing, and data replication. They are also responsible for setting up version control and testing various CNC configurations. The CNC consultant and CNC administrator control the deployment of OneWorld software throughout the company.

Custom Solution Consultant and Application Developers

OneWorld custom solution consultants resolve business issues by developing applications. Their primary responsibilities include designing the modifications with upgrades in mind, and developing, testing, and introducing the customized software. While the CNC administrator performs the version control functions that build and deploy software, the customer solution consultant must help develop the internal procedures for application development cycle for your business.

Application Consultants and Application Project Leaders

After OneWorld is installed, configured, and rolled out, the application consultants continue in their role as product experts. Although application consultants do not implement the CNC configurations, they must understand how OneWorld handles distributed processing, data replication, environments, and so on, because these application issues influence the CNC decisions. In addition, application consultants must become very good at troubleshooting potential problems.

Hardware, Network, and Third-Party Software Consultants and Administrators

Implementing OneWorld includes many tasks that are outside the scope of J.D. Edwards services. Third-party consultants provide these services as well as supplementing our staff as CNC consultants, network architects, custom modification consultants, and so on.

Understanding the Package Management Guide

This guide describes how to set up and maintain processes to develop and deploy custom modifications created with the OneWorld Tools.

This guide contains the following topics:

- ❑ Package management planning and setup
- ❑ OneWorld modification rules
- ❑ Object management
- ❑ Package build
- ❑ Deployment
- ❑ Multitier deployment

The first several sections of this guide describe how to set up an environment in which you can deploy custom modifications made with OneWorld Development tools. These sections include information about OneWorld modification rules, transferring objects, checking out development objects, and working with the data dictionary.

If you have already set up your environment or are comfortable with these concepts, you can skip to the sections that describe how to create and schedule packages and how to deploy to workstations and servers.

Understanding Packages

The purpose of a package is to group OneWorld software modifications so that they can be deployed to workstations. A package describes where to find the components you want to deploy to workstations. A package can contain everything needed to run OneWorld (as in an initial installation for a new workstation), or only updates or changes to existing applications.

There are three package types:

- Full
- Partial
- Update

The full package includes all OneWorld applications and is the same as the former Standard package. Users who need the full suite of OneWorld applications should receive this type of package.

The partial package is a minimum configuration of OneWorld. Its chief advantage is that it saves a tremendous amount of disk space. A user who installs this type of package can subsequently load at runtime only the applications needed, rather than receiving many unused OneWorld applications with the initial installation.

The update package allows you to update, add to, or refresh your existing full or partial package with changed objects. You can only deploy an update package to a workstation that already has OneWorld loaded. The objects in the update package replace those objects on the workstation. All other objects on the workstation are left untouched. The advantage of this type of package is that you can deploy software fixes or enhancements quickly.

Understanding the Deployment Programs

OneWorld offers several deployment programs, each with its own specific purpose and advantages. The method you select depends mainly on the type of package you want to deploy.

- Workstation Installation
- Package Deployment
- Multitier Deployment

Understanding Workstation Installation

The Workstation Installation program is used to deploy full and partial packages. Update packages cannot be deployed using Workstation Installation.

The Workstation Installation program retrieves the items specified in the package. A full or partial package is like a bill of materials or a kit with instructions. To pull all of the necessary components, the Workstation Installation program deploys to the local computer. Workstation installations are always initiated by the user.

Understanding Package Deployment

The Package Deployment program enables the OneWorld administrator to specify the date and time that a package is made available to users or groups. The administrator can specify whether the package is mandatory or optional. If a package is mandatory, users who receive the package will be unable to access OneWorld until they load the package.

Users who receive a scheduled package are given the opportunity to load the package immediately after they sign on to OneWorld on the specified date. If they opt to load the package, the installation program launches, and the package loads. The user can also opt to load the package later, or decline installation altogether (unless the package is mandatory).

Alternatively, the push installation feature enables the administrator to schedule a package that will be automatically “pushed” from the deployment server to the workstations at the scheduled time, without requiring any interaction with the user.

Update packages always use Package Deployment. The full and partial package types are normally deployed via Workstation Installation, although you can use package deployment for a full or partial package in cases where OneWorld has already been loaded on a machine and you want to redeploy.

Understanding Server Packages

A server package is a set of OneWorld objects you have grouped together with a common SAR number or any version control tracking number. Objects consist of specification records, source files, and header files. Compiled objects are created on the enterprise servers. When you define a package, you can install it to multiple servers and multiple path codes.

All OneWorld application development takes place on a workstation with objects stored in a central location. OneWorld allows you to partition business applications to an enterprise server. Developers and system administrators can push objects, called a server package, from the central objects data source to a replicated server path code.

Although server packages are not the same as the workstation packages, they are built and deployed using the same applications: Package Assembly, Package Build, and Package Deployment. When you create an update package for workstations, you should create a corresponding server package to ensure that you are deploying the same objects to your enterprise server that you deploy to workstations.

Understanding Multitier Deployment

Multitier deployment enables OneWorld workstations to install software from more than one deployment location and more than one deployment machine. J.D. Edwards recommends that you consider multitier deployment if your site has more than 50 workstations performing OneWorld software installations per day, or if you are deploying OneWorld software across a WAN connection.

Package Management Planning and Setup

This section contains recommendations, suggestions, and considerations you should read before you deploy software modifications. You should familiarize yourself with this entire guide before considering your own software deployment strategy.

Managing modifications can be more difficult than the actual programming changes. It is important to have a solid version control plan for tracking changed objects. You can avoid many software problems by tracking changed objects.

You should build and deploy packages only as often as necessary. Deploying excessively could be a huge strain on your version control group, and would become a logistical nightmare as far as planning and tracking your development. If you perform many development changes, you should build and deploy packages on a set schedule. It is very important to keep a schedule so that everyone involved knows when objects are due and when you are going to build and deploy the package.

To give you an idea of how version control might work, at J.D. Edwards we have several hundred developers and an extremely complex Configurable Network Computing (CNC) configuration. For that number of developers, our Product Version Control group consists of the following:

- One manager who oversees the coordination of the department
- One supervisor who coordinates the package builds, coordinates object transfers, and troubleshoots problems
- Two server specialists who build server packages
- Four technical specialists who build workstation packages, perform object transfers, and run automated testing before releasing the package to Quality Assurance
- One night operator who builds workstation packages, builds server packages, and clears build errors

Planning and Setup consists of the following topics:

❑ Working with the recommended path codes

❑ Ensuring the integrity of the production environment

❑ Understanding the development processes

- ❑ Comparing the deployment methods
- ❑ Deploying various types of modifications
- ❑ Deploying data

Working with the Recommended Path Codes

If you are not planning any development projects, you need only three path codes: PY7333, PD7333, and JD7333. You should create a development path code if you plan to do extensive software modification.

The fewer path codes you use, the better. With each additional path code comes version control maintenance that is worth the effort only if there is a true reason for the additional path code. Even when making extensive software modifications, you should have only four path codes (sets of central objects):

DV7333	Use this path code for "normal" development. Upon successful testing, transfer the objects to your PY7333 path code using Object Transfer, and distribute to your users using the package build deployment process.
PY7333	This path code contains a practice set of objects that are tested during conference room pilot before transferring objects to production. It is for deploying quick fixes or making minor modifications that you will quickly transfer to production. It can also be used as a place to test modifications that were done in the development path code before taking the risk of transferring them to the production path code.
PD7333	This is your production path code. Just-in-time installations come directly from this location, and production server objects are also deployed from here. After testing software changes in PY7333, transfer them to PD7333 and then deploy the changes to your enterprise servers and workstations.
JD7333	This is the set of pristine objects shipped from J.D. Edwards. You should not make changes to this path code other than paper fixes from J.D. Edwards. This path code is used to compare J.D. Edwards standard software to any custom solutions you have implemented in other path codes. You should keep a copy of this path code so that you have a "clean" copy of OneWorld in case you need to refresh anything.

All path codes share the same Object Librarian tables and the same system data source, and normally the same data dictionary. The only distinct tables across path codes are the central objects/specifications (F987*), the version list (F983051), the processing options text (F98306), and the user overrides (F98950).

Suggested Package Names

At J.D. Edwards we have found that if you have an A and B version of each package, you can alternate between these when you build packages. The advantage of this approach is that users always have a package available to them, even when you are building the latest version of that same package. For example, package PRODB would be available to users while you are building PRODA. Then, after you release PRODA, you would build the next package into PRODB, and so on.

If you are using both full and partial packages, you would have four packages per path code. This setup gives you two full packages (A and B) for production, and two partial packages (A and B) for production. For example:

PD7333FA	Standard Production Full A
PD7333FB	Standard Production Full B
PD7333PA	Standard Production Partial A
PD7333PB	Standard Production Partial B

Update packages might be named as follows:

PD7333UA	Production Update Package 1
PD7333UB	Production Update Package 2
PD7333UA	Production Update Package 3
PD7333UB	Production Update Package 4

Ensuring the Integrity of the Production Environment

As soon as you transfer objects into your PD7333 path code, the changes can be accessed by end users. Therefore, you must make sure to test the modified objects before transferring them to production.

There are two ways that objects transferred into the production path code can be immediately deployed to end-users:

- Anyone using just-in-time installation (JITI) will have an application installed from the central objects data source the first time it is used. This includes people who are using a partial package or anyone who has received an update package containing an application without specifications. For more information about just-in-time installation, see *Understanding Just-in-Time Installation*.
- If you build an update or partial package and do a business function build for that package, the business function included in that package is built, then globally linked with all other business functions in the path code's check-in location.

The only way you can ensure that modifications transferred to your production path code are not immediately available to end users is to avoid using partial packages or update packages containing applications without specifications. Also, do not transfer business functions into the production path code until you are ready to deploy, because a global build of business functions done during a package build will automatically include the new functions. You can be assured that when you transfer changes into the production path code they will not be available until you build a full or update package.

Disabling Just-In-Time Installation

There are two methods for disabling just-in-time installation:

- Through Environment Master (P0094), you can disable JITI for the environment. That is, anyone who signs on to that environment and doesn't have specifications for an application will not be able to retrieve them because JITI is turned off. J.D. Edwards recommends that you use this flag during the cumulative installation process when you update your production central objects with the new J.D. Edwards changes. Any user who has installed a partial package or received an update package containing applications without specifications will not be able to access that application when JITI is disabled.

- You can disable JITI for a particular application, for an end user, or for a group profile through application security. When a user accesses an application whose specifications do not reside on his workstation, the JITI engine first checks Environment Master to see if JITI is disabled for the entire environment. If JITI is on for the environment, the engine looks to see if that user is prevented through application security from using JITI. Application security has a field, “not allowed to install.” For more information, see the *Security* section in the *System Administration Guide*.

Even if you disable JITI, data dictionary items are still copied using just-in-time-installation to the global tables. Due to the data dictionary structure, this process cannot be disabled.

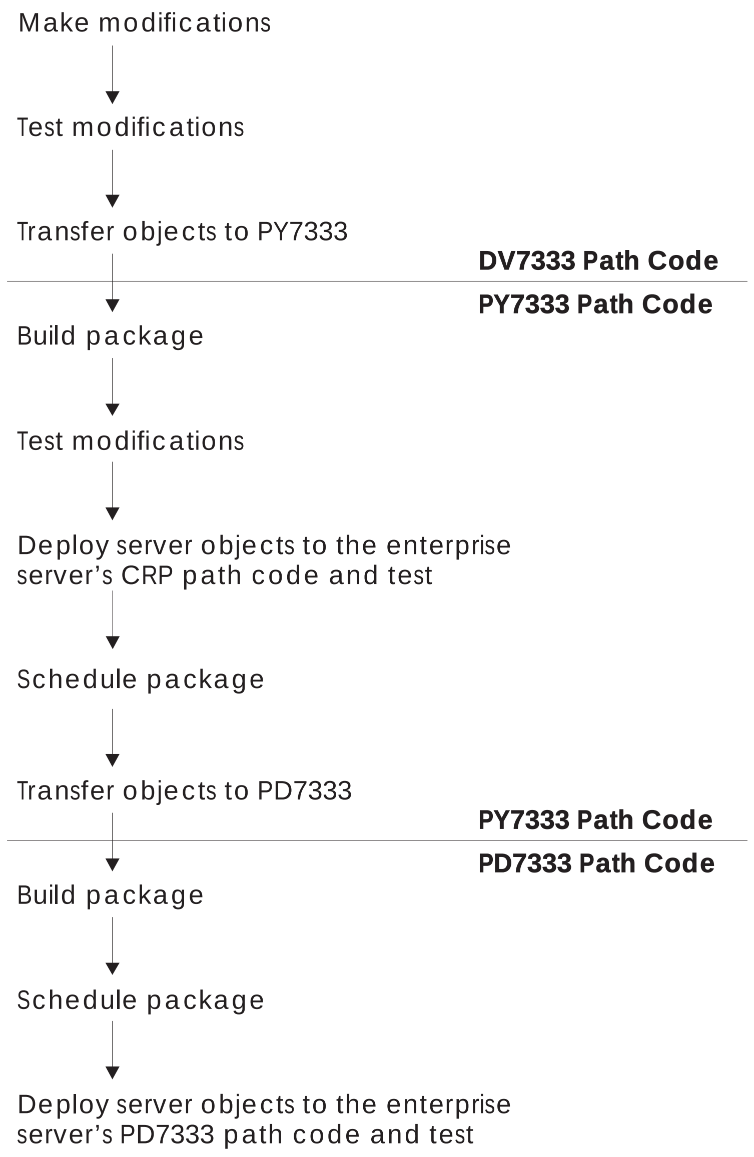
Understanding the Development Processes

You should review this section to understand the development processes that J.D. Edwards recommends. The section includes information about developing long-term enhancements and short-term fixes, and consists of the following topics:

- ❑ Working with the normal development process
- ❑ Developing short-term fixes

Working with the Normal Development Process

The following illustration provides an overview of how you should perform your normal development cycle.


Make modifications
Test modifications
Transfer objects to PY7333
DV7333 Path Code
PY7333 Path Code
Build package
Test modifications
Deploy server objects to the enterprise server's CRP path code and test
Schedule package
Transfer objects to PD7333
PY7333 Path Code
PD7333 Path Code
Build package
Schedule package
Deploy server objects to the enterprise server's PD7333 path code and test

Follow this procedure during the normal development process:

1. Make modifications.
   - Check out your objects from the DV7333 path code. Modify the objects, test them, and check them back in.
   - Use the SAR system (or any numbering system) to track your changes. Always check in the objects with a SAR number.

2. Test modifications.

   If this object needs to be on the logic server, transfer the object to the server's DV7333 path code. Test the object against the server.

3. Transfer objects.

   Use a SAR number with Object Transfer to transfer the object to the PY7333 path code. Use the check-out log to confirm the transfer (optional). This object is not in production, but it is now available for you to build a test package in the PY7333 path code.

4. Build a package.

   Build a package (full, partial, or update).

5. Test modifications.
   - Test the newly built, but unreleased, package in the PY7333 path code (you can only test against workstation processes, not server processes). Remember, even though the name of this package will probably be PY7333U1 (update package number 1 for the CRP path code), it is a test package right now because you have not released it to your users.
   - Schedule the update package to a test machine and test in an environment using CRP objects with CRP data.
6. Deploy server objects.
   - Deploy server objects to the PY7333 path code on the enterprise server and test. If you prefer, you can build the server package and schedule deployment at the same time you build and schedule the workstation package.
7. Schedule the new package to CRP users.
8. Transfer objects.
   - Use a SAR number with Object Transfer to transfer the object to the PD7333 path code. Use the check-out log to confirm the transfer (optional). This object is now in production. It is now available for you to build a package in the PD7333 path code.

     Note: If just-in-time installation is enabled, the objects can be accessed immediately.

9. Build a package.
   - Build a client workstation package (full, partial, or update).
   - Perform a server package build. (Optionally, you can transfer the server package now or wait until it has been tested on a workstation.)
10. Schedule the new package to end user workstations.

11. Deploy server objects.

    Deploy server objects to the PD7333 path code on the enterprise server and test. If you prefer, you can build the server package and schedule deployment at the same time you build and schedule the workstation package.

Developing Short-Term Fixes

Sometimes you will want to make a simple change to an application that is undergoing major enhancement work in the DV7333 path code. When objects have been modified in the DV7333 path code, it might be too risky to make a simple change and get it deployed quickly. Therefore, you should make the change in PY7333 so that you can quickly get the fix to users. Do not forget to make the change to the PY7333 and the DV7333 path codes.

Follow this procedure to develop a short-term fix:

1. Make modifications.
   - Check out your objects from the PY7333 path code. Modify the objects, test them, and check them back in.
   - Use the SAR system (or any numbering system) to track your changes; always check in the objects with a SAR number.
2. Transfer objects.
   - Use a SAR number with Object Transfer to transfer the object to the PD7333 path code. Use the checkout log to confirm the transfer (optional). This object is now in production. It is now available for you to build a package in the PD7333 path code.

     Note: If just-in-time installation is enabled, the objects could be accessed immediately.
3. Build a package.
   - Build a package (full, partial, or update).
4. Schedule the new package to end user workstations.

Comparing the Deployment Methods

After you have made software changes, the method you use to deploy those changes to workstations on your enterprise depends on factors such as the type of package you typically build, and the needs of your users.

Understanding Cumulative and Noncumulative Update Packages

If you use a cumulative update package strategy, you have one package that you add to, rebuild, and re-release to users. You do not create a new package every time you have a modification you want to deploy. To use a cumulative package, you need to follow these steps:

1. Change the package status in order to add the new modification(s).
2. Add the changed or new items to the package.
3. Redeploy the package.

If you use a noncumulative strategy, you would create and deploy a different package every time instead of using the same package. For example, if you deploy one modification per week for 10 weeks, there would be 10 different packages, each containing only the software changes for that week.

Recommendations for Sites Using Partial Packages With JITI

For sites using partial packages and JITI, J.D. Edwards recommends that you adopt a noncumulative update package strategy. Each week that you build a new update package, if you have a modification to deploy that cannot be done through just-in-time installation (such as business function changes), we recommend that you also rebuild the partial package for that week to ensure that the partial package contains the latest changes. If you follow this recommendation, when you want to load a new workstation (or completely refresh any machine), you simply need to install the partial package; you don't need to install any update packages.

Recommendations for Sites Using Full Packages Without JITI

For sites using full packages with JITI, J.D. Edwards recommends that you adopt a cumulative update package strategy. Each week that you need to deploy a change, add that object to the existing update package, and then rebuild and schedule it. The advantage of this strategy is that you do not need to rebuild your full package each week. By using this strategy to load a new workstation (or to completely refresh any machine) you will need to install the full package and the one cumulative update package.

The disadvantage of using this strategy is that the update package may become so big that deployment time is increased. You will need to determine your threshold for when to rebuild the full package that new workstations will load, while existing users will install the new update package.

Recommendations for Developers

Developers must use full packages. You may deploy update packages to them, but developers do not use partial packages because partial package machines never receive development objects.

When installing a full or update package, machines with compilers will automatically receive development objects. Developers receive source, headers, and libraries. The installation process builds the object into the business function library and DLL (dynamic link library), and thereby preserves any business function changes the developer made. For more information about package types, see *Understanding Packages and Deployment.*

Multitiered Deployment and Just-in-Time Installation

Just-in-time installation (JITI) can be used in remote locations that are using multitiered deployment to install packages. However, you might find that performance time for the just-in-time installation is unacceptable. In this case you may wish to use full packages and deploy software changes through update packages.

Comparing the Deployment Methods

Each deployment method has its strengths and limitations. To help you decide which method is right for your needs, here are some key points about the different methods:

- A new user loading a new machine should use the Workstation Installation program to load a full or partial package, plus any update packages that you have instructed users to load since the last package build. Therefore, you need a manual tracking system to keep track of which update packages must be applied after installing a particular package.
- All update packages must use the Package Deployment program to be scheduled to workstations unless you are using the Push Installation feature.

- The full and partial packages can also use Package Deployment if OneWorld has already been loaded on a machine. (You can use the Push Installation feature to deploy to a machine that does not have OneWorld installed.)
- If workstation disk space is a consideration, consider deploying a partial package that provides the minimum configuration of OneWorld, and yet allows users to load only the applicable OneWorld applications. In this situation you could use either the Workstation Installation program or the Package Deployment program to deploy the partial package.
- Use the Silent Installation program to submit a Workstation Installation request through command line arguments. Do not use this program for an initial installation.
- Use the Multitier Deployment program to install from more than one deployment location. You should consider this method if you have more than 50 workstations performing OneWorld software installations per day.
- Use the Package Deployment program when you need to push objects in a server package from the central objects data source to enterprise servers.

Deploying Various Types of Modifications

It is important that you understand which types of objects (and therefore modification) can be deployed through each package type.

Partial packages include the following:

- All consolidated business function dynamic linked libraries (DLLs)
- Specifications for only those applications necessary to sign on and get to OneWorld Explorer
- All icons
- Helps, data, and foundation

The following table illustrates which types of changes are installed with a full package, an update package with specifications, and an update package with no specifications.

Modification	**Full Package**	**Update Package With Specs**	**Update Package With no Specs**
Applications:			
Imbedded Event Rules	X	X	X
Vocab Overrides (FDA text)	X	X	X
Data Structure	X	X	X
Process Options (Report)	X	X	X
Business Functions:			
C Language Source/Include/Object (if there is a compiler)	X	X	
Consolidated BSFN DLLs	X	X	
Data Structure	X	X	
Table ER	X	X	
Named ER	X	X	

Modification	Full Package	Update Package With Specs	Update Package With no Specs
Batch Applications:			
Report	X	X	X
Imbedded ER in Report	X	X	X
Report Data Structure	X	X	X
Report Vocab Overrides	X	X	X
Report Processing Options	X	X	X
Versions and Processing Option Values (depends on processing options)	X	X	X
Imbedded ER in Versions	X	X	X
Processing Option Templates	X	X	X
Business Views:			
Fields Added/Changed	X	X	X
Tables:			
Structure (specifications)	X	X	
Indexes	X	X	
Joins	X	X	
Miscellaneous:			
Helps Stored on the Server			
Helps Stored on the Workstation	X	X	
Generic Text Data Structure	X	X	
Data Dictionary Items (see *Data Dictionary Administration* in the *System Administration Guide*)			
Foundation Code (required for full and partial packages, and optional for update packages)	X	X	X
Foreign Languages	X	X	X
Non-OneWorld Objects (custom items can be deployed through any package type)	X	X	X
Replicated Local Data (required for full and partial packages, and optional for update packages)	X	X	X
New Icons	X	X	

Deploying Data

This chapter describes how to deploy a new replicated local database and a special database for store-and-forward users.

Deploying a New Replicated Local Database

Normally you do not need to deploy a new Microsoft Access database because data replication takes care of pushing changes to end users. The database in the package cannot be set up as a subscriber because it is a snapshot in time of your database. Therefore, if you want to keep the database synchronized with the publisher tables, you need to refresh the data periodically.

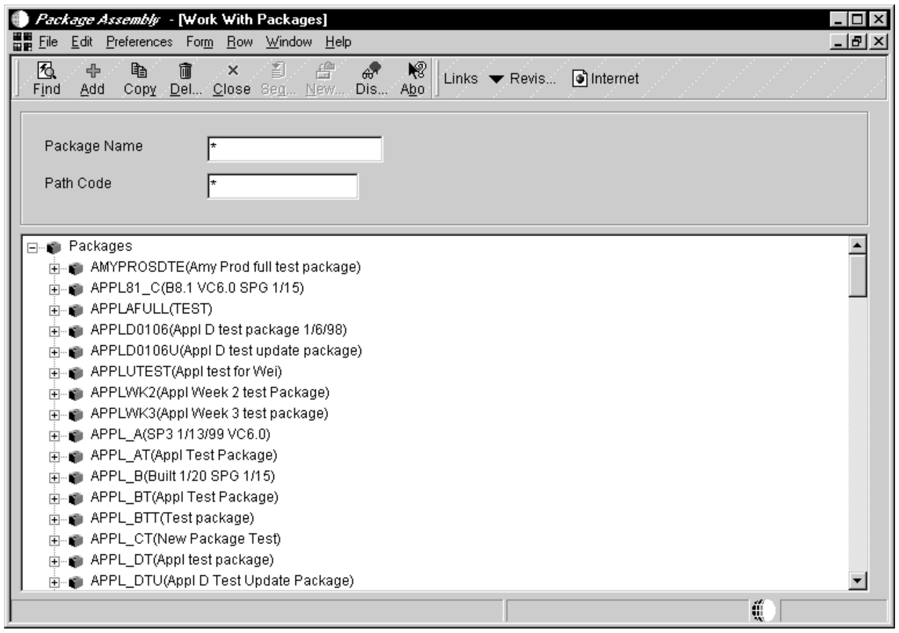
You should consider keeping the database synchronized with the publisher tables. When an existing OneWorld machine does a complete refresh by installing a full or partial package, it receives old data. It is not marked as out of sync, so data replication has no way of knowing that the machine reinstalled OneWorld with an out-of-date Microsoft Access database.

If a new machine is set up, the administrator would have to set up the user as a subscriber, and that machine will be marked as out of sync. Then, when signing on to that new machine for the first time, the user will be prompted to receive the changed data.

▶ To refresh an existing package with a new database

1. Locate a Microsoft Access database from a subscriber machine that has received all data changes.
2. Copy that database to the data location for that package.
3. Choose Package Assembly (P9601) from the Package and Deployment Tools menu (GH9083).

   The Work With Packages form appears.

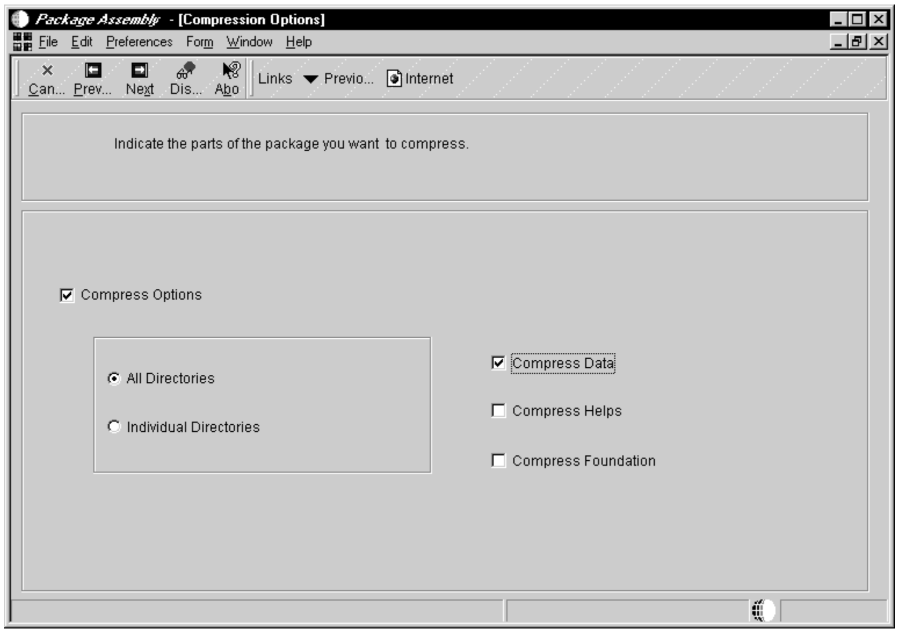

Package Assembly - [Work With Packages]
File Edit Preferences Form Row Window Help
Find Add Copy Del... Close Seq... New... Dis... Abo
Links Revis... Internet

Package Name *

Path Code *

Packages
- AMYPROSDTE(Amy Prod full test package)
- APPL81_C(B8.1 VC6.0 SPG 1/15)
- APPLAFULL(TEST)
- APPLD0106(Appl D test package 1/6/98)
- APPLD0106U(Appl D test update package)
- APPLUTEST(Appl test for Wei)
- APPLWK2(Appl Week 2 test Package)
- APPLWK3(Appl Week 3 test package)
- APPL_A(SP3 1/13/99 VC6.0)
- APPL_AT(Appl Test Package)
- APPL_B(Built 1/20 SPG 1/15)
- APPL_BT(Appl Test Package)
- APPL_BTT(Test package)
- APPL_CT(New Package Test)
- APPL_DT(Appl test package)
- APPL_DTU(Appl D Test Update Package)

4. On Work With Packages, choose the package and choose Define Build from the Row menu.
5. Proceed through the Package Assembly Director forms until you reach the Compression Options form.


Package Assembly - [Compression Options]
File Edit Preferences Form Window Help
Can... Prev... Next Dis... Abo
Links Previo... Internet

Indicate the parts of the package you want to compress.

[✓] Compress Options

(●) All Directories
( ) Individual Directories

[✓] Compress Data
[ ] Compress Helps
[ ] Compress Foundation

6. On the Compression Options form, click only the Compress Options and Compress Data options.

   This recompresses the database, and anyone who installs this package will get current data.

Note: To verify that compression was successful, check the size and date of the JZ file under jdedwardsoneworld/B7333/*pathcode*/package/data. If the size is only 1KB, this means the compression failed.

Deploying a Special Database for Store-and-Forward Users

Store-and-forward users require Microsoft Access databases that are much larger than normal users. Therefore, you will want to build an update package that has one line item for the special Access database. Store-and-forward users must take full packages because they will not be connected to the network to install their application through just-in-time installation.

For this reason, they should use an environment that has just-in-time installation turned off. Instruct your store-and-forward users to install the normal full package, and then install the update package created for store and forward users. See *Working with Store-and-Forward* in the *Configurable Network Computing Implementation Guide* for more information.

▶ To deploy a database for store-and-forward users

1. Define the update package with one line for a database.

   Ensure that the special database that you have created for store-and-forward users actually resides in the source destination defined through Database Item Revisions.

2. Choose Package Assembly (P9601) from the Package and Deployment Tools menu (GH9083).
3. Choose the package and choose Define Build from the Row menu.
4. Proceed through the Package Assembly Director forms until you reach the Compression Options form.
5. On the Compression Options form, click the Compress Data option.
6. Schedule the package to all machines that will be doing store-and-forward transactions.

OneWorld Modification Rules

Because the OneWorld Development Tools are comprehensive and flexible, you can customize certain aspects of business solutions and applications without making custom modifications. J.D. Edwards refers to this concept as "modless mods," which are modifications that you can perform easily without the help of a developer. You can perform modless mods on the following:

- User overrides
- User defined codes
- Menu revisions
- All text
- Processing options values
- Data dictionary attributes
- Workflow processes

This kind of flexibility improves efficiency and provides distinct advantages, such as the ability to do the following:

- Export grid records to other applications, such as a Microsoft Excel spreadsheet
- Resequence a grid on a different column
- Change grid fonts and colors
- Control major functionality using processing options

However, even with the full commitment of J.D. Edwards to making the tools as flexible and robust as possible, if the need does arise to modify OneWorld, there are certain rules and standards to ensure that software modifications perform like modless mods for a seamless and predictable upgrade to the next release level.

You should prepare for the upgrade before making any custom modifications to ensure a smooth upgrade. If you plan modifications properly, you will have minimal work to do following an upgrade. This should result in the least amount of disruption to your business and a reduction in the overhead cost involved during an upgrade because the upgrade time is reduced.

OneWorld keeps track of all custom modifications as you check them into the server. Using this feature, you can run the Object Librarian Modifications (R9840D) report prior to a merge to see a list of the changed objects.

OneWorld consists of control tables (such as menus, user defined codes, versions, and the data dictionary) and transaction tables (such as Address Book and the Sales Order File). J.D. Edwards provides control tables with data that you can modify, while transaction files contain your business data.

During an upgrade, both sets of tables go through an automatic merge process. Control tables are merged with new J.D. Edwards data, whereas transaction files are converted to the new specifications without change to your existing data. For the object specification merges (such as business view, tables, data structures, processing options, event rules, and applications), there are processes in place that merge the specifications or replace them depending upon the rules defined in OneWorld. See the following section for more information.

What an Upgrade Preserves and Replaces

If your business needs require custom modifications, use the following general rules for OneWorld modifications to help ensure a smooth and predictable upgrade. These rules describe which modifications the upgrade process preserves and which modifications it replaces.

- Preserve means that, during an upgrade, OneWorld automatically merges your modifications with the new J.D. Edwards applications shipped with the upgrade, and that you do not lose your modifications. If there is a direct conflict between your specifications and J.D. Edwards specifications, the upgrade process uses yours. When there is no direct conflict between the two, then the upgrade process merges the two specifications.
- Replace means the upgrade does not merge those types of modifications and, therefore, J.D. Edwards replaces your modifications. You will need to do them again after the upgrade completes.

J.D. Edwards provides you with the Object Librarian Modifications (R9840D) report, which you can run before the upgrade process to identify objects that you modified. For details about what OneWorld preserves and replaces during an upgrade, see:

This section contains the following topics:

- ❑ General rules for modification
- ❑ Interactive applications
- ❑ Reports
- ❑ Application text changes
- ❑ Table specifications
- ❑ Control tables
- ❑ Business views
- ❑ Event rules
- ❑ Data structures
- ❑ Business functions

- ❑ Versions

General Rules for Modification

The following general modification rules apply to all OneWorld objects:

- When adding new objects, use system codes 55 - 59. OneWorld uses reserved system codes that enable it to categorize different applications and vertical groups. By using system codes 55 - 59 for your custom usage, OneWorld does not overlay your modifications with J.D. Edwards applications.
- Do not create custom or new version names that begin with ZJDE or XJDE. These are reserved prefixes for standard version templates that. J.D. Edwards sends out for you to copy, to create new templates or versions. Using these prefixes does not preserve your custom versions in case of a naming conflict.
- For upgrades, you should build a package from the last modified central objects set and perform backups of your development server, central objects, and Object Librarian data sources so you can access those specifications for comparison or for troubleshooting purposes. See the *OneWorld Upgrade Guide* for information.

Interactive Applications

Do not delete controls, grid columns, or hyperitems on existing OneWorld applications. Instead, hide or disable them. OneWorld might use these items for calculations or as variables, and deleting them might disable major functionality.

What an Upgrade Preserves and Replaces

The following table shows the interactive application elements that are preserved or replaced during an upgrade.

Object	Preserved	Replaced	Comments
New applications	X		There are two ways to create an application: create it from scratch, or copy an existing application using the Application Design Aid's "Copy" feature. This allows you to copy all of the application specifications, including event rules. If you use the Copy feature to copy an existing application for some modifications, during an upgrade your new application does not receive any changes J.D. Edwards might have made to the original application you copied.
New hyperitems added to existing forms	X		
New controls added to existing forms	X		
New grid columns added to existing forms	X		
Style changes	X		Style changes include fonts and colors. New J.D. Edwards controls have the standard base definitions, so if you adjust the style you need to do the same for any new controls added to an application.
Code-generator overrides	X		
Data dictionary overrides	X		
Location & size changes	X		If J.D. Edwards decides to place a new control in the new release of the software in the same place you have placed a custom control, the controls display on top of each other. This does not affect the event rules or the functionality of the application. After the upgrade, you can rearrange those controls using Application Design Aid.

Sequence changes for tabs or columns	X		The upgrade process adds new J.D. Edwards controls to the end of your custom tab sequence. You can review the tab sequence after an upgrade.
Custom forms on existing OneWorld applications		X	Instead of putting custom forms on existing OneWorld applications, it is preferable to create a custom application using system codes 55 - 59, and then place the custom form on that custom application. You can then add to existing applications form exits and row exits that call your custom forms within your custom applications. From a performance standpoint there is no difference if an external application is called from a row exit or a form within the application.

Reports

The following rule applies to Report Design Aid specifications:

Do not delete objects on existing OneWorld reports. Instead, hide them. OneWorld might use these for calculations or as variables, and deleting them might disable major functionality.

What an Upgrade Preserves and Replaces

The following table shows the report elements that are preserved or replaced during an upgrade.

Object	Preserved	Replaced	Comments
New reports	X		There are two ways to create a report: create it from scratch or copy an existing report using Report Design Aid "Copy" feature. This feature enables you to copy all the report specifications, including event rules. If you use it to copy an existing report for some modifications, during an upgrade your new report does not receive any J.D. Edwards updates made to the original report you copied.
New reports	X		
New constants added to existing reports	X		
New alpha variables added to existing reports	X		
New numeric variables added to existing reports	X		
New data variables added to existing reports	X		
New runtime variables added to existing reports	X		
New database variables added to existing reports	X		
New data dictionary variables added to existing reports	X		
Style changes	X		Style changes include fonts and colors. New J.D. Edwards controls have the standard base definitions, so if you have adjusted the style, you need to do the same for any new controls added to a report.

Location and size changes for objects	X		If J.D. Edwards decides to place a new object, such as a control, in the new release of the software in the same place you have placed a custom object, the objects display right next to each other. This does not affect the event rules or the functionality of the report in any way. After the upgrade, you can rearrange objects using Report Design Aid.
Data dictionary overrides	X		
Custom sections on existing OneWorld reports		X	Instead of adding custom sections to existing reports, use Report Interconnect and connect to a new custom report that uses system codes 55 - 59. There is no difference in the performance of a report being called through report interconnections.

Application Text Changes

What an Upgrade Preserves and Replaces

The following table shows the application text elements that are preserved or replaced during an upgrade.

Object	Preserved	Replaced	Comments
Overrides done in Application Design Aid	X		
Overrides done in Report Design Aid	X		
Overrides done in Interactive Vocabulary Override	X		
Overrides done in Batch Vocabulary Override	X		

Table Specifications

An upgrade merges your table specifications from one release level to the next.

What an Upgrade Preserves and Replaces

The following table shows the table specification elements that are preserved or replaced during an upgrade.

Object	Preserved	Replaced	Comments
New tables	X		
Custom indexes to OneWorld tables	X		
Columns added to or removed from existing OneWorld tables		X	This includes changing field length, field type, and decimal position. Instead of adding a new column to an existing J.D. Edwards table, use a tag file with system codes 55 - 59.

For custom tag files, be aware of data item changes in the J.D. Edwards data dictionary. From one release to the next, J.D. Edwards might change certain data item attributes such as data item size, which can affect data integrity and how data is stored in the database. For this reason, you might need to use the Table Conversion tool to convert the tag file data to the new release level. For base J.D. Edwards files, the upgrade process takes care of the data dictionary changes by upgrading the OneWorld database to the new release level. An upgrade preserves custom indices over the custom tag files.

Control Tables

Control tables contain user defined codes (UDCs), menus, and data dictionary items. An upgrade merges your control tables from one release level to the next using the Change Table process, which uses your control tables, not OneWorld tables, as the basis to do the data merge.

What an Upgrade Preserves and Replaces

The following table shows the control table elements that are preserved or replaced during an upgrade.

Object	Preserved	Replaced	Comments
Data dictionary custom changes	X		This includes changes to row, column, and glossary text. The upgrade process uses your data dictionary as the base, and in case of a conflict with OneWorld data items, your changes override. Create new data items using system codes 55 - 59.
User defined codes	X		The upgrade process merges any new hard-coded OneWorld values. (Values owned by J.D. Edwards are system 90 and above, and H90 and above.) The process also reports any OneWorld hard-coded values that conflict with your custom values.
Menus	X		In case of a conflict with OneWorld base menus, your custom changes override.
Columns added or removed from existing OneWorld control tables		X	

Business Views

Do not remove columns from existing business views. Changing business views that applications use can cause unpredictable results when you run the application. If you need to hide columns, do so at the application design level using either Application Design Aid or Report Design Aid. There is not much of a performance gain by deleting a few columns from a business view.

What an Upgrade Preserves and Replaces

The following table shows the business view elements that are preserved or replaced during an upgrade.

Object	Preserved	Replaced	Comments
New custom business views	X		
New columns, joins, or indexes added to existing OneWorld business views	X		
Columns removed from J.D. Edwards business views.		X	

Event Rules

What an Upgrade Preserves and Replaces

The following table shows the event rules elements that are preserved or replaced during an upgrade.

Object	Preserved	Replaced	Comments
Custom event rules for custom applications, reports, and tables	X		
Custom event rules for custom business functions	X		
Custom event rules on a new custom control	X		
Events for OneWorld applications, reports, and tables that do not have any OneWorld event rules attached to the same event	X		
Events for OneWorld business functions that do not have any OneWorld event rules attached to the same event	X		

Events for OneWorld applications, reports, and tables that have existing event rules attached to the same event		X	An upgrade disables and appends your custom event rules to the end of the event rules. The merge prints a report (R9840D) to notify you of any event rules that the up-grade process disabled.
Events for OneWorld business functions that have event rules attached to the same event		X	An upgrade disables and appends your custom event rules to the end of the event rules. The merge prints a report (R9840D) to notify you of any event rules that the up-grade process disabled.

To restore your custom event rules to OneWorld objects, highlight and drag the event rules back to the proper place in the event and enable them. Prior to an upgrade perform the following tasks:

- Run the Object Librarian Modifications (R9840D) report to identify modified applications
- Print the event rules for the modified application so that you can see the logic behind the event when restoring custom event rules

Data Structures

What an Upgrade Preserves and Replaces

The following table shows the data structure elements that are preserved or replaced during an upgrade.

Object	Preserved	Replaced	Comments
Custom forms data structures	X		
Custom processing options data structures	X		
Custom reports data structures	X		
Custom business functions data structures	X		
Custom generic text data structures	X		

Modifications to existing OneWorld forms data structures		X	
Modifications to existing OneWorld processing options data structures		X	
Modifications to existing OneWorld reports data structures		X	
Modifications to existing OneWorld business functions data structures		X	
Modifications to existing OneWorld generic text data structures		X	

To bring your custom modifications made to OneWorld data structures forward to the next release level, run the Object Librarian Modifications (R9840D) report to list all of the modified data structures, and use this report as a guide for manually refitting data structure changes.

Business Functions

For any new custom business functions, create a new (custom) parent DLL to store your custom modifications. See the *OneWorld Development Tools Guide* for details.

To bring your custom changes forward to the next release level, run the Object Librarian Modifications (R9840D) report to list all of the modified business functions, and use this report as a guide for manually refitting the business function changes.

Always use the standard API (jdeCallObject) to call other business functions from within a business function. Not following this and all other standards will cause problems.

To determine modifications to the source of existing base OneWorld business functions, use a third-party source-compare tool, such as Microsoft WinDiff. To determine modifications to APIs within business functions, see the OneWorld online help feature for the most current APIs.

What an Upgrade Preserves and Replaces

The following table shows the business function elements that are preserved or replaced during an upgrade.

Object	Preserved	Replaced	Comments
New custom business function objects	X		
Modifications made to existing OneWorld business function objects		X	NER BSFNs can be modified

Versions

For new custom versions, create a new version with a name that does not begin with XJDE or ZJDE. See the *OneWorld Foundation Guide* for details.

What an Upgrade Preserves and Replaces

The following table shows the versions elements that are preserved or replaced during an upgrade.

Object	Preserved	Replaced	Comments
Non-JDE versions	X		
Version specifications	X		
Processing option data	X		
All ZJDE and XJDE version specifications		X	
All processing option data for XJDE versions		X	

In addition, processing option data is copied but not converted for non-JDE versions using JDE processing option templates. A warning is issued at runtime, and some data may be lost.

Also, event rule modifications for custom versions on JDE templates are not reconciled with the JDE parent template.

Object Management

By industry standards, an object is a self-sufficient entity that contains data as well as the structures and functions used to manipulate the data. In OneWorld, an object is a reusable entity that is based on software specifications. A specification is a complete description of a OneWorld object. Each object has its own specification, which is stored on both the server and the workstation.

OneWorld stores objects in two places:

- A central-storage server, where you keep your central objects. When a developer checks out a central object, is replicated on the workstation, then converted back into a central object when the developer checks it back in
- Workstations and servers, which stores run-time objects. Run-time objects are replicated objects that actually run OneWorld.

This section contains conceptual information about objects, such as how objects are moved between the central objects location and the object destinations. For information about how to actually move and manipulate objects (such as checking objects in or out, adding objects to a project, or getting objects without checking out,) see *Object Management Workbench* in the *OneWorld Development Tools Guide*.

This section contains the following topics:

❑ Understanding object movement

❑ Understanding files created by the build process

❑ Correlating replicated and central objects

❑ Performing backups and restoring objects

❑ Copying Solution Explorer records between data sources

Understanding Object Movement

This chapter describes the movement of objects between the central objects location and the object destination when you do any of the following tasks:

- Check objects in or out
- Add existing objects to a project
- Perform a Get Object
- Run the Workstation Installation program

Unless otherwise noted, object movement is the same when you check objects in or out, add objects to a project, or perform a get object.

For more information about checking objects in or out, adding objects to a project, or performing a get object, see *Object Management Workbench* in the *OneWorld Development Tools Guide*.

This chapter contains the following topics:

- ❑ Table (Object Type TBLE)
- ❑ Business View (Object Type BSVW)
- ❑ C Business Function (Object Type BSFN, Source Language C)
- ❑ Business Function Data Structure (Object Type DSTR)
- ❑ Embedded Event Rule
- ❑ Business Function Event Rule (Object Type BSFN, Source Language NER)
- ❑ Media Object Data Structure (Object Type GT)
- ❑ Interactive Application (Object Type APPL)
- ❑ Batch Application (Object Type UBE)
- ❑ Data Dictionary Items

Table (Object Type TBLE)

Check In/Out, Add Object, and Get Object	With Check In/Out, Add Object, and Get Object, the following objects move: • Table and table event rule specifications • Source files (*.c) • Table header files (*.h) • Object files (*.obj) • Table event rule include files (*.hxx)
Workstation Installation	See "*Workstation Installation*" under *Interactive Application (Object Type APPL)* for information.

The table header is not the same as the actual table residing in a database. The table itself is created through Table Design Aid when you generate. The Workstation Installation program copies this table to the workstation if it is stored in Microsoft Access.

Business View (Object Type BSVW)

Check In/Out, Add Object, and Get Object	With Check In/Out, Add Object, and Get Object, specifications move.
Workstation Installation	See "*Workstation Installation*" under *Interactive Application (Object Type APPL)* for information.

C Business Function (Object Type BSFN, Source Language C)

Check In/Out, Add Object, and Get Object	With Check In/Out, Add Object, and Get Object, the following objects move: • Specifications • Source files (*.c) • Header files (*.h) • Object files (*.obj)
Workstation Installation	See "*Workstation Installation*" under *Interactive Application (Object Type APPL)* for information.

Business Function Data Structure (Object Type DSTR)

Check In/Out, Add Object, and Get Object	With Check In/Out, Add Object, and Get Object, the following objects move: • Specifications
Workstation Installation	See "*Workstation Installation*" under *Interactive Application (Object Type APPL)* for information.

Embedded Event Rules

Check In/Out, Add Object, and Get Object	You cannot check out embedded event rules. Embedded event rules are moved when the object into which the event rule is embedded is checked out. For example, if there are embedded event rules attached to a table, interactive application, or batch application, when you move them, the specifications for the embedded event rule moves with them.
Workstation Installation	See "*Workstation Installation*" under *Interactive Application (Object Type APPL)* for information.

Business Function Event Rule (Type BSFN, Source Language NER)

Check In/Out, Add Object, and Get Object

Business function event rules (object type BSFN) can be checked out. When business function event rules are checked out, the .h file moves to the include directory, the .c file moves to the source directory, the .obj moves to the obj directory, and the local specifications are updated.

Embedded event rules are moved when the object into which the event rule is embedded is checked out. For example, if there are embedded event rules attached to a table, interactive application, or batch application, when you move them, the embedded event rule moves with them.

With Check In/Out, Add Object, and Get Object, the following objects move:

- Specifications
- Source (*.c)
- Header (*.h)
- Object (*.obj)

Workstation Installation	See "*Workstation Installation*" under *Interactive Application (Object Type APPL)* for information.

Media Object Data Structure (Object Type GT)

Check In/Out, Add Object, and Get Object	With Check In/Out, Add Object, and Get Object, data structure specifications move.
Workstation Installation	See "*Workstation Installation*" under *Interactive Application (Object Type APPL)* for information.

Interactive Application (Object Type APPL)

Check In/Out, Add Object, and Get Object	With Check In/Out, Add Object, and Get Object, the following specifications move, which include the following: • Application • Form • Form data structure • Embedded event rules
Workstation Installation	With the Workstation Installation program, all objects and the Microsoft Access database, which contains replicated data, are copied from the package to the workstation. This does not apply to objects in the package for which you do not include specifications. In this case objects are not replicated, but installed on the workstation through just-in-time installation.

Batch Application (Object Type UBE)

Check In/Out, Add Object, and Get Object	With Check In/Out, Add Object, and Get Object, report and event rule specifications move. You must check in/out the version separately from the report.
Workstation Installation	See "*Workstation Installation*" under *Interactive Application (Object Type APPL)* for information.

Batch applications are interpretive and therefore do not have a DLL.

Data Dictionary Items

The data dictionary resides in relational tables on a server. This set of tables is the publisher data dictionary where you make all data dictionary changes you want replicated to servers and workstations. OneWorld stores the publisher data dictionary in the following tables:

- Data Item Master (F9200)
- Data Field Display Text (F9202)
- Data Item Alpha Descriptions (F9203)
- Data Dictionary Error Message Information (F9207)
- Data Field Specifications (F9210)
- Data Dictionary Smart Fields (F9211)
- Media Object Detail (F00165)

When you change data dictionary items, make sure you replicate those changes across your enterprise. In a coexistence configuration, also make sure your WorldSoftware and OneWorld data dictionaries are synchronized.

There are two methods of replicating data dictionary changes:

- Use the Data Replication (P98DREP) program to replicate data dictionary changes to workstations. See the *Data Replication* section in the *System Administration Guide*.
- Use the batch replication method to replicate data dictionary changes to other servers.

Understanding Files Created by the Build Process

This chapter contains the following topics:

- ❑ Workstation Build
- ❑ UNIX Server Build
- ❑ Windows NT Server Build
- ❑ AS/400 Server Build

Workstation Build

Business function dynamic linked libraries (DLLs) on workstations are grouped by related business functions. This grouping limits the size and number of procedures contained in each DLL. It prevents memory allocation problems and avoids platform-specific limits of exported procedures per DLL.

The production environment PD7333/bin32 directory contains the DLLs that are created on the workstation. All of the business function source files are in the PD7333/source directory.

Files Created by a Business Function Build

When you build a single business function through the Object Librarian, the Business Function Builder program uses the make (*.mak) file that you provide, builds the business functions into their respective DLLs, and creates the following files:

- Source file (*.c)
- Header file (*.h)
- Object file (*.obj)

When calling a business function from a business function, you must use the jdecallobject API.

See *Creating and Specifying a Custom DLL* in the *OneWorld Development Tools Guide* for details about how to build business functions into the custom DLL.

Business function event rules create the following files:

- OBJNAME.c
- OBJNAME.h
- OBJNAME.obj

Table event rules create the following files:

- OBJNAME.c
- OBJNAME.hxx
- OBJNAME.obj

UNIX Server Build

Files Created by a Business Function Build

When building business functions, the following groups of source files are actually compiled:

- Business function event rules
- Table event rules
- C business function event rules

When building business functions, the following file types are supplied to the build process:

- Source files (.c)
- Header files (.h, .hxx)

When building business functions, the build process creates the following file types:

- Object files (.o)
- Make files (.mak)
- Shared libraries (.sl, .so)

Business function shared libraries (equivalent to a Windows NT workstation's DLLs) are consolidated. Therefore, one shared library is created for each parent DLL found in the Object Librarian Detail file (F9861). If you are creating custom business functions, make sure you use a custom parent DLL instead of one of J.D. Edwards parent DLLs.

Where Business Functions Are Stored

Business function shared libraries on UNIX platforms are grouped by related business functions. This grouping limits the size and number of procedures contained in each shared library. It prevents memory allocation problems and avoids platform-specific limits of exported procedures per shared library. Beneath the environment PD7333 directory is a source directory. This source directory contains subdirectories for each shared library that is created on the enterprise server. The directory structure looks like the following:

```
PD7333
    source
        CAEC
        CALLBSFN
        CCORE
        CDESIGN
        CDIST
        CFIN
        CHRM
        CMFG
        JDBTRIG
```

In each directory are the business function source files belonging to the shared library. All shared libraries are installed in the PD7333/bin32 directory, and have the same name as the shared library subdirectories with a prefix of lib and a suffix of .sl (HPUX) or .so (AIX).

Specification Files

Specification files must be consolidated into individual files before being transferred to a UNIX server for translation. A specification file is a collection of two files, grouped by the same prefix (RDATEXT for example). The two suffixes, which comprise a complete specification file, are .ddb (the data file) and .xdb (the index file).

Windows NT Server Build

Files Created by a Business Function Build

When building business functions, the following groups of source files are actually compiled:

- Business function event rules
- Table event rules
- C business function event rules

When building business functions, the following file types are supplied to the build process:

- Source files (.c)
- Header files (.h, .hxx)

When building business functions, the build process creates the following file types:

- Object files (.o)
- Make files (.mak)
- DLLs (.dll)

Business function DLLs are consolidated as they are on the UNIX platform or workstation. Therefore, one shared library is created for each parent DLL found in the Object Librarian Detail file (F9861). If you are creating custom business functions, make sure you use a custom parent DLL instead of one of J.D. Edwards parent DLLs.

Where Business Functions Are Stored

Business function DLLs on Windows NT platforms are grouped by related business functions. This grouping limits the size and number of procedures contained in each DLL. It prevents memory allocation problems and avoids platform-specific limits of exported procedures per DLL.

Beneath the environment PD7333 directory is a source directory. This source directory contains subdirectories for each DLL that is created on the enterprise server.

The directory structure looks like the following:

```
PD7333
    source
        CAEC
        CALLBSFN
        CCORE
        CDESIGN
        CDIST
        CFIN
        CHRM
        CMFG
        JDBTRIG
```

Beneath each directory are all of the business function source files belonging to the DLL. All DLLs are installed in the PD7333\bin32 directory, and have the same name as the DLL subdirectories with the .dll suffix.

Specification Files

Specification files must be consolidated into individual files before being transferred to a Windows NT server for translation. A specification file is a collection of two files, grouped by the same prefix (such as RDATEXT, for example). The two suffixes, which comprise a complete specification file, are .ddb (the data file) and .xdb (the index file).

AS/400 Server Build

Files Created by a Business Function Build

When building business functions, the following groups of source files are actually compiled:

- Business function event rules
- Table event rules
- C business function event rules

When building business functions, the following file types are supplied to the build process:

- Source files (.c)
- Header files (.h, .hxx)

When building business functions, the build process creates the following file types:

- Modules (*MODULE type)
- Binding directories (*BNDDIR type)
- Service programs (*SVRPGM type)

Business function service programs (equivalent to a Windows NT workstation's DLLs) are consolidated. Therefore, one service program is created for each parent DLL found in the Object Librarian Detail file (F9861). If you are creating custom business functions, make sure you use a custom parent DLL instead of one of J.D. Edwards parent DLLs.

Where Business Function Source Members Are Stored

Shared libraries on AS/400 platforms are grouped into service programs of related business functions. This grouping limits the size and number of procedures contained in each service program. It prevents memory allocation problems and avoids platform-specific limits of exported procedures per service program.

In the environment PD7333 directory are three groups of files: the service program file, the H file for include files, and the HXX file for event rule header files. The PD7333 library should have the following files:

```
PD7333
    CAEC
    CALLBSFN
    CCORE
    CDESIGN
    CDIST
    CFIN
    CHRM
    CMFG
    H
    HXX
    JDBTRIG
```

Included in the PD7333 library but not listed above are the modules for all business functions.

Beneath each service program file are the business function source members. All service programs are installed in the PD7333 library, and have the same name as the service program files above, with a type of *SVRPGM.

Specification Files

Specification files must be consolidated into individual files before being transferred to an AS/400 server for conversion. A specification file is a collection of two files grouped by the same prefix (RDATEXT for example). The two suffixes, which comprise a complete specification file, are .ddb (the data file) and .xdb (the index file).

Correlating Replicated and Central Objects

The following table shows the correlation between replicated objects stored in specification tables and central objects stored in a relational database that has a binary large object (BLOB).

Replicated Object	Central Object and Description
DDTABL	F98710, Table Header. One record for each table.
DDCLMN	F98711, Table Columns. One record for each column in a table.
DDPKEYH	F98712, Primary Index Header. One record for each table index.
DDPKEYD	F98713, Primary Index Detail. One record for each column in an index.
BOBSPEC	F98720, Business View Specifications. One record for each business view.
GBRLINK	F98740, Event Rules Link. One record for each event that has event rules for applications, reports, or tables (Named Event Rule links are stored in the Business Function F9862).
GBRSPEC	F98741, Event Rules Specifications. One record for each line of event rules.
DSTMPL	F98743, Data Structure Templates. One record for each business function, processing option, form interconnection, report interconnection data structures.
FDATEXT	F98750, Form Design Aid text. Override text for applications.
FDASPEC	F98751, Form Design Aid Specifications. One record for every column, grid line, button, hyperitem, control, and so on, in the application.

Replicated Object	Central Object and Description
ASVRHDR	F98752, FDA/SVR Header Information. One record for each application (if the application has processing options, that information is also stored in the record).
ASVRDTL	F98753, FDA/SVR Detail Information. One record for each form (includes references to the data structures).
RDATEXT	F98760, Report Design Aid Text. Override text for batch reports.
RDASPEC	F98761, Report Design Aid Specifications. One record for each section, column, sort, constant, and so on, in Batch Reports and Versions.
JDEBLC	F98762, Business Function Source Information. One record for each function in BSFN.
CGTYPE	Stored in specification format only. Code Generator Form Types.
DDDICT: One record for each Data Dictionary item that has been just-in-time installed DDINDEX: obsolete in B73.2 - indexes for dictionary DDTEXT: Data Dictionary text	• F9200, Data Item Master • F9202, Data Field Display Text • F9203, Data Item Alpha Description • F9207, Data Dictionary Error Message Information • F9210, Data Field Specifications
NEXTID	F98701, Next IDs Table. Local record of next IDs assigned to each workstation.
GLBLTBL	Cache Information From Data Dictionary and Table Specifications. Runtime table and override information. Built dynamically the first time a table is used.
SMRTTMPL	Data structure required field information.

Performing Backups and Restoring Objects

You can back up development objects on workstations and servers as frequently as you need.

J.D. Edwards recommends the following:

- Developer Workstation backups: Developers at J.D. Edwards do not back up their OneWorld directory to the server because of server-space concerns. Instead, they check in the objects they are working on every eight hours, or however often needed to avoid rework.

  Unless you have unlimited disk space on a file server to allow developers to back up their entire path code directory, you must use the check-in process as your backup method. If you follow the recommended development process, developers will know that they are allowed to check in unfinished or broken applications into the DEV path code.

- End User Workstation backups: End users should not have nonreplicated data on their machines except store-and-forward transactions that have not yet been uploaded to the transaction tables. You should establish a policy that all Store and Forward users must upload their transactions before they leave for the day. If they cannot do so, you should have a procedure in which they back up their local database to a file server with their name as a subdirectory.
- Development Server backups: At J.D. Edwards, our IT department backs up both our development file server (normally your deployment server) and necessary databases (central objects, Object Librarian, and data dictionary). When someone needs to restore a particular object from backups, our database administrators restore the export to a path code called "Restore." A developer would then check the object out from Restore, ensure that the objects are as expected, and check into the normal development path code.
- Deployment Server backups: The entire server does not need to be backed up nightly. The only directories that might change on a daily basis are:
  - The DEV path code if you are modifying objects, building new packages or updating the Access database delivered during a workstation installation.
  - HELPS if you are modifying help files.
  - MEDIA OBJ if your media objects are residing on the deployment server. OneWorld data sources in Oracle or SQL Server should be

backed up nightly if your system data or any other important data is stored on the deployment server.

- Enterprise Server backups:
    - You should back up DBMS nightly. J.D. Edwards recommends using the backup tool provided by the RDBMS vendor.
    - Back up OneWorld objects by backing up the entire OneWorld directory. However, you do not need to back up any directories other than the PROD and DEV path codes and the JDE.INI file. Path codes are updated by the Version Control administrator when deploying an object modified by developers who are authorized to access the Server Package application, and by end users who create new batch versions to be executed on the server.

For more information about backing up and restoring, see the *Server and Workstation Administration Guide*.

Copying Solution Explorer Records Between Data Sources

For OneWorld Xe, you use the Object Management Workbench tool to copy control table records from one data source to another. However, for Solution Explorer records you must use the Solution Explorer Record Copy application if you need, for instance, a separate set of UDCs, menus, or data dictionaries for your production and CRP environments. In this case, each change you make to the CRP environment can be copied to the production environment through the Solution Explorer Record Copy application.

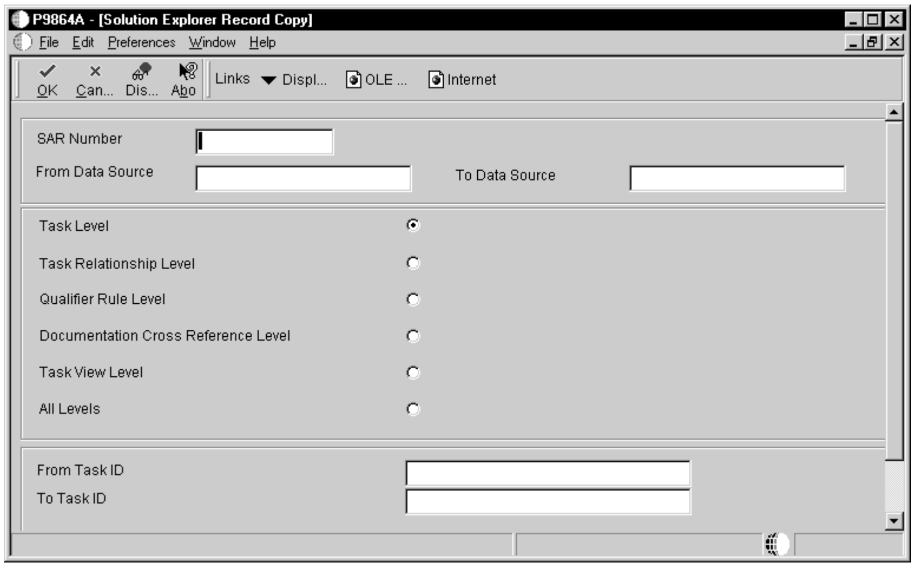
Copying Solution Explorer Records Between Data Sources

This task explains how to copy control table records in Solution Explorer from one data source to another data source. You can copy the following control table records:

- Tasks
- Task Relationships
- Qualifier Rules
- Documentation Indexes
- Task Views
- All

▶ To copy records between data sources

1. From the Content Management task view, choose Solution Explorer Record Copy (P9864A).


P9864A - [Solution Explorer Record Copy]
File Edit Preferences Window Help
OK Can... Dis... Abo
Links Displ... OLE ... Internet

SAR Number

From Data Source

To Data Source

Task Level [✓]

Task Relationship Level

Qualifier Rule Level

Documentation Cross Reference Level

Task View Level

All Levels

From Task ID

To Task ID

2. On Solution Explorer Record Copy, complete the following fields:
   - SAR Number

     Type the SAR number for a group of tasks you want to move. Even if the tasks are not associated with a SAR, type an arbitrary number in this field.
   - From Data Source

     Type the data source you are copying the records from.
   - To Data Source

     Type the data source you are copying the records to.
3. Click on one of the options below then complete the relevant fields that appear at the bottom of the form.
   - Task Level

     Choose Task Level to transfer a single task or a range of tasks. OneWorld will transfer all tasks in the range between the From Task ID and To Task ID. If you want to transfer a single task, enter the task ID in both the From and To fields.

     When you copy Solution Explorer tasks from the Task Level, the records are copied into all task relationships and task views in which they appear in the source data source.
   - Task Relationship Level

Choose Task Relationship Level to transfer tasks associated with a parent task (task node). Complete the fields below to transfer tasks at this level:

- Parent Task -Type the parent task of the node or task you want to transfer.
- Child Task - Type a child task. If the child task is a node, OneWorld will transfer the node and all of its children.
- Task View - Type the task view for which you want to copy this task relationship. OneWorld will copy the task relationship only to the task view you specify, even if this task relationship exists in other task views.

- Qualifier Rule Level

  Choose Qualifier Rule Level to transfer one or more Qualifier Rules. OneWorld will transfer all Qualifier rules within the range you specify.

- Documentation Cross Reference Level

  Choose Documentation Cross Reference Level to transfer documentation index records associated with task IDs. Type a range of task IDs to transfer a range of documentation indexes. OneWorld will transfer all indexes within the range you specify.

- Task View Level

  Choose Task View Level to transfer all tasks, task relationships, qualifier rules, and documentation indexes associated with a task view. When you transfer these records within a given task view, OneWorld will only display those tasks within the view you specify.

- All Levels

  Choose All Levels to transfer all Solution Explorer tasks, task relationships, qualifier rules, documentation indexes, and variants. Check Clear To Data Source if you want to delete the contents in the target data source before you copy the new records from the source data source.

Package Build

As OneWorld applications, business functions, and other objects change, you will need a means of making the changes available to users within your enterprise. You may also need to set up a new workstation with OneWorld software.

Packages allow you to deploy software changes and new applications to your users, or to install OneWorld on a workstation for the first time. After you have defined and built a package, you can deploy it using the Client Workstation Installation or Package Deployment applications.

Package Build contains the following topics:

- ❑ Understanding packages and deployment
- ❑ Assembling packages
- ❑ Defining package builds
- ❑ Incorporating features into packages
- ❑ Viewing package build history and logs
- ❑ Understanding package INF files
- ❑ Understanding feature INF files

Understanding Packages and Deployment

You may need to update or set up a workstation or an enterprise, logic, or application server with OneWorld software for a variety of reasons:

- You want to set up a workstation for a new OneWorld user or group.
- You need to deploy custom solutions to all users or only to selected users.
- You have created a new path code for development purposes, and you need to deploy it.
- You need to rapidly deploy a software fix to a selected group of affected users.
- Disk space is getting low on some of your workstations, and you need to create a minimum configuration of OneWorld. (To avoid this situation, J.D. Edwards recommends that all production users use partial packages.)
- You need to update your servers with custom modifications you've developed using the OneWorld toolset.

J.D. Edwards provides solutions to meet all of these needs. First, OneWorld provides the means to create a package describing where to find the necessary components that need to be distributed to your workstations. In order to deploy these components, you must define and build a package.

To provide maximum flexibility, there are three different package types to choose from: full, partial, and update. Partial packages are available only for workstations. The package type you choose depends on your needs.

After you have defined and built your package, it is ready for distribution. Depending on the package type, you can deploy packages through the Client Workstation Installation or Package Deployment applications.

Package Deployment enables you to specify the workstations and servers that receive the package, as well as when the package is made available. Packages can be deployed to all machines within the enterprise, a select group of machines, or individual machines. If you wish, you can schedule a package to be "pushed" from the deployment server to workstations. Push installation requires no interaction with the workstation user.

This chapter contains the following topics:

❑ Understanding Full and Partial Workstation Configurations

❑ Understanding Just-in-Time Installation

- ❑ Understanding Package Types
- ❑ Understanding Features
- ❑ Overview of Creating and Deploying a Package
- ❑ Understanding Server Packages
- ❑ Considerations for Users of Sun Microsystems, Inc. Platforms

Understanding Full and Partial Workstation Configurations

Before you begin assembling and building packages, you should have an understanding of the two types of workstation configurations available in OneWorld: full and partial. These terms refer mainly to the amount of disk space the installed package requires on the workstation. Having a good understanding of these two configurations will help you determine the suitable package type (full or partial) for the workstations in your enterprise.

A full workstation configuration requires a larger amount of disk space, and installation times can be longer. A typical full workstation installation takes more than 1.4 GB of disk space and can take 10 to 30 minutes to install, depending on network traffic.

A partial workstation configuration represents a minimum configuration of OneWorld and requires significantly less disk space compared to a full workstation. OneWorld installation times are also dramatically faster for a partial workstation configuration. A typical partial workstation configuration requires approximately 165 MB of disk space and takes 3 to 10 minutes to install, again depending on network traffic. However, because OneWorld adds applications to the minimum configuration as the user needs them, users with WAN access may find that performance for a partial workstation is unacceptably slow.

The main difference between the full and partial workstation configurations is the amount of specifications resident on the workstation. A full workstation configuration contains the full suite of OneWorld applications, including those you rarely or never use. The benefit of a full workstation configuration is that all applications are available immediately. The disadvantage is the disk space it requires on a workstation.

J.D. Edwards recommends that production users install partial packages, because partial packages are much easier to administer and maintain. Production users should install full packages only if just-in-time installation performance is unacceptable on your network's configuration.

J.D. Edwards recommends that development users install full packages, because full packages contain development objects not found in partial packages.

There are advantages to both full and partial workstation configurations, and you must evaluate your needs before determining which is best for your enterprise. The following summarizes the benefits and disadvantages of the different configurations:

Full Workstation

Advantages:

- Includes the full suite of OneWorld applications (all specifications and foundations). Developers have local access to all OneWorld objects.
- After initial client workstation installation, network traffic is lower than with a partial workstation configuration because all applications are installed at once.

Disadvantages:

- Requires a larger amount of disk space on the workstation.
- Initial installation time is much longer compared to a partial workstation configuration.

Partial Workstation

Advantages:

- Requires much less disk space on the workstation compared to a full workstation configuration.
- Initial installation times are much faster for a partial workstation configuration.
- Only those objects required to begin using OneWorld are deployed during client workstation installation. All other applications are delivered through just-in-time installation when the user first enters an application.

Disadvantages:

- Slight increase in network traffic when first-time users load applications.
- Performance for just-in-time installation over a WAN might be slower than over a LAN.
- Developers cannot use partial packages, since development objects are not delivered.

Understanding Just-in-Time Installation

A partial workstation doesn't have any applications resident. Instead, applications are retrieved at runtime and loaded on the workstation the first time a user selects that application from the OneWorld Explorer menu. Loading happens only once; the next time the user selects the same application, it will still be loaded on the workstation. This process is called "just-in-time installation"

(JITI). JITI applies only to applications; business functions cannot be installed through JITI.

JITI works both when there are no applications installed and when your workstation receives a partial or update package that does not contain specifications. Update and partial packages that contain specifications do not require the JITI process.

When you make a menu selection from OneWorld Explorer, the runtime engine checks to see if application specifications reside on your workstation. If local specifications do not exist (and the Environment Master just-in-time installation flag is set to Y, and your security profile allows the application to be installed), the specifications are transferred from the central objects data source for the path code associated with your environment. In this way, needed applications are installed "just-in-time" rather than when the user receives the package or at initial installation time.

The process for an update package works almost the same way. When you receive an update package that contains a changed application without the new specifications, OneWorld first checks to see if that application's specifications are resident on your workstation. If so, it deletes from your workstation old versions of that application. Then, the next time you select that application from the OneWorld Explorer menu, OneWorld loads the new version of that application.

When a package includes applications without specifications, at the time of execution only the following related objects are deployed:

- Interactive or batch application specifications
- Imbedded event rules for the application
- Processing option templates, data structures, and related business views

The following objects are not deployed, and therefore must be included in the package if they have been modified:

- Business functions and their data structures
- Generic text data structures
- Table event rules (comes with tables)
- Named event rules
- New icons

Understanding Package Types

After you determine whether you want to have a full or partial workstation configuration, you can build the following types of packages:

- Full

- Partial
- Update

Full Packages

Full packages are static, point-in-time snapshots of the central objects for the path code the package is based on. A full package contains everything developers need to run and develop in OneWorld. Specifically, this includes a full set of TAM specification files, a full set of DLLs, all of the .c and .h files for business functions and tables, and an INF file that defines where the foundation, data, helps, and packages are located. Select this package type when you want to create a full workstation configuration.

The main advantage of a full package is that users have every OneWorld application available for which they are licensed. Because specifications reside on the workstation, information is handled locally which eliminates network traffic. In contrast, a partial package requires the just-in-time installation process to download objects when they are used the first time. A few specifications and tables may still be installed just-in-time when you deploy a full package, but the impact on network performance is insignificant.

Full packages are primarily for initial OneWorld installations and are normally deployed via the Client Workstation Installation application. You can also use Package Deployment to install a full package on a machine that already has OneWorld installed.

Full packages can also include development objects such as business function source files, object files, and header files. A user who needs to load development objects will be given the option to do so at deployment time.

Partial Packages

Partial ackages provide a minimum configuration of OneWorld. Use partial packages when you want to create a partial workstation configuration. A partial package essentially contains only the specifications that allow users to launch OneWorld Explorer. Specifically, a partial package starts with an empty set of TAM files, and then adds the specifications for the objects that are included in the package. Also included in a partial package are a full set of DLLs and an INF file that defines where the foundation, data, help files, and package objects are located.

Applications are loaded through just-in-time installation the first time the user selects an application from the OneWorld Explorer menu. The selected application is loaded from the central objects data source for that path code.

Like full packages, partial packages are primarily for initial OneWorld installations and are normally deployed via the Client Workstation Installation application, although you can use Package Deployment to install a partial package on a machine that already has OneWorld installed.

Update Packages

An update package enables you to update, add to, or refresh an existing full or partial package with changed objects such as a database, application objects, foundation, or help files. This package type is well-suited for quickly deploying software changes and fixes.

Unless a package includes applications that do not have specifications, the update package is a point-in-time copy of your central objects for a particular path code. If the update package contains an application without specifications, only that application is dynamic; the rest of the package is static. *Dynamic* means the applications are pulled directly from the central objects data source at the moment the application is first selected.

When a user receives an update package, OneWorld loads on the user's workstation all objects in the package after the user signs on. The objects in an update package replace those same objects on the workstation. All other objects on the workstation are left untouched.

Applications in a package can be secured through Security Workbench, which checks to determine if the user has permission to install an application. Only users authorized to load the application are able to do so. Therefore, your update package can contain a varying assortment of applications going out to several diverse users or groups, but only the authorized users or groups can receive the applications that apply to them.

Like full packages, update packages can include development objects such as business function source files, object files, and header files. Update package recipients will be given the option to load development objects at deployment time.

Because of the way just-in-time installation works, performance across a WAN might be slow if the partial or update package contains only applications without specifications. Users on a WAN may find that performance is better if they include an application's specifications in the package.

All update packages require a corresponding parent package on which the update package is based. The parent package is a full or partial package that is updated by update packages. All objects in the update package are merged into the parent package.

Business function objects in the update package are linked to the corresponding parent package's objects, and new DLLs are created. Similarly, specifications from the update package are merged into the parent package's specifications.

The parent package concept applies to both workstations and servers. Parent packages for workstations are kept on the deployment server, while server parent packages are kept in the enterprise server's build area.

Understanding Features

In addition to OneWorld objects, you can also add a feature to a package. A feature is a set of files or configuration options that must be copied to a workstation or server to support a OneWorld application or other OneWorld function. Like OneWorld objects, features are built into a package and deployed to the workstations and servers that require the feature components.

For example, you might need to add to a package ActiveX controls, a Microsoft Access database for the Sales Force Automation feature, ODBC data sources for use with Open Data Access, or Microsoft Windows registry settings.

You define a feature by using the Feature Based Deployment Director. You can then add the feature to a package by using the Package Assembly Director and Package Build Definition Director.

For more information about adding features to a package, see *Incorporating Features Into Packages.*

Overview of Creating and Deploying a Package

The following is an overview of the steps involved in creating and deploying a package:

1. Assemble the package.

   The initial step involves specifying the type of package you are building and providing a name, path code, and package description. Next, you assemble your package by specifying the objects you want to include in the package. If you are building a partial or update package, you can specify individual objects to include.

   The process of assembling the package is simplified by the Package Assembly Director, which displays a series of forms that guide you through the steps of naming your package and assembling the objects you want to include in the package.

   See *Assembling Packages* in this section for details on how to assemble a package.

2. Define the package build.

   After you assemble the package, you must define the build before you can deploy the package to your workstations and servers. In this step you specify the following:

   - Build options
   - Build specification options

- Business functions build options
- Compression options
- Build features options

You also need to specify whether the package is for a workstation, server, or both. If the package is for servers, you must specify which servers should receive the package.

Again, to simplify the build process, the Package Build Definition Director displays a series of forms that guide you through the steps of specifying where to build the package, whether to include specifications, whether to compress or build business functions, and so on.

See *Defining Package Builds* in this section for information on how to define a package build.

3. Build the package.

   During the actual build process, OneWorld takes the information you provided when you assembled and defined the package, and copies and converts central objects to the package. It also performs a global build of the business functions included in the package, and then compresses the package.

4. Schedule the package for deployment to workstations.

   If you build an update package (or if you want to redeploy a full or partial package to a workstation that already has OneWorld), you must specify the date and time to deploy the package. When you schedule the package you can make package installation mandatory or optional.

   At this same time you can specify whether you want the package to be deployed via push installation, which requires no interaction with the package recipient.

   See *Deploying Packages* for information on how to schedule a package. For information on push installation, see *Using Push Installation.*

5. Deploy the package to deployment and enterprise servers.

   Use Package Deployment to move any changed objects to the enterprise server.

   If you specify a server during the package build definition process, OneWorld automatically creates a corresponding server package in the correct format. If you do not specify a server and define only a workstation package, you should create a corresponding server package. The process is nearly identical to creating a workstation package.

See *Deploying Server Packages* for information.

How OneWorld Builds a Full Package

Following is an overview of how OneWorld builds a full package:

1. Creates the package build directories.
2. Creates the INF file.
3. Copies the following directories and files from the check-in location to the package name directory:
    - res
    - source (.c files)
    - include (.h files)
    - work
    - make
    - bin32
    - lib32
    - object (.obj files)

    Note: If you choose to build business functions with the package build, OneWorld does not copy bin32, lib32, and object (.obj) files, because the BusBuild program creates them.
4. Builds the TAM specification files from the information in the relational database.
5. Runs the BusBuild function to compile and link the business functions that create the DLLs in the bin32 directory, the objects in the obj directory, and the libraries in the lib32 directory.
6. Compresses the directories.

How OneWorld Builds a Partial Package

Following is an overview of how OneWorld builds a partial package:

1. Creates the package build directories.
2. Creates the INF file.
3. Builds an empty set of TAM specification files.
4. Copies the following directories and files from the check-in location to the package name directory:
    - res
    - work

- make
- bin32
- lib32

Note: If you choose to build business functions with the package build, OneWorld does not copy bin32 and lib32 files, because the BusBuild program creates them.

5. Builds the specifications for the objects in the *LITE record.
6. Runs the BusBuild function to compile and link the business functions that create the DLLs in the bin32 directory, the objects in the obj directory, and the libraries in the lib32 directory. (Optional)

   Note: If you do not run the BusBuild program when you build the partial package, you must run this function separately.

7. Compresses the directories. (Optional)

How OneWorld Builds an Update Package

Following is an oerview of how OneWorld builds an update package.

1. Creates the package build directories.
2. Creates the INF file.
3. For each object in the F9631 table, gets the information out of the relational database and adds it to the TAM specification files.
5. Runs the BusBuild function to update the DLLs in the bin32 directory, the objects in the obj directory, and the libraries in the lib32 directory.

Understanding Server Packages

All OneWorld application development takes place on workstations. The development objects themselves are stored on a single deployment server and are managed by the Object Management Workbench. OneWorld allows you to partition business applications to an enterprise server. In order to ensure that modifications and enhancements developed on the workstation are reflected on the server, you must build a server package containing those modifications and enhancements.

Through the same Package Assembly and Package Build applications that enable you to create workstation packages, you can assemble, define, and build server packages that push objects from the central objects location to enterprise servers. A server package is a group of specification records, source files, and header files. Compiled objects are created on the enterprise servers. After defining and building a server package, you can install it to enterprise, logic, or application servers by using the Package Deployment application.

In a development environment, developers can create server packages whenever they create or modify an object and there is a need for that object to be on the enterprise server. In a production environment, a OneWorld system administrator should create server packages.

A server package is essentially the same as a client workstation package, with the following exceptions:

- Server packages do not include OneWorld help information or a Microsoft Access database.
- Foundation code is not typically deployed as part of a server package.
- Some sets of TAM (table access management) specifications such as those used in form design (that is, interactive engine specifications,) are not used on servers and therefore are not included in a server package.
- Some business functions are not built on the server, and therefore are not included in a server package.
- Partial packages are not available for servers.

There are three reasons to create a separate server package that corresponds to the workstation package:

- Business functions are not compatible across platforms. For example, a business function compiled on a Windows NT workstation will not run on a UNIX server. Also, not all business functions are compiled on the server.
- Data alignment is different across platforms. TAM files built on the workstation won't run on the server unless you convert them. Also, integer representation (the way numbers are recognized and identified) is different on servers than on the workstation.
- ASCII to EBCDIC conversion must take place for the AS/400.

In addition, there are differences between server platforms. For example, each enterprise server platform has its own internal storage for specifications, which are not compatible across platforms. Also, each enterprise server platform uses different compilers and has different object representation, so business functions are not compatible across platforms.

Understanding the Server Package Build Process

Although creating a server package is identical to creating a client workstation package, the purpose for creating server packages is different. The main purpose of the server package build process is to enable OneWorld administrators to build TAM specifications and business functions on the enterprise servers.

The Package Build application provides the following benefits for building server package builds:

- Provides complete integration with client workstation package builds

- Allows administrators to build a package on multiple servers simultaneously
- Enables administrators to build individual package components simultaneously on the server
- Supports the ability to build a package on one enterprise server and deploy to another server of the same type
- Creates history records that enable monitoring from the client workstation, so the administrator is able to determine what has been built
- Creates compressed files and loads them onto the deployment server for easier mastering to CD
- Supports both full and update packages
- Provides restart capabilities for builds that do not complete successfully

You can install the following objects on an enterprise server:

- Business functions
- Business views
- Data structures
- Tables (installation does not create the table in a database; it only pushes the specifications and table header files to the server)
- Batch application specifications (both templates and versions)
- Application specification records

Because server packages are assembled and defined in the same way as client workstation packages, you can assemble a server package (using Package Assembly) and build the server package (using Package Build) at the same time you assemble and build client workstation packages.

The following describes what actually happens during the build process after you have assembled the server package and defined the package build:

1. After the build process starts, OneWorld creates packed TAM files.
2. OneWorld submits a server package batch application locally.
3. This batch application calls a business function, which in turn calls the server package engine.
4. The build engine uses records created by the Package Assembly Director and Package Build Director to do the following:
   - Initialize directories on each server.
   - Begin transferring packed TAM files. As each packed file is transferred, an unpack process starts on the server.
   - Transfer all business function source and header files to the server. At this time the build engine reads the F9860 table to determine the

DLL in which each module belongs. For the JDBTRIG library, a special function is called to direct the trigger library in which the module belongs. In this case the F9860 table is not used.

- Start a build master process on the server when all business function source is transferred. This build master starts one or several individual build processes simultaneously. Each DLL has its own build process. The number of processes that run simultaneously is determined by a JDE.INI file setting.
- Move the process to another server, if one was specified during the package build process. The process transfers and builds all components on that server.
- Check the status of each build piece on each server after the build process has begun on all servers. History records are updated as the statuses change.
- Compress the package components and put the compressed files on the deployment server when building is complete. This happens only if compression was specified when the package was built through the Package Build application. This process is repeated for all servers.

JDE.INI Settings for Server Package Builds

If your server package includes business functions, the BSFN BUILD section of the JDE.INI file applies to the package. The following example illustrates a typical entry for UNIX-based servers.

See Also

- The *System Administration Guide* for complete information about the JDE.INI file

```
 [BSFN BUILD]
BuildArea=/u17/i5745669/b73.3/appdev/packages
DebugFlags=-g -y D_DEBUG -DJDEDEBUG
InliningFlags=
DefineFlags=-DKERNEL -DPRODUCTION_VERSION -DNATURAL_ALIGNMENT
CompilerFlags=-Aa +w1 +z -c
OSReleaseLevel=+DAportable
LinkFlags=-b -z
LinkLibraries=
SimultaneousBuilds=0
DoCompression=1
```

Setting	Value	Purpose
Build Area=	/usr/jdedwardsoneworld/b7333 /packages	The location on the server where the package will be built.
Optimization Flags=	+02 (default for HP 9000) -02 (default for RS/6000 and Sun)	Machine dependent. These compile flags are used when building business functions in “Release” mode. You should not change these flags.

Setting	Value	Purpose
DebugFlags=	-g -y -D_DEBUG _DJDEDEBUG (default for HP 9000) -g -qfulpath -qdbextra -D_DEBUG -DJDEDEBUG (default for RS/6000) -g -D_DEBUG -DJDEDEBUG (default for Sun)	Machine dependent. These compile flags are used when building business functions in "Debug" mode. You should not change these flags.
InliningFlags=	blank (default)	Yes turns on inlining on the AS/400. No turns it off. This entry is blank for non-AS/400 servers.
DefineFlags=	-DKERNEL -DPRODUCTION_VERSION -DNATURAL_ALIGNMENT -D_HPUX-SOURCE (default for HP 9000) -DKERNEL -DPRODUCTION_VERSION -DNATURAL_ALIGNMENT (default for RS/6000) -DKERNEL -DPRODUCTION_VERSION -DNATURAL_ALIGNMENT -D_SUN-SOURCE (default for Sun)	
CompilerFlags=	-Aa +w1 +z -c (default for HP 9000) -qalign=natural -qflag=I:I -c (default for RS/6000) -qspill=1024 -misalign –KPIC (default for Sun)	Machine dependent. Valid compiler flags. The spill flag sets the stack space when business functions are compiled. J.D. Edwards has found that 1024 is adequate to compile the delivered business functions.
OSReleaseLevel=	+DAportable –q32 (for AIX)	Release level you are compiling to. You should not change these flags.
LinkFlags=	-b -z (default for HP 9000) -bl:/<your system directory>/bin32/functlist.imp -bM:SRE -bexpall -brtl -lc -bnentry -L. L/usr/<your system directory>/lib -ljdelib -ljdekrnl -ljdenet -bloadmap:loadmap (default for RS/6000) -G –L$(ORACLE_HOME)/lib (default for Sun)	Machine dependent. These flags are used when linking business functions. You should not change these flags.
LinkLibraries=	blank (default)	Libraries to which business functions are linked. (Windows NT and AS/400 servers only.)

Setting	Value	Purpose
SimultaneousBuilds=	0 (unlimited) (default) any integer (number of simultaneous builds)	Indicates the number of DLLs that can be built at a time. Zero means that all will be built simultaneously.
DoCompression=	1	Compresses packages built on the server and deploys them to other servers of the same type (such as all AIX Unix servers or NT servers). If the server is a different type, then you must build a package on that server.

JDE.INI Settings for Workstations

When you build full or partial client packages that include both business functions and specs, add the following setting to the [INSTALL] section of the jde.ini file on the build machine:

```
WaitForBusbuild=Y
```

When you add this setting, OneWorld builds the specs and business functions sequentially instead of simultaneously, which can speed up the build process.

Considerations for Users of Sun Operating Systems

If you develop custom modifications on Sun servers that are running the Solaris operating system, there is one important step you might need to take before assembling, defining, and building packages that contain your modifications. This step ensures that the package build process completes successfully.

The Sun Solaris compiler expects a newline character at the end of every source code file it compiles. If the compiler does not find this newline character, it rejects the line and displays a warning message. In some cases, this line rejection and message could cause the package build to fail.

To ensure that this does not happen, before you assemble the package that will contain your custom modifications, you must ensure that this newline character is present in the compiled source code.

There are some cases where the newline character is automatically added, and you will not need to take this extra step. If you edit source code in the UNIX environment using an editor such as VI or emacs, these editors automatically add the newline character. Also, J.D. Edwards has added a process to ensure that the newline character is added to all business function source code files shipped with OneWorld.

However, if you edit source code on a PC workstation and then transfer the file to the server for compiling, be aware that PC workstation editors typically do not add the newline character. In this situation you should check your source code and verify that the newline character exists.

Assembling Packages

The first step in building and deploying a package is to assemble the package, which entails selecting the type of package you want to build, providing a package name and detailed description, and assembling the objects you want to include in the package. This same package name and description appear during Workstation Installation when the user chooses a package to install.

This package assembly process is greatly simplified by the Package Assembly Director, which steps you through the process. During package assembly, the status will always be either In Definition or Definition Complete. Once package assembly definition is complete you can then define the package build as explained in *Defining Package Builds*.

This chapter contains the following topics:

- ❑ Understanding the Package Assembly Director
- ❑ Assembling a package
- ❑ Activating an assembled package
- ❑ Revising an existing package
- ❑ Copying a package
- ❑ Deleting a package

Understanding the Package Assembly Director

The Package Assembly Director guides you through the process of specifying or confirming the location where package components can be found, as well as indicating the objects to include in the package. In the Director, you always have the option of going to the previous or next screen. Also, you can always cancel the assembly process.

The following summarizes the function of each Package Assembly Director form:

Welcome form	Provides a description of the Package Assembly Director.

Package Information form	Enter the package name, description, and corresponding path code on this form.
Package Type Selection form	Indicate on this form whether you are creating a full, partial, or update package. When you create an update package, you must also indicate the parent package on which the update package is based. For example, if you are creating a package to update your original partial package called APPL_B, you would enter "APPL_B" as the parent package for your update package. You also have the option of including object specifications in an update or partial package. If you do not include specifications, the application is installed through just-in-time installation the first time a user selects that application. That is, the application specifications are pulled dynamically from the central objects data source the first time a user selects the application after receiving the package.
Foundation Component form	Enter a foundation location on this form. A OneWorld foundation is the code required to run all OneWorld applications. It is required for all full and partial packages. If you do not specify a foundation path for full and partial packages, the default foundation path will be used. Update packages use the parent package's foundation unless one is specified.
Help Component form	Enter a help location on this form. The help component determines where the system looks for the help files associated with the package. For full and partial packages, if you do not specify a help location, the default help file path will be used. Update packages do not require help files. Including a help component in a package does not mean helps are installed on the user workstation. The help component tells OneWorld where to find the help files that are associated with the package.
Database Component form	Specify on this form the location of the database to be included in the package. For full and partial packages, if you do not specify a database location, the default database path will be used. Update packages do not require a database.

Default Object Component form (for full packages only)	Use this form to verify the deployment data source. When you build a full package, the objects included in the package will be pulled from the deployment data source that is associated with the path code you have specified for the package.
Object Component form (For partial and update packages only)	Specify on this form the individual objects you want to include in the package. You can add any of the following objects: • Interactive or batch applications • Business function modules • Business views • Data structures • Media object data structures • Table definitions
Features Component form	Use this form to include features in your package. A feature is a set of files or configuration options such as registry settings that must be copied to a workstation or server to support a OneWorld application or other OneWorld functionality.
Language Component form	Use this form to include in your package language specifications for a language other than English.
Package Component Revisions form	Review your selections and default values for the Foundation, Help, Database, Objects, Features, and Language forms. You can modify any or all of your selections on this form.

Accepting Default Values

Many of the forms in the Package Assembly Director have a default value and, after making sure you want to use the displayed value, you can advance to the next form without entering anything.

Forms determine the default values based on the following:

- Foundation: The default foundation location is the server share path under the path code associated with the package.
- Help: The default help location is the server share path under the path code associated with the package.
- Database: The default database location is the server share path under the path code associated with the package.
- Objects: The default location for full packages is the deployment data source.

- Language: The default language is English.

On forms that have a default value, even if you change or clear the field you can always restore the original default value by clicking the Default button. The Package Component Revisions form also has a Set Default option accessible from the Form menu that accomplishes the same thing.

If you are building a full or partial package, and do not need to specify the objects in that package, the fastest way to define the package is to accept the default locations for the foundation, database, help, and language. This method applies only to full and partial packages. For an update package, if you accept the defaults but do not include any objects, you will have an empty package.

As you view the forms displayed by the Package Assembly Director, you can accept the displayed default selections by clicking Next. If necessary, you can always make changes at the final Package Component Revisions form.

Assembling a Package

This section describes how to assemble a package using the Package Assembly Director, and includes the following tasks:

- Running the Package Assembly Director
- Reviewing the Package Assembly Selections
- Entering a Foundation Location
- Entering a Help File Location
- Entering a Database Location
- Adding Objects to a Package
- Adding Features to a Package

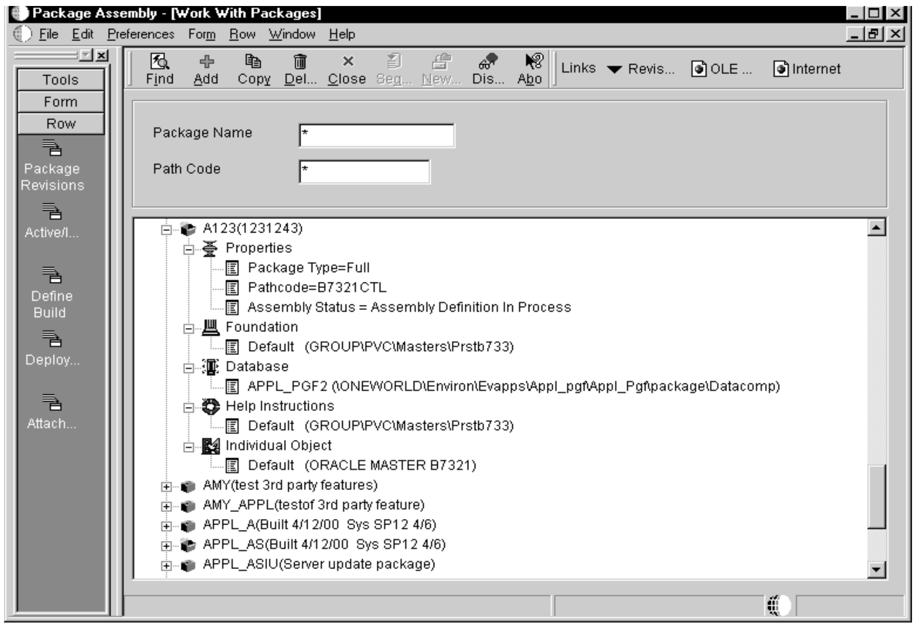
Running the Package Assembly Director

Complete the following task to enter default information into each of the main forms of the Package Assembly Director. For details on customizing the information on each of these forms, refer to the relevant subsequent tasks.

▶ To run the Package Assembly Director

From the Package and Deployment Tools menu (GH9083), choose Package Assembly (P9601).

The Work with Packages form appears.


Package Assembly - [Work With Packages]
File Edit Preferences Form Row Window Help
Find Add Copy Del... Close Seg... New... Dis... Abo
Links Revis... OLE ... Internet
Tools
Form
Row
Package Revisions
Active/I...
Define Build
Deploy...
Attach...

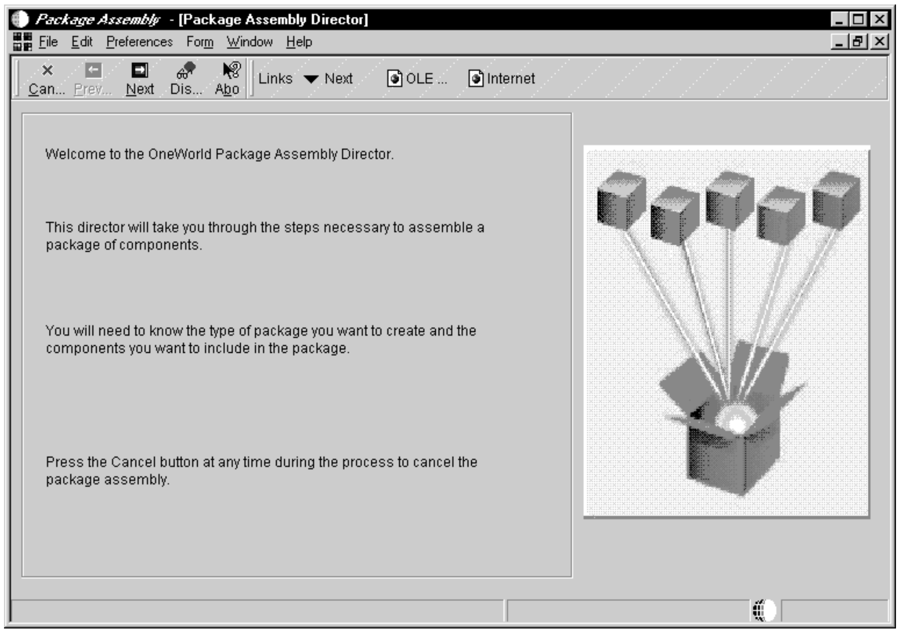
Package Name *
Path Code *

```
A123(1231243)
  Properties
    Package Type=Full
    Pathcode=B7321CTL
    Assembly Status = Assembly Definition In Process
  Foundation
    Default   (GROUP\PVC\Masters\Prstb733)
  Database
    APPL_PGF2 (\ONEWORLD\Environ\Evapps\Appl_pgf\Appl_Pgf\package\Datacomp)
  Help Instructions
    Default   (GROUP\PVC\Masters\Prstb733)
  Individual Object
    Default   (ORACLE MASTER B7321)
AMY(test 3rd party features)
AMY_APPL(testof 3rd party feature)
APPL_A(Built 4/12/00  Sys SP12 4/6)
APPL_AS(Built 4/12/00  Sys SP12 4/6)
APPL_ASIU(Server update package)
```

Any previously assembled packages appear on this form. As on any other parent/child form, you can expand or compress by clicking the plus (+) or minus (–) symbols to show more or less information.

For any previously assembled packages, underneath the package name you can view the package properties (including package type and current status,) as well as the selections for foundation, database, help, and language.

1. To assemble a new package, click Add.


Package Assembly - [Package Assembly Director]
File Edit Preferences Form Window Help
Can... Prev... Next Dis... Abo
Links Next OLE ... Internet

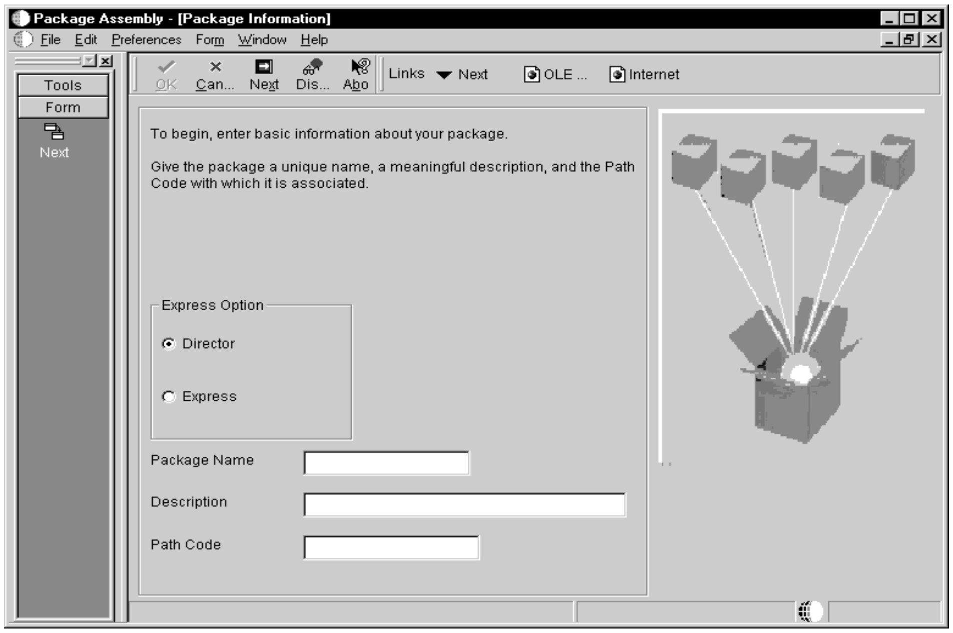
Welcome to the OneWorld Package Assembly Director.

This director will take you through the steps necessary to assemble a package of components.

You will need to know the type of package you want to create and the components you want to include in the package.

Press the Cancel button at any time during the process to cancel the package assembly.

2. From the Welcome screen of the Package Assembly Director, click Next.


Package Assembly - [Package Information]
File Edit Preferences Form Window Help
Tools
Form
Next
OK Can... Next Dis... Abo
Links Next OLE ... Internet

To begin, enter basic information about your package.

Give the package a unique name, a meaningful description, and the Path Code with which it is associated.

Express Option

(●) Director

( ) Express

Package Name

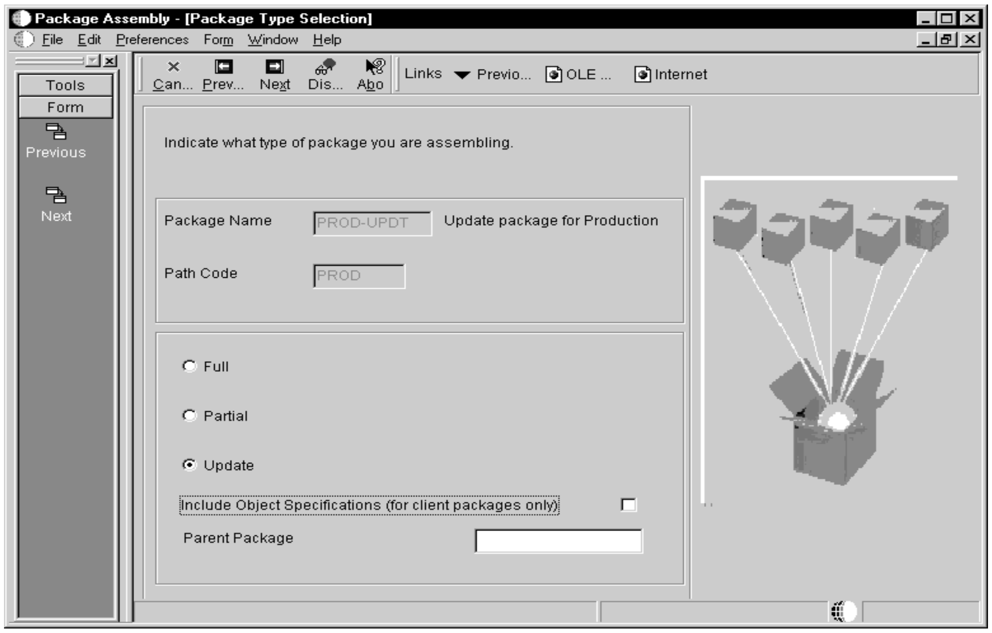
Description

Path Code

3. On Package Information,. complete the following fields:
   - Package Name
   - Description
   - Path Code
4. Choose one of the following options:
   - Director

     To customize the package assembly.
   - Express

     To accept default values for the package assembly. Continue with the following task, Reviewing the Package Assembly Selections.
5. Click Next.


Package Assembly - [Package Type Selection]
File Edit Preferences Form Window Help
Tools
Form
Previous
Next
Can... Prev... Next Dis... Abo
Links Previo... OLE ... Internet

Indicate what type of package you are assembling.

Package Name PROD-UPDT Update package for Production

Path Code PROD

Full
Partial
[✓ Update]

Include Object Specifications (for client packages only) ☐

Parent Package

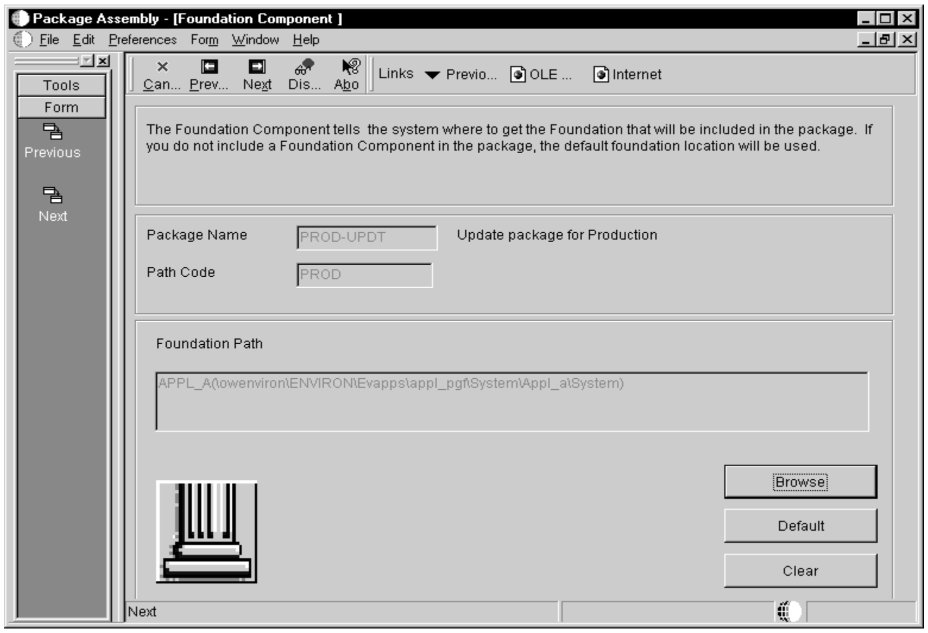
On Package Type Selection,.complete the following fields:

- Full, Partial, or Update
- Parent Package

  (for update packages only)

- Include Object Specifications (for client packages only)

6. Click Next.


Package Assembly - [Foundation Component]
File Edit Preferences Form Window Help
Tools
Form
Previous
Next
Can... Prev... Next Dis... Abo
Links Previo... OLE ... Internet
Browse
Default
Clear
Next

The Foundation Component tells the system where to get the Foundation that will be included in the package. If you do not include a Foundation Component in the package, the default foundation location will be used.

Package Name PROD-UPDT Update package for Production

Path Code PROD

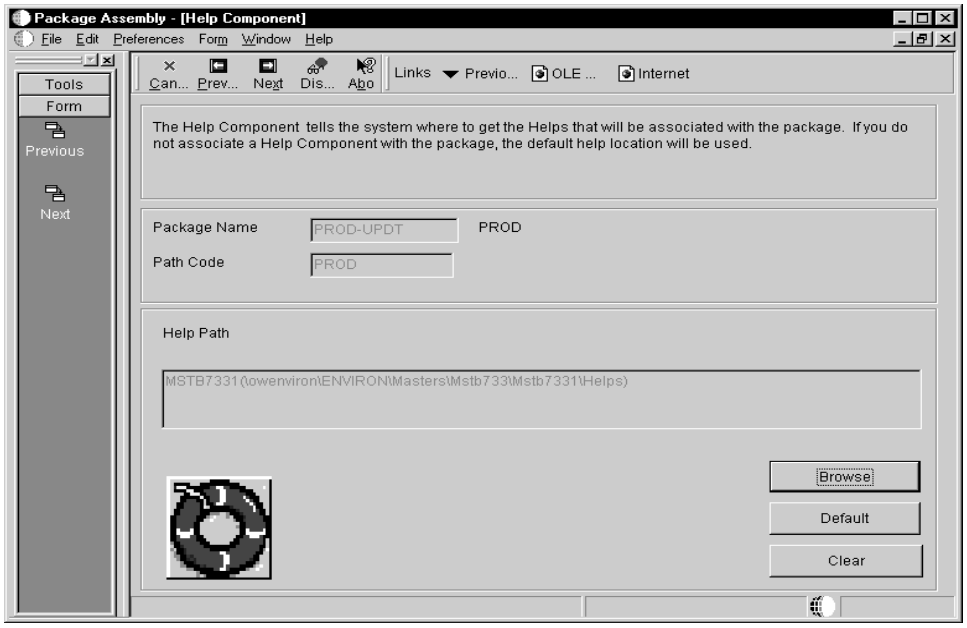
Foundation Path

APPL_A(\owenviron\ENVIRON\Evapps\appl_pgf\System\Appl_a\System)

7. On Foundation Component, accept the default location by clicking Next, or click Browse to specify another foundation location. To clear the location, if any, click Clear. The Clear option applies only to update packages.

   For more information about entering a foundation, see *Entering a Foundation Location*.

8. Click Next.


Package Assembly - [Help Component]
File Edit Preferences Form Window Help
Tools
Form
Previous
Next
Can... Prev... Next Dis... Abo
Links Previo... OLE ... Internet
Browse
Default
Clear

The Help Component tells the system where to get the Helps that will be associated with the package. If you do not associate a Help Component with the package, the default help location will be used.

Package Name PROD-UPDT PROD

Path Code PROD

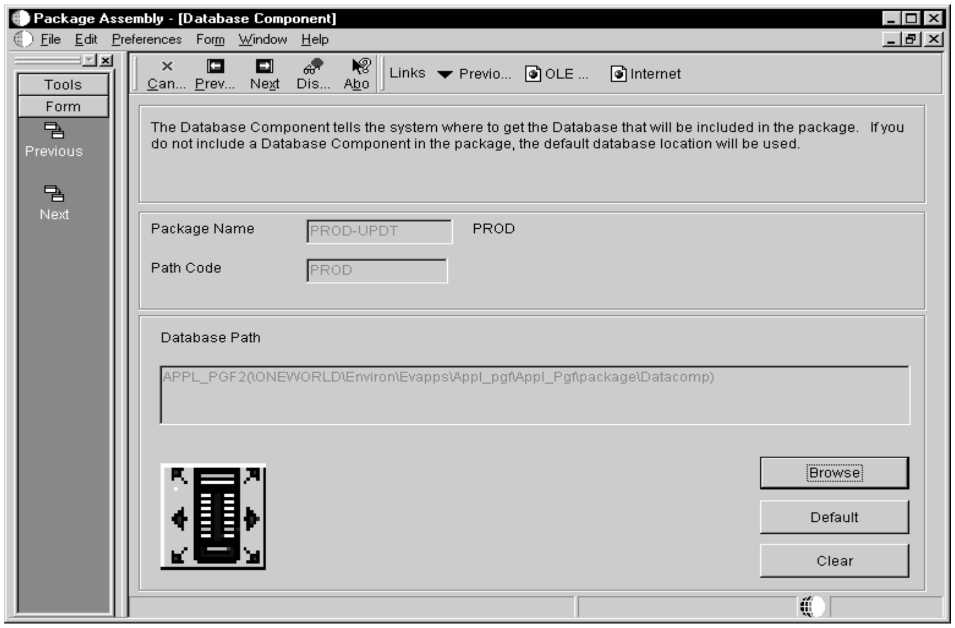
Help Path

MSTB7331(\owenviron\ENVIRON\Masters\Mstb733\Mstb7331\Helps)

9. On Help Component, accept the displayed default location by clicking Next, or click Browse to specify another help location. To clear the currently displayed location, if any, click Clear. The Clear option applies only to update packages.

   For more information about entering a help location, see *Entering a Help File Location*.

10. Click Next.


Package Assembly - [Database Component]
File Edit Preferences Form Window Help
Tools
Form
Previous
Next
Can... Prev... Next Dis... Abo
Links Previo... OLE ... Internet
Browse
Default
Clear

The Database Component tells the system where to get the Database that will be included in the package. If you do not include a Database Component in the package, the default database location will be used.

Package Name PROD-UPDT PROD

Path Code PROD

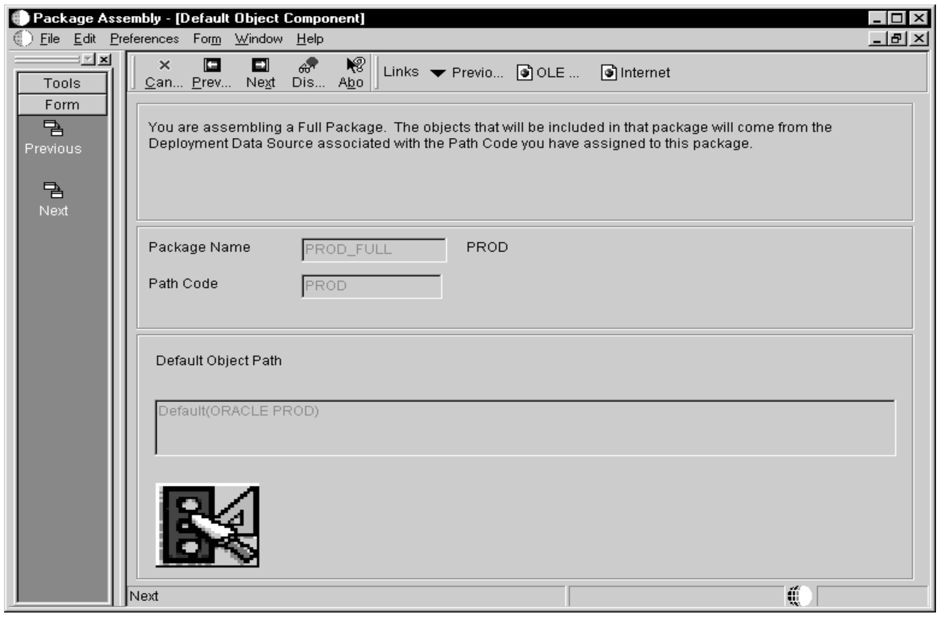
Database Path

APPL_PGF2(\ONEWORLD\Environ\Evapps\Appl_pgf\Appl_Pgf\package\Datacomp)

11. On Database Component, accept the default location by clicking Next, or click Browse to specify another database location. To clear the currently displayed location, if any, click Clear. The Clear option applies only to update packages.

    For more information about entering a database location, see *Entering a Database Location*.

12. Complete one of the following:
    - If you are assembling a full package, click Next.
    - If you are assembling a partial or update package, proceed to the next step.


Package Assembly - [Default Object Component]

File Edit Preferences Form Window Help
Tools
Form
Previous
Next
Can... Prev... Next Dis... Abo
Links Previo... OLE ... Internet

You are assembling a Full Package. The objects that will be included in that package will come from the Deployment Data Source associated with the Path Code you have assigned to this package.

Package Name PROD_FULL PROD

Path Code PROD

Default Object Path

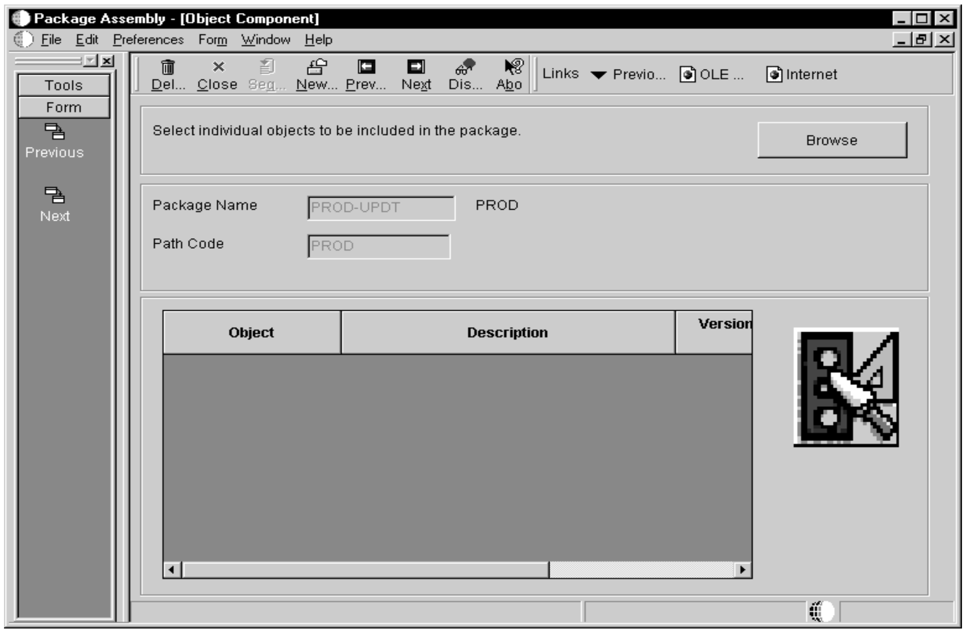
Default(ORACLE PROD)

Next

On Default Object Component, OneWorld will build your package from the deployment data source associated with the displayed default object path. Verify that the correct location is displayed. Because you are assembling a full package, skip the following step.

13. On Database Component, click Next.

    When you are assembling a partial or update package, the Object Component form appears. This form allows you to specify the individual objects you want to include in your package. When you revise a previously-assembled package, objects you added earlier are displayed.


Package Assembly - [Object Component]

File Edit Preferences Form Window Help
Tools
Form
Previous
Next
Del... Close Seq... New... Prev... Next Dis... Abo
Links Previo... OLE ... Internet
Browse

Select individual objects to be included in the package.

Package Name PROD-UPDT PROD

Path Code PROD

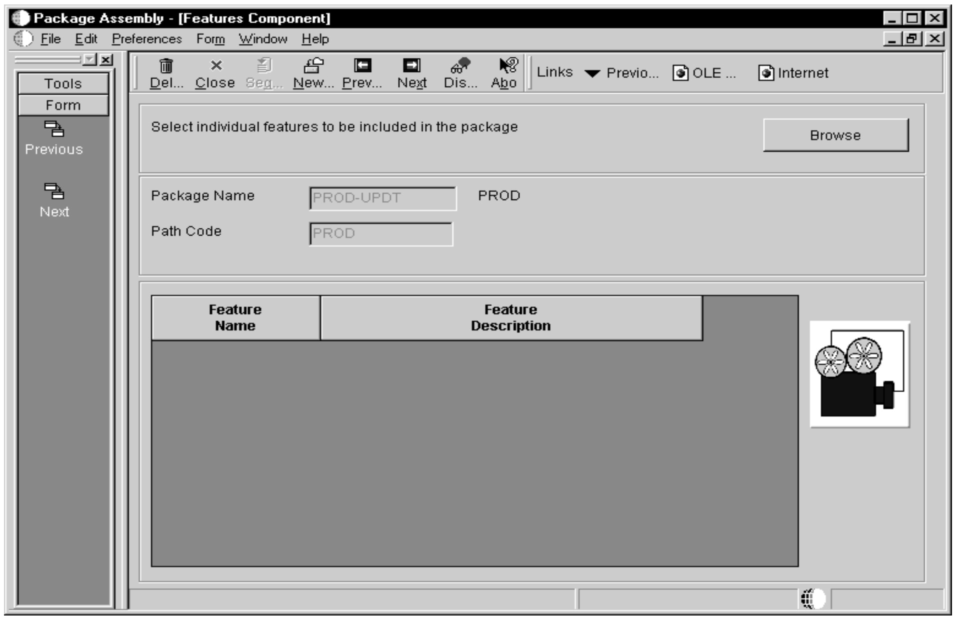
Object	Description	Version

14. To add an object, click Browse to display the Object Component Selection form. Use this form to locate and select the objects you want to include in your package. When you are finished adding objects, click Close to return to the Object Component form.

    For more information about adding objects, see *Adding Objects to a Package*.

15. Click Next.

    On Features Component, you can specify the features you want to include in your package. When you revise a previously-assembled package, features you added earlier are displayed.


Package Assembly - [Features Component]
File Edit Preferences Form Window Help
Tools
Form
Previous
Next
Del... Close Seq... New... Prev... Next Dis... Abo
Links Previo... OLE ... Internet
Browse

Select individual features to be included in the package

Package Name: PROD-UPDT PROD

Path Code: PROD

Feature Name	Feature Description

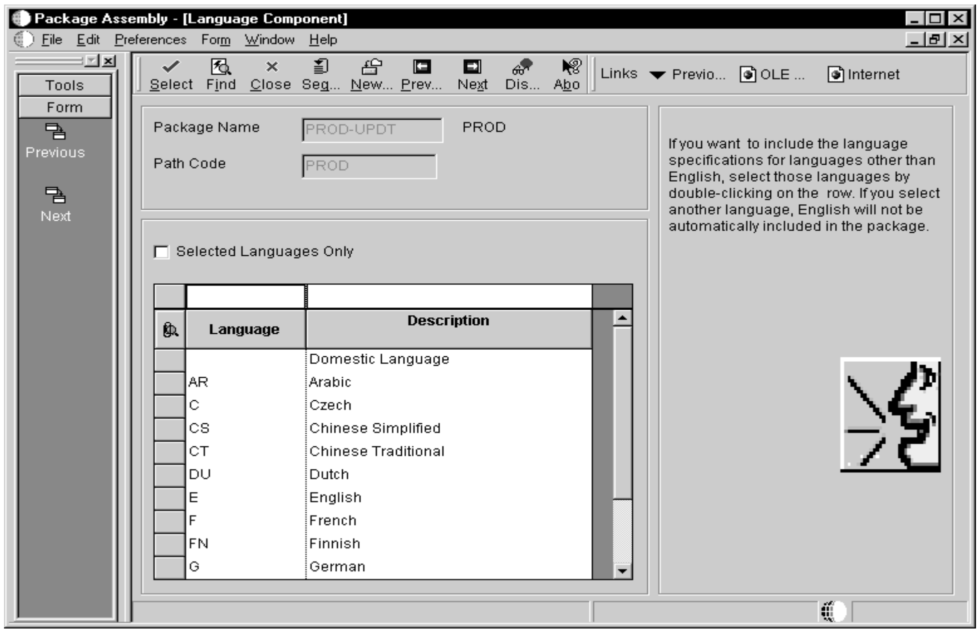
16. To add a feature, click Browse to display the Feature Component Selection form.
17. On the Feature Component Selection form, click find to display a list of features, then choose a feature and click the Select button to add the features you want to include in your package.

    To choose multiple features, press the Ctrl or Shift key while clicking on features, then click Select.

18. Click Close.

    For more information about adding features, see *Adding Features to a Package*.

19. On Feature Component, click Next.


Package Assembly - [Language Component]
File Edit Preferences Form Window Help
Tools
Form
Previous
Next
Select Find Close Seg... New... Prev... Next Dis... Abo
Links Previo... OLE ... Internet

Package Name PROD-UPDT PROD

Path Code PROD

If you want to include the language specifications for languages other than English, select those languages by double-clicking on the row. If you select another language, English will not be automatically included in the package.

☐ Selected Languages Only

Language	Description
	Domestic Language
AR	Arabic
C	Czech
CS	Chinese Simplified
CT	Chinese Traditional
DU	Dutch
E	English
F	French
FN	Finnish
G	German

20. On Language Component, if you to display only the languages currently selected for the package, check the Selected Languages Only options. This applies to situations where you are revising a previously assembled package, not to when you are assembling a package for the first time.
21. Double-click the gray box next to the languages you want to add to your package language specifications.

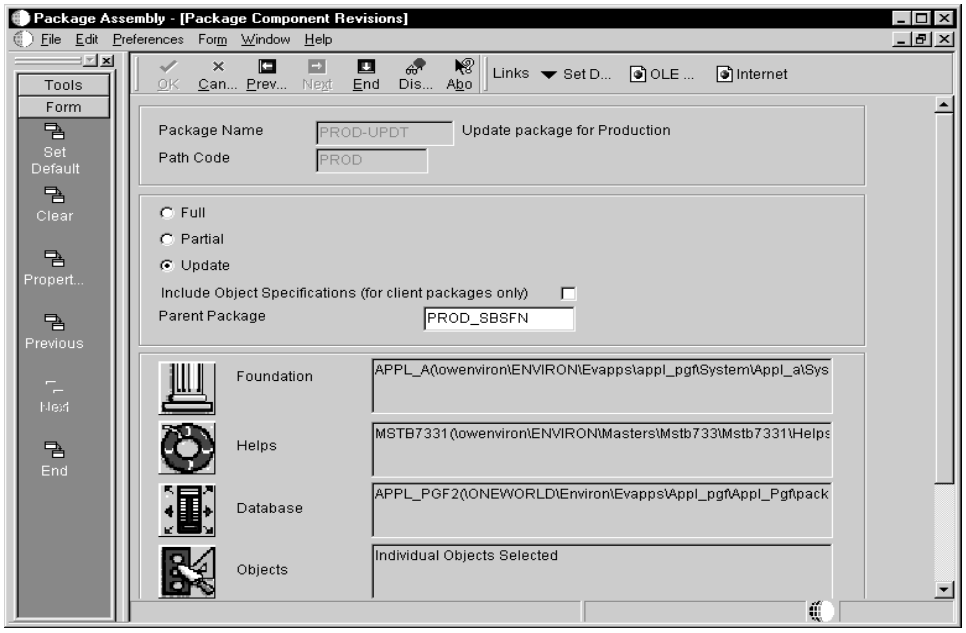
    If you add a language to your package, only that language will be included. For example, if you add French, English will not be included even though it is the default language. If you want two languages (such as French and English) you must include them both in your package. For more information about installing OneWorld in multiple languages, see the *OneWorld Installation Guide.*

22. Click Next.

Reviewing the Package Assembly Selections

The Package Component Revisions form allows you to see at a glance the current foundation, help, and database locations, as well as the objects and features in the package and any language selection.

▶ To review the package assembly selections


Package Assembly - [Package Component Revisions]
File Edit Preferences Form Window Help
Tools
Form
Set Default
Clear
Propert...
Previous
Next
End
OK Can... Prev... Next End Dis... Abo
Links Set D... OLE ... Internet

Package Name: PROD-UPDT — Update package for Production
Path Code: PROD

Full
Partial
(●) Update

Include Object Specifications (for client packages only) ☐
Parent Package: PROD_SBSFN

Foundation: APPL_A(\owenviron\ENVIRON\Evapps\appl_pgf\System\Appl_a\Sys
Helps: MSTB7331(\owenviron\ENVIRON\Masters\Mstb733\Mstb7331\Helps
Database: APPL_PGF2(\ONEWORLD\Environ\Evapps\Appl_pgf\Appl_Pgf\pack
Objects: Individual Objects Selected

1. On the Package Component Revisions, you can change any of the package components by clicking the icon for the component you want to change.

   The form for that package component appears.

2. When you are finished assembling the package, click End to exit from the Package Assembly Director.
3. Continue with *Activating an Assembled Package,* which immediately follows the tasks of customizing the main Package Assembly Director screens.

Field	Explanation
Description	A description of the package.

Field	Explanation
Path Code	The path code is a pointer to a set of OneWorld objects, and is used to keep track of sets of objects and their locations within OneWorld. For OneWorld, a Path Code is a pointer to a specific set of objects. A Path Code is used to locate: • Central objects - The central location where objects are deployed from. Objects such as specifications are stored in a relational database, other objects such as DLLs and sources are stored on a file server. Both types make up a Path Code. • Replicated objects - A copy or replicated set of the central objects must reside on each client and server that run OneWorld. The Path Code indicated in the directory that these objects are located in.
Include Object Specs	When you include individual objects in an update package, you have the option of including a corresponding set of specifications for those objects. When you include specifications, a “snapshot” of the specifications will be included in the package after it is built. When the package is deployed, the package recipient receives those object specifications. If you do not include object specifications in the package, the old specifications for the objects in the package will be deleted from the workstation when the package is deployed. Then, the next time the package recipient attempts to use the object, a new set of specifications for it will be transferred to the workstation via just-in-time installation.
Parent Package	Since an update package includes only a subset of objects, you must indicate the parent package on which the update package is based or related to. This information is used by the system to determine how to build business functions.
Selected Languages Only	When this option is turned on, only languages that have been selected for inclusion in the package will appear in the detail area.
Language	A list of valid codes for a specific user defined code list.

Entering a Foundation Location

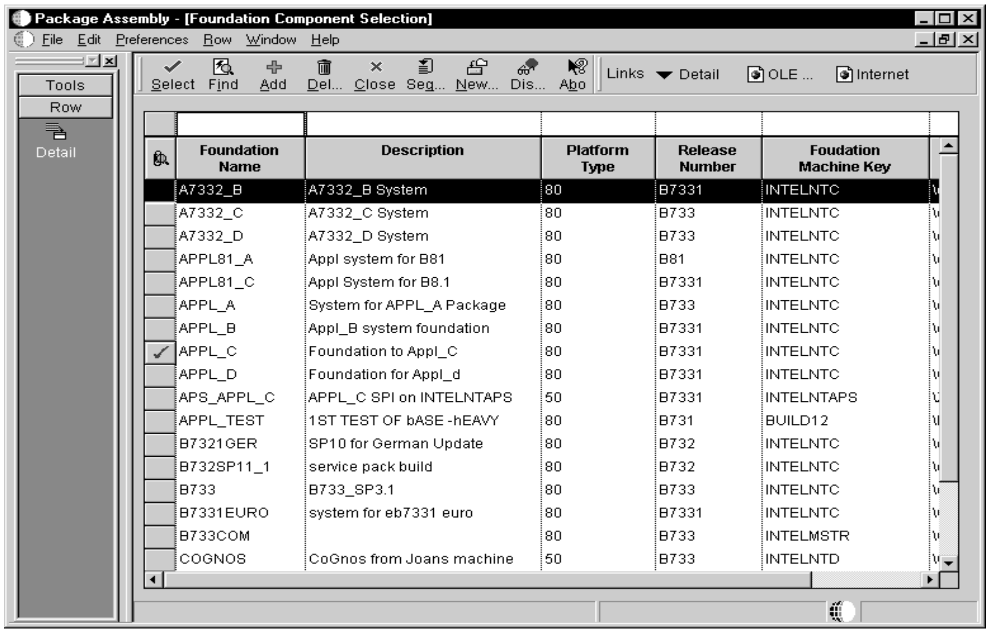
The default foundation location is determined through the release associated with the package’s path code. This is normally the system directory at the same directory level as your path code.

The following task describes how to change the foundation location from the default location displayed on the Foundation Component form.

▶ To enter a foundation location

Access the Foundation Component Selection form by doing one of the following:

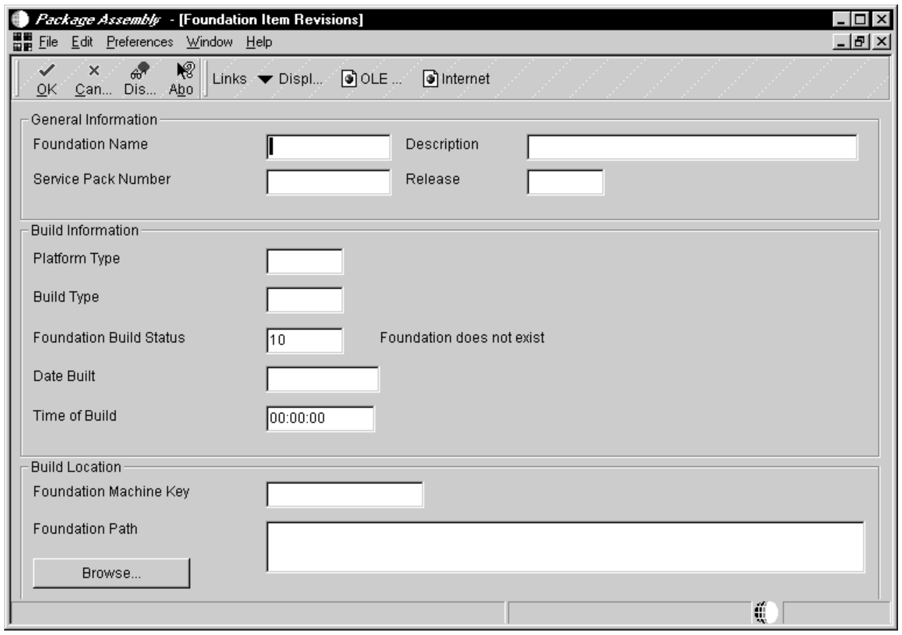
- On Foundation Component, click Browse.
- On Package Component Revision click the Foundation icon.


Package Assembly - [Foundation Component Selection]
File Edit Preferences Row Window Help
Tools
Row
Detail
Select Find Add Del... Close Seq... New... Dis... Abo
Links Detail OLE ... Internet

	Foundation Name	Description	Platform Type	Release Number	Foudation Machine Key
	A7332_B	A7332_B System	80	B7331	INTELNTC
	A7332_C	A7332_C System	80	B733	INTELNTC
	A7332_D	A7332_D System	80	B733	INTELNTC
	APPL81_A	Appl system for B81	80	B81	INTELNTC
	APPL81_C	Appl System for B8.1	80	B7331	INTELNTC
	APPL_A	System for APPL_A Package	80	B733	INTELNTC
	APPL_B	Appl_B system foundation	80	B7331	INTELNTC
✓	APPL_C	Foundation to Appl_C	80	B7331	INTELNTC
	APPL_D	Foundation for Appl_d	80	B7331	INTELNTC
	APS_APPL_C	APPL_C SPI on INTELNTAPS	50	B7331	INTELNTAPS
	APPL_TEST	1ST TEST OF bASE -hEAVY	80	B731	BUILD12
	B7321GER	SP10 for German Update	80	B732	INTELNTC
	B732SP11_1	service pack build	80	B732	INTELNTC
	B733	B733_SP3.1	80	B733	INTELNTC
	B7331EURO	system for eb7331 euro	80	B7331	INTELNTC
	B733COM		80	B733	INTELMSTR
	COGNOS	CoGnos from Joans machine	50	B733	INTELNTD

1. Find and choose the foundation you want to use in your package. If you want to use a new foundation, see the following step.

2. To add a new foundation, click Add. The Foundation Item Revisions form appears.


Package Assembly - [Foundation Item Revisions]
File Edit Preferences Window Help
OK Can... Dis... Abo Links Displ... OLE ... Internet
Browse...

General Information
Foundation Name
Description
Service Pack Number
Release

Build Information
Platform Type
Build Type
Foundation Build Status: 10 Foundation does not exist
Date Built
Time of Build: 00:00:00

Build Location
Foundation Machine Key
Foundation Path

3. On Foundation Item Revisions, complete the following fields and click OK:

- Foundation Name
- Description
- Service Pack Number
- Release
- Platform Type
- Build Type
- Foundation Build Status
- Date Built
- Time of Build
- Foundation Machine Key
- Foundation Path

Field	Explanation
Foundation Name	A OneWorld foundation is the code required to run all OneWorld applications. A foundation ID is required for all Full and Partial packages. For full and partial packages, if you do not enter a foundation line, the default foundation will be used. The default foundation is determined through the release associated with the path code for the package. This is normally the system directory at the same directory level as your path code. The foundation must be compressed when built.
Service Pack Number for OW Foundation	A service pack is an update to the foundation code that is delivered between major releases and cumulative releases of the OneWorld software.
Release Number	For World, the release number as defined in the Software Versions Repository. For OneWorld, the release number as defined in the Release Master. . . . . *Form-specific information* . . . . On this form, Release Number is the OneWorld major release with which this foundation is associated.
Type - Host	Host Machine Type.
Software Build Type	Indicate the compiler configuration to use for the software build.
One World Foundation Build Status	Describes the current status of the build process for OneWorld foundation.
Date - Built	The date the software build completed.
Time the software build completed.	The time at which the software build completed.
Machine Key	For World, the Location indicates the machine (server or client). For OneWorld, the Location or Machine Key indicates the name of the machine on the network (server or workstation). . . . . *Form-specific information* . . . . On this form, the Machine Key is the name of the deployment server where your custom foundation resides.

Field	Explanation
Server Share Path	For World, the Server Share Path Field is used by the environment to determine the location of the current server. For OneWorld, this field indicates the shared directory for this Path Code. The objects that are stored on a file server will be found in this path. . . . . *Form-specific information* . . . . On this form, enter the exact path from which this item should be copied. All files in the last directory specified will be included in the package. Source Machine Key and Source are used together to define the item's location.

Entering a Help File Location

For all package types, if there is no help location, the package build creates an INF that has help mapped to the default location as defined in Release Master (one set of help per release). If a help file location is defined for a package, the package build copies the help file from the location defined in Help Item Revisions to the package directory.

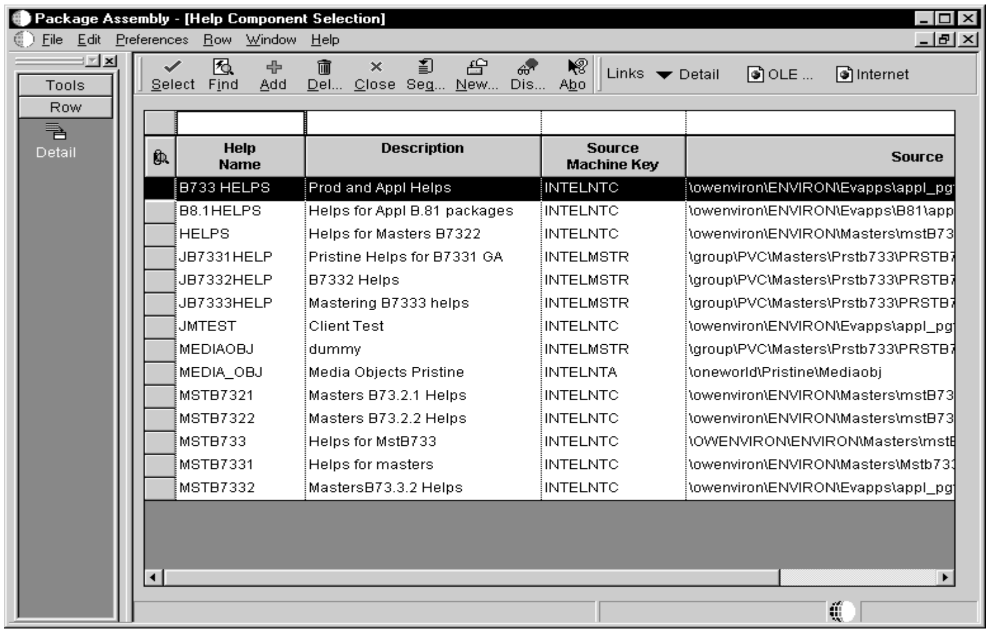
The package INF will indicate that help files are located in the package itself, instead of the default location. Regardless, the Workstation Installation program installs help to the workstation based on the user's deployment preference of client or server. The Workstation Installation program updates the JDE.INI file according to the package INF help location and the deployment preferences help location.

The following task describes how to change the help location from the default location displayed on the Help Component form.

▶ To enter a help location

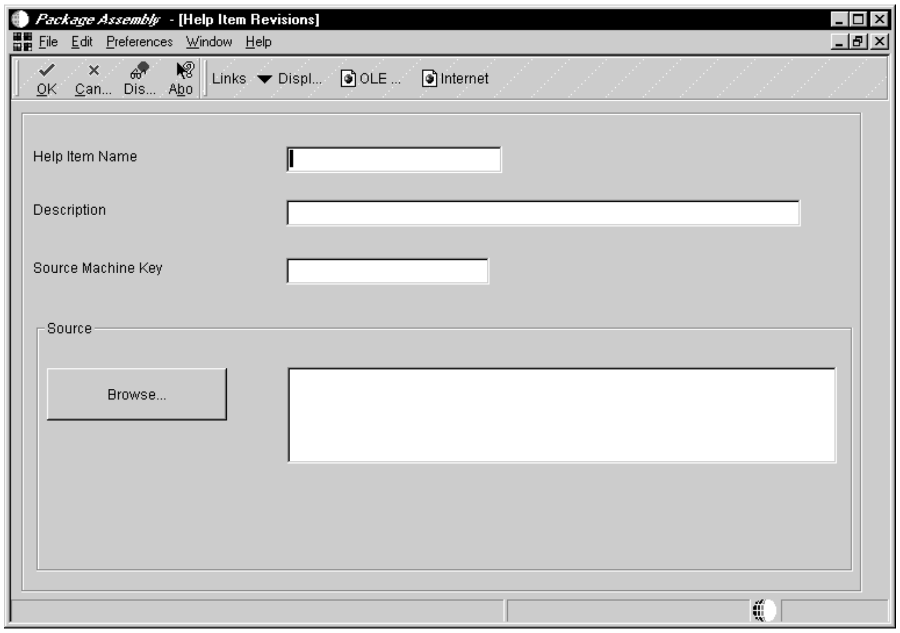
1. Access the Help Component Selection form by doing one of the following:

   - On Help Component, click Browse.
   - On Package Component Revision, click the Helps icon.


Package Assembly - [Help Component Selection]
File Edit Preferences Row Window Help
Tools
Row
Detail
Select Find Add Del... Close Seg... New... Dis... Abo
Links Detail OLE ... Internet

Help Name	Description	Source Machine Key	Source
B733 HELPS	Prod and Appl Helps	INTELNTC	\owenviron\ENVIRON\Evapps\appl_pg
B8.1HELPS	Helps for Appl B.81 packages	INTELNTC	\owenviron\ENVIRON\Evapps\B81\app
HELPS	Helps for Masters B7322	INTELNTC	\owenviron\ENVIRON\Masters\mstB73
JB7331HELP	Pristine Helps for B7331 GA	INTELMSTR	\group\PVC\Masters\Prstb733\PRSTB7
JB7332HELP	B7332 Helps	INTELMSTR	\group\PVC\Masters\Prstb733\PRSTB7
JB7333HELP	Mastering B7333 helps	INTELMSTR	\group\PVC\Masters\Prstb733\PRSTB7
JMTEST	Client Test	INTELNTC	\owenviron\ENVIRON\Evapps\appl_pg
MEDIAOBJ	dummy	INTELMSTR	\group\PVC\Masters\Prstb733\PRSTB7
MEDIA_OBJ	Media Objects Pristine	INTELNTA	\oneworld\Pristine\Mediaobj
MSTB7321	Masters B73.2.1 Helps	INTELNTC	\owenviron\ENVIRON\Masters\mstB73
MSTB7322	Masters B73.2.2 Helps	INTELNTC	\owenviron\ENVIRON\Masters\mstB73
MSTB733	Helps for MstB733	INTELNTC	\OWENVIRON\ENVIRON\Masters\mstB
MSTB7331	Helps for masters	INTELNTC	\owenviron\ENVIRON\Masters\Mstb73
MSTB7332	MastersB73.3.2 Helps	INTELNTC	\owenviron\ENVIRON\Evapps\appl_pg

2. Find and choose the help location you want to use in your package. If you want to use a new location, see the following step.
3. To add a new help location, click Add.


Package Assembly - [Help Item Revisions]
File Edit Preferences Window Help
OK Can... Dis... Abo
Links Displ... OLE ... Internet
Help Item Name
Description
Source Machine Key
Source
Browse...

4. On Help Item Revisions, complete the following fields, and then click OK:
   - Help Item Name
   - Description
   - Source Machine Key

- Source

Field	Explanation
Help Name	A OneWorld foundation is the code required to run all OneWorld applications. A foundation ID is required for all Full and Partial packages. For full and partial packages, if you do not enter a foundation line, the default foundation will be used. The default foundation is determined through the release associated with the path code for the package. This is normally the system directory at the same directory level as your path code. The foundation must be compressed when built. . . . . *Form-specific information* . . . . The Help Component tells the system where to get the helps that will be associated with the package. if you do not associate a help Component with the package,the default help location will be used.
Server Share Path	For World, the Server Share Path Field is used by the environment to determine the location of the current server. For OneWorld, this field indicates the shared directory for this Path Code. The objects that are stored on a file server will be found in this path. . . . . *Form-specific information* . . . . On this form, enter the exact path from which this item should be copied. All files in the last directory specified will be included in the package. Source Machine Key and Source are used together to define the item's location.
Source	For World, the Server Share Path Field is used by the environment to determine the location of the current server. For OneWorld, this field indicates the shared directory for this Path Code. The objects that are stored on a file server will be found in this path.

Entering a Database Location

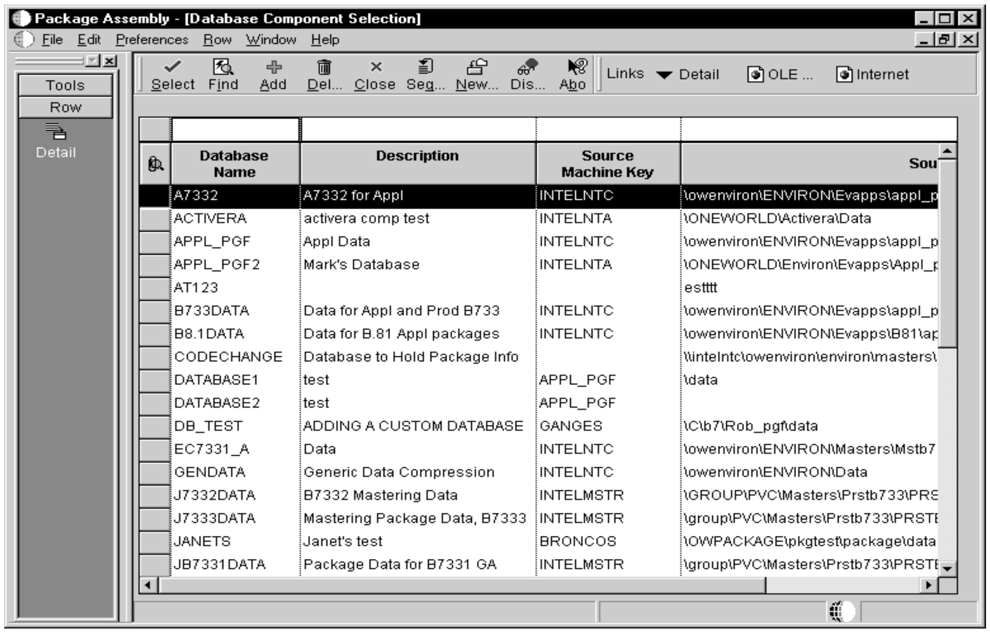
For full and partial packages, if you do not specify a database location, the default database path (*pathcode*\Packages\Data) will be used. Update packages do not require a database.

The following task describes how to change the database location from the default location displayed on the Database Component form.

▶ To enter a database location

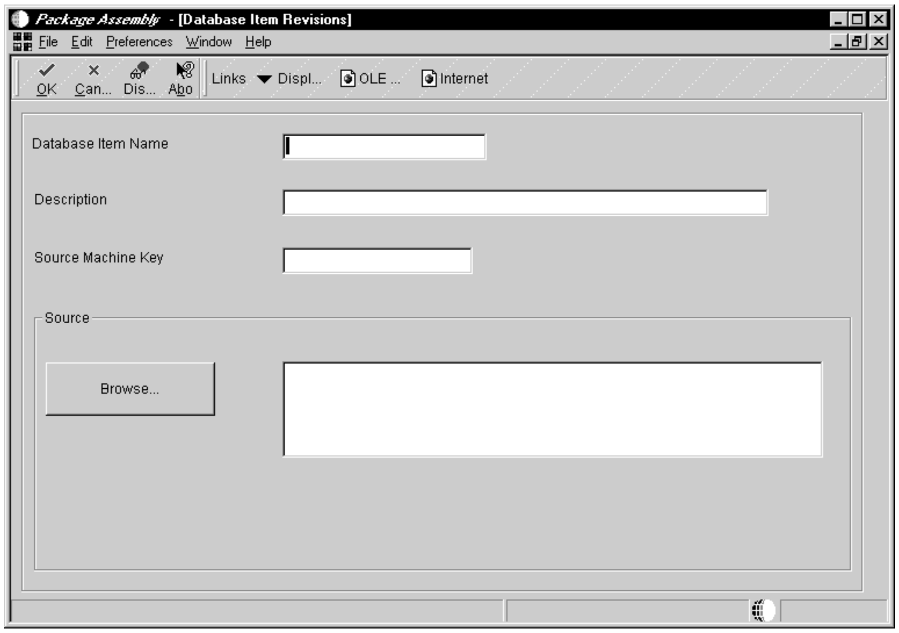
Access the Database Component Selection form by doing one of the following:

- On Database Component, click Browse.
- On Package Component Revision, click the Database icon.


Package Assembly - [Database Component Selection]
File Edit Preferences Row Window Help
Tools
Row
Detail
Select Find Add Del... Close Seg... New... Dis... Abo
Links Detail OLE ... Internet

Database Name	Description	Source Machine Key	Sou
A7332	A7332 for Appl	INTELNTC	\owenviron\ENVIRON\Evapps\appl_p
ACTIVERA	activera comp test	INTELNTA	\ONEWORLD\Activera\Data
APPL_PGF	Appl Data	INTELNTC	\owenviron\ENVIRON\Evapps\appl_p
APPL_PGF2	Mark's Database	INTELNTA	\ONEWORLD\Environ\Evapps\Appl_p
AT123			estttt
B733DATA	Data for Appl and Prod B733	INTELNTC	\owenviron\ENVIRON\Evapps\appl_p
B8.1DATA	Data for B.81 Appl packages	INTELNTC	\owenviron\ENVIRON\Evapps\B81\ap
CODECHANGE	Database to Hold Package Info		\\intelntc\owenviron\environ\masters\
DATABASE1	test	APPL_PGF	\data
DATABASE2	test	APPL_PGF	
DB_TEST	ADDING A CUSTOM DATABASE	GANGES	\C\b7\Rob_pgf\data
EC7331_A	Data	INTELNTC	\owenviron\ENVIRON\Masters\Mstb7
GENDATA	Generic Data Compression	INTELNTC	\owenviron\ENVIRON\Data
J7332DATA	B7332 Mastering Data	INTELMSTR	\GROUP\PVC\Masters\Prstb733\PRS
J7333DATA	Mastering Package Data, B7333	INTELMSTR	\group\PVC\Masters\Prstb733\PRSTE
JANETS	Janet's test	BRONCOS	\OWPACKAGE\pkgtest\package\data
JB7331DATA	Package Data for B7331 GA	INTELMSTR	\group\PVC\Masters\Prstb733\PRSTE

1. Find and choose the database location you want to use in your package. If you want to use a new location, see the following step.
2. To add a database, click Add.


Package Assembly - [Database Item Revisions]
File Edit Preferences Window Help
OK Can... Dis... Abo Links Displ... OLE ... Internet
Browse...

Database Item Name

Description

Source Machine Key

Source

3. On Database Item Revisions, complete the following fields, and then click OK:
   - Database Item Name
   - Description
   - Source Machine Key
   - Source

Field	**Explanation**
Foundation Name	A OneWorld foundation is the code required to run all OneWorld applications. A foundation ID is required for all Full and Partial packages. For full and partial packages, if you do not enter a foundation line, the default foundation will be used. The default foundation is determined through the release associated with the path code for the package. This is normally the system directory at the same directory level as your path code. The foundation must be compressed when built.
Machine Key	For World, the Location indicates the machine (server or client). For OneWorld, the Location or Machine Key indicates the name of the machine on the network (server or workstation).

Field	Explanation
Server Share Path	For World, the Server Share Path Field is used by the environment to determine the location of the current server. For OneWorld, this field indicates the shared directory for this Path Code. The objects that are stored on a file server will be found in this path. . . . . *Form-specific information* . . . . On this form, enter the exact path from which this item should be copied. All files in the last directory specified will be included in the package. Source Machine Key and Source are used together to define the item's location.

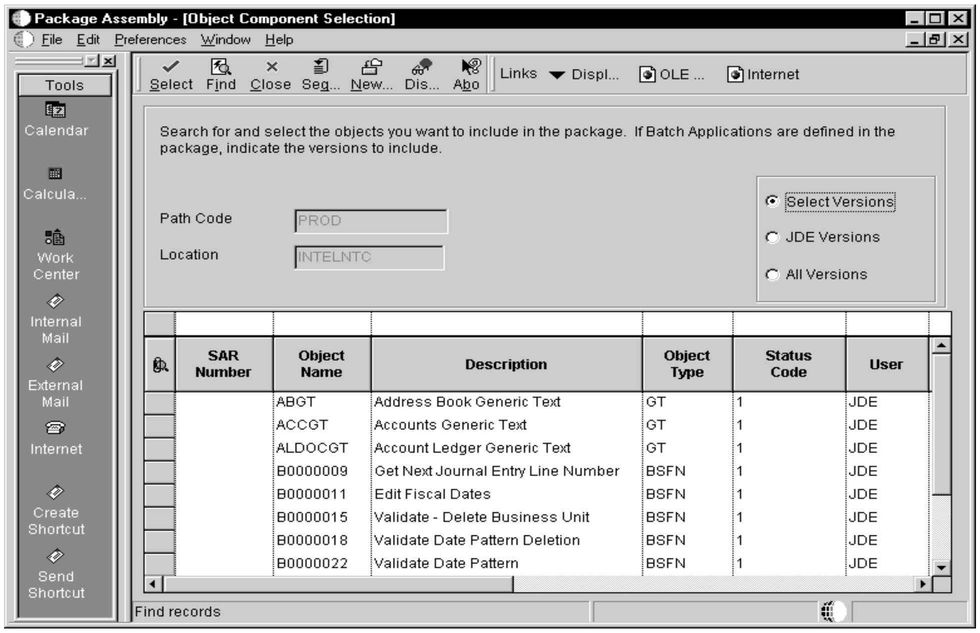
Adding Objects to a Package

If you are assembling an update or partial package, you can select individual objects to include in the package. When you are finished adding objects, those objects appear on the Object Component form, the Package Component Revision form, and the Work with Packages form.

The following task describes how to add objects to a partial or update package. The procedure is the same whether you are adding objects for the first time or revising a previously assembled package.

▶ To add objects

1. Access the Object Component Selection form by doing one of the following:
   - On the Object Component form, click Browse.
   - On the Package Component Revisions form, click the Objects icon to display the Object Component form, and then click Browse.


Package Assembly - [Object Component Selection]
File Edit Preferences Window Help
Tools
Calendar
Calcula...
Work Center
Internal Mail
External Mail
Internet
Create Shortcut
Send Shortcut
Select Find Close Seq... New... Dis... Abo
Links Displ... OLE ... Internet

Search for and select the objects you want to include in the package. If Batch Applications are defined in the package, indicate the versions to include.

Path Code: PROD

Location: INTELNTC

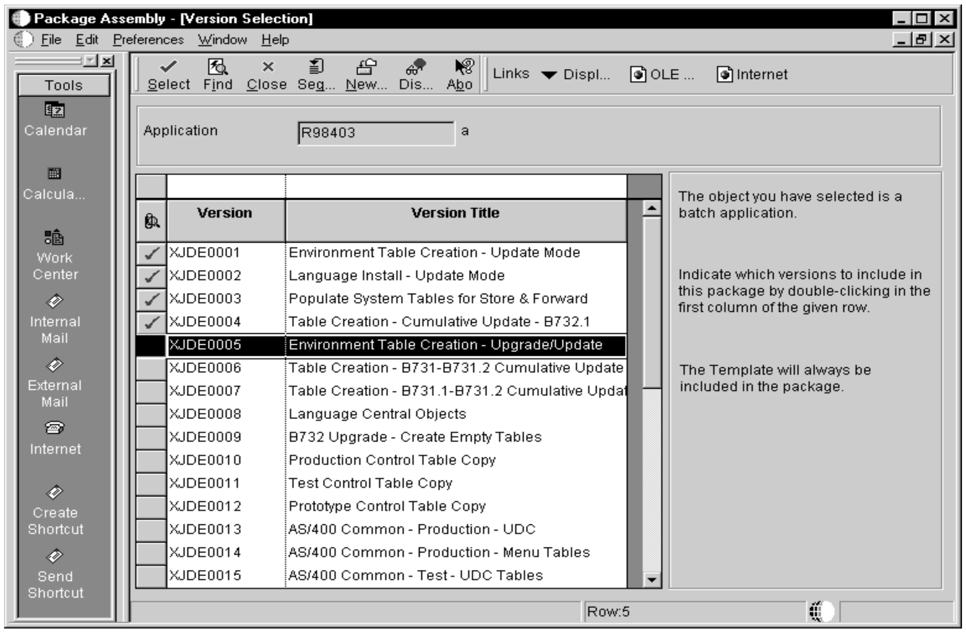
[✓ Select Versions] JDE Versions All Versions

SAR Number	Object Name	Description	Object Type	Status Code	User
	ABGT	Address Book Generic Text	GT	1	JDE
	ACCGT	Accounts Generic Text	GT	1	JDE
	ALDOCGT	Account Ledger Generic Text	GT	1	JDE
	B0000009	Get Next Journal Entry Line Number	BSFN	1	JDE
	B0000011	Edit Fiscal Dates	BSFN	1	JDE
	B0000015	Validate - Delete Business Unit	BSFN	1	JDE
	B0000018	Validate Date Pattern Deletion	BSFN	1	JDE
	B0000022	Validate Date Pattern	BSFN	1	JDE

Find records

2. Find and choose the object you want to include in the package.
3. If you are adding a batch application, click one of the following options:
   - Select Versions- selects only specified versions of the object
   - JDE Versions - selects all JDE versions of the object
   - All Versions - selects all versions of the object
4. Click Select.

   If you are adding a batch application and clicked Selected Versions, the Version Selection form appears.


Package Assembly - [Version Selection]
File Edit Preferences Window Help
Tools
Calendar
Calcula...
Work Center
Internal Mail
External Mail
Internet
Create Shortcut
Send Shortcut
Select Find Close Seq... New... Dis... Abo
Links Displ... OLE ... Internet
Row:5

Application R98403 a

	Version	Version Title
✓	XJDE0001	Environment Table Creation - Update Mode
✓	XJDE0002	Language Install - Update Mode
✓	XJDE0003	Populate System Tables for Store & Forward
✓	XJDE0004	Table Creation - Cumulative Update - B732.1
	XJDE0005	Environment Table Creation - Upgrade/Update
	XJDE0006	Table Creation - B731-B731.2 Cumulative Update
	XJDE0007	Table Creation - B731.1-B731.2 Cumulative Updat
	XJDE0008	Language Central Objects
	XJDE0009	B732 Upgrade - Create Empty Tables
	XJDE0010	Production Control Table Copy
	XJDE0011	Test Control Table Copy
	XJDE0012	Prototype Control Table Copy
	XJDE0013	AS/400 Common - Production - UDC
	XJDE0014	AS/400 Common - Production - Menu Tables
	XJDE0015	AS/400 Common - Test - UDC Tables

The object you have selected is a batch application.

Indicate which versions to include in this package by double-clicking in the first column of the given row.

The Template will always be included in the package.

5. Double-click on the specific versions in the list that you want to include in the package. This action displays a check mark to the left of each version you select.

   When you are finished selecting versions, click Close to return to the Object Component Selection form.

6. Repeat this process until you have finished adding objects to your package. When you are finished, click Close to return to the form from which you accessed the Object Component Selection form.

Field	**Explanation**
SAR Number	An abbreviation for Software Action Request (SAR). This number is used by the J.D. Edwards project control system to keep track of all charges and activity by individual SAR number.
Object Name	The OneWorld architecture is object-based. This means that discrete software objects are the building blocks for all applications, and that developers can reuse the objects in multiple applications. Each object is tracked by the Object Librarian. Examples of OneWorld objects include: • Batch Applications (such as reports) • Interactive Applications • Business Views • Business Functions • Business Functions Data Structures • Event Rules • Media Object Data Structures

Field	Explanation
Description	The description of a record in the Software Versions Repository file. The member description is consistent with the base member description.
Object Type	The type of object with which you are working. For example, if you are working with tables the object type is TBLE, or business functions is BSFN.
Status Code	This code determines the status of the software in the development cycle.
User	For World, the IBM-defined user profile. For OneWorld, the identification code for a user profile.
Merge Option	The Merge Option denotes whether a customer's OneWorld object will be merged in with the J.D. Edwards OneWorld object. The Merge Option can be set at the path code level so that all objects checked into that path will carry the same Merge Option as the path code.
Date Modified	The date that the object, such as a DREAM Writer version, Software Versions Repository Record, and so on, was last modified.
Time Modified	The time the object was last checked in.
System Code	A user defined code (98/SY) that identifies a J.D. Edwards system.
Reporting System	A code that designates the system number for reporting and jargon purposes. See UDC 98/SY.
All Versions	Indicate if all of the versions for the UBE selected should be include in the package.
JDE Versions	Indicate if just the J.D. Edwards versions (XJDE and ZJDE) for the UBE selected should be included in the package.
Version	A user-defined set of specifications that control how applications and reports run. You use versions to group and save a set of user-defined processing option values and data selection and sequencing options. Interactive versions are associated with applications (usually as a menu selection). Batch versions are associated with batch jobs or reports. To run a batch process, you must choose a version.
Version Title	A description of the version that appears next to the version number. The version title is different from the report title. This field should describe the use of a version. For example, an application for generating pick slips might have a version called Pick Slips - Accounting and another version called Pick Slips - Inventory Management.

Adding Features to a Package

A feature is a set of files or configuration options, such as registry settings, that is copied to a workstation or server to support a OneWorld application or other OneWorld functionality. Like OneWorld objects, features are built into a package and deployed to the workstations and servers that require the feature components.

When you are finished adding features to the package, those features appear on the Package Assembly Director's Feature Component form, the Package Component Revision form, and the Work with Packages form.

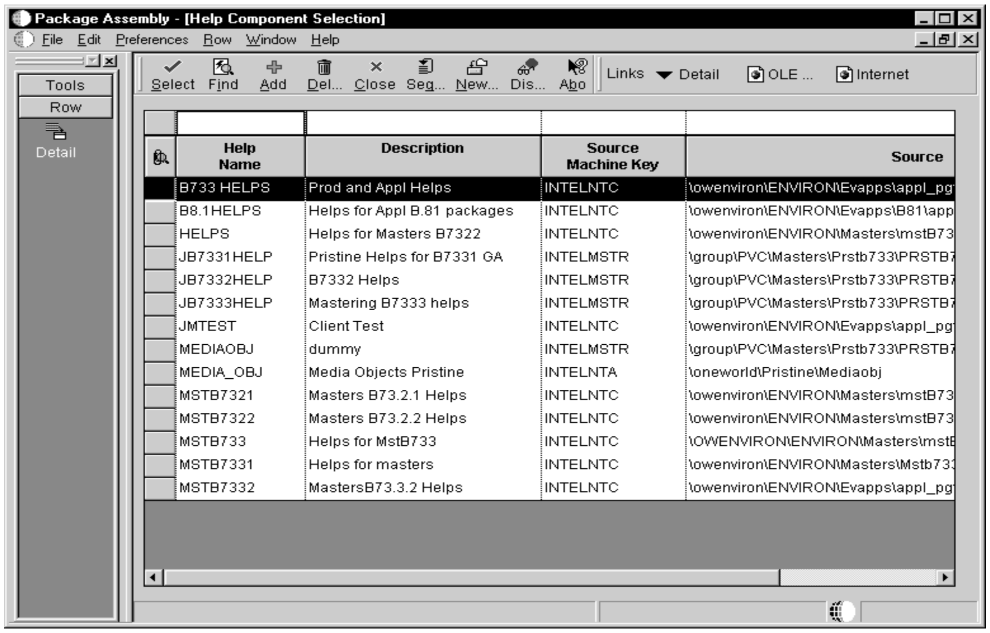
This task describes how to add features to a package. The steps are the same whether you are adding features for the first time or revising a previously assembled package.

See *Incorporating Features Into Packages* for more information about features.

▶ To add features to a package

Access the Feature Component Selection form by doing one of the following:

- On the Feature Component form, click Browse.
- On the Package Component Revisions form, click the Features icon to display the Feature Component form, and then click Browse.


Package Assembly - [Help Component Selection]
File Edit Preferences Row Window Help
Tools
Row
Detail
Select Find Add Del... Close Seg... New... Dis... Abo
Links Detail OLE ... Internet

Help Name	Description	Source Machine Key	Source
B733 HELPS	Prod and Appl Helps	INTELNTC	\owenviron\ENVIRON\Evapps\appl_pg
B8.1HELPS	Helps for Appl B.81 packages	INTELNTC	\owenviron\ENVIRON\Evapps\B81\app
HELPS	Helps for Masters B7322	INTELNTC	\owenviron\ENVIRON\Masters\mstB73
JB7331HELP	Pristine Helps for B7331 GA	INTELMSTR	\group\PVC\Masters\Prstb733\PRSTB
JB7332HELP	B7332 Helps	INTELMSTR	\group\PVC\Masters\Prstb733\PRSTB
JB7333HELP	Mastering B7333 helps	INTELMSTR	\group\PVC\Masters\Prstb733\PRSTB
JMTEST	Client Test	INTELNTC	\owenviron\ENVIRON\Evapps\appl_pg
MEDIAOBJ	dummy	INTELMSTR	\group\PVC\Masters\Prstb733\PRSTB
MEDIA_OBJ	Media Objects Pristine	INTELNTA	\oneworld\Pristine\Mediaobj
MSTB7321	Masters B73.2.1 Helps	INTELNTC	\owenviron\ENVIRON\Masters\mstB73
MSTB7322	Masters B73.2.2 Helps	INTELNTC	\owenviron\ENVIRON\Masters\mstB73
MSTB733	Helps for MstB733	INTELNTC	\OWENVIRON\ENVIRON\Masters\mst
MSTB7331	Helps for masters	INTELNTC	\owenviron\ENVIRON\Masters\Mstb73
MSTB7332	MastersB73.3.2 Helps	INTELNTC	\owenviron\ENVIRON\Evapps\appl_pg

1. Find and choose the features you want to include in the package, and then click Select. To choose multiple features, press the Control or Select key.
2. If the feature you want to include has not been defined, you can create the feature definition by clicking Add. The Feature Based Deployment Director launches. For more information about creating features, see *Defining Features*.
3. Repeat steps 2 and 3 until you have finished adding features to your package. When you are finished, click Close to return to the place from which you accessed the Feature Component Selection form.

Activating an Assembled Package

After you have assembled a package, the status remains at "Assembly." IWhile defining the package, it is inactive until you specifically change it to "Assembly - Definition Complete," which activates the package. An assembled package cannot be built until the status has been changed to Definition Complete. Changing a package status to Complete indicates that you are finished assembling the package and are ready to begin the build definition process.

You can change the package status at any time until you start the build definition process. That is, even after you have changed a package status to Complete, you can still change the status back to In Definition if you need to revise the assembled package.

▶ To activate a package

From the Package and Deployment Tools menu (GH9083), choose Package Assembly (P9601).

1. On Work with Packages, choose the package you want to activate. Packages that are currently In Definition are identified by an open box icon, while packages that have a Complete status have a closed box icon.
2. Choose Active/Inactive from the Row menu.

You can use this same process to change a Complete package back to In Definition.

When you are ready to define the package's build, follow the steps described in *Defining Package Builds*.

Revising an Existing Package

Once you have assembled a package, you can easily revise any of that package's components by using the Package Component Revision form. You do not need to go through all of the Package Assembly Director's forms to revise a package.

Before You Begin

You cannot revise a package unless the package status is In Definition. If you try to revise a package whose definition is Complete, you will receive an error message. If necessary, before you choose the package to revise, choose Active/Inactive from the Work with Packages form's Row menu to change the package status.

▶ To revise an existing package

From the Package and Deployment Tools menu (GH9083), choose Package Assembly (P9601). The Work with Packages form appears.

1. Find the package you want to revise, either by using the Find function or by expnading the Packages tree.
2. Choose the package you want to revise, and then choose Package Revisions from the Row menu.
3. On Package Component Revisions, you can choose a different parent package name or click the appropriate radio button to select a different package type (Full, Partial, or Update).
4. To change the foundation, helps, or database location, click on the appropriate icon to display the form where you can make your changes. Likewise, click the Objects icon to add objects to the package, the Features icon to add features, or the Language icon to specify a language other than English.
5. To change the description, choose Property Revisions from the Form menu.
6. When you are finished revising the package definition, click OK to return to the Work with Packages form.
7. If any build information exists for the package, OneWorld warns you that your changes will delete the existing build information. Select one of the following options:
   - Click OK to accept your revisions and delete the existing build information. If you accept the revisions, you should update the build information so that it reflects the changes you made.
   - Click Cancel to delete your revisions and save the existing build information.

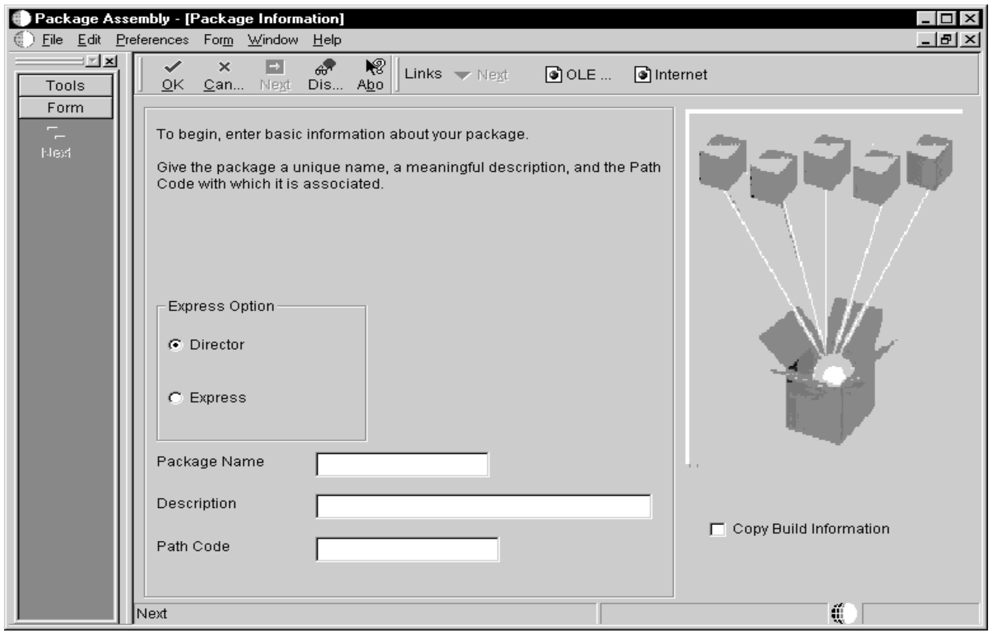
Copying a Package

In some cases it may be easier to copy an assembled package rather than creating a new one entirely from scratch. Also, when you make a copy of a package that has been built (that is, has a Build Complete status) the original package definition records are copied and added to the new package. Directories (including server directories) from the old package are also copied to the new package.

▶ To copy a package

From the Package and Deployment Tools menu (GH9083), choose Package Assembly (P9601).

1. On Work with Packages, find and choose the name of the package you want to copy, and then click Copy.


Package Assembly - [Package Information]
File Edit Preferences Form Window Help
Tools
Form
Next
OK
Can...
Next
Dis...
Abo
Links
Next
OLE ...
Internet
Next

To begin, enter basic information about your package.

Give the package a unique name, a meaningful description, and the Path Code with which it is associated.

Express Option
(● Director) ○ Express

Package Name
Description
Path Code

☐ Copy Build Information

2. On Package Information, enter the new package name, description, and path code.

   If the package you are copying has been built (that is, the package has a status of Build Complete), the Copy Build Information option will be available. When you turn on this option, all of the package definition records, directories, and server directories from the original package are copied into the new package.

3. Click OK to return to the Work with Package form, where you can choose Package Revisions from the Row menu to review and change any of the package components.

Field	Explanation
Copy Build Information	If you are copying a package, indicate whether you would like the package directories copied as well as the package definition. If you copy the package directories, the new package does not need to be built before it is deployed to users, because it is an exact copy of the original package.

Deleting a Package

The Work With Packages form contains an option that allows you to delete existing packages, provided that they are not currently in the process of building. You cannot delete packages that are being built.

When you delete a package all information for that package in the Package Header and Detail tables (F9603 and F9631) is deleted. In addition, if the package has been built, all specifications for that package will be deleted on all servers, as well as information in the Package Build Header and Detail tables (F96021 and F9622). Deployment records, if any, will also be deleted.

▶ To delete a package

From the Package and Deployment Tools menu (GH9083), choose Package Assembly (P9601). The Work with Packages form appears.

1. Find and choose the name of the package you want to delete.
2. Click Delete.
3. Confirm the deletion by clicking OK when the warning message appears.

Defining Package Builds

After you assemble a package, you must define the package build before you can deploy it to your workstations. The build process reads the central objects data source for the path code you defined in the package. This information is then converted from a relational format to replicated objects, which are put in the package itself.

The B7333 (release name) directory structure looks similar to the following. Directories with an asterisk represent locations to which developers check in development objects.

```
B7333
  PD7333 (path code name)
    PACKAGE
      PackageA (package name)
        bin32
        include
        lib32
        make
        obj
        res
        source
        spec
        work
    *bin32
    *include
    *lib32
    make
    *obj
    *res
    *source
    work
```

When you build a package, the directories under the package name are populated. Information for the source and include directories is copied from the location under the path code on the deployment server from which developers check in development objects. Information for all other directories comes from the central objects data source. The bin32, lib32, and obj directories are populated with the output of the business function build process.

This chapter contains the following topics:

- ❏ Understanding the build process
- ❏ Understanding the Package Build Definition Director
- ❏ Defining a package build
- ❏ Revising build options for a package
- ❏ Compressing the parent package (after building the update)
- ❏ Copying a built package
- ❏ Viewing package build history and resubmitting builds

Understanding the Build Process

The following is a checklist of the processes you need to complete when you perform a build. This entire process can take several hours. For this reason, J.D. Edwards recommends that you initiate the actual package build at the end of the working day, if possible.

- ❏ Transfer objects.

  Ensure that all the objects you want to include in the build have been transferred to the appropriate path code.

  See *Understanding Object Movement*.

- ❏ Ensure that the Microsoft Access database for the package has the most current replicated data.

  See *Data Replication* in the *System Administration Guide*.

- ❏ Build a package.

  Build a package over the path code to which objects were transferred. This process is described in this chapter.

- ❏ Perform a cross-reference build (optonal).

  Perform a cross-reference build to make sure the cross-reference information reflects the changed objects. This process takes up to 15 hours to complete. You can deploy your package before the cross-reference build has completed.

See *Cross Reference Facility* in the *OneWorld Development Tools Guide.*

❑ Deploy the software to the following:

- Workstations and servers
- Tiered deployment locations

See *Deployment.*

Understanding the Package Build Definition Director

Like the Package Assembly Director, the Package Build Definition Director simplifies and expedites the build definition process by displaying a series of forms that guide you through the process. As with the Package Assembly Director, you always have the option of going to the previous or next screen by clicking Previous or Next. Also, you can always cancel the build definition process by clicking Cancel.

The following summarizes each of the Package Build Definition Director forms and their function:

Welcome form	View this form for a description of the Package Build Definition Director.
Package Selection form	Use this form to choose the defined package you would like to build. The package's status must be [assembly] Definition Complete.
Package Build Location form	Use this form to indicate whether you would like to build the package for the client workstation, one or more servers, or both clients and servers.
Server Selection form	Use this form to specify the server location. (Required when you build a package for a server.)
Build Specification Options form	Use this form to specify the specification tables you want to include in the package: all specification tables, or only selected tables. The option to build individual specifications is useful if a build fails and your package error log indicates that an individual specification file needs to be rebuilt.
Individual Specification Selection form	Use this form to include selected tables only in the package.

Business Function Options form	Use this form to build business functions. You can also specify the build mode, the severity level at which to interrupt the build process, whether to build business function documentation, and whether to clear the output destination before building.
Compression Options form	Use this form to specify package compression, and select options to compress directories (all or individual), data, helps, and foundation.
Individual Directory Selection form	Use this form to select the individual directories you want to compress.
Build Features form	Use this form to enter file set and compression information for features that were added to the package. A feature is a set of files or configuration options such as registry settings that must be copied to a workstation or server to support a OneWorld application or other OneWorld functionality.
Package Build Revisions form	Use this form to review or change any of the options you have specified for your package.

Building Business Functions During Package Build

As part of the build definition process, you can specify whether you want to build business functions. If so, a global build of business functions takes place during the package build process. When you build business functions as part of the package build, it is the same process as if you had manually executed the BusBuild program (selected Build from the Global Build menu) after the package was built.

Source and header information is gathered from the package (from the source and include directories), compiled, and put into the bin32, obj, and lib32 directories. Business functions are built in the package, not on the workstation. After business functions are built, they are compressed, provided that you turn on the Compress Package option.

OneWorld makes certain assumptions about path code, foundation, and destination for the business function build. In particular:

- When building business functions, you build from the path code you defined in the package.
- The foundation is either the same as the foundation included in the package, or, for an update package, the parent package's foundation.

- Build output is directed to the bin32, obj, and lib32 directories of the package itself.
- When building a full or partial package, or when building an update package that includes a business function, you should always build business functions. Otherwise, the consolidated DLLs included in the package will not be current.

  For update packages, a single build is performed for each business function defined in the package. After the individual business function is built, a global link is performed for that object and all other objects that are in the same consolidated DLL. The global link process uses the objects found in the check-in location for that package's path code.

  Similarly, any business functions defined in a partial package are built individually and then linked with all objects in the check-in location. The only difference with a partial package is that all consolidated DLLs are delivered, not just the ones that may or may not be defined in the package itself.

Note: Check-in location directories will not be updated with the build's output.

For more information about the BusBuild program, see the *Business Functions* section in the *OneWorld Development Tools Guide*.

Defining a Package Build

This task describes how to define a package build using the Package Build Definition Director, and includes the following tasks:

- Defining a Package Build
- Reviewing the Package Build Selections

Before You Begin

❑ Assemble your package, making sure to set the assembled package status to Definition Complete. For more information, see *Assembling Packages*.

❑ Verify Object Configuration Manager (OCM) mappings are correctly set for the the Package Build Report (R9621) and Server Package Build Report (R9622) that are generated as part of the package build process. For example, if you want the reports to run locally, you should make sure the OCM mappings point to Local for the environment in which the package build is running. For more information about setting OCM mappings, see *Object Configuration Manager* in the *Configurable Network Computing Implementation Guide*.

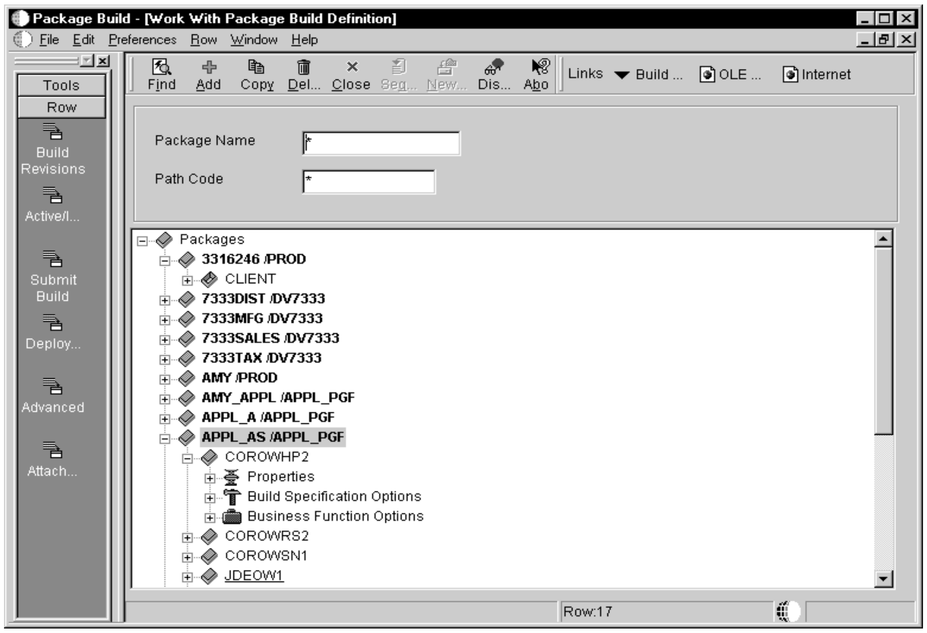
▶ To define a package build

There are two ways to access the Package Build Definition Director: from the Work With Packages form on the Package Assembly menu, or from the Work With Package Build Definition form on the Package Build menu.

The advantage of accessing the director from the Work With Packages form is that the package name and other information is automatically entered for you. If you access the director from the Work With Package Build Definition form you will need to manually specify the name of the package you want to build.

1. Select one of the following options:
   - To access the Package Build Definition Director from the Work With Packages form, select a defined package that has a Definition Complete status, and then choose Build Director from the Row menu.
   - To access the director from the Package and Deployment Tools menu (GH9083), choose Package Build (P9621).

   The Work With Package Build Definition form appears.


Package Build - [Work With Package Build Definition]
File Edit Preferences Row Window Help
Find Add Copy Del... Close Seq... New... Dis... Abo
Links Build ... OLE ... Internet
Tools
Row
Build Revisions
Active/I...
Submit Build
Deploy...
Advanced
Attach...
Row:17

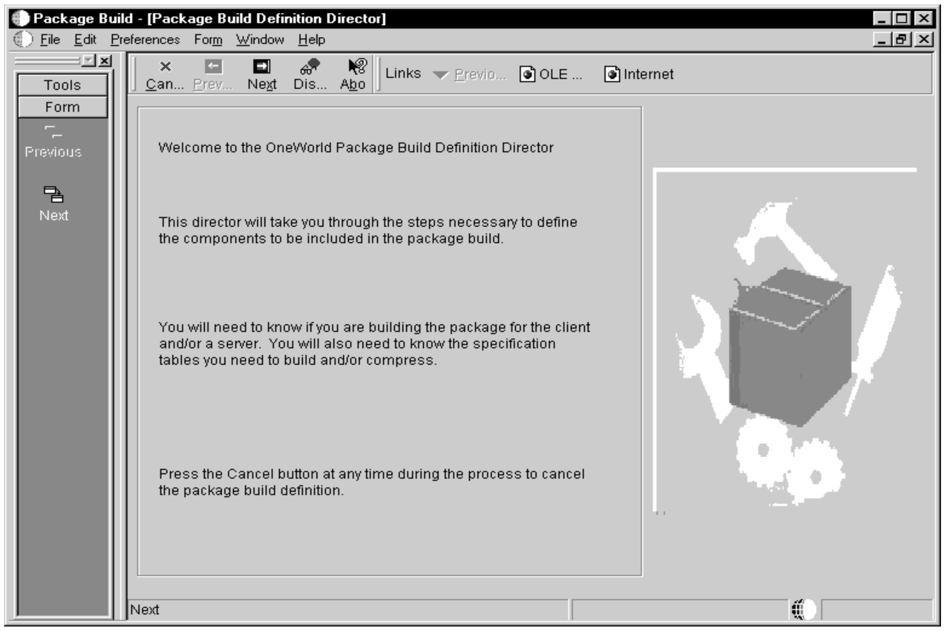
Package Name *
Path Code *

```
Packages
  3316246 /PROD
    CLIENT
  7333DIST /DV7333
  7333MFG /DV7333
  7333SALES /DV7333
  7333TAX /DV7333
  AMY /PROD
  AMY_APPL /APPL_PGF
  APPL_A /APPL_PGF
  APPL_AS /APPL_PGF
    COROWHP2
      Properties
      Build Specification Options
      Business Function Options
    COROWRS2
    COROWSN1
    JDEOW1
```

Any previously built packages appear on this form. As on any other parent/child form, you can expand or compress by clicking on the plus (+) or minus (–) symbols to show more or less information.

If you have any previously built packages, you can review all of the options and information you specified when you created the package, such as the package's properties, build options, business function options, and compression options.

2. Click Add to launch the Package Build Definition Director.


Package Build - [Package Build Definition Director]
File Edit Preferences Form Window Help
Tools
Form
Previous
Next
Can... Prev... Next Dis... Abo
Links Previo... OLE ... Internet

Welcome to the OneWorld Package Build Definition Director

This director will take you through the steps necessary to define the components to be included in the package build.

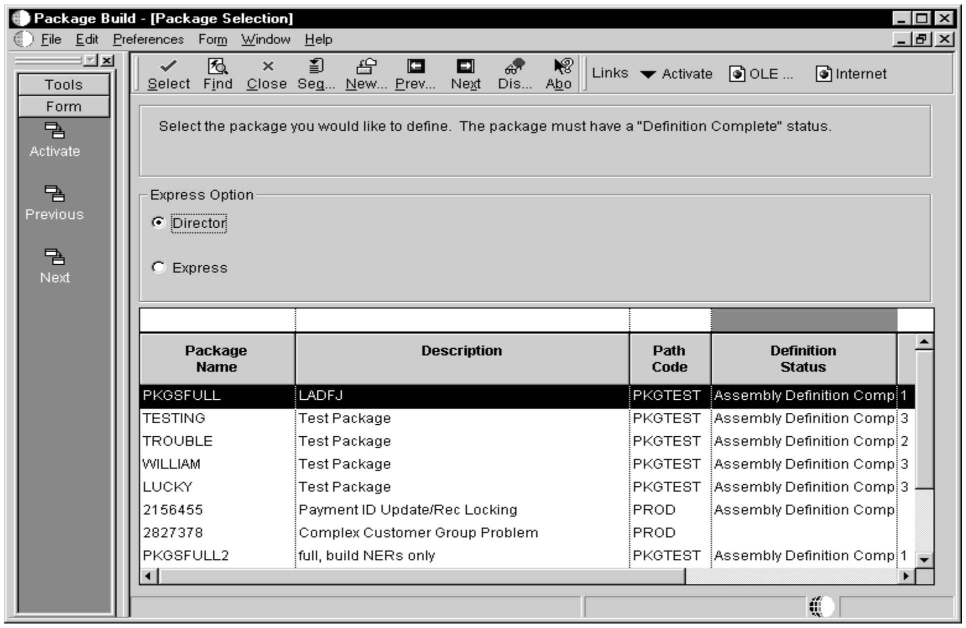
You will need to know if you are building the package for the client and/or a server. You will also need to know the specification tables you need to build and/or compress.

Press the Cancel button at any time during the process to cancel the package build definition.

Next

If you accessed the director from Work With Packages, skip thr following step.

3. On Package Build Definition Director, click next.


Package Build - [Package Selection]
File Edit Preferences Form Window Help
Tools
Form
Activate
Previous
Next
Select Find Close Seq... New... Prev... Next Dis... Abo
Links Activate OLE ... Internet

Select the package you would like to define. The package must have a "Definition Complete" status.

Express Option
[✓ Director]
Express

Package Name	Description	Path Code	Definition Status	
PKGSFULL	LADFJ	PKGTEST	Assembly Definition Comp	1
TESTING	Test Package	PKGTEST	Assembly Definition Comp	3
TROUBLE	Test Package	PKGTEST	Assembly Definition Comp	2
WILLIAM	Test Package	PKGTEST	Assembly Definition Comp	3
LUCKY	Test Package	PKGTEST	Assembly Definition Comp	3
2156455	Payment ID Update/Rec Locking	PROD	Assembly Definition Comp	
2827378	Complex Customer Group Problem	PROD		
PKGSFULL2	full, build NERs only	PKGTEST	Assembly Definition Comp	1

4. On Package Selection, find and choose the defined package you want to build.

   If the package definition is still In Definition, you must change the status to Definition Complete before you build the package. To change the status, choose the package and choose Activate from the Row menu.

5. On the Express Option pane, choose one of the following options:

   - Director

     Choose this option if you want to customize your package build. Director allows you to navigate through the Package Build Definition screens.

   - Express

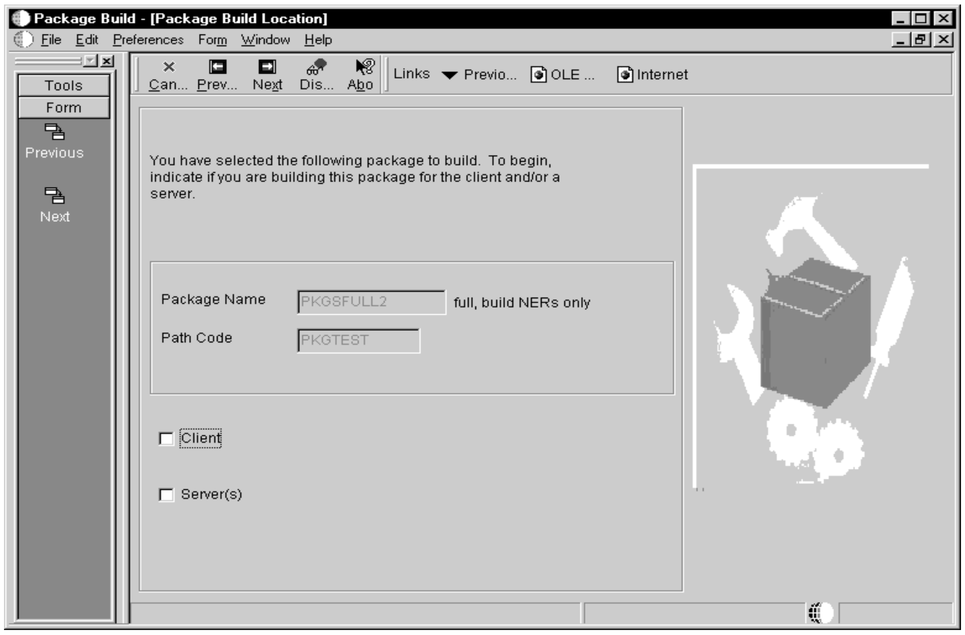
     Choose this option if you want to accept the default build parameters. Express allows you accept the package build default options and skip the Package Build Definition screens.

     If you Choose Express, click Next and continue with the task ”To review the package build selections.”

6. Click Next.

   The Package Build Location form appears.

7. Specify whether you want to build a package for client workstations, one or more servers, or both clients and servers. If you are building a partial package, you will not be allowed to build the package for a server.


Package Build - [Package Build Location]
File Edit Preferences Form Window Help
Tools
Form
Previous
Next
Can... Prev... Next Dis... Abo
Links
Previo...
OLE ...
Internet

You have selected the following package to build. To begin, indicate if you are building this package for the client and/or a server.

Package Name PKGSFULL2 full, build NERs only

Path Code PKGTEST

☐ Client

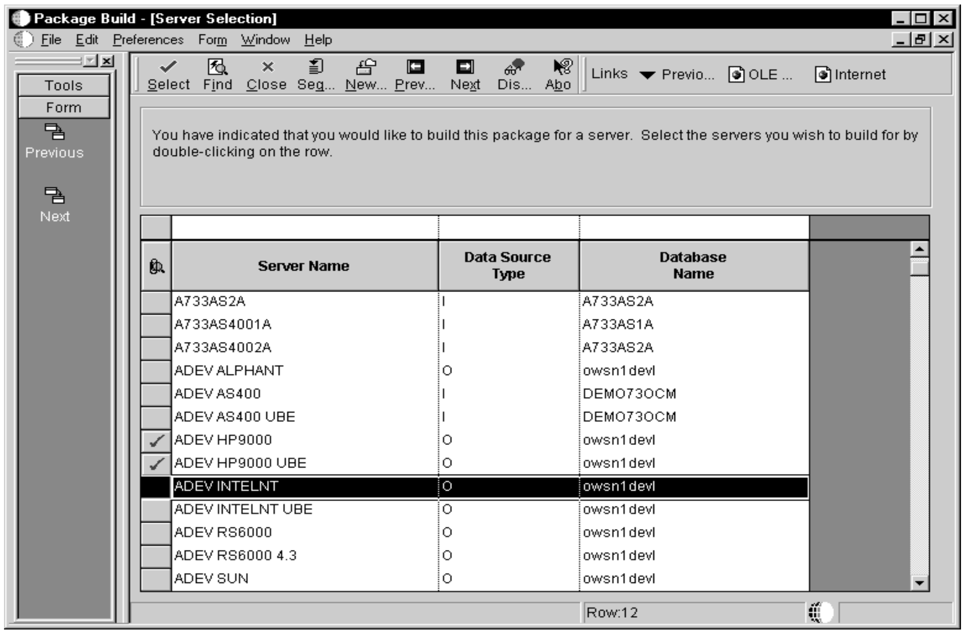
☐ Server(s)

Be sure to click Server(s) if the package you are building goes to one or more servers.

If you are building a package for workstations only, skip the following step, which applies only to server package builds.

8. Click Next.

   If you are building a package for a server and you clicked Server(s) on the Package Build Location form, the Server Selection form appears.

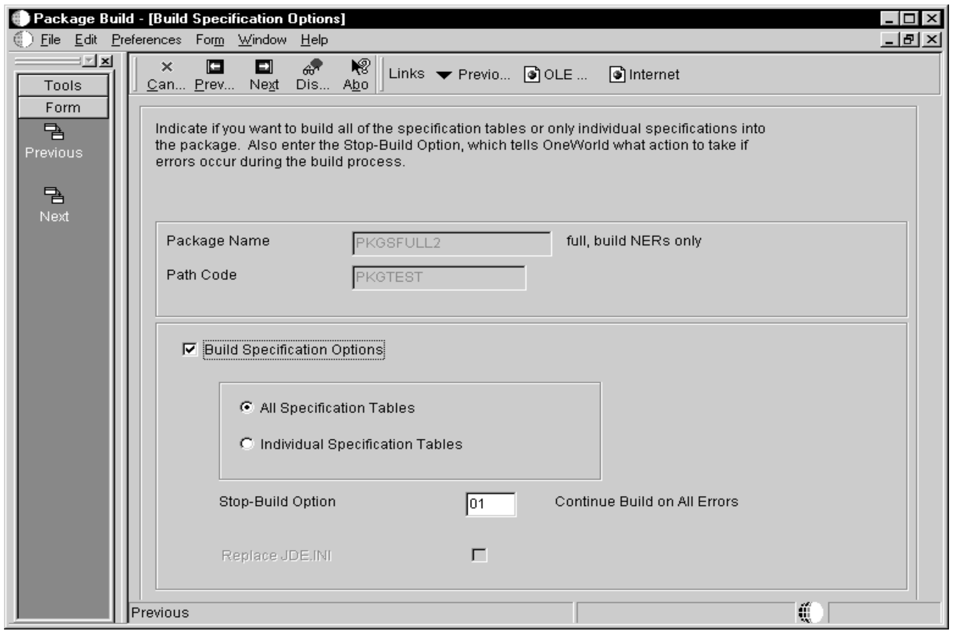

Package Build - [Server Selection]
File Edit Preferences Form Window Help
Select Find Close Seg... New... Prev... Next Dis... Abo
Links Previo... OLE ... Internet
Tools
Form
Previous
Next
Row:12

You have indicated that you would like to build this package for a server. Select the servers you wish to build for by double-clicking on the row.

	Server Name	Data Source Type	Database Name
	A733AS2A	I	A733AS2A
	A733AS4001A	I	A733AS1A
	A733AS4002A	I	A733AS2A
	ADEV ALPHANT	O	owsn1devl
	ADEV AS400	I	DEMO73OCM
	ADEV AS400 UBE	I	DEMO73OCM
✓	ADEV HP9000	O	owsn1devl
✓	ADEV HP9000 UBE	O	owsn1devl
	ADEV INTELNT	O	owsn1devl
	ADEV INTELNT UBE	O	owsn1devl
	ADEV RS6000	O	owsn1devl
	ADEV RS6000 4.3	O	owsn1devl
	ADEV SUN	O	owsn1devl

This form enables you to choose the servers on which you want to build the package. To choose a server, click Find, and then double-click in the column to the left of the server name. A checkmark indicates your selection. Repeat the process to choose multiple servers.

9. Click Next.


Package Build - [Build Specification Options]
File Edit Preferences Form Window Help
Tools
Form
Previous
Next
Can... Prev... Next Dis... Abo
Links Previo... OLE ... Internet

Indicate if you want to build all of the specification tables or only individual specifications into the package. Also enter the Stop-Build Option, which tells OneWorld what action to take if errors occur during the build process.

Package Name PKGSFULL2 full, build NERs only

Path Code PKGTEST

[✓] Build Specification Options

(●) All Specification Tables

( ) Individual Specification Tables

Stop-Build Option 01 Continue Build on All Errors

Replace JDE.INI [ ]

10. On Build Specification Options, complete the following fields:
    - Build Specification Options
    - All Specification Tables or Individual Specification Tables

      If you turn on All Specification Tables, all of the tables listed on the Individual Specification Selection form will be included in the package. If you are building all specification tables, click Next and complete the Business Function Options form (see the following page).

    - Stop-Build Option

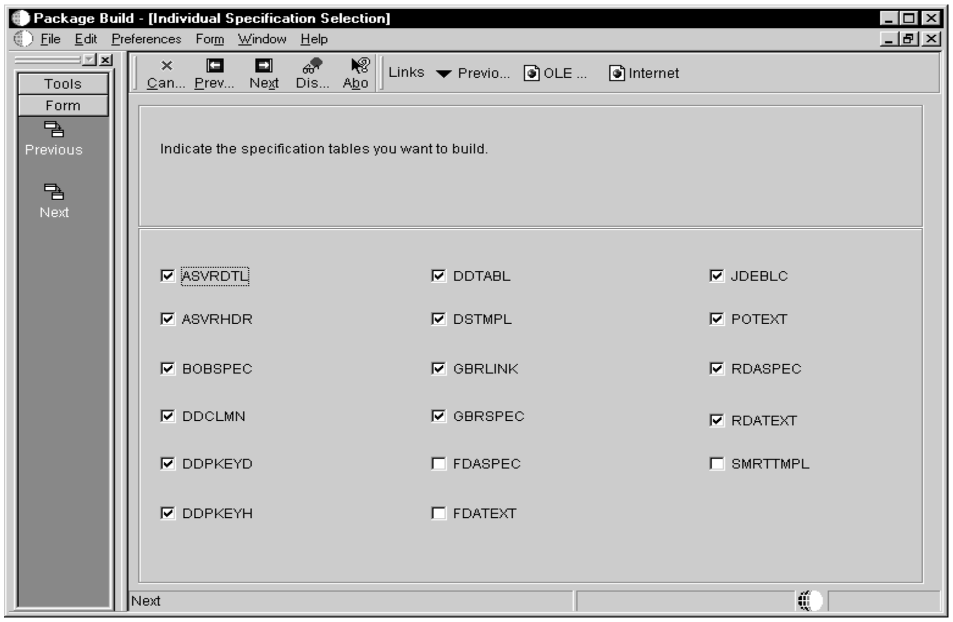
      The Stop-Build option on this form allows you to indicate the point at which OneWorld should stop the build: Continue building on all errors; Stop building on specification errors; Stop building on business function errors; or Do not compress if there are errors.

    - Replace JDE.INI (for update packages only)

    Note: If the package you are building goes to a server, make sure to choose Build Options and All Specification Tables.

11. Click Next.

    If you elected to build individual specification tables, the Individual Specification Selection form appears.

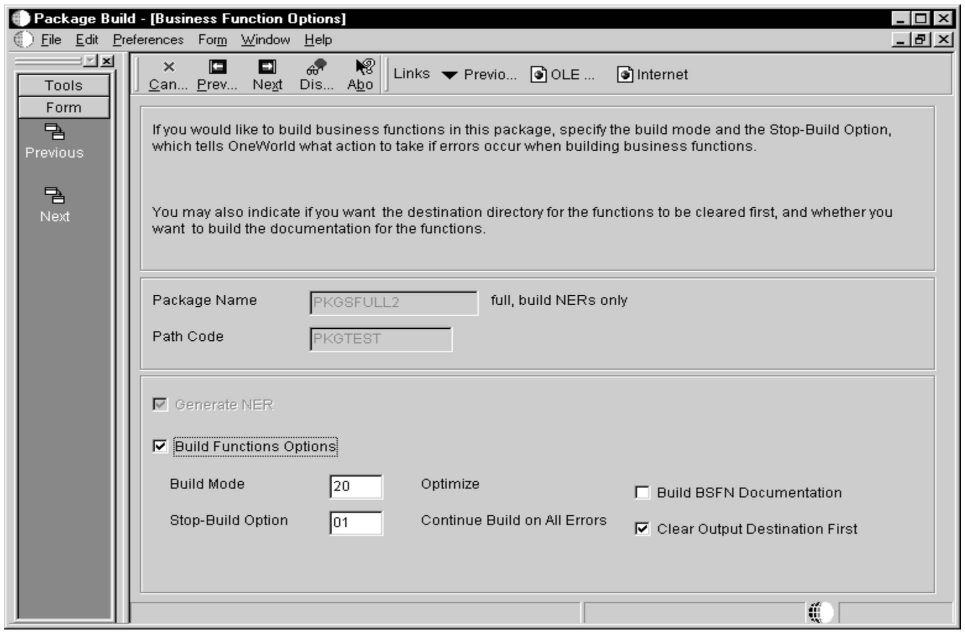

Package Build - [Individual Specification Selection]
File Edit Preferences Form Window Help
Tools
Form
Previous
Next
Can... Prev... Next Dis... Abo
Links Previo... OLE ... Internet

Indicate the specification tables you want to build.

☑ ASVRDTL	☑ DDTABL	☑ JDEBLC
☑ ASVRHDR	☑ DSTMPL	☑ POTEXT
☑ BOBSPEC	☑ GBRLINK	☑ RDASPEC
☑ DDCLMN	☑ GBRSPEC	☑ RDATEXT
☑ DDPKEYD	☐ FDASPEC	☐ SMRTTMPL
☑ DDPKEYH	☐ FDATEXT	

12. Uncheck each specification table you do not want to build. (Only the checked specification tables are built.)
13. Click Next.

    If the package includes Business Functions or tables with Table Event Rules, the Business Function Options form appears. (If not, skip to instructions for the next screen.)


Package Build - [Business Function Options]
File Edit Preferences Form Window Help
Tools
Form
Previous
Next
Can... Prev... Next Dis... Abo
Links Previo... OLE ... Internet

If you would like to build business functions in this package, specify the build mode and the Stop-Build Option, which tells OneWorld what action to take if errors occur when building business functions.

You may also indicate if you want the destination directory for the functions to be cleared first, and whether you want to build the documentation for the functions.

Package Name: PKGSFULL2 full, build NERs only

Path Code: PKGTEST

☑ Generate NER

☑ Build Functions Options

Build Mode: 20 Optimize

Stop-Build Option: 01 Continue Build on All Errors

☐ Build BSFN Documentation

☑ Clear Output Destination First

14. Complete the following fields:
    - Generate NER

Turn off this option if you do not want to generate Named Event Rules.

- Build Functions Options
- Build Mode

  There are three build modes: Debug, Optimize, and Performance. Debug and Performance are for J.D. Edwards developers only. Users should select the Optimize mode.

- Stop-Build Option

  The Stop-Build Option field allows you to indicate the point at which OneWorld should stop building business functions: Continue building on all errors; Stop building on the first error; or Stop building on DLL failure.

- Build BSFN Documentation

  The Build BSFN Documentation option allows you to create an online list of business function documentation. If your company does custom development you will want to be sure this option is selected to ensure that the documentation for your business functions is generated. Business function documentation is created after you submit the build and is saved in the PrintQueue folder beneath the B7 folder that contains your other OneWorld files. To make the documentation available to other users, you should move or copy the documentation from the PrintQueue folder to a location on the server that is accessible to all users. In order to read the documentation files produced, users will need an Web browser or other application capable of displaying HTML files. For more information about building business function documentation, see the *OneWorld Development Tools Guide*.

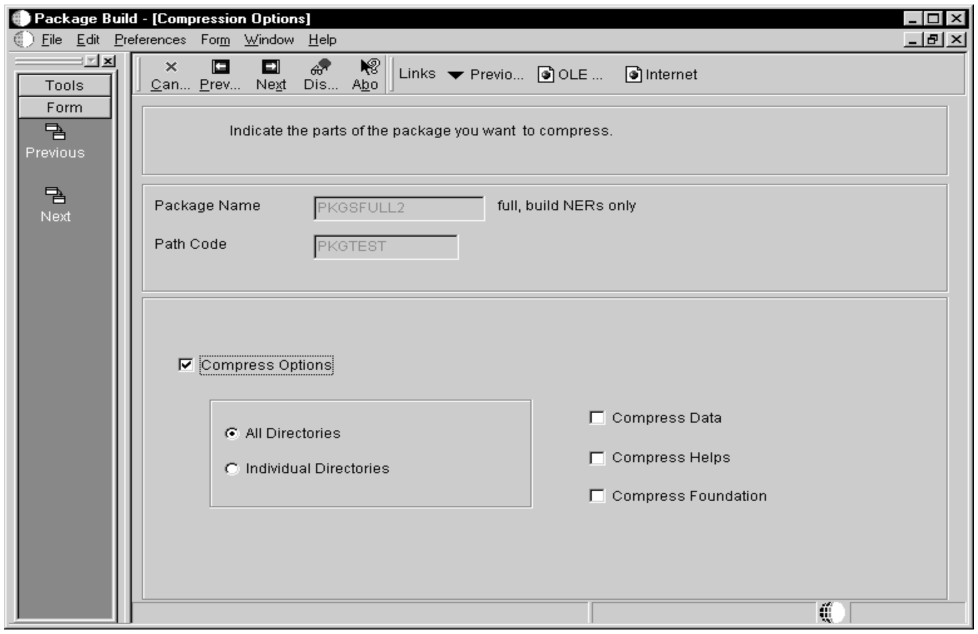
- Clear Output Destination First

  The Clear Output Destination First option allows you to clear the output directories (bin32, lib32 and obj) before building business functions so that old business functions are not included when the package is created. If you do not clear the output and a function fails to process, the global link process will use the old libraries and objects to create the consolidated DLL file. This can result in the creation of an inaccurate global package.

Note: If the package you are building will be deployed to a server, be sure to choose Build Function Options.

15. Click Next.

If you are building an Update or Partial package that includes objects or features, the Compression Options form appears. (If not, skip to instructions for the next form.)


Package Build - [Compression Options]
File Edit Preferences Form Window Help
Tools
Form
Previous
Next
Can... Prev... Next Dis... Abo
Links Previo... OLE ... Internet

Indicate the parts of the package you want to compress.

Package Name PKGSFULL2 full, build NERs only

Path Code PKGTEST

[✓] Compress Options

(●) All Directories

( ) Individual Directories

[ ] Compress Data

[ ] Compress Helps

[ ] Compress Foundation

16. On Compress Options, complete the following options:

    - Compress Options
    - All Directories
    - Individual Directories

    When you build a server package, click on Compress Options and select All Directories. This selection will compress the directories on the enterprise server and copy them to your package on the deployment server in the following directory (where your server.ini file is located):

    > <pathcode>/<package>/<package name>/<operating system type>

    The directories are compressed into file types that depend on the type of enterprise server. For NT servers, the file type is .cab, for UNIX the file type is .z, and for AS400, the file has no extension.

    When you compress directories, the application objects included in the package are automatically compressed. OneWorld also creates an entry in the package INF file that indicates whether that the following items are compressed: foundation, helps, data, and application objects.

Caution: The Compress All Directories and Individual Directories options are the only options that modify the package INF. All other compression options affect only the actual compression.

- Compress Data

  Compress Data compresses the Microsoft Access database associated with this package.

- Compress Helps

  Compress Helps compresses the help files associated with your package.

- Compress Foundation

  Compress Foundation compress the foundation associated with your package.

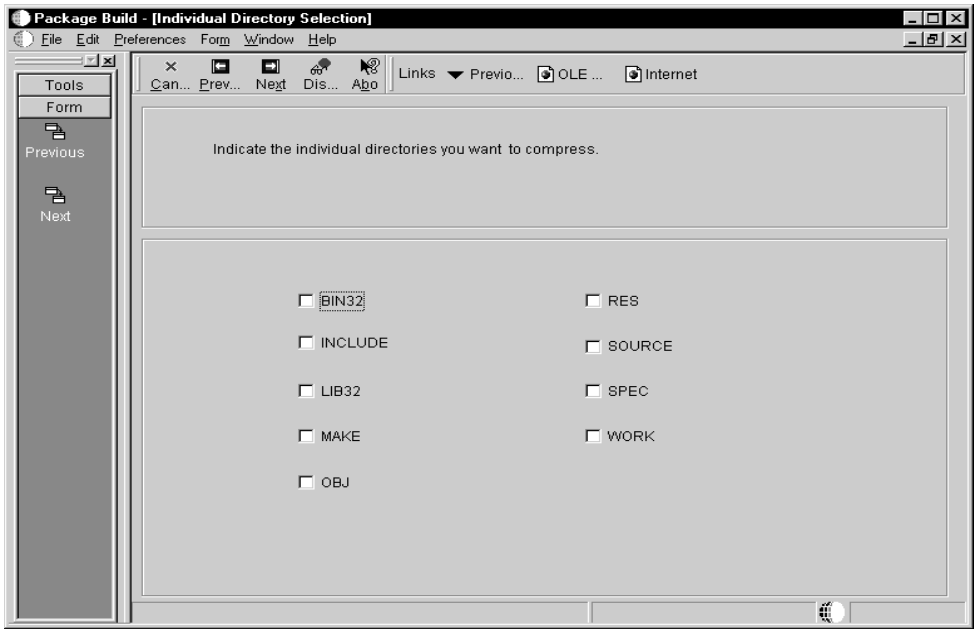
If you turn on the All Directories options, all of the directories listed on the Individual Directory Selection form are compressed. If you are compressing all directories, skip the following step.

Note: If the package you are building will be deployed to a server, there are only two situations when you would want to choose Compress Options:

- When you are building the same package for both the workstation and server and you want to create compressed files for the workstation package, or
- If you plan to build the package on one enterprise server and deploy it to another enterprise server.

Important: To enable creating compressed files on the server, check the jde.ini file on the workstation that is running the package build application. Under the BSFN BUILD section, verify that the DoCompression setting is 1 to enable compression. If this setting is incorrect, compressed files will not be created on the server. For more information, see *JDE.INI Settings for Server Package Builds* in the introductory section of this chapter.

17. Click Next.
18. If you elected to compress individual directories, the Individual Directory Selection form appears.

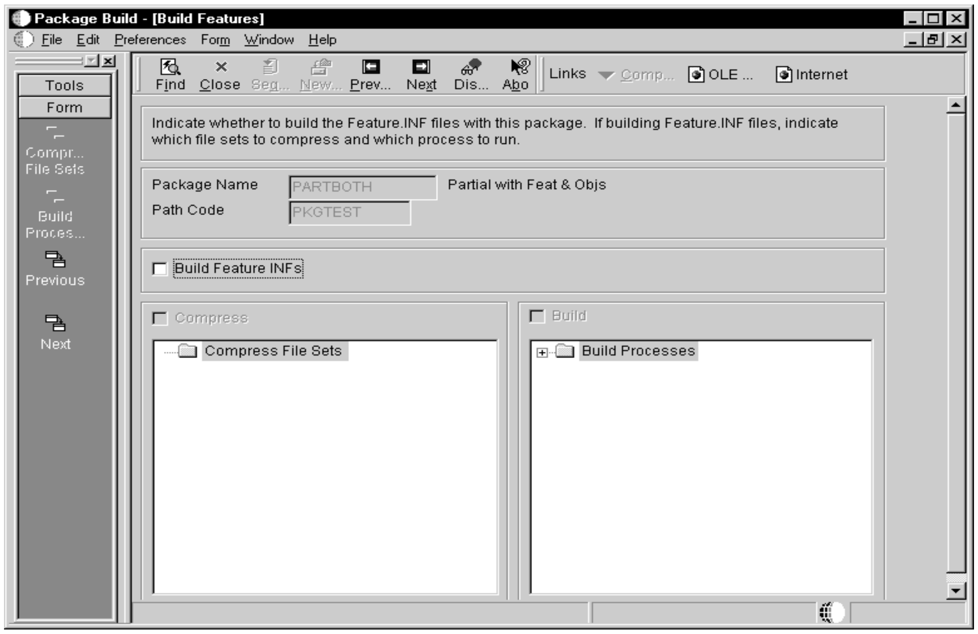

Package Build - [Individual Directory Selection]
File Edit Preferences Form Window Help
Tools
Form
Previous
Next
Can... Prev... Next Dis... Abo
Links Previo... OLE ... Internet

Indicate the individual directories you want to compress.

☐ BIN32	☐ RES
☐ INCLUDE	☐ SOURCE
☐ LIB32	☐ SPEC
☐ MAKE	☐ WORK
☐ OBJ	

19. Click each directory you want to compress, and then click next.

    If the package does not includes features, skip to the next task.


Package Build - [Build Features]
File Edit Preferences Form Window Help
Tools
Form
Compr... File Sets
Build Proces...
Previous
Next
Find Close Seq... New... Prev... Next Dis... Abo
Links Comp... OLE ... Internet

Indicate whether to build the Feature.INF files with this package. If building Feature.INF files, indicate which file sets to compress and which process to run.

Package Name PARTBOTH Partial with Feat & Objs
Path Code PKGTEST

☐ Build Feature INFs

☐ Compress
Compress File Sets

☐ Build
Build Processes

20. On Build Features, if you want to build a feature.inf file with the package, choose Build Feature INFs.

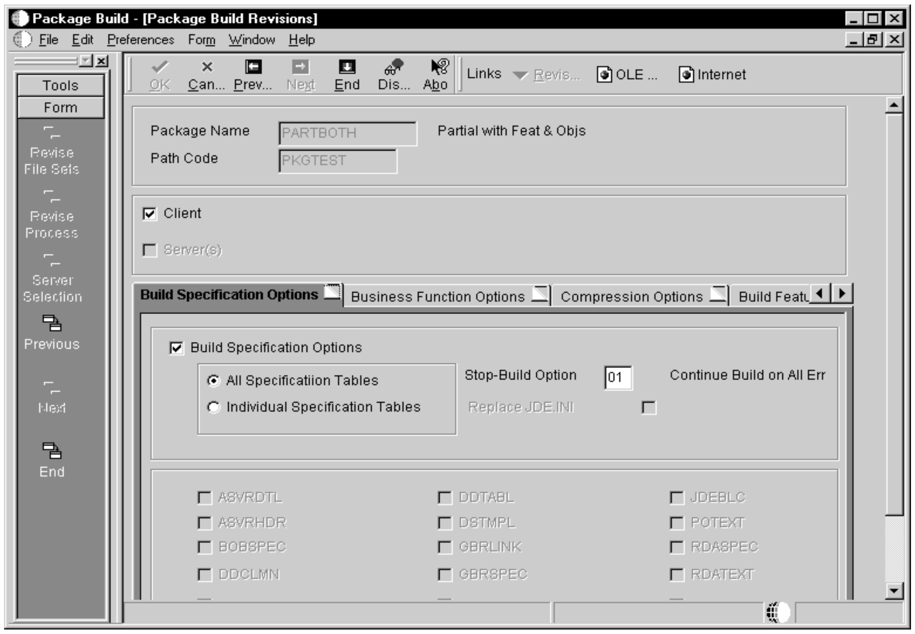
    When you choose this option, the Compress and Build fields become available. For more information about the Compress and Build options, see *Configuring Features During Package Build Definition*.

21. Click Next.

▶ To review the package build selections

After you complete the compression and build features options, the Package Build Revisions form appears.

This form allows you to see at a glance the current build options, business function options, compression options, and feature options you have specified for the package. To change any of these options, click the tab for the type of option you want to change. (Only tabs for options you have selected will appear on this form.)


Package Build - [Package Build Revisions]
File Edit Preferences Form Window Help
Tools
Form
Revise File Sels
Revise Process
Server Selection
Previous
Next
End
OK Can... Prev... Next End Dis... Abo
Links Revis... OLE ... Internet
Build Specification Options
Business Function Options
Compression Options
Build Featu

Package Name PARTBOTH Partial with Feat & Objs
Path Code PKGTEST

[✓] Client
[ ] Server(s)

[✓] Build Specification Options
(●) All Specificatiion Tables
( ) Individual Specification Tables
Stop-Build Option 01 Continue Build on All Err
Replace JDE.INI [ ]

[ ] ASVRDTL	[ ] DDTABL	[ ] JDEBLC
[ ] ASVRHDR	[ ] DSTMPL	[ ] POTEXT
[ ] BOBSPEC	[ ] GBRLINK	[ ] RDASPEC
[ ] DDCLMN	[ ] GBRSPEC	[ ] RDATEXT

1. On Package Build Revisions, when you are finished reviewing or changing your build options, click End to exit from the Package Build Definition Director.
2. On Work With Package Build Definition, choose Active/Inactive from the Row menu to activate the package.
3. Choose Submit Build from the Row menu when you are ready to initiate the package build.
4. Click on one of the following options and click OK:
   - On Screen
   - To Printer

The form automatically closes and OneWorld begins building the package. Build time varies, depending on the number and size of the items in your package. A build could take five minutes for a small package, or several hours for a full package containing all applications. When the build is finished, the report will either display or print, depending on the destination you specified.

5. Review the report to make sure that all components in your package were built successfully. If the report indicates any errors, review the error logs for more detail.

   If the package build completes successfully, you can schedule the package for deployment as described in *Deployment*.

Field	**Explanation**
Server Name	The data source name.
Data Source Type	The type of database.
Database Name	The name assigned to the database during installation, such as HPDEVORAP or HP9000.
Build Options	Select Build Options to take the package definition and copy and convert objects from the central data source to the replicated format used by workstations. Also, enter options pertaining to the build process.
All Specification Tables	Indicate whether you want to build all specification tables into the package or whether you would rather select individual tables to include in the package.
Stop-Build Option	This option enables you to specify what action OneWorld should take if an error occurs during the package building process.
Replace JDE.INI	Indicate if you want a new JDE.INI file delivered with the package. You should leave this unchecked unless your JDE.INI file has changed. For example, your JDE.INI may change when you perform upgrades or when you reconfigure in release master.
Generate NER	When resubmitting a client or server build, you can indicate whether NER should be rebuilt. If you already have a successful build of the NER, you can save substantial time by not rebuilding it.
Build Functions Options	Select Build Functions Options to perform a global build of all business functions included in this package, and to enter options pertaining to the business function build process.
Build Mode	Indicate the compiler configuration to use for the software build.
Stop-Build Option	This option enables you to specify what action OneWorld should take if an error occurs during the business function building process.

Field	Explanation
Build BSFN Documentation	Indicate whether you want to build business function documentation during the package build process. For a full package, the documentation will be built for all business functions. For a partial or update package, documentation will be built for only those functions included in the package.
Clear Output Destination Before Build	When building business functions, you should normally clear the output directories (bin32, lib32 and obj) so that old business functions are not included when the package is created. If you do not clear the output and a function fails to process, the global link process will use the old libraries and objects to create the consolidated DLL file. This can result in an inaccurate global package.
Compress Options	Select Compress Options to compress the applications included in the package, and to specify options for the compression process.
All Directories	Indicate whether you want to compress all directories in the package, or if you would rather select individual directories for compression.
Individual Directories	Indicate whether you want to compress all directories in the package, or if you would rather select individual directories for compression.
Compress Data	Indicate whether to compress the data in a package after the package is created.
Compress Foundation	Indicate whether to compress the foundation files in the package after the package is created.
Compress Helps	Indicate whether to compress the help files in a package after the package is created.

Processing Options for the Package Build Definition Director

The Package Build Definition Director (P9621) has a processing option that lets you specify whether to allow changes to the build definitions on individual servers.

When you enter 1 in this field, OneWorld allows you to change the build definition for individual servers. If you leave this field blank, any revisions you make to the build options and information you enter will be applied to all of the servers for which you want the package built.

For example, if you enter one, on the Work With Package Build Definition form you will be allowed to make changes to an individual server's properties, build options, business function options, and compression options. If you leave this field blank, you will not be able to make these changes to an individual server, but at the package level only. The changes will apply to all of the servers for that build.

Revising Build Options for a Package

Once you have entered a package's build options, you can easily revise any of those options by using the Build Component Revision form. You do not need to go through all of the Package Build Definition Director's forms to revise build options.

▶ To revise a package's build options

From the Package and Deployment Tools menu (GH9083), choose Package Build (P9621).

1. On Work With Package Build Definition, find the package you want to revise, either by using the Find function or by clicking on the Packages plus sign (+) to expand the displayed tree.
2. Choose the package and click Active/Inactive from the Row menu if the package is active (as indicated by the "closed package" icon),. The package must be inactive before you can make revisions.
3. Choose Build Revisions from the Row menu when the package you want to revise is selected. All of the build information for the selected package is displayed on the Package Build Revisions form.
4. Click on the appropriate tab to change the package's build options, business function options, or compression options. When you are finished, click OK.
5. On Work With Package Build Definition, activate the package by choosing Active/Inactive from the Row menu.
6. Choose Submit Build from the Row menu when you are ready to begin the build process.

Compressing the Parent Package (After Building the Update)

OneWorld backs up the parent package cab files when you build an update package. You must recompress the parent package before you deploy the parent package.

Copying a Built Package

After you build a package, you can copy the package definition, which includes the package record, header, and detail files. The copy function is useful in cases where you want to create a package that is similar to an existing package. In this situation you could copy the package definition and then modify the package record, header, or detail files as needed.

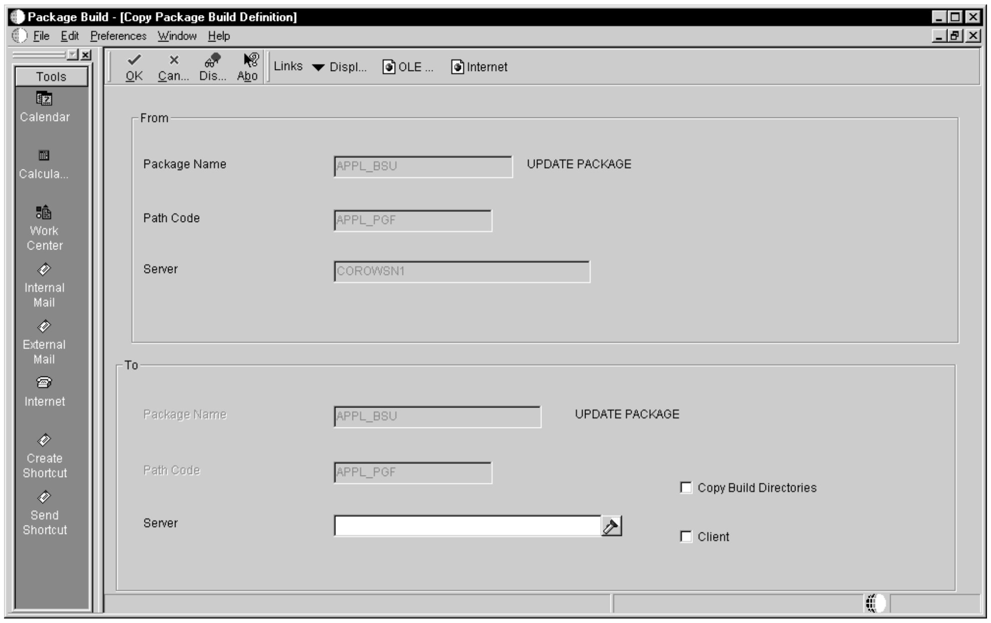
There are two ways to copy a package:

- By copying a *specific server's* build definition. You might use this method when you want to copy the same package from one server to another, or to a workstation.
- By copying the *entire package's* build definition. You might use this method when you want to create a new package based on an existing package.

▶ To copy a package build definition from a server

From the Package and Deployment Tools menu (GH9083), choose Package Build (P9621).

1. On Work With Package Build Definition, Find the package you want to copy. Under that package, choose the server whose definition you want to copy.
2. Click Copy.



From

Package Name	APPL_BSU	UPDATE PACKAGE
Path Code	APPL_PGF	
Server	COROWSN1	

To

Package Name	APPL_BSU	UPDATE PACKAGE
Path Code	APPL_PGF	☐ Copy Build Directories
Server		☐ Client

3. On Copy Package Build Definition, enter the name of the server to which you want to copy the package.

   The package name, path code, and server name from which you are copying will be displayed, as well as the destination package name and path code (which are the same).

4. Complete the following optional fields:

- Copy Build Directories.

  Check this option if you want to copy the Package Build directories.

- Client.

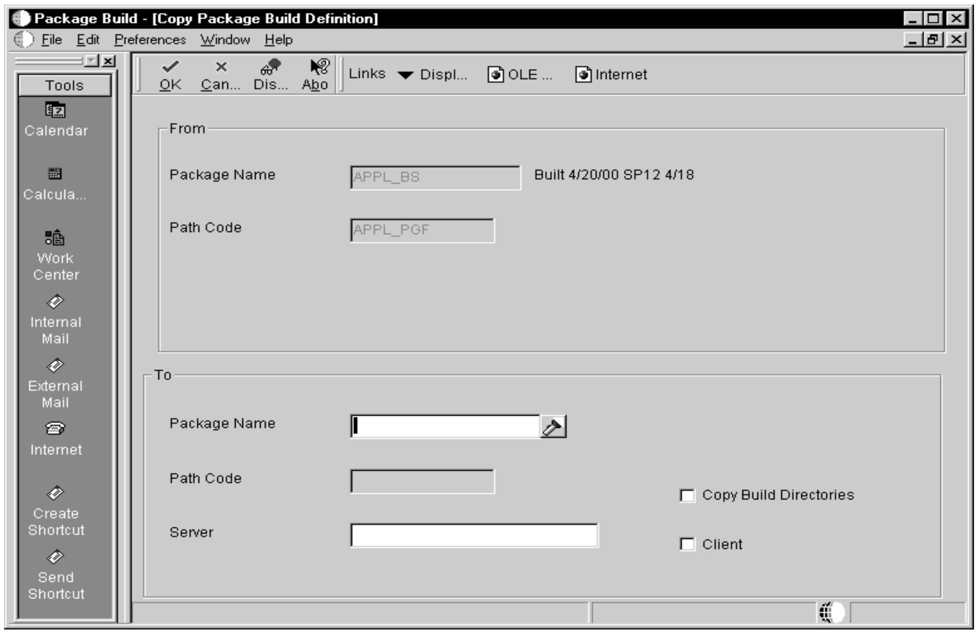
  Check this option if you want to copy to the client workstation instead of to the server.

5. Click OK to return to the Work With Package Build Definition form.

▶ To copy a package to a new package

From the Package and Deployment Tools menu (GH9083), choose Package Build (P9621).

1. On Work With Package Build Definition, find and choose the package you want to copy.
2. Click Copy.



Package Name	APPL_BS Built 4/20/00 SP12 4/18
Path Code	APPL_PGF

3. On Copy Package Build Definition, enter the new package name and server name.

   The package name, path code, and server name from which you are copying will be displayed.

4. Complete the following optional fields:

   - Copy Build Directories

Check this option if you want to copy the Package Build directories.

- Client

  Check this option if you want to copy to the client workstation instead of to the server.

5. Click OK to return to the Work With Package Build Definition form.

Viewing Package Build History and Resubmitting Builds

After you submit the package for building, you can track the build status by using the Package Build History (P9622) application. This application also enables you to view logs associated with the build process to determine if any errors occurred during the build process.

If the build did not complete successfully, you can resubmit the package and resume building from the point where the build stopped. Alternatively, you can reset the status of the specs and objects and build the package again.

For information about the Package Build History, viewing logs, resubmitting builds, and changing the package build status, see *Viewing Package Build History and Logs*.

Incorporating Features into Packages

A feature is a set of files or configuration options such as registry settings that is copied to a workstation or server to support a OneWorld application or other OneWorld functionality. Like OneWorld objects, features are built into a package and deployed to the workstations and servers that require the feature components.

Here are some examples of features you might want to include when you build a package:

- **ActiveX controls**. The OneWorld Application Design Aid tool supports including ActiveX controls in OneWorld application. If ActiveX controls are delivered with OneWorld, you will need a way to copy these controls to the workstation.
- **Open Data Access (ODA) data sources**. Open Data Access requires that additional ODBC data sources be created on any workstation or server that utilizes ODA.
- **Sales Force Automation databases**. The Sales Force Automation feature requires that a different Microsoft Access database be installed on the workstation so that it can be disconnected from the network during offline operation. A registry setting must also be written to indicate that the machine is used offline.
- **BMC Patrol, GenCorba, GenCom, and other third-party interfaces or products**. Each of these requires additional components on the workstation and server in order to function. As OneWorld functionality expands to support additional third-party products and interfaces, these products will each have their own set of supporting files.

Prior to OneWorld Xe, custom programming was required to accommodate adding feature components to the workstation and server. With OneWorld Xe, you can now use familiar tools such as the Package Assembly Director and the Package Build Definition Director to create a package that contains your feature, and then deploy it using the Package Deployment Director or multitier deployment.

Because feature components are not OneWorld objects, the process for incorporating feature components into a package is slightly different from the normal package build process. Specifically, you must first define the feature before you can add it to a package.

This chapter contains the following:

- ❑ Feature build and deployment process overview
- ❑ Understanding the Feature Based Deployment Director
- ❑ Creating a feature
- ❑ Defining the feature components
- ❑ Reviewing feature components
- ❑ Revising features
- ❑ Copying features
- ❑ Adding features during package assembly
- ❑ Configuring features during package build definition
- ❑ Installing packages containing features
- ❑ Understanding feature entries in the package.INF file

Feature Build and Deployment Process Overview

The following overview summarizes the process for defining and adding a feature to a package:

1. Define the feature.

   Before adding the feature to a package you must first define it using the Feature Based Deployment Director. During feature definition you will specify the feature name and type, enter a brief description, and specify installation parameters.

   The Feature Based Deployment Director's other forms enable you to do the following:

   - Create a file set
   - Define registry settings
   - Define a Windows shortcut
   - Enter initialization file information
   - Add ODBC data sources
   - Specify the feature build sequence
   - Enter information for third party products

For details about defining features, see *Defining Features.*

2. Select the feature during package assembly.

   After you have defined the feature, it is ready to be included in a package. Use the Package Assembly Director to assemble the package as you would any other package. When you assemble the package, feature-specific forms enable you to indicate the features you want to include.

   For information about assembling a package that contains features, see *Selecting Features During Package Assembly*.

3. Configure the feature during package build definition.

   After you have assembled the package that contains the features, you can use the Package Build Definition Director to define the build for the package. Forms in this director enable you to choose the files sets that will be compressed within the package, and to indicate the processes that will be run before and after the feature is built.

   For information about building a package that contains features, see *Configuring Features During Package Build Definition.*

4. Deploy the package.

   After you have built the package, you are ready to schedule it for deployment by using the Package Deployment Director. The procedure is the same as for scheduling packages that do not include features.

   For information about scheduling packages for deployment, see the *Deployment* section.

5. Run Workstation Installation and Deployment Server Installation.

   After you have deployed the package to workstations and deployment servers, use the Workstation Installation and Deployment Server Installation applications to install the package.

   For information about installing a package that contains features, see *Installing Packages Containing Features*.

Understanding the Feature Based Deployment Director

The Feature Based Deployment Director enables you to define your feature so that it can be included in a package and then deployed to workstations and servers. The director's forms enable you to specify the name and type of the feature, as well as the different feature components.

For this release, the Platform value must always be 80 for CLIENT. Future releases will enable you to choose alternative platforms.

Throughout the feature definition process you always have the option of going to the next or previous form by clicking Next or Previous. Also, regardless of where you are in the process, you can always cancel the feature definition by clicking Cancel.

The following summarizes each of the Feature Based Deployment Director's forms and their function.

The Welcome Form

View this form for an introduction to the Feature Base Deployment Director.

The Feature Information Form

Use this form to enter the feature name, type, and a brief description. You will also indicate whether the feature is required when it is ready to be installed. If so, the feature will be installed automatically when the installation program runs.

If the feature is optional, you can specify whether the feature is initially selected (that is, Default On) when the installation program runs. If the optional feature is not initially selected (that is, Default Off), you must manually select the feature before you can install it.

You will also need to select the feature components that apply:

- File Set
- Registry
- Shortcut
- ODBC Data Sources
- Additional Package Build Processes
- Additional Install Processes
- Initialization Files (INI)

Your selections on this form determine which forms subsequently appear. You must choose at least one feature component in order to continue defining the feature.

The File Set Definition Form

Use this form to pick the file sets you want to include in the package. A file set is a collection of files that must be installed on the workstation or deployment server in order for the feature to function correctly.

The Registry Definition Form

Use this form if the feature you are defining requires an addition, modification, or deletion of an entry in the Windows registry. Registry information you enter in this form will be delivered in the package containing the feature.

The Shortcut Definition Form	Use this form if you want to create shortcuts on the Windows desktop as part of the installation process. When you enter shortcut information, after the feature is installed a shortcut will be created automatically on the desktop.
The Additional Package Build Processes Form	Use this form to specify whether you want to execute a batch application or executable program either before or after the package containing the feature is installed.
The Additional Install Processes Form	Use this form if you need to install a third-party product as part of the feature installation.
The Initialization File (INI) Definition Form	Use this form if you need to make changes to an initialization file such as the JDE.ini file as part of the installation. For example, OneWorld developers often manually turn off the Debug log, but if a package is delivered only to developers, you could automatically make this change.
The ODBC Data Source Definition Form	Use this form if the feature requires that additional ODBC data sources be added when the package containing the feature is installed.
The Features Summary Form	Use this form to review the information you entered for the feature on the previous form. Key information for the feature is displayed in a tree structure on the left side of the form. Radio buttons on the right side of the form enable you to access any of the previous forms and, if necessary, make changes.

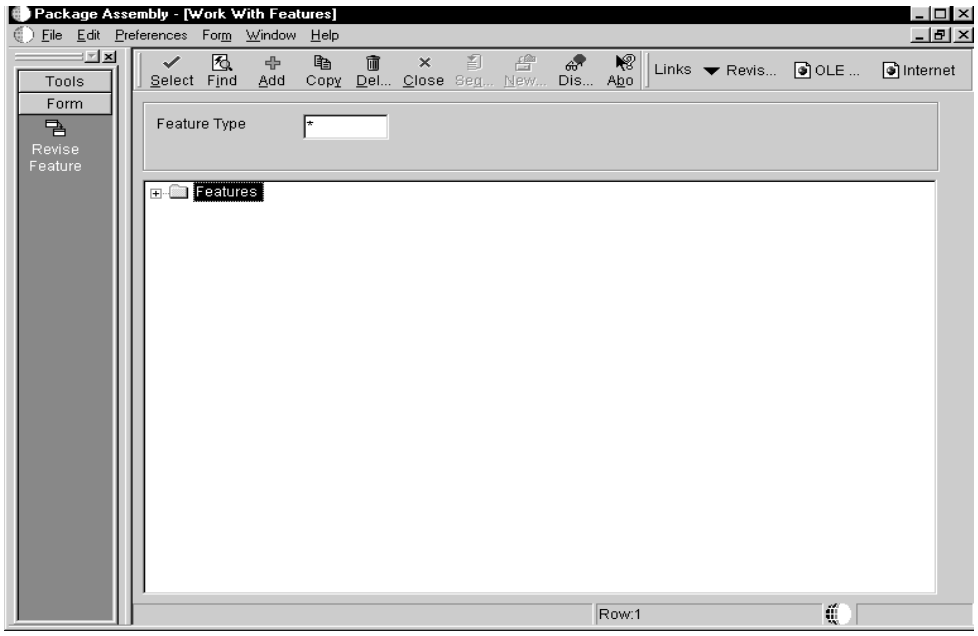
Creating a Feature

Complete the following task to define a feature and add one or more components to the feature.

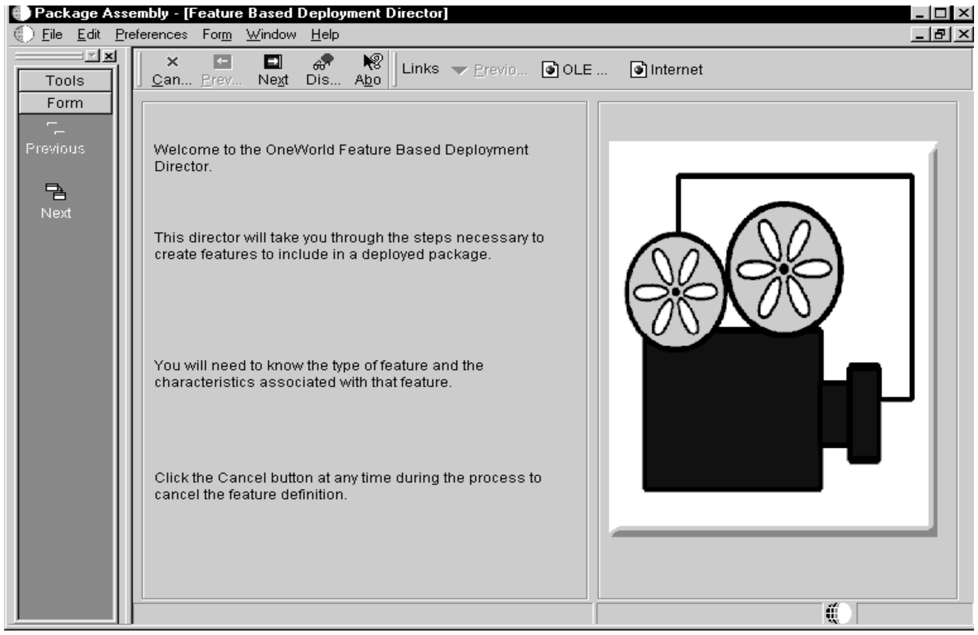
▶ To create a feature

From the Package and Deployment Tools menu (GH9083), choose Package Assembly (P9601).

1. On Work with Packages, choose Features from the Form menu.


Package Assembly - [Work With Features]
File Edit Preferences Form Window Help
Select Find Add Copy Del... Close Seq... New... Dis... Abo
Links Revis... OLE ... Internet
Tools
Form
Revise Feature
Feature Type *
Features
Row:1

2. On Work With Features, click Add.


Package Assembly - [Feature Based Deployment Director]
File Edit Preferences Form Window Help
Can... Prev... Next Dis... Abo
Links Previo... OLE ... Internet
Tools
Form
Previous
Next

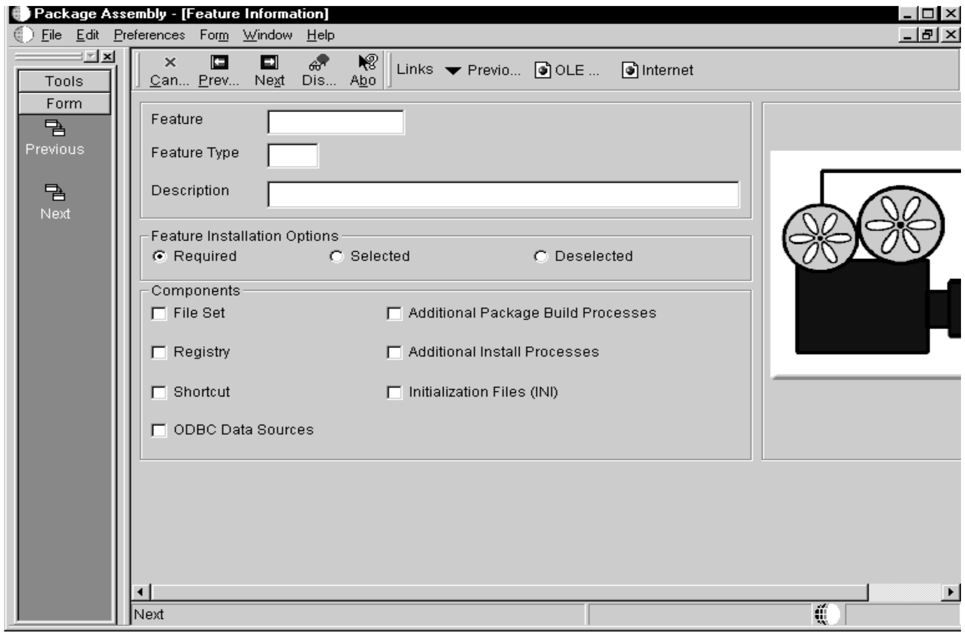
Welcome to the OneWorld Feature Based Deployment Director.

This director will take you through the steps necessary to create features to include in a deployed package.

You will need to know the type of feature and the characteristics associated with that feature.

Click the Cancel button at any time during the process to cancel the feature definition.

3. On Feature Based Deployment welcome, click Next.


Package Assembly - [Feature Information]
File Edit Preferences Form Window Help
Tools
Form
Previous
Next
Can... Prev... Next Dis... Abo
Links Previo... OLE ... Internet
Next

Feature
Feature Type
Description

Feature Installation Options
[✓ Required] Selected Deselected

Components
- [ ] File Set
- [ ] Registry
- [ ] Shortcut
- [ ] ODBC Data Sources
- [ ] Additional Package Build Processes
- [ ] Additional Install Processes
- [ ] Initialization Files (INI)

4. On the Feature Information form, complete the following fields:
   - Feature
   - Feature Type
   - Description
   - Required
   - Selected
   - Deselected

   Select as many of the following options and feature components as you like. The forms that subsequently display depend on the feature components you select.

   - File Set
   - Registry
   - Shortcut
   - ODBC Data Sources
   - Additional Package Build Processes
   - Additional Install Processes
   - Initialization Files (INI)

5. Click Next.

Defining the Feature Components

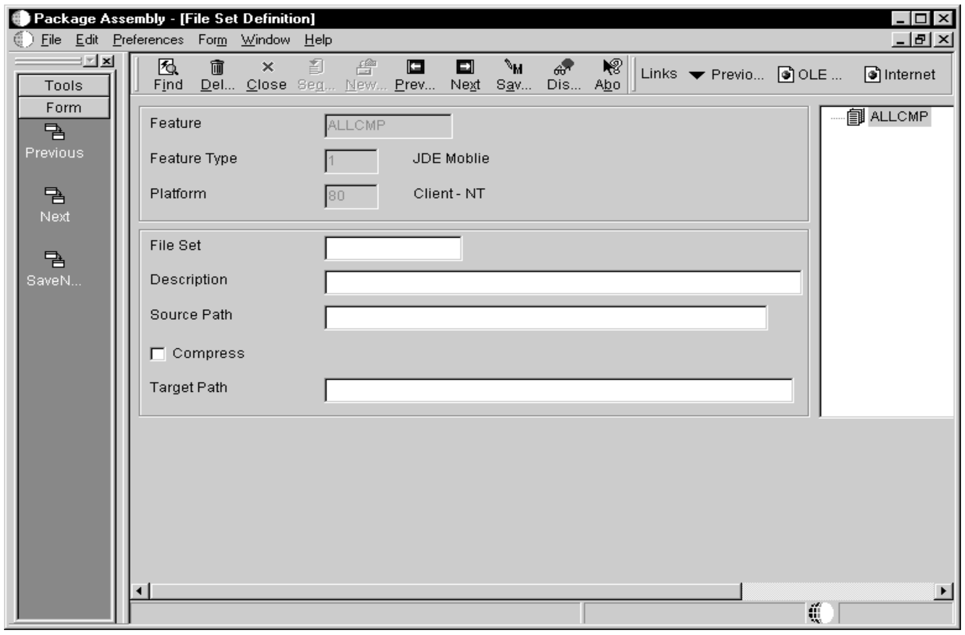
The forms that appear next depend on the type of components you chose to include in your feature. Complete the relevant tasks below to define the components you are adding.

- Define a file set component
- Define a registry component
- Define a shortcut component
- Define additional package build processes
- Define additional install processes
- Define an initialization file component
- Define an ODBC data source component
- Reviewing feature components

Define a file set component

If you selected the Files Set component, the File Set Definition form appears. Use this form to enter information about any files sets that must be installed on the workstation or server in order for the feature to function properly.

▶ To define a file set component


Package Assembly - [File Set Definition]
File Edit Preferences Form Window Help
Find Del... Close Seq... New... Prev... Next Sav... Dis... Abo
Links Previo... OLE ... Internet
Tools
Form
Previous
Next
SaveN...
ALLCMP

Feature ALLCMP
Feature Type 1 JDE Moblie
Platform 80 Client - NT
File Set
Description
Source Path
Compress
Target Path

1. On File Set Definition, complete the following fields:
   - File Set

     A free-form text field for comments or memoranda.
   - File Set Description

     A description of a group of files.
   - Source Path

     A path identifying the source location of a file set.
   - Compress

     Option to compress the file.
   - Target Path

     A path identifying the target location of a file set.

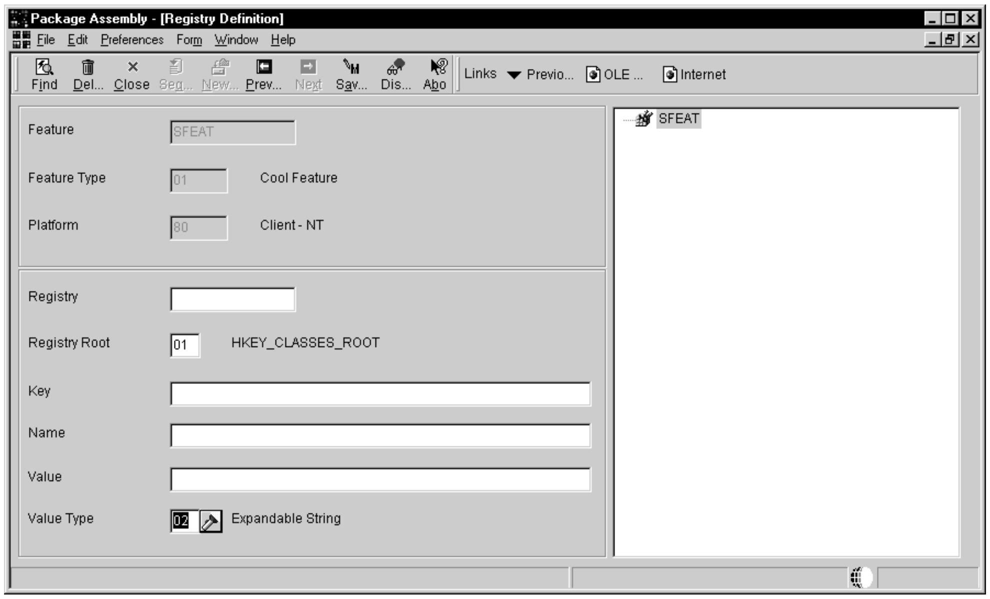
   The source path tells OneWorld where to find the file set to be copied into the package, and the target path indicates the location where the file set should be copied when the package is installed. Although a feature can have an unlimited number of file sets, each file set can have only one target path.

   You can use this same form to modify or delete any previously defined file sets. Existing file sets are displayed in the tree structure on the right side of the form. To modify a file set, select the file set on the tree structure and modify any of the fields for the file set. To delete a file set, select the file set and click Delete.
2. When you are finished adding file set information, click Save Node from the Form menu.
3. Click Next.

Define a registry component

If you selected the Registry component, the Registry Definition form appears. Use this form to enter information that should be added to the Windows registry as part of the feature installation.

▶ To define a registry component


Package Assembly - [Registry Definition]
File Edit Preferences Form Window Help
Find Del... Close Seq... New... Prev... Next Sav... Dis... Abo
Links Previo... OLE ... Internet
SFEAT

Feature	SFEAT	
Feature Type	01	Cool Feature
Platform	80	Client - NT
Registry		
Registry Root	01	HKEY_CLASSES_ROOT
Key		
Name		
Value		
Value Type	02	Expandable String

1. On Registry Definition, complete the following fields:
   - Registry

     The identifier of a registry modification.
   - Registry Root

     The root key in the registry.
   - Key

     The key for a registry value.
   - Name

     The registry value name.
   - Value

     The registry value.
   - Value Type

     In the registry, the data type that the value will be stored as.

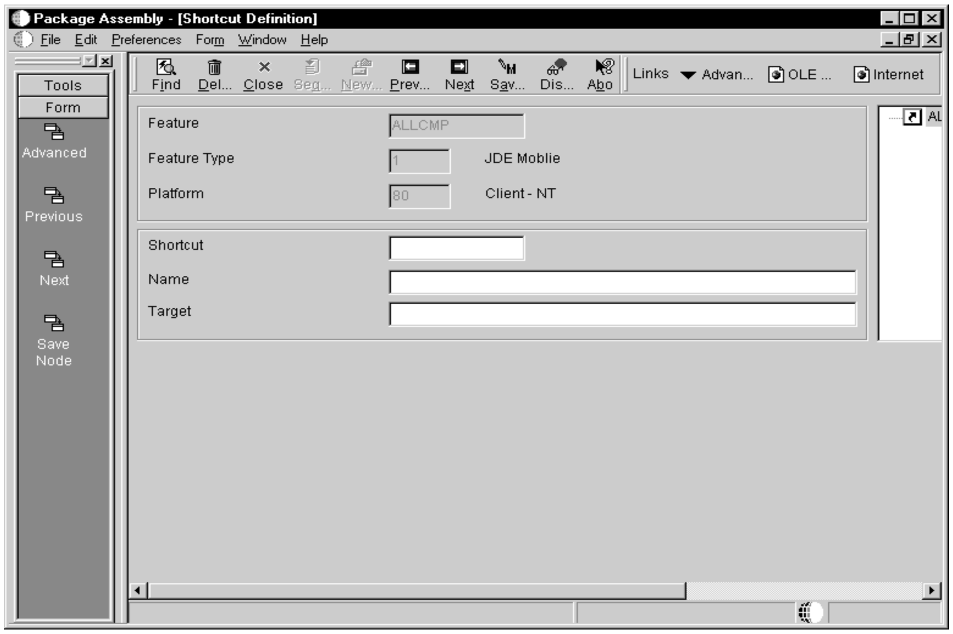
You can use this same [Registry] form to modify or delete any previously defined registry definitions. Existing registry definitions are displayed in the tree structure on the right side of the form. To modify a registry definition, select the item on the tree structure and modify any of the fields for the registry definition To delete a registry definition, select the item and click Delete.

2. When you are finished adding registry information, click Save Node from the Form menu.
3. Click Next.

Define a shortcut component

If you selected the Shortcut component, the Shortcut Definition form appears. Use this form if you want to add a shortcut for your feature to the Windows desktop.

▶ To define a shortcut component


Package Assembly - [Shortcut Definition]
File Edit Preferences Form Window Help
Tools
Form
Advanced
Previous
Next
Save Node
Find Del... Close Seq... New... Prev... Next Sav... Dis... Abo
Links Advan... OLE ... Internet
AL

Feature: ALLCMP
Feature Type: 1 JDE Moblie
Platform: 80 Client - NT
Shortcut
Name
Target

1. On Shortcut definition, complete the following fields:
   - Shortcut

     A name that identifies a unique shortcut to a user's computer.
   - Name

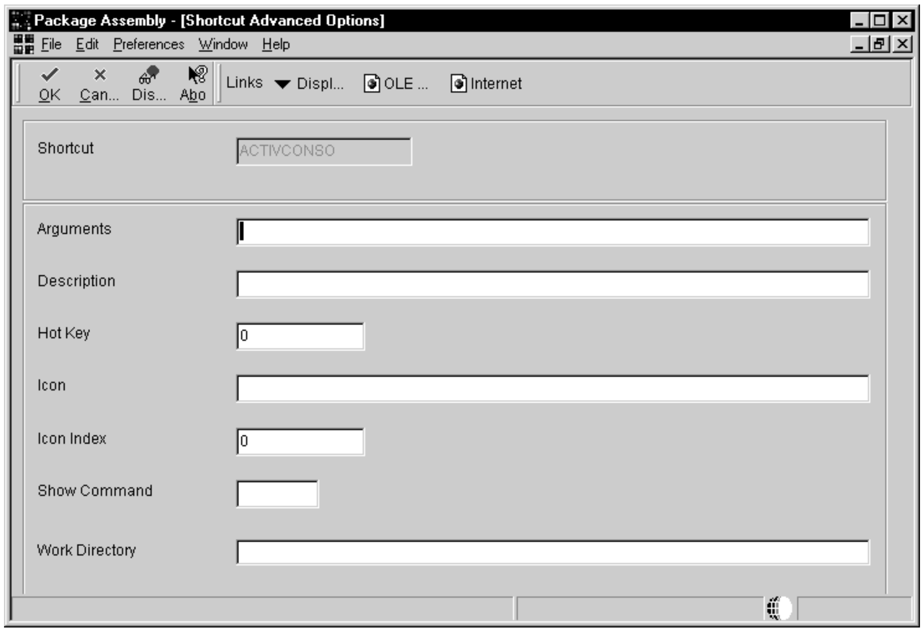
     The name of the shortcut.
   - Target

The path and file name of a target file.

If you enter the shortcut using a standard Internet protocol (such as http://, FTP//, or FILE//), OneWorld automatically creates an Internet shortcut.

You can use this same [shortcut] form to modify or delete any previously defined shortcut definitions. Existing definitions are displayed in the tree structure on the right side of the form. To modify a shortcut definition, select the item on the tree structure and modify any of the fields for the shortcut definition To delete a shortcut definition, select the item and click Delete.

2. To enter advanced shortcut options, select Advanced from the Form menu.


Package Assembly - [Shortcut Advanced Options]
File Edit Preferences Window Help
OK Can... Dis... Abo
Links Displ... OLE ... Internet

Shortcut	ACTIVCONSO
Arguments	
Description	
Hot Key	0
Icon	
Icon Index	0
Show Command	
Work Directory	

3. On Shortcut Advanced Options you can enter the following:
   - Arguments

     Parameters that are entered at the command line for the shortcut.
   - Description

     The description of the shortcut.
   - Hot Key

     A key sequence that will automatically launch the shortcut when pressed.
   - Icon

The path and name of an icon file based on a relative target path.

- Icon Index

  The icon index for a shortcut.

- Show Command

  Specifies the window size after the shortcut is launched, such as window minimized or maximized.

- Work Directory

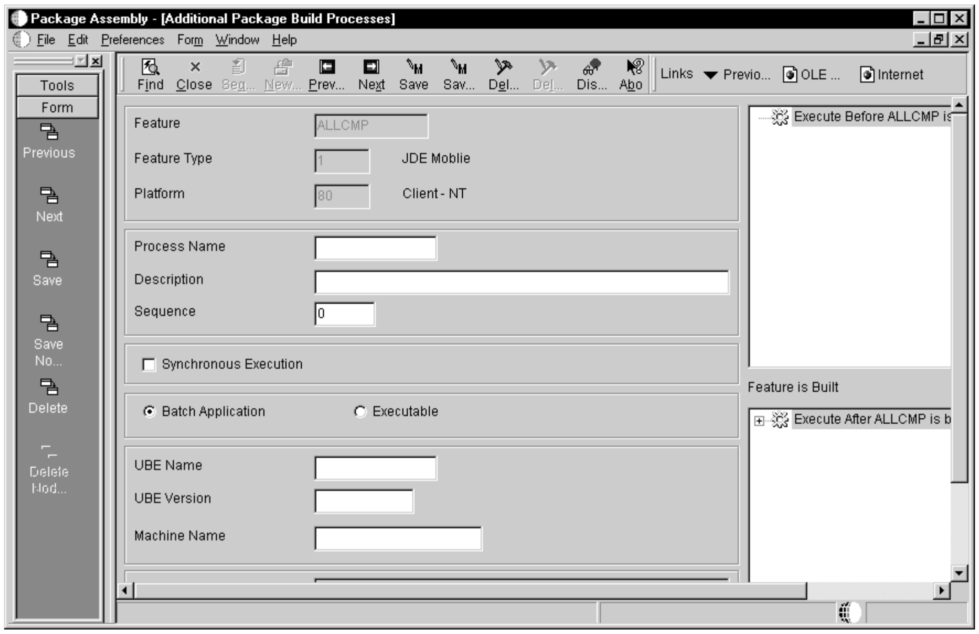
  The identifier of the directory path or the working directory of a shortcut.

4. Click OK to save your entries and return to the Shortcut Definition form.
5. Complete the shortcut information and click the Save Node from the Form menu.
6. When you have added all your shortcuts, click Next.

Define additional package build processes

If you selected additional package build processes, the Additional Package Build Processes form appears. Complete this form to specify UBEs or executables that should run when the package is built.

▶ To define additional package build processes


Package Assembly - [Additional Package Build Processes]
File Edit Preferences Form Window Help
Tools
Form
Previous
Next
Save
Save No...
Delete
Delete Nod...
Find Close Seq... New... Prev... Next Save Sav... Del... Del... Dis... Abo
Links Previo... OLE ... Internet
Execute Before ALLCMP is
Feature is Built
Execute After ALLCMP is b

Feature: ALLCMP
Feature Type: 1 JDE Moblie
Platform: 80 Client - NT
Process Name:
Description:
Sequence: 0
☐ Synchronous Execution
[✓ Batch Application] Executable
UBE Name:
UBE Version:
Machine Name:

1. On Additional Package Build Processes, complete the following fields:
   - Process Name

     Name of the build process.

   - Description

     Description of the build process.

   - Sequence

     A number identifying the order that the process will be run relative to the other processes running during the package build.

   - Synchronous Execution

     A flag that indicates whether the package build job waits for the process to complete before continuing.

   - Batch Application or Executable

     Select whether the process is an application or an executable

   If you selected Batch Application, complete the following fields:

   - UBE Name

Name of the OneWorld UBE

- UBE Version

  Version number of the UBE

- Machine Name

  Name of the machine on which the UBE will run

If you selected an executable program, complete the following fields:

- Executable Name

  The name of the executable program that is launched to install the third-party software.

- Target Path

  The path and file name of a target file.

- Parameters

  The executable parameters passed to the setup program that will be launched to install third party.

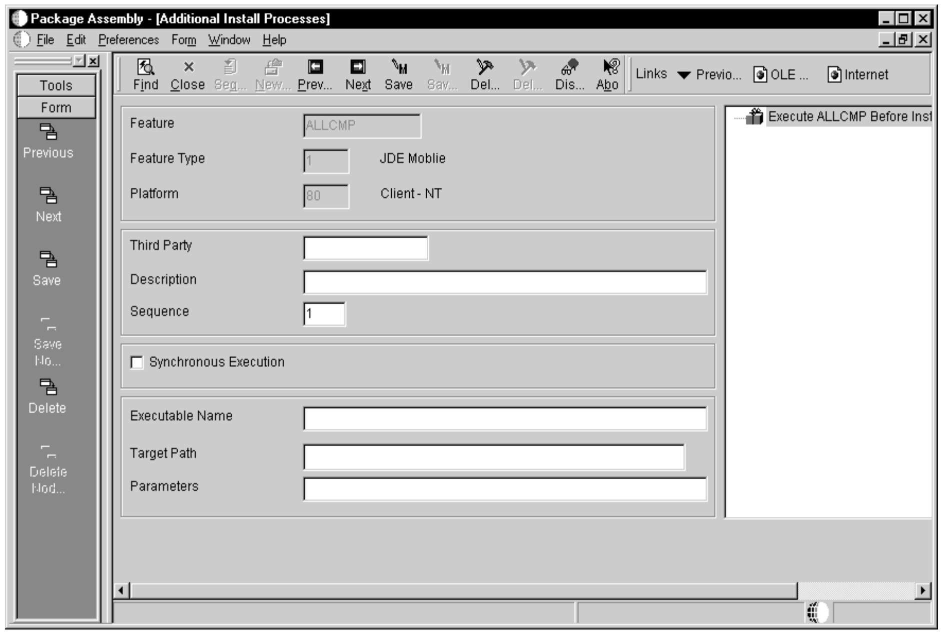
You can use this form to modify or delete any previously defined processes. Existing processes are displayed in the tree structure on the right side of the form.

- To modify a process definition, select the item on the tree structure and modify any of the fields for the definition
- To delete a process definition, select the item and then choose Delete or Delete Node After from the Form menu, depending on whether you want to delete a process that is executed before or after the feature is installed. (You can execute the process either before or after the feature is built.)
- When you are finished adding process information, choose either Save or Save Node After from the Form menu, depending on when you want the process to execute.
- Click Next.

Define additional install processes

If you selected to add additional installation processes, the Additional Install Processes form appears. Use this form to enter information about third-party applications that should be run when the package is installed.

▶ To define additional install processes


Package Assembly - [Additional Install Processes]
File Edit Preferences Form Window Help
Find Close Seq... New... Prev... Next Save Sav... Del... Del... Dis... Abo
Links Previo... OLE ... Internet
Tools
Form
Previous
Next
Save
Save No...
Delete
Delete Nod...

Feature	ALLCMP	
Feature Type	1	JDE Moblie
Platform	80	Client - NT
Third Party		
Description		
Sequence	1	
☐ Synchronous Execution		
Executable Name		
Target Path		
Parameters		

Execute ALLCMP Before Inst

1. On Additional Install Processes, complete the following fields:
   - Third Party

     The name of the third-party component.
   - Description

     A description of third-party software that is to be run.
   - Sequence

     A number identifying the order that this process will run relative to the other additional install processes.
   - Synchronous Execution

     A flag that indicates whether the package install waits for the process to complete before continuing.
   - Executable Name

     The name of the program that launches the third-party software.
   - Target Path

     The path to the executable file (do no include the name of the file).

- Parameters

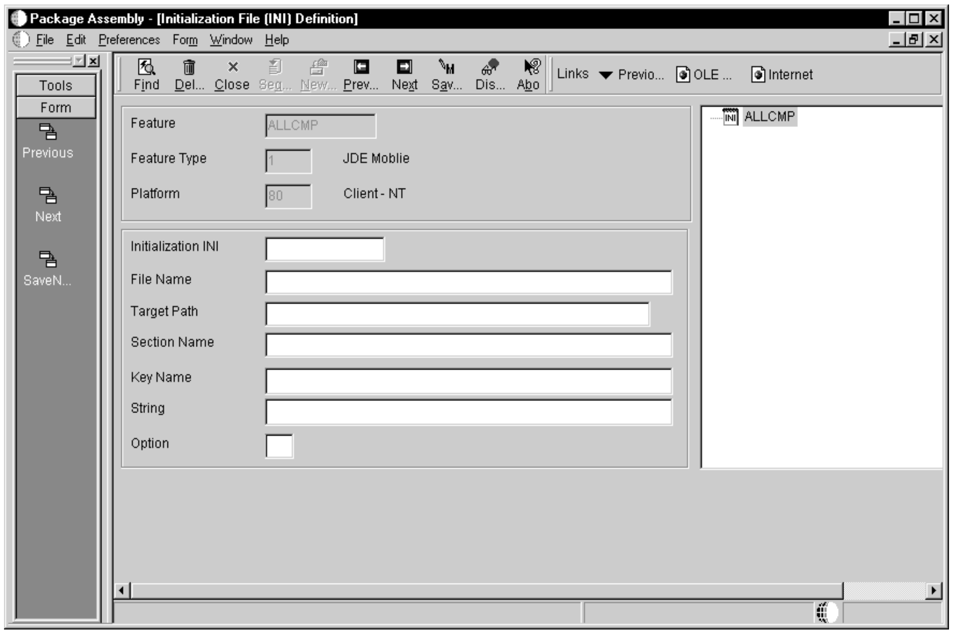
  The executable parameters passed to the third-party program.

2. When you are finished adding third-party product information, choose Save from the Form menu.
3. To delete a third-party product definition, select the item on the tree display then choose Delete from the Form menu.
4. Click Next.

Define an initialization file component

If you selected the initialization file component, the Initialization File (INI) Definition form appears. Use this form to enter any information that should be written to an initialization file (such as JDE.ini) as part of the feature installation.

▶ To define an initialization file component


Package Assembly - [Initialization File (INI) Definition]
File Edit Preferences Form Window Help
Tools
Form
Previous
Next
SaveN...
Find Del... Close Seq... New... Prev... Next Sav... Dis... Abo
Links Previo... OLE ... Internet
ALLCMP

Feature	ALLCMP	
Feature Type	1	JDE Moblie
Platform	80	Client - NT
Initialization INI		
File Name		
Target Path		
Section Name		
Key Name		
String		
Option		

1. On Initialization Files (INI), complete the following fields:

   - Initialization INI

     The identifier of an initialization file component.

   - File Name

     Name of the initialization file

- Target Path

  The path of the INI file.

- Section Name

  The name of the application section in an initialization file.

- Key Name

  A key in the initialization file that is to be added, modified, or removed.

- String

  The value of the key in an initialization file.

- Option

  The option identifying the action associated with the key in the initialization file.

You can use form to modify or delete any previously defined initialization file definitions. Existing definitions are displayed in the tree structure on the right side of the form.

- To modify an initialization file definition, select the item on the tree structure and modify any of the fields for the definition
- To delete an initialization file definition, select the item and click Delete.

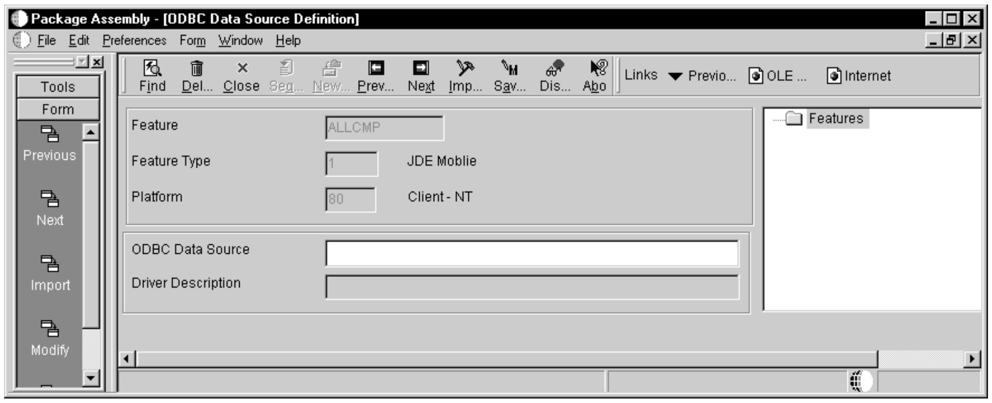
2. When you are finished adding initialization information, click the Save Node from the Form menu.
3. Click Next.

Define an ODBC data source component

If you selected the ODBC Data Sources component, the ODBC Data Sources Definition form appears. Use this form to enter information for any ODBC data sources that must be added to support the feature.

Select one of the following tasks to either create new ODBC data sources or import existing data sources:

▶ To create new ODBC data sources


Package Assembly - [ODBC Data Source Definition]
File Edit Preferences Form Window Help
Tools
Form
Previous
Next
Import
Modify
Find Del... Close Seg... New... Prev... Next Imp... Sav... Dis... Abo
Links Previo... OLE ... Internet
Features

Feature: ALLCMP
Feature Type: 1 JDE Moblie
Platform: 80 Client - NT
ODBC Data Source:
Driver Description:

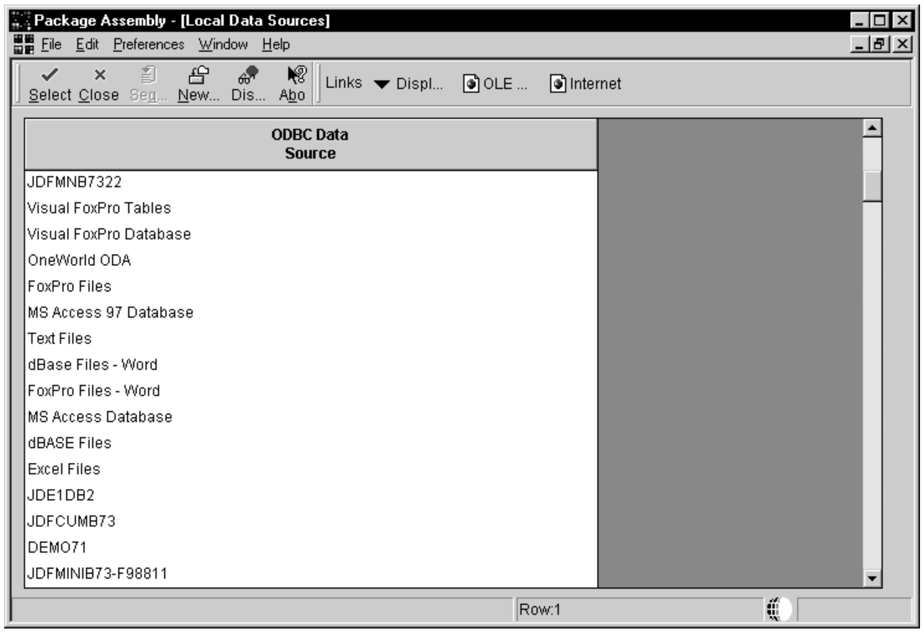
1. On ODBC Data Sources Definition, complete the following field:
   - ODBC Data Source

     Name of the ODBC Data Source
2. Click on Save Node from the Form menu.

   OneWorld activates the Windows control panel applet that displays the ODBC Data Source forms.
3. Enter the data source information into the Windows based forms. Repeat this process to create additional data sources.

▶ To import existing ODBC data sources

1. On ODBC Data Sources Definition, click Import from the Form menu to display the Local Data Sources form. This form lists all previously created data sources residing locally on your machine.


Package Assembly - [Local Data Sources]
File Edit Preferences Window Help
Select Close Seq... New... Dis... Abo
Links Displ... OLE ... Internet
Row:1

ODBC Data Source
JDFMNB7322
Visual FoxPro Tables
Visual FoxPro Database
OneWorld ODA
FoxPro Files
MS Access 97 Database
Text Files
dBase Files - Word
FoxPro Files - Word
MS Access Database
dBASE Files
Excel Files
JDE1DB2
JDFCUMB73
DEMO71
JDFMINIB73-F98811

Choose one or several data sources (pressing the Control or Shift key) and click the Select button to add the data sources to the Feature. The program returns to the ODBC Data Source Definition form.

2. When you are finished adding data source information, click the Save Node from the Form menu.
3. Click Next.

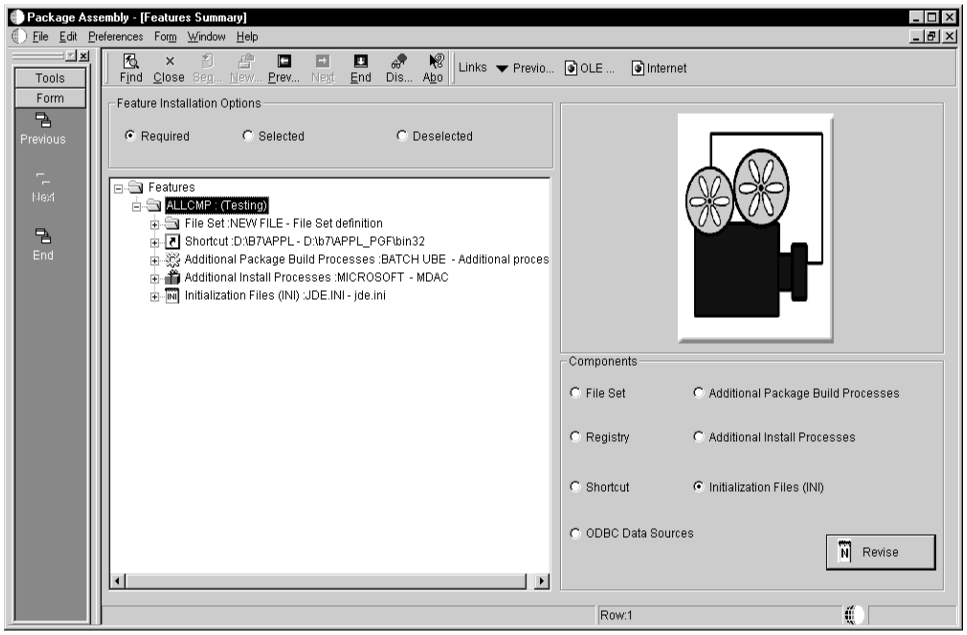
To modify existing data sources, enter the data source name and then choosing Modify from the Form menu. The ODBC Data Source Revisions form appears. Use this form to make changes to the data source. When you are finished, click OK to return to the ODBC Data Source Definition form.

Reviewing the Feature Components

After defining all the selected components, you can review and modify information you entered on any of the Feature Based Deployments forms. For more information about revising feature components, see *Revising Features*.

▶ To review the feature components

The Features Summary form appears.


Package Assembly - [Features Summary]
File Edit Preferences Form Window Help
Tools
Form
Previous
Next
End
Find Close Seq... New... Prev... Next End Dis... Abo
Links Previo... OLE ... Internet
Revise

Feature Installation Options: [✓ Required] Selected Deselected

Features
- ALLCMP : (Testing)
  - File Set :NEW FILE - File Set definition
  - Shortcut :D:\B7\APPL - D:\b7\APPL_PGF\bin32
  - Additional Package Build Processes :BATCH UBE - Additional proces
  - Additional Install Processes :MICROSOFT - MDAC
  - Initialization Files (INI) :JDE.INI - jde.ini

Components: File Set, Additional Package Build Processes, Registry, Additional Install Processes, Shortcut, [✓ Initialization Files (INI)], ODBC Data Sources

Row:1

1. Choose a component in the right-hand pane and click the Revise button to review the information for that component.
2. If needed, change the field values for the selected component and click the Save button.
3. Repeat the previous steps to modify other components.
4. When you are finished defining the feature, click End on the Feature Summary form.

Revising Features

The process for revising previously defined features is very similar to adding a feature. Modification is done on the same forms you used when you first defined the feature.

▶ To revise a feature

From the Package and Deployment Tools menu (GH9083), choose Package Assembly (P9601).

1. On Work with Packages, choose Features from the Form menu.
2. On Work With Features, select the feature you want to modify, and then choose Revise Feature from the Form menu.
3. To modify a feature component, on Feature Summary, choose one of the components listed on the right side of the form, and then click Revise. The

selected form appears, and you can modify existing information or enter new information for the component.

4. Click the Save node from the Form menu to save the changes.
5. When you have finished modifying information, click Close to return to the Feature Summary form.
6. Repeat steps 4 and 5 to modify any other feature components.
7. When you are finished making feature modifications, click Close to return to the Work With Features form.

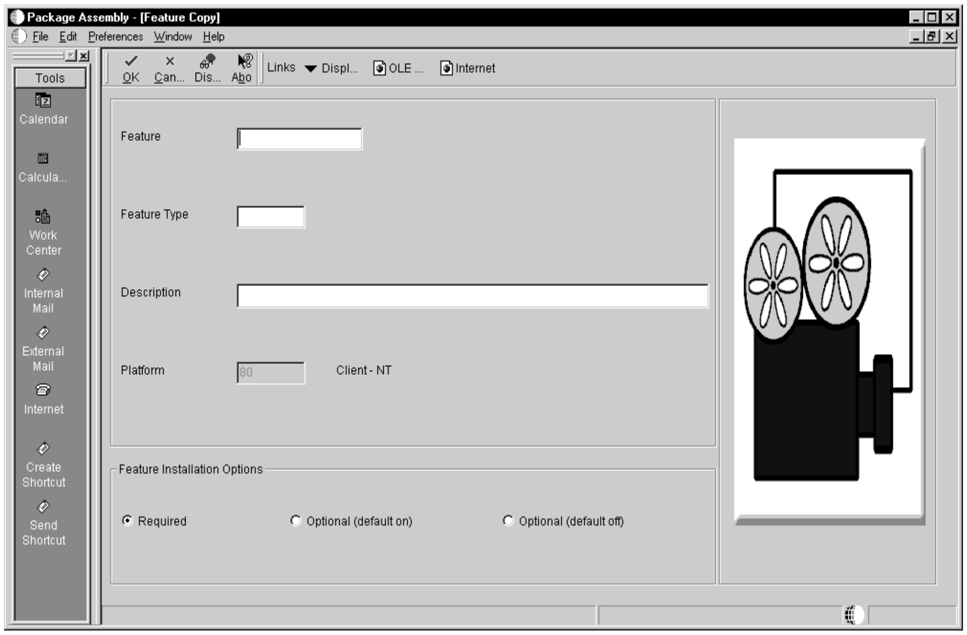
Copying Features

The Feature Based Deployment Director includes a copy function that enables you to copy an existing feature and rename it as a new feature. This feature is especially useful if you want to create a feature definition that closely matches an existing feature definition.

▶ To copy a feature

From the Package and Deployment Tools menu (GH9083), choose Package Assembly (P9601).

1. On Work with Packages, choose Features from the Form menu.
2. On Work With Features, select the feature whose definition you want to copy, and then click Copy.


Package Assembly - [Feature Copy]
File Edit Preferences Window Help
Tools
Calendar
Calcula...
Work Center
Internal Mail
External Mail
Internet
Create Shortcut
Send Shortcut
OK Can... Dis... Abo
Links Displ... OLE ... Internet
Feature Installation Options

Feature

Feature Type

Description

Platform 80 Client - NT

(● Required) ○ Optional (default on) ○ Optional (default off)

3. On Feature Copy, complete the following fields:
    - Feature
    - Feature Type
    - Description
    - Required, Optional (default on), or Optional (default off)
4. Click OK to return to the Work With Features form.
5. To revise the new feature definition, select the feature and choose Revise Feature from the Form menu. For more information about revising a feature, see *Revising Features*.

Adding Features During Package Assembly

The Package Assembly Director includes a form called Feature Component that enables you to add defined features to a package. You can add a feature to either a new package or an existing package that is open for revision. Perform one of the tasks below:

- Adding features to a new package during package assembly
- Adding features to an existing assembled package

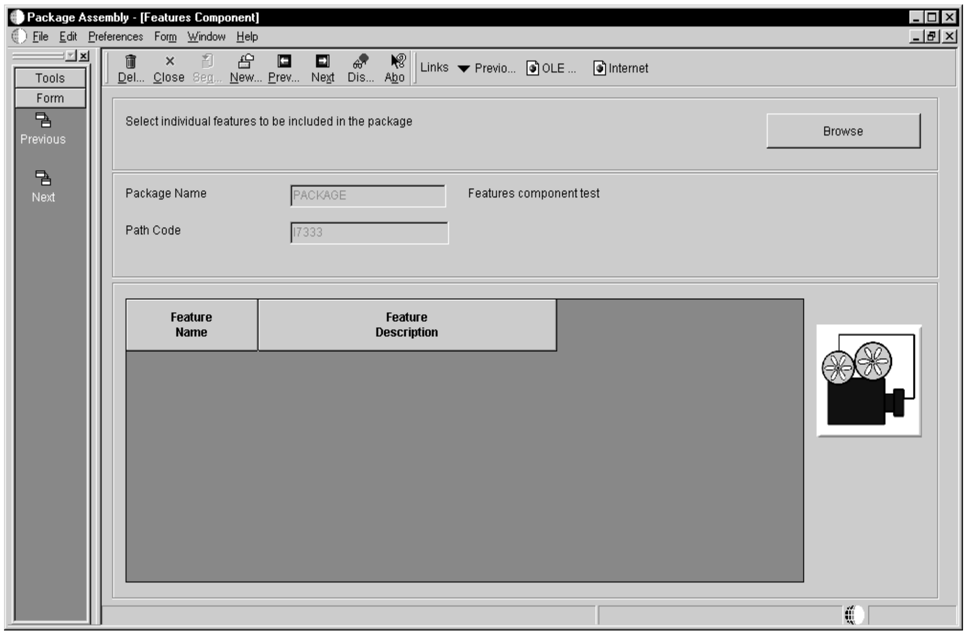
The following tasks describe only the process for adding features to a new or existing package. For more detailed information about assembling or modifying an assembled package, see *Assembling Packages*.

Note: Before the feature is available for inclusion in the package, you must first define the feature as described in *Defining Features*.

▶ To add existing features to a new package during package assembly

From the Package and Deployment Tools menu (GH9083), choose Package Assembly (P9601).

1. On Work with Packages, click Add to create a new package.
2. Enter the Package Assembly Director's forms and follow the steps in "Assembling a Package" until the Feature Component form is displayed.

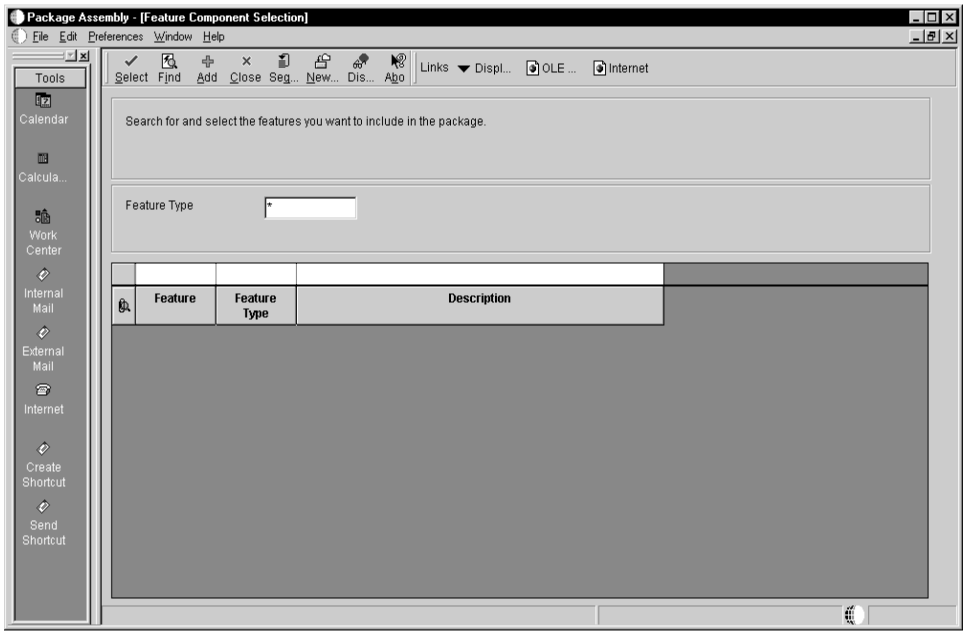

Package Assembly - [Features Component]
File Edit Preferences Form Window Help
Tools
Form
Previous
Next
Del... Close Seq... New... Prev... Next Dis... Abo
Links Previo... OLE ... Internet
Browse
Feature Name
Feature Description

Select individual features to be included in the package

Package Name PACKAGE Features component test

Path Code I7333

3. To add a feature, click Browse.


Package Assembly - [Feature Component Selection]
File Edit Preferences Window Help
Tools
Calendar
Calcula...
Work Center
Internal Mail
External Mail
Internet
Create Shortcut
Send Shortcut
Select Find Add Close Seg... New... Dis... Abo
Links Displ... OLE ... Internet
Feature
Feature Type
Description

Search for and select the features you want to include in the package.

Feature Type *

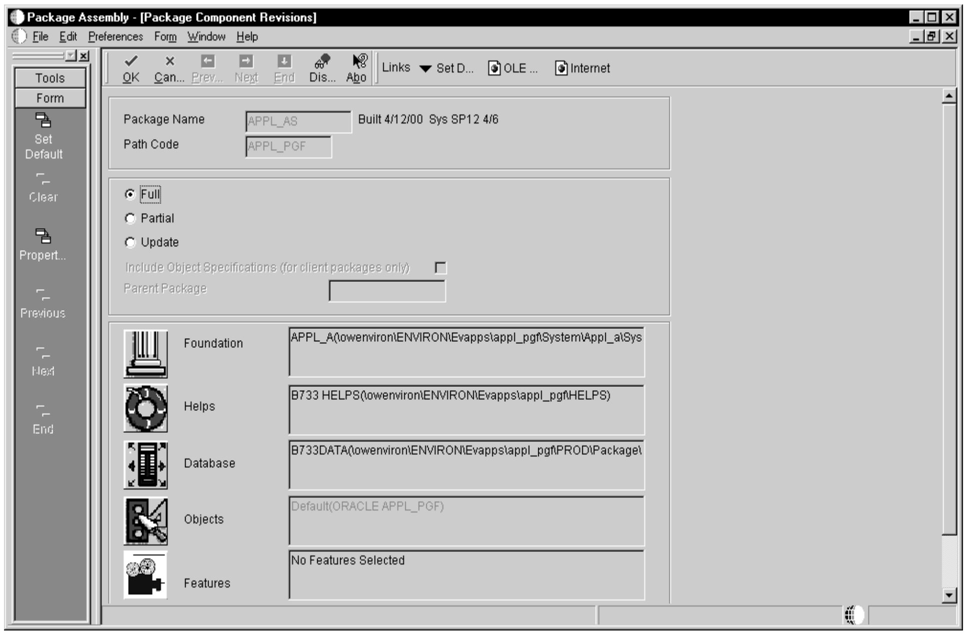
4. On Feature Component Selection, click Find to display the list of available features.
5. Use one of the following methods to select one or more features to include in your package:
   - Choose a feature and click the Select button. (Use the Control or Shift key to select multiple features)
   - Double click on each feature.

6. When you are finished adding features, click Close to return to the Features Component form. The selected features will appear.
7. Click Next and complete the remaining forms to finish assembling the package.

▶ To add features to an existing assembled package

From the Package and Deployment Tools menu (GH9083), choose Package Assembly (P9601). The Work with Packages form appears.

1. On Work with Packages, to add a feature to an existing package that is available for revision, select the package and then choose Package Revisions from the Row menu. The Package Component Revisions form appears.


Package Assembly - [Package Component Revisions]

Package Name: APPL_AS   Built 4/12/00 Sys SP12 4/6
Path Code: APPL_PGF

(● Full) ○ Partial ○ Update
Include Object Specifications (for client packages only) ☐
Parent Package

Foundation: APPL_A(\owenviron\ENVIRON\Evapps\appl_pgf\System\Appl_a\Sys
Helps: B733 HELPS(\owenviron\ENVIRON\Evapps\appl_pgf\HELPS)
Database: B733DATA(\owenviron\ENVIRON\Evapps\appl_pgf\PROD\Package\
Objects: Default(ORACLE APPL_PGF)
Features: No Features Selected

2. Click the Features button.
3. To delete a feature that was previously included in the package, on Features Component, select the feature and then click Delete. Continue with step 6 below.
4. To add a feature, click Browse. Continue with the sub steps below.

   A. On Feature Component Selection, click Find to display defined features.

   B. Use one of the following methods to select one or more features you want to add:

- Choose a feature and click the Select button. (Use the Control or Shift key to select multiple features)
- Double click on each feature.

  A check mark appears in the left column of each feature you selected.

C. When you are finished adding features, click Close to return to the Features Component form.

5. Click Close to return to the Package Component Revisions form.
6. Click OK to return to the Work With Packages form.

Configuring Features During Package Build Definition

The Package Build Definition Director includes the Build Features form, which enables you to specify whether Feature INF files will be built for the features in the package. If you defined a fileset component in your feature, you can choose to compress it. If any additional package build processes are included in the feature, you must click Build Processes and select them before they will run during package build.

This section includes the following tasks:

- Configuring features during package build definition
- Configuring features for an existing package build definition

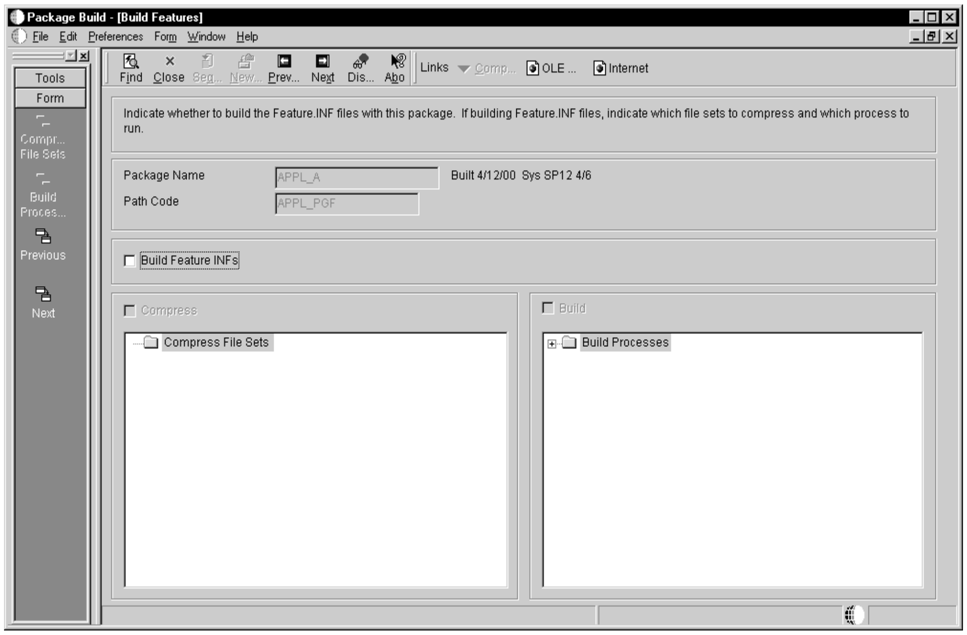
The following tasks describes only the processes for entering feature information for a new or existing package build definition. For more detailed information about creating package build definitions, see *Defining Package Builds*.

Note: Before you can enter feature information for the build definition, the features must have already been added to the package as described in *Adding Features During Package Assembly*.

▶ To configure features for a new package build definition

From the Package and Deployment Tools menu (GH9083), choose Package Build (P9621).

1. On Work with Package Build Definition, click Add to launch the Package Build Definition Director.
2. Click Next and complete the tasks in ”Defining Package Builds” until you come to the Build Features form.


Package Build - [Build Features]
File Edit Preferences Form Window Help
Tools
Form
Compr... File Sets
Build Proces...
Previous
Next
Find Close Seq... New... Prev... Next Dis... Abo
Links Comp... OLE ... Internet

Indicate whether to build the Feature.INF files with this package. If building Feature.INF files, indicate which file sets to compress and which process to run.

Package Name APPL_A Built 4/12/00 Sys SP12 4/6
Path Code APPL_PGF

☐ Build Feature INFs

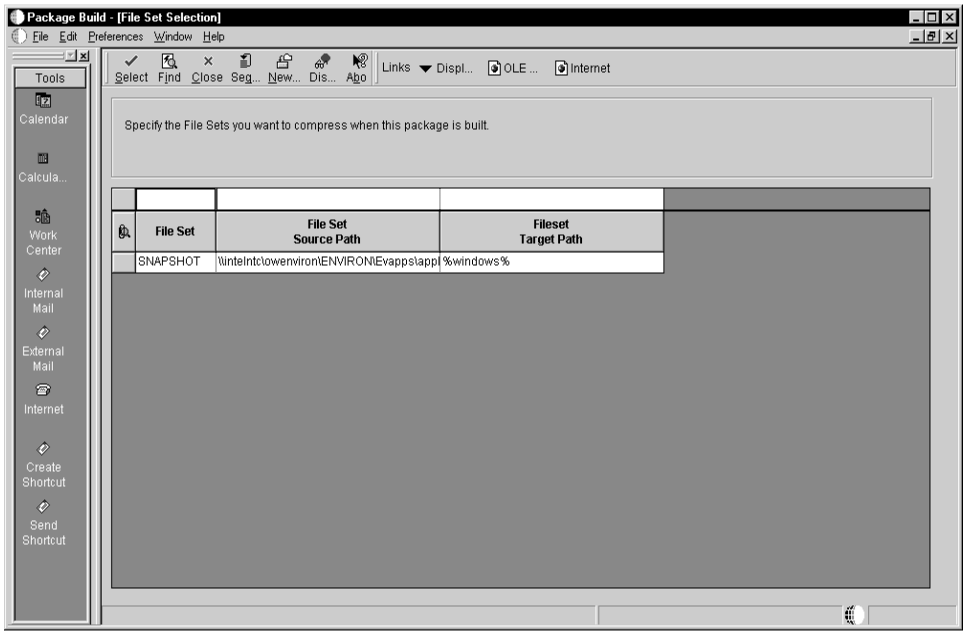
☐ Compress
Compress File Sets

☐ Build
Build Processes

3. If you want to build a feature.inf file with the package, choose Build Feature INFs. When you choose this option, the Compress and Build fields become available if file sets or additional package build process components are included in the package.
4. Continue with one or both of the following tasks:
   - Compress file sets
   - Build OneWorld processes

Compress file sets

1. To compress file sets choose Compress, and then click Compress File Sets from the Form menu.


Package Build - [File Set Selection]
File Edit Preferences Window Help
Tools
Calendar
Calcula...
Work Center
Internal Mail
External Mail
Internet
Create Shortcut
Send Shortcut
Select Find Close Seg... New... Dis... Abo
Links Displ... OLE ... Internet

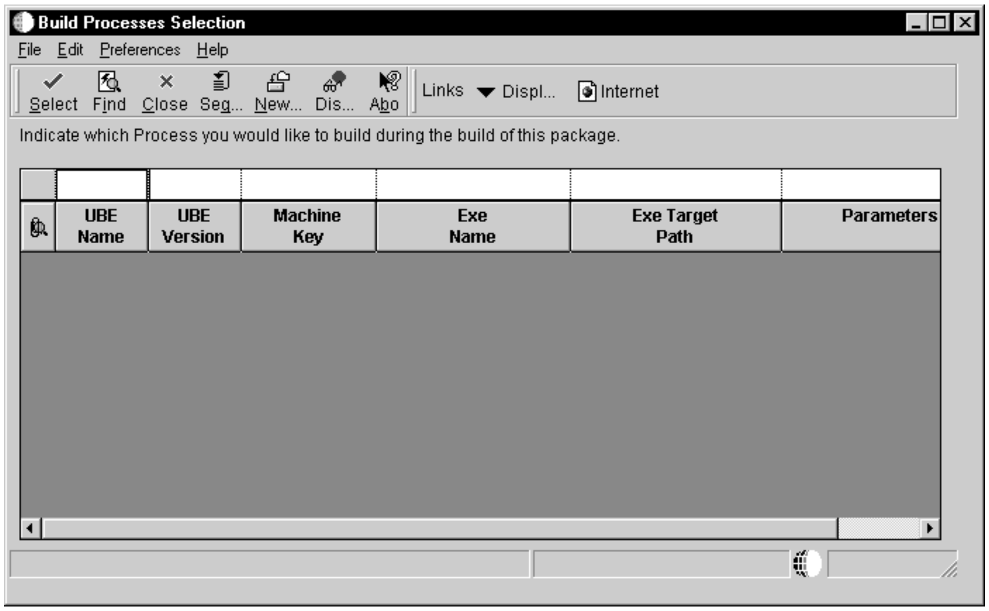
Specify the File Sets you want to compress when this package is built.

File Set	File Set Source Path	Fileset Target Path
SNAPSHOT	\\inteIntc\owenviron\ENVIRON\Evapps\appl	%windows%

2. On File Set Selection, select each feature you want to include by double-clicking in the column next to the File Set column. (You can also select by choosing a file set and clicking Select.) When you are finished selecting file sets, click Close.
3. Continue with Build OneWorld processes, or click Next and complete the remaining forms to finish defining the package build.

Build OneWorld processes

1. To build processes choose Build, and then click Select Build Processes.


Build Processes Selection
File Edit Preferences Help
Select Find Close Seq... New... Dis... Abo
Links Displ... Internet

Indicate which Process you would like to build during the build of this package.

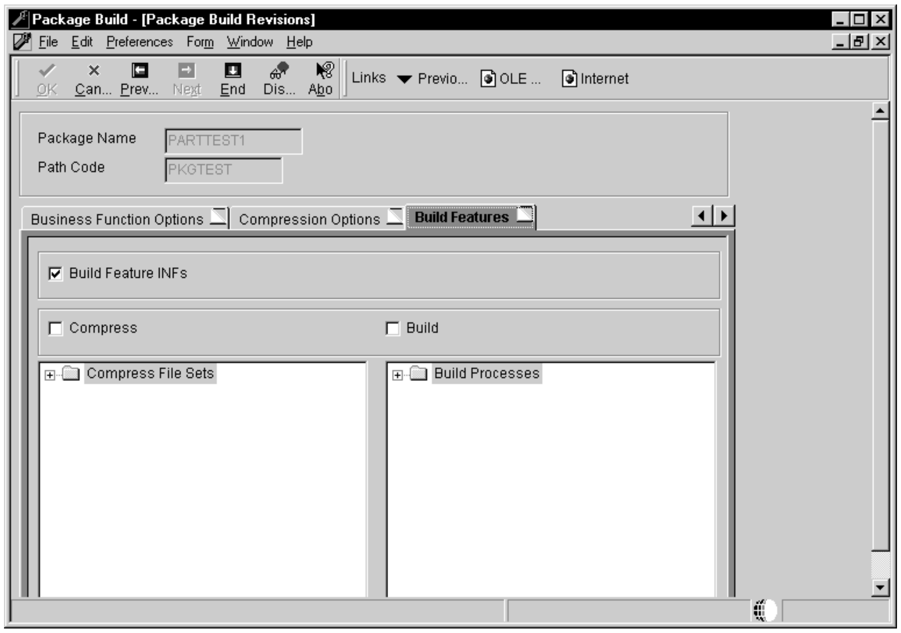
UBE Name	UBE Version	Machine Key	Exe Name	Exe Target Path	Parameters

2. On Build Processes Selection, select each process you want to build by double-clicking in the column next to the UBE Name column. (You can also select by highlighting a process and clicking Select.)
3. When you are finished selecting processes to build, click Close.
4. From the Form menu, click on Build Processes and manually select each process to run during package build. If this is not done, nothing will run even though the process is included in the feature.
5. Click Next and complete the remaining forms to finish defining the package build.

▶ To configure features for an existing package build definition

From the Package and Deployment Tools menu (GH9083), choose Package Build (P9621).

1. Find and select the package containing features.
2. Choose Build Revisions from the Row menu.
3. On Package Build Revisions, click the Build Features tab.


Package Build - [Package Build Revisions]

Package Name: PARTTEST1

Path Code: PKGTEST

[✓] Build Feature INFs

[ ] Compress

[ ] Build

Compress File Sets

Build Processes

4. Modify or add to the existing build feature settings displayed:
   - Build Feature INFs
   - Compress
   - Build
5. If you select Compress, click Revise File Sets from the Form menu to modify file sets. The File Set Selection form appears. When you are finished modifying file sets, click Close to return to the Package Build Revisions form.
6. If you select Build, click Revise Processes to modify processes. The Build Processes Selection form appears. When you are finished modifying processes, click Close to return to the Package Build Revisions form.
7. If you select Build, from the Form menu, click on Build Processes and manually select each process to run during package build. If this is not done, nothing will run even though the process is included in the feature.
8. Click OK to complete the package build definition.

Installing Packages Containing Features

Packages containing features are installed on workstations and servers the same way as any other package: through the Workstation Installation and Deployment Server Installation applications.

When you launch either of these installations, by choosing the Custom option you can then select the features you want to install.

For more information about the Workstation Installation and Deployment Server Installation applications, see the *OneWorld Installation Guide*.

Understanding Feature Entries in the Package.INF file

When a package contains a feature, the Package.INF file [Features] section provides the feature name and the location of the feature.INF file that is created for each feature. The feature.INF file contains information pertaining to the feature, such as shortcut information, registry settings, initialization file settings, and environment information.

See Also

- *Understanding Package INF Files*
- *Understanding Feature INF Files*

Viewing Package Build History and Logs

The Package Build History application allows you to view information pertaining to the build process, including the options and objects you specified when you created the build definition. This application provides the following build information:

- Package name
- Path code
- Date and time built
- Name of the server for which the package was built
- Current build status and status description
- Current status of selected specification tables
- Number of specifications written
- Package records written and read

The Form menu's View Logs option allows you to view four logs containing additional information about the build process. These logs are useful in the event that the build does not complete successfully and you need to know the errors that occurred during the build.

If a build does not complete successfully, you can use the Resubmit Build option to resume the build from the point where the process stopped. Only the business functions and objects that did not build successfully will be built; the entire package will not be rebuilt.

In some cases, if a build is interrupted or otherwise unable to complete, you may need to reset the build status from Build Started to Build Definition Complete. Unlike the Resume Build feature, which continues the build from the point where it failed, resetting the status enables you to start the build process from the beginning.

This chapter contains the following topics:

- ❑ Viewing the package build history
- ❑ Viewing logs
- ❑ Resubmitting a package build
- ❑ Changing the build status

Viewing the Package Build History

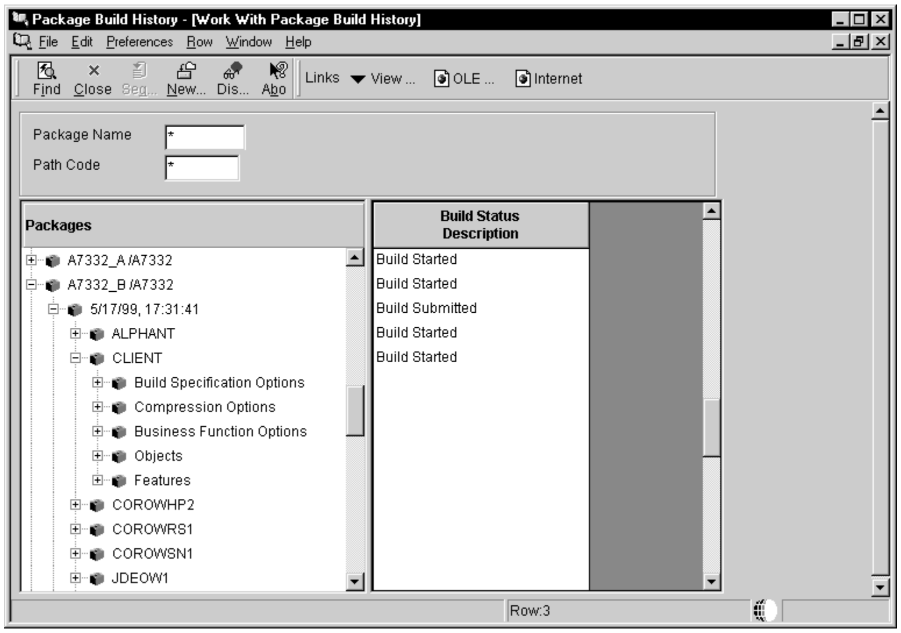
OneWorld maintains a history of the package build in the Build Detail History table (F96225). This table contains details about any package components that failed to build successfully.

If you encountered errors during the build process and your package failed to build successfully, you can resubmit the package and continue building at the point at which the build failed. In this situation, OneWorld checks the F96225 table and rebuilds only the business functions or other package components that have a status of "Not Built" or "Error." OneWorld builds only the package components that failed to build successfully, not the entire package. This feature can save you a tremendous amount of time, especially if only a few package components failed to build successfully.

If you originally specified package compression, when you resubmit the package to resume building, directories are automatically compressed after building successfully.

▶ To view package build history

From the Package and Deployment Tools menu (GH9083), choose Package Build History (P9622).


Package Build History - [Work With Package Build History]
File Edit Preferences Row Window Help
Find Close Seq... New... Dis... Abo
Links View ... OLE ... Internet
Row:3

Package Name *
Path Code *

Packages	Build Status Description
A7332_A /A7332	Build Started
A7332_B /A7332	Build Started
5/17/99, 17:31:41	Build Submitted
ALPHANT	Build Started
CLIENT	Build Started
Build Specification Options	
Compression Options	
Business Function Options	
Objects	
Features	
COROWHP2	
COROWRS1	
COROWSN1	
JDEOW1	

1. On Work with Package Build History, choose CLIENT or the server name to display information about the current build status for those machines. You can also expand the tree to view the following information:
   - Build specification options

- Compression options
- Business function options
- Objects

These options and objects are the ones you specified when you created the package's build definition. For example, if you elected to build only selected specifications, you can determine the status for each specification, as well as other pertinent information.

2. When you are finished viewing build history information, click Close.

Viewing Logs

After you build your package, you can view logs that list any errors that occurred during the build process. In particular, you can view the following logs:

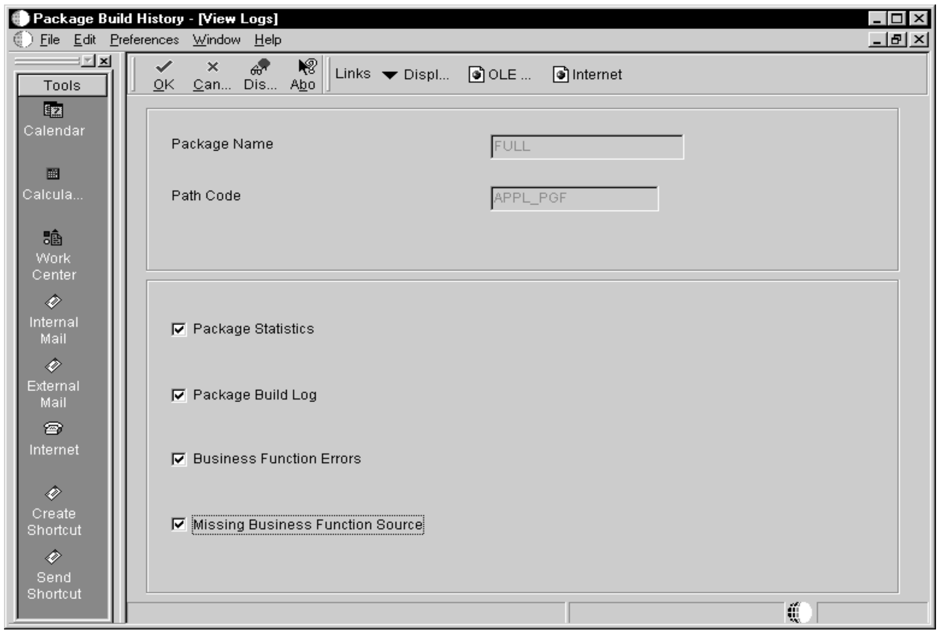
- Package Statistics Log
- Package Build Log
- Business Function Errors Log
- Missing Business Function Source Errors Log

Each log contains a header, which includes the package name, date, build machine, and path code.

▶ To view a log

From the Package and Deployment Tools menu (GH9083), choose Package Build History (P9622).

1. On Work With Package Build History, choose View Logs from the Form menu.



Package Name FULL

Path Code APPL_PGF

☑ Package Statistics

☑ Package Build Log

☑ Business Function Errors

☑ Missing Business Function Source

2. On View Logs, click any of the following log options and click OK:
   - Package Statistics
   - Package Build Log
   - Business Function Errors
   - Missing Business Function Source

   Each log you selected displays in its own window.

3. When you are finished viewing logs, close each log window.
4. On View Logs, click Cancel to return to the Work with Package Build History form.

Field	Explanation
Package Statistics	This option allows you to view count and size statistics for the package directories that were built.
Package Build Log	This option allows you to view errors that may have occurred during a package build. These errors could have occurred while building the specification files or the objects for the package.
Business Function Errors	This option allows you to view the results of the business function build for this package. Both errors and warnings display in this report. A summary appears at the end of the report that indicates how many errors and warnings occurred for each dll. Use this information to determine if a rebuild is necessary.

Field	Explanation
Missing Business Function Source	This option lists all source members that were not available when the business function was created. The program attempted to find these members because each had a record in the Object Librarian table (F9860). However, a matching source could not be found in the source directory. To resolve these errors, either delete the Object Librarian record or provide a source member.

Where to Find the Error Logs

You can view error logs without using the Package Build History application by locating the desired log in the correct directory. Error logs are stored on the deployment server in directories beneath the package itself. The Package Build log is stored in the package directory. The Package Statistics log, Business Function Source Errors log, and Missing Business Function Source Errors log are stored in the package's work directory.

You can view the error logs by going to the appropriate directory and opening the log with Microsoft's Notepad or a similar application that allows you to display text files.

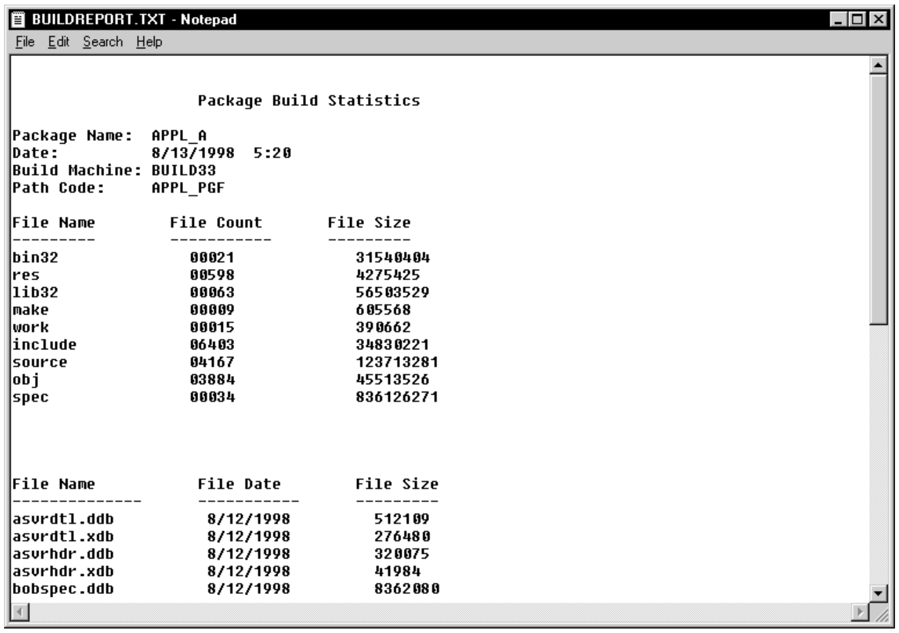
In the following examples, PD7333FA is used as the package name. To determine your actual directory, substitute your package name for "PD7333FA."

- Package Statistics: \PD7333FA\work\buildreport.log
- Package Build log: \PD7333FA\builderror.log
- Business Function Errors log: \PD7333FA\work\buildlog.txt
- Missing Business Function Source log: \PD7333FA\work\NoSource.txt

The Package Statistics Log

The Package Statistics log summarizes the outcome of the package build, showing statistics for the directories in the package, including the size and file count of each directory. This log displays a complete build you can use to check your build directories. The report shows a breakdown of the files in the spec directory and the size of each spec file, as well as the total count and size. The log can be used to verify that the package was built successfully.

The Package Statistics log looks similar to this:



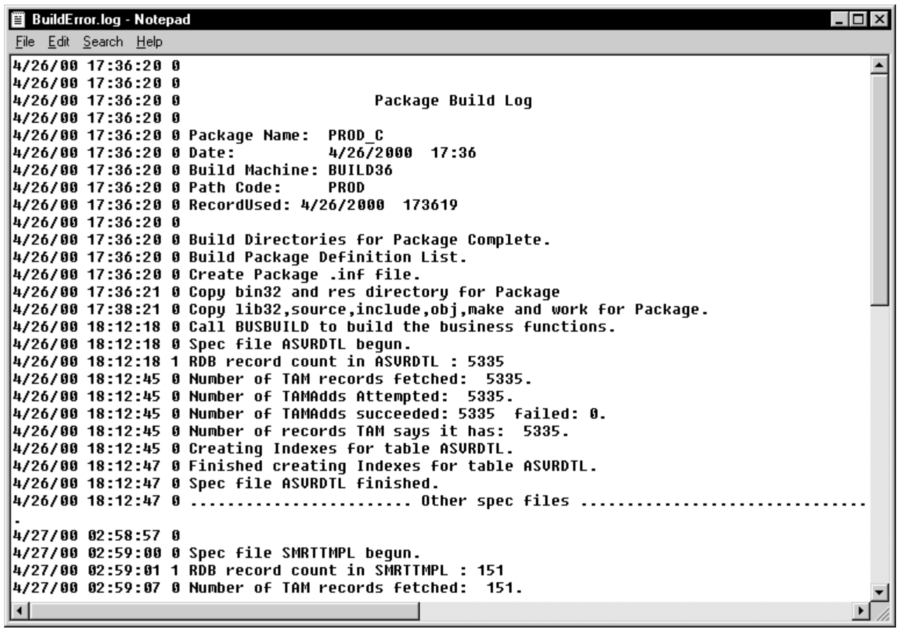
```
                    Package Build Statistics

Package Name:  APPL_A
Date:          8/13/1998  5:20
Build Machine: BUILD33
Path Code:     APPL_PGF

File Name        File Count       File Size
---------        -----------      ---------
bin32              00021             31540404
res                00598             4275425
lib32              00063             56503529
make               00009             605568
work               00015             390662
include            06403             34830221
source             04167             123713281
obj                03884             45513526
spec               00034             836126271



File Name           File Date        File Size
--------------      -----------      ---------
asvrdtl.ddb           8/12/1998        512109
asvrdtl.xdb           8/12/1998        276480
asvrhdr.ddb           8/12/1998        320075
asvrhdr.xdb           8/12/1998        41984
bobspec.ddb           8/12/1998        8362080
```

The Package Build Log

The Package Build log can be found in the package name directory. This log lists the steps executed in building the package, as well as any errors that occurred during the package build process. It also describes the steps involved in building the package. The final page of the log tells you whether the package was successfully built.

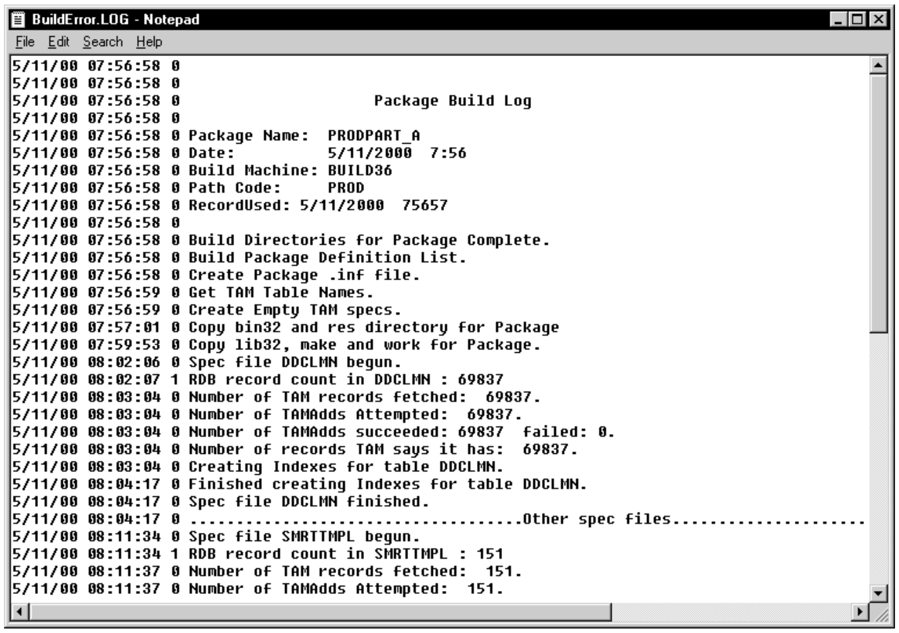
The Package Build logs for each of the different package build processes (full, partial, and update) look similar to this:

Full Package



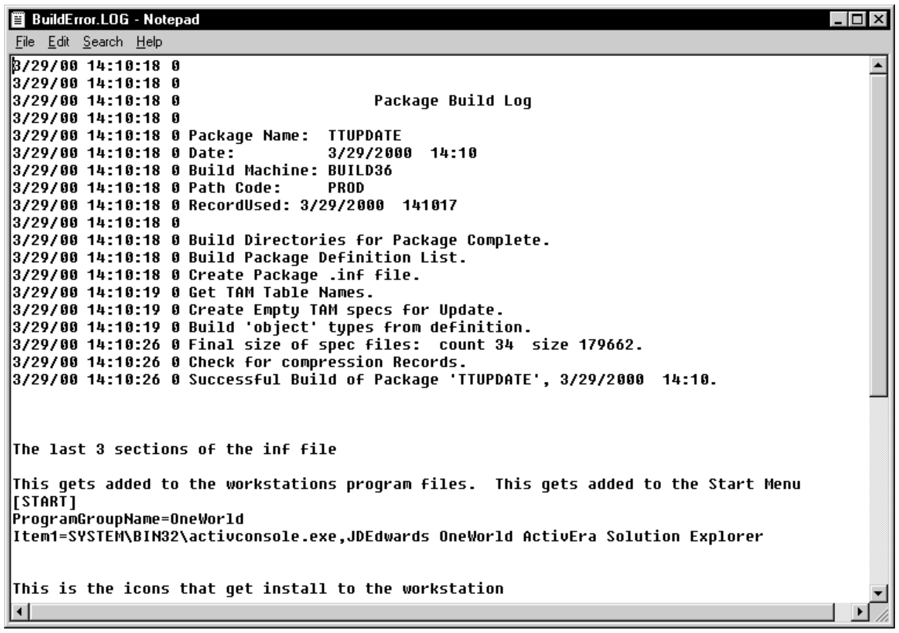
```
4/26/00 17:36:20 0
4/26/00 17:36:20 0
4/26/00 17:36:20 0                    Package Build Log
4/26/00 17:36:20 0
4/26/00 17:36:20 0 Package Name:  PROD_C
4/26/00 17:36:20 0 Date:          4/26/2000  17:36
4/26/00 17:36:20 0 Build Machine: BUILD36
4/26/00 17:36:20 0 Path Code:     PROD
4/26/00 17:36:20 0 RecordUsed: 4/26/2000  173619
4/26/00 17:36:20 0
4/26/00 17:36:20 0 Build Directories for Package Complete.
4/26/00 17:36:20 0 Build Package Definition List.
4/26/00 17:36:20 0 Create Package .inf file.
4/26/00 17:36:21 0 Copy bin32 and res directory for Package
4/26/00 17:38:21 0 Copy lib32,source,include,obj,make and work for Package.
4/26/00 18:12:18 0 Call BUSBUILD to build the business functions.
4/26/00 18:12:18 0 Spec file ASVRDTL begun.
4/26/00 18:12:18 1 RDB record count in ASVRDTL : 5335
4/26/00 18:12:45 0 Number of TAM records fetched:  5335.
4/26/00 18:12:45 0 Number of TAMAdds Attempted:  5335.
4/26/00 18:12:45 0 Number of TAMAdds succeeded: 5335  failed: 0.
4/26/00 18:12:45 0 Number of records TAM says it has:  5335.
4/26/00 18:12:45 0 Creating Indexes for table ASVRDTL.
4/26/00 18:12:47 0 Finished creating Indexes for table ASVRDTL.
4/26/00 18:12:47 0 Spec file ASVRDTL finished.
4/26/00 18:12:47 0 ........................ Other spec files ................................
.
4/27/00 02:58:57 0
4/27/00 02:59:00 0 Spec file SMRTTMPL begun.
4/27/00 02:59:01 1 RDB record count in SMRTTMPL : 151
4/27/00 02:59:07 0 Number of TAM records fetched:  151.
```

Partial Package



```
5/11/00 07:56:58 0
5/11/00 07:56:58 0
5/11/00 07:56:58 0                    Package Build Log
5/11/00 07:56:58 0
5/11/00 07:56:58 0 Package Name:  PRODPART_A
5/11/00 07:56:58 0 Date:          5/11/2000  7:56
5/11/00 07:56:58 0 Build Machine: BUILD36
5/11/00 07:56:58 0 Path Code:     PROD
5/11/00 07:56:58 0 RecordUsed: 5/11/2000  75657
5/11/00 07:56:58 0
5/11/00 07:56:58 0 Build Directories for Package Complete.
5/11/00 07:56:58 0 Build Package Definition List.
5/11/00 07:56:58 0 Create Package .inf file.
5/11/00 07:56:59 0 Get TAM Table Names.
5/11/00 07:56:59 0 Create Empty TAM specs.
5/11/00 07:57:01 0 Copy bin32 and res directory for Package
5/11/00 07:59:53 0 Copy lib32, make and work for Package.
5/11/00 08:02:06 0 Spec file DDCLMN begun.
5/11/00 08:02:07 1 RDB record count in DDCLMN : 69837
5/11/00 08:03:04 0 Number of TAM records fetched:  69837.
5/11/00 08:03:04 0 Number of TAMAdds Attempted:  69837.
5/11/00 08:03:04 0 Number of TAMAdds succeeded: 69837  failed: 0.
5/11/00 08:03:04 0 Number of records TAM says it has:  69837.
5/11/00 08:03:04 0 Creating Indexes for table DDCLMN.
5/11/00 08:04:17 0 Finished creating Indexes for table DDCLMN.
5/11/00 08:04:17 0 Spec file DDCLMN finished.
5/11/00 08:04:17 0 ....................................Other spec files.....................
5/11/00 08:11:34 0 Spec file SMRTTMPL begun.
5/11/00 08:11:34 1 RDB record count in SMRTTMPL : 151
5/11/00 08:11:37 0 Number of TAM records fetched:  151.
5/11/00 08:11:37 0 Number of TAMAdds Attempted:  151.
```

Update Package



```
3/29/00 14:10:18 0
3/29/00 14:10:18 0
3/29/00 14:10:18 0                    Package Build Log
3/29/00 14:10:18 0
3/29/00 14:10:18 0 Package Name:  TTUPDATE
3/29/00 14:10:18 0 Date:          3/29/2000  14:10
3/29/00 14:10:18 0 Build Machine: BUILD36
3/29/00 14:10:18 0 Path Code:     PROD
3/29/00 14:10:18 0 RecordUsed: 3/29/2000  141017
3/29/00 14:10:18 0
3/29/00 14:10:18 0 Build Directories for Package Complete.
3/29/00 14:10:18 0 Build Package Definition List.
3/29/00 14:10:18 0 Create Package .inf file.
3/29/00 14:10:19 0 Get TAM Table Names.
3/29/00 14:10:19 0 Create Empty TAM specs for Update.
3/29/00 14:10:19 0 Build 'object' types from definition.
3/29/00 14:10:26 0 Final size of spec files:  count 34  size 179662.
3/29/00 14:10:26 0 Check for compression Records.
3/29/00 14:10:26 0 Successful Build of Package 'TTUPDATE', 3/29/2000  14:10.



The last 3 sections of the inf file

This gets added to the workstations program files.  This gets added to the Start Menu
[START]
ProgramGroupName=OneWorld
Item1=SYSTEM\BIN32\activconsole.exe,JDEdwards OneWorld ActivEra Solution Explorer


This is the icons that get install to the workstation
```

Error and warning messages are preceded with the word “ERROR” and “WARNING” respectively. All other messages are informational messages that describe the steps in the build process. If the build process fails, you can use this log as a troubleshooting tool to determine the last step that executed before the failure.

For example, following are some steps from the log and some troubleshooting suggestions to follow if the build fails during or after the step:

- Build Directories for Package Complete

  A failure at this point means that the directories in the package could not be built. If this occurs, make sure the server did not go down. Also, make sure you have authority to create directories in the package directory.

- Build Package Definition List

  This step builds a list of all items defined in the package. If the build fails at this step, make sure the object is defined in the F9631 table.

- Create Empty TAM specs

  This step creates the local workstation specifications (TAM tables) in the package directory under the specs directory. If you get a failure here, make sure the server didn't go down. Also, make sure you have permission to create directories in the spec directory.

- Copy lib32, source, include, obj, make and work for [Full] package

  This step copies the lib32, source, include, obj, make, and work directories from the check-in location to the package directory. If you receive a failure at this point, make sure that each of these directories exist in the check-in location and under the package directory.

- Copy lib32, make and work for Partial package

  This step copies the lib32, make, and work directories from the check-in location to the package directory. If you receive a failure at this point, make sure that each of these directories exist in the check-in location and under the package directory.

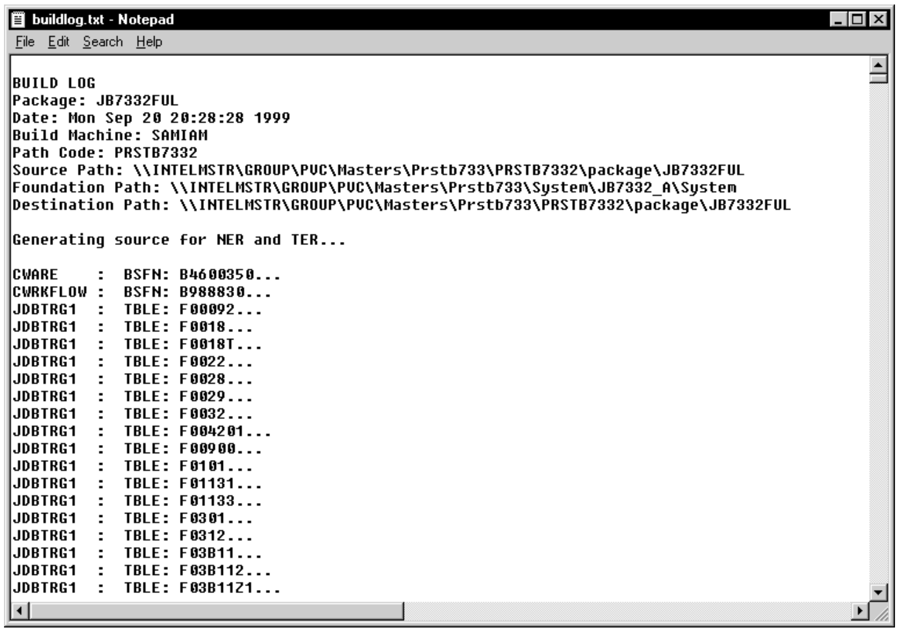
- Spec file DDCLMN begun
- Spec file DDCLMN finished

  These two message go together. If you receive the "begun" message but not the "finished" message, this means the spec file was not built. After the package is finished you need to build just the one TAM spec file that failed. There will probably be an entry in the log indicating that there was an error building that TAM spec file.

The Business Functions Errors Log

The Business Functions Errors log allows you to view any errors that occur while business functions are being built. The final page of the log describes whether the business functions were successfully built or built with errors. Business functions in this report could be business functions that are still in development and have not yet been checked in. If they have never been checked in, they will not have source and therefore will be listed in the Missing Business Function Source Errors log.

The Business Functions Errors log looks similar to this:

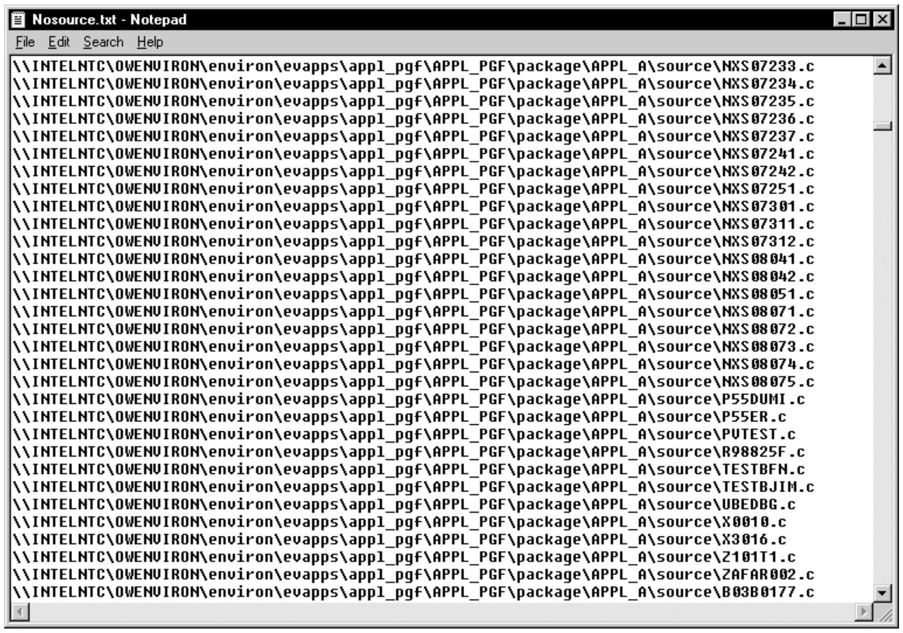


```
BUILD LOG
Package: JB7332FUL
Date: Mon Sep 20 20:28:28 1999
Build Machine: SAMIAM
Path Code: PRSTB7332
Source Path: \\INTELMSTR\GROUP\PVC\Masters\Prstb733\PRSTB7332\package\JB7332FUL
Foundation Path: \\INTELMSTR\GROUP\PVC\Masters\Prstb733\System\JB7332_A\System
Destination Path: \\INTELMSTR\GROUP\PVC\Masters\Prstb733\PRSTB7332\package\JB7332FUL

Generating source for NER and TER...

CWARE    :  BSFN: B4600350...
CWRKFLOW :  BSFN: B988830...
JDBTRG1  :  TBLE: F00092...
JDBTRG1  :  TBLE: F0018...
JDBTRG1  :  TBLE: F0018T...
JDBTRG1  :  TBLE: F0022...
JDBTRG1  :  TBLE: F0028...
JDBTRG1  :  TBLE: F0029...
JDBTRG1  :  TBLE: F0032...
JDBTRG1  :  TBLE: F004201...
JDBTRG1  :  TBLE: F00900...
JDBTRG1  :  TBLE: F0101...
JDBTRG1  :  TBLE: F01131...
JDBTRG1  :  TBLE: F01133...
JDBTRG1  :  TBLE: F0301...
JDBTRG1  :  TBLE: F0312...
JDBTRG1  :  TBLE: F03B11...
JDBTRG1  :  TBLE: F03B112...
JDBTRG1  :  TBLE: F03B1121...
```

The Missing Business Function Source Errors Log

The Missing Business Function Source Errors log describes any business functions in the package that are defined in the Object Librarian and have a record, but could not be built because there was no source.

The Missing Business Function Source Errors log looks similar to this:



```
\\INTELNTC\OWENVIRON\environ\evapps\appl_pgf\APPL_PGF\package\APPL_A\source\NXS07233.c
\\INTELNTC\OWENVIRON\environ\evapps\appl_pgf\APPL_PGF\package\APPL_A\source\NXS07234.c
\\INTELNTC\OWENVIRON\environ\evapps\appl_pgf\APPL_PGF\package\APPL_A\source\NXS07235.c
\\INTELNTC\OWENVIRON\environ\evapps\appl_pgf\APPL_PGF\package\APPL_A\source\NXS07236.c
\\INTELNTC\OWENVIRON\environ\evapps\appl_pgf\APPL_PGF\package\APPL_A\source\NXS07237.c
\\INTELNTC\OWENVIRON\environ\evapps\appl_pgf\APPL_PGF\package\APPL_A\source\NXS07241.c
\\INTELNTC\OWENVIRON\environ\evapps\appl_pgf\APPL_PGF\package\APPL_A\source\NXS07242.c
\\INTELNTC\OWENVIRON\environ\evapps\appl_pgf\APPL_PGF\package\APPL_A\source\NXS07251.c
\\INTELNTC\OWENVIRON\environ\evapps\appl_pgf\APPL_PGF\package\APPL_A\source\NXS07301.c
\\INTELNTC\OWENVIRON\environ\evapps\appl_pgf\APPL_PGF\package\APPL_A\source\NXS07311.c
\\INTELNTC\OWENVIRON\environ\evapps\appl_pgf\APPL_PGF\package\APPL_A\source\NXS07312.c
\\INTELNTC\OWENVIRON\environ\evapps\appl_pgf\APPL_PGF\package\APPL_A\source\NXS08041.c
\\INTELNTC\OWENVIRON\environ\evapps\appl_pgf\APPL_PGF\package\APPL_A\source\NXS08042.c
\\INTELNTC\OWENVIRON\environ\evapps\appl_pgf\APPL_PGF\package\APPL_A\source\NXS08051.c
\\INTELNTC\OWENVIRON\environ\evapps\appl_pgf\APPL_PGF\package\APPL_A\source\NXS08071.c
\\INTELNTC\OWENVIRON\environ\evapps\appl_pgf\APPL_PGF\package\APPL_A\source\NXS08072.c
\\INTELNTC\OWENVIRON\environ\evapps\appl_pgf\APPL_PGF\package\APPL_A\source\NXS08073.c
\\INTELNTC\OWENVIRON\environ\evapps\appl_pgf\APPL_PGF\package\APPL_A\source\NXS08074.c
\\INTELNTC\OWENVIRON\environ\evapps\appl_pgf\APPL_PGF\package\APPL_A\source\NXS08075.c
\\INTELNTC\OWENVIRON\environ\evapps\appl_pgf\APPL_PGF\package\APPL_A\source\P55DUMI.c
\\INTELNTC\OWENVIRON\environ\evapps\appl_pgf\APPL_PGF\package\APPL_A\source\P55ER.c
\\INTELNTC\OWENVIRON\environ\evapps\appl_pgf\APPL_PGF\package\APPL_A\source\PVTEST.c
\\INTELNTC\OWENVIRON\environ\evapps\appl_pgf\APPL_PGF\package\APPL_A\source\R98825F.c
\\INTELNTC\OWENVIRON\environ\evapps\appl_pgf\APPL_PGF\package\APPL_A\source\TESTBFN.c
\\INTELNTC\OWENVIRON\environ\evapps\appl_pgf\APPL_PGF\package\APPL_A\source\TESTBJIM.c
\\INTELNTC\OWENVIRON\environ\evapps\appl_pgf\APPL_PGF\package\APPL_A\source\UBEDBG.c
\\INTELNTC\OWENVIRON\environ\evapps\appl_pgf\APPL_PGF\package\APPL_A\source\X0010.c
\\INTELNTC\OWENVIRON\environ\evapps\appl_pgf\APPL_PGF\package\APPL_A\source\X3016.c
\\INTELNTC\OWENVIRON\environ\evapps\appl_pgf\APPL_PGF\package\APPL_A\source\Z101T1.c
\\INTELNTC\OWENVIRON\environ\evapps\appl_pgf\APPL_PGF\package\APPL_A\source\ZAFAR002.c
\\INTELNTC\OWENVIRON\environ\evapps\appl_pgf\APPL_PGF\package\APPL_A\source\B03B0177.c
```

Server Logs

All compile logs for the enterprise server are located on the server itself in the source directory of the DLL that the object belongs to. For example, suppose you want to see the log for the Sales Order Entry master business function (B4200310) in the package PACKAGE1 on an HP 9000 whose BuildArea is /u02/jdedwardsoneworld/packages. There would be a file called /u02/jdedwardsoneworld/packages/PACKAGE1/source/CDIST/b4200310.log, since B4200310 is in the CDIST.DLL.

If there were a problem with the linking of the CDIST.DLL (shared library) on the HP 9000, there would be a file called /u02/jdedwardsoneworld/packages/PACKAGE1/obj/CDIST/CDIST.log.

On the AS/400, logs for business functions that failed to compile are members in a file called FAILED in the package library. Using the previous example, you would look at member B4200310 of the FAILED file in library PACKAGE1.

Resubmitting a Package Build

The following task describes how to resubmit a package build in the event that all objects or business functions did not build successfully.

▶ To resubmit a package build

From the Package and Deployment Tools menu (GH9083), choose Package Build History (P9622).

1. On Work with Package Build History, find and choose the package you want to resubmit. When doing this you can have two options:
   - Select a specific server to resubmitting only that server's builds
   - Select the CLIENT heading to resubmit only the workstation builds
2. Choose Resubmit Build from the Row menu.
3. If you generated NERs when you initially submitted the build, OneWorld displays a window asking if you want to re-generate the NERs. Click OK to re-generate NERs, or click Cancel to skip this process.

   Note: If you do not want to regenerate NERs, you can change a processing option to prevent this window from displaying. To disable this window, right click on Package Build History, and choose Prompt For Values. Type '2' in the Generate NER field and click OK.

4. Choose a destination for the build report, and click OK:
   - On Screen
   - To Printer

   The form automatically closes and OneWorld begins building the package. Build time varies, depending on the number and size of the items in your package. When the build is finished, the report will either display or print, depending on the destination you specified.

5. Review the report to make sure that all components in your package were generated successfully. If the report indicates any errors, review the error logs for more detail.

   If the package build completes successfully, you can schedule the package for deployment as described in *Deployment*.

Changing the Build Status

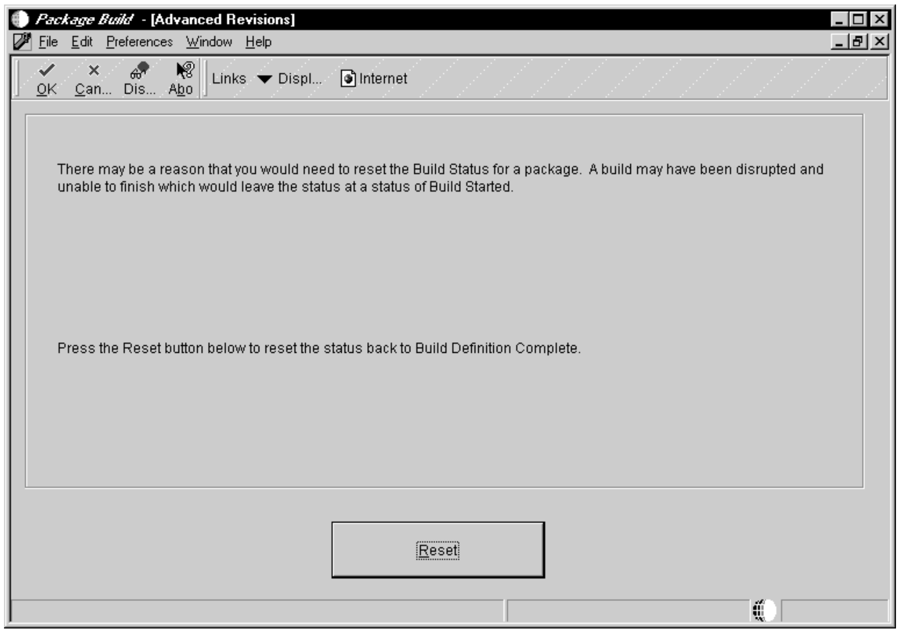
In some cases, you may need to attempt rebuilding the package rather than trying to resume the build from the point where the build failed. Before you can do so, you must first change the package's build status from Build Started to Build Definition Complete.

When you reset the package's build status, you have the option of resetting status for the server only or for all servers and client workstations for which you want to build the package.

▶ To change the build status

From the Package and Deployment Tools menu (GH9083), choose Package Build (P9621).

1. On Work with Package Build Definition, find the package whose status you want to reset. Underneath the package name, choose the server or servers and client workstation for which you want to build the package.
2. Choose Advanced from the Work with Package Build Definition form's Row menu.


Package Build - [Advanced Revisions]
File Edit Preferences Window Help
OK Can... Dis... Abo Links Displ... Internet
Reset

There may be a reason that you would need to reset the Build Status for a package. A build may have been disrupted and unable to finish which would leave the status at a status of Build Started.

Press the Reset button below to reset the status back to Build Definition Complete.

3. On Advanced Revisions, click Reset to change the package's build status from Build Started to Build Definition Complete.
4. Click OK to return to the Work with Package Build Definition form.
5. If desired, choose the package name and choose Submit Build from the Work with Package Build Definition form's Row menu.
6. The program will ask if you want to delete the current build or to continue without deletion.

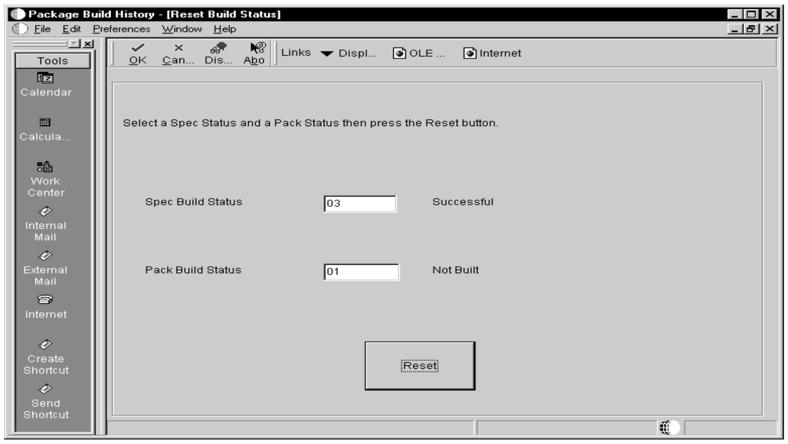
Changing the Spec Build and Pack Build Statuses

You can also reset a package's spec and pack statuses to the status you specify. This option is available through the Package Build History (P9622) application.

▶ To change the spec and pack statuses

From the Package and Deployment Tools menu (GH9083), choose Package Build History (P9622).

1. On Work with Package Build History, find the package whose statuses you want to reset, expand the package and choose an individual item.
2. Choose Reset Status from the Row menu.



Select a Spec Status and a Pack Status then press the Reset button.

Spec Build Status 03 Successful

Pack Build Status 01 Not Built

3. On Reset Build Status, enter the desired statuses at the Spec Build Status and Pack Build Status fields. Both of these fields have a visual assist feature to help you determine the available statuses.
4. Click Reset.
5. Click OK to return to the Work with Package Build History form.

Understanding Package INF Files

The Package INF file is essentially the interface between the package build and the Workstation Installation program. The INF file defines the components included in the package, the source and destination paths for those components, and the attributes needed to install the package.

The INF file is created during the package build process and is stored in its own package_inf directory based off of the release master directory. Workstation Installation reads the INF file for the package it is installing to determine which components are loaded to a workstation, as well as their locations.

Sample INF File

The following is a typical INF file for package PD7333FA, which is full package "A" for the PD7333 path code.

[Attributes]

This section contains information about the current OneWorld release, global tables, specification and help files, and the JDE.INI file.

Item	Purpose
PackageName=STEST	Indicates the name of the package.
PathCode=	Indicates the path code for which the package is being built.
Built=	Indicates the package status. A status of 50 or 70 means the package is ready for installation.
PackageType=Full	Indicates the package type: full, partial, or update.
Release=B733	Indicates the current OneWorld release, which determines which setup.inf file to use in building the jde.ini for the workstation. The release is also used to determine paths for system and helps.

Item	Purpose
SystemBuildType	Indicates the type of build: DEBUG or RELEASE. This option is retrieved from owver.dll
MFCVersion	Indicates the version of the MFC compiler.
SpecFilesAvailable=Y	Indicates that specification files are available to merge or copy. This flag is always Y for full or partial packages. For update packages, this flag is Y only if there are objects in the package.
DelBlblTbl=Y	Indicates whether to delete global tables when installing. This flag will be set to Y for full or partial packages. For update packages, this flag is Y only if the objects include a table object.
ReplaceIni=Y	Determines whether to delete the existing jde.ini file when installing, and then create a new one. This flag is set to Y for full and partial packages. For update packages, the user must specify during package build definition whether to replace the jde.ini file.
AppBuildDate=Mon Jul 20 11:22:22 1998	Indicates the date and time the package was built. Full and partial packages always have this date. This is blank when there are no objects included in the package.
FoundationBuildDate=Wed Jun 03 15:08:34 1998	Indicates the date and time the foundation was built. For OneWorld Xe and later releases, this date is retrieved from owver.dll. Full and partial packages always have this date. This is blank when there are is no foundation location specified in the package.
DataBuildDate=Wed Jun 03 15:08:34 1998	Indicates the date and time the database file (jdeb7.mdb) was built. Full and partial packages always have this date. This is blank when there are is no database location specified in the package.
HelpBuildDate=Wed Jun 03 15:08:34 1998	Indicates the date and time the help (help.jz, the compressed help file,) was built. Full and partial packages always have this date. This is blank when there are is no help location specified in the package.
DeploymentServerName	Indicates the machine name of the deployment server.
Location	Indicates the location of the machine (deployment server).
DeploymentStatus=	Indicates the package deployment status.

Item	Purpose
PackageDescription=	Indicates the package description.
Icon Description	A description of the desktop icon.
Default Environment	Indicates the default environment.
Spec	Indicates the name of the spec file specified in the File set.
ServerHelpPath	Indicates the path to the help files.

[SrcDirs]

The Workstation Installation program uses these settings to determine the source path from which information is copied. A package build compresses these directories. Workstation Installation copies the compressed directories to workstations.

Item	Purpose
S*Pathcode*=*MachineName*\ *ONEWORLD**B7333*\PACKAGE\ PD7333FA	Indicates the location of the package that the package build will compress for Workstation Installation. This path automatically defaults to the path code directory over which you built the package. You may change this setting if you want a different package pulled down.
SSYS=*MachineName*\ *ONEWORLD**B7333*\SYSTEM	Indicates the location of the system directory that the package build will compress for Workstation Installation. This path automatically defaults to the system directory associated with the path code over which you built the package. Normally this would be under the release share name (B7333). This item appears only when included in the package.
S*Pathcode*DATA=*MachineName*\ *ONEWORLD**B7333*\ *PD7333*\PACKAGE\DATA	Indicates the location of the Microsoft Access database that the package build will compress for Workstation Installation. This path automatically defaults to the data directory beneath the path code over which you built the package. This item appears only when included in the package.

Item	Purpose
SHELP=*MachineName*\\ *ONEWORLD**B7333*\\HELPS	Indicates the location of the help files that the package build will compress for Workstation Installation. Users may not want to take up the disk space to have helps on their workstation. When you build a package this setting defaults to the help directory under the release share path (B7333). You may change this setting if you want to change the location in which helps will reside. This item appears only when included in the package.

[DestDirs]

The Workstation Installation program uses these settings to determine the destination paths on the workstation. The process replaces “%INSTALL” with the user’s machine configuration that is set up in user profiles (F00921) and Configuration Path Detail (F00051).

Item	Purpose
D*Pathcode*=%INSTALL*path code*	Indicates the destination directory for the package.
DSYS=%INSTALL\\system	Indicates the destination directory for system files. This item appears only when included in the package.
D*Pathcode*DATA=%INSTALL*path code*\\data	Indicates the destination directory for the database. This item appears only when included in the package.
DHELP=%INSTALL\\helps	Indicates the destination directory for help files. This item appears only when included in the package.

[Filesets]

These settings list the various source and destination directories under the path code for the package. Y=compressed, and N=not compressed. The source and destination directory names are preceded by an S and D respectively.

Item	Purpose
*Pathcode*1=Y, $S*pathcode*\\bin32, $D*pathcode*\\bin32	Indicates the bin32 directory under the path code.

Item	Purpose
*Pathcode*2=Y, $S*pathcode*\res, $D*pathcode*\res	Indicates the res directory under the path code.
*Pathcode*3=Y, $S*pathcode*\spec, $D*pathcode*\spec	Indicates the spec directory under the path code.
*Pathcode*4=Y, $S*pathcode*\include, $D*pathcode*\include	Indicates the include directory under the path code.
*Pathcode*5=Y, $S*pathcode*\lib, $D*pathcode*\lib	Indicates the lib directory under the path code.
*Pathcode*6=Y, $S*pathcode*\obj, $D*pathcode*\obj	Indicates the obj directory under the path code.
*Pathcode*7=Y, $S*pathcode*\source, $D*pathcode*\source	Indicates the source directory under the path code.
*Pathcode*8=Y, $S*pathcode*\work, $D*pathcode*\work	Indicates the work directory under the path code.
*Pathcode*9=Y, $S*pathcode*\make, $D*pathcode*\make	Indicates the make directory under the path code.
*Pathcode*DATA=Y, $S*pathcode*DATA\data.CAB, $D*pathcode*DATA	Indicates the compressed Microsoft Access database that the package build generates.
HELP=Y, $SHELP\Helps.CAB, $DHELP	Indicates the compressed helps file.

[Components]

These settings indicate the location of the foundation, production and development objects, the database, and help files.

Item	Purpose
ProdObj=APPL_PKG1, APPL_PKG2, APPL_PKG3	Indicates the location of production objects.
DevObj=APPL_PKG4, APPL_PKG5, APPL_PKG6, APPL_PKG7, APPL_PKG8, APPL_PKG9	Indicates the location of development objects.
Foundation=SYS	Indicates the foundation location.
Data=<pathcode> DATA	Indicates the database location.
Help=HELP	Indicates the helps file location.

[Typical]

This section describes a typical development user's settings.

Item	Purpose
Name=Development	Indicates that the package is for a development user.
Description=Install the development objects	Indicates package description.
Components=ProdObj, DevObj, Foundation, Data	Indicates that the package should contain both production and development objects, as well as the database and foundation. See the "Components" settings to determine the location of these components.

[Compact]

This section describes a typical production user's settings.

Item	Purpose
Name=Production	Indicates that the package is for a production user.
Description=Install the production objects	Indicates package description.
Components=ProdObj, Foundation, Data	Indicates that the package should contain only production objects, as well as the database and foundation. See the "Components" settings to determine the location of these components.

[ODBC Data Sources]

This section describes the ODBC data source.

Item	Purpose
Access32=Microsoft Access Driver (*.mdb)	This line will be included in the ODBC data sources. This setting is determined by two registry settings on the build machine: LocalDS (the local data source name), and DataByPathCode (1=true, 2=false). If the DataByPathCode setting is set to 1 (true), the item name for this setting is *<LocalDS>* – *<Pathcode>*.

[Access32]

This section contains information about the local data source. The name of this section corresponds to the local data source name in the ODBC Data Sources section. For example purposes, the local data source name used is Microsoft Access 32 database.

Item	Purpose
Driver=odbcjt32.dll	Indicates the name of the driver.
DefaultDir=C:\ACCESS	Indicates the default directory.
DriverId=25	Indicates the driver ID number.
FIL=MS Access	Required attribute setting for Microsoft Access.
JetIniPath=odbcddp.ini	Required attribute setting for Microsoft Access.
UID=admin	Required attribute setting for Microsoft Access.
Driver32=odbcjt32.dll	Indicates the ODBC driver for Microsoft Access.
DBQ=$DAPPL_PGFDATA\ jdeb7.mdb	Indicates the path code for the Microsoft Access database.
MaxBufferSize=2048	Indicates the maximum size of the buffer
Threads	Specifies the number of threads

[Features]

This section describes information for any features included in the package. A feature is a set of files or configuration options that is included in a package for deployment to a workstation or server. For more information about features, see *Incorporating Features Into Packages*.

Item	Purpose
FeatureName=SFEAT	Indicates the name of the feature in the package.
Feature.inf location=	Indicates the location of the feature.inf file for the feature.

Understanding Feature INF Files

When a package contains features, a section called [Features] in the Package INF file includes both the feature name and a pointer to the Feature INF file that is created for each feature in the package. These Feature INF files provide specifications that tell the installation program what actions to perform during the installation.

The Feature INF file can include the following sections:

- [Header]
- [Registry]
- [INI]
- [FileSets]
- [Shortcut]
- [ThirdPartyApps]
- [ODBCDataSources]

Sample Feature INF File

The following is a typical Feature INF file whose sections contain specifications for each feature component.

[Header]

The Header section contains general information about the feature and determines the installation options for the feature.

Item	Purpose
Feature= FeatureType= Description= Required= InitialChoice=	**Feature**. Name of the feature **FeatureType**. Type of feature. **Description**. Text description of the feature. **Required**. Determines if the installation of the feature is required. **InitialChoice**. Determines the default selections for features that the user has the option to install.

The Required and InitialChoice entries are set via the three Feature Installation options settings (Required, Selected, Deselected) on the Feature Information form. When you select one of these three options, OneWorld automatically writes the following values into the Required and InitialChoice entries in the feature inf file.

Feature Installation Option	Required	IntialChoice
Required	Y	Both
Selected	N	Both
Deselected	N	Custom

[Registry]

This section contains information about how the feature impacts the Windows registry.

Item	Purpose
Registry[no.]=Root[value],Key,[prefix] Name,[prefix]Value	Indicates the following specifications for the feature's Windows registry settings: **Root**. Describes the root in the registry with the following values: • **0** means root • **1** means current user • **2** means local machine location • **3** means users **Key**. Indicates the key for the registry value. **Name**. The registry value name. Name prefixes are: • **+** means the name is created (if it doesn't already exist) when the feature is installed • **–** means the name is deleted with all subkeys when the feature is uninstalled • ***** means the name is created (if it doesn't already exist) when the feature is installed, and removed with all subkeys when the feature is uninstalled **Value**. The registry value name's value. Value prefixes are: • **#x** means the value is stored as a hexidecimal value • **#%** means the value is stored as an expandable string • **#** means the value is stored as an integer • **#$** means the value is stored as a string

[INI]

This section contains information about the impact of the feature on the JDE.INI file.

Item	Purpose
Ini[no.]=FileName,Directory,Section, Key,Value,Action[value]	Indicates the following information pertaining to the destination INI file: **FileName**. The name of the destination INI file. **Directory**. The location of the destination INI file. **Section**. The name of the section in the destination file. **Key**. The name of the key within the section of the destination file. **Value**. The value to be written to the key of the destination file. **Action**. The action to take regarding the INI entry: • **0** means create the INI entry • **1** means create the INI entry only if it does not already exist • **3** means create the INI entry or append to the existing entry

[FileSets]

This section contains information about additional files that must be installed for the feature to function correctly.

Item	Purpose
Fileset[no.]=Compression, SourceDirectory, FileName, TargetDirectory	Indicates the following specifications for the fileset: **Compression.** Indicates whether the fileset is compressed or not. **Source Directory.** The source location of the fileset. **FileName.** Name of the fileset's CAB file. **Target Directory.** The target location where the fileset is to be extracted.

[Shortcut]

This section contains information about shortcuts created on the Windows desktop as part of the feature installation.

Item	Purpose
Shortcut[no.]=Directory,Name,Target, Arguments,Description,HotKey,Icon, IconIndex,ShowCmd[value],WkDir	Indicates the following specifications for the shortcut: **Directory**. The directory where the shortcut is created. **Name**. The name of the link file for the shortcut. **Target**. The shortcut's executable file name. **Arguments**. Any command line arguments for the shortcut. **Description**. A description of the shortcut. **HotKey**. A hot key that launches the shortcut. **Icon**. The shortcut icon and location. **IconIndex**. An index of the icon if the icon is inside an image list. **ShowCmd**. A command for the application window, with the following value options: • **0** means show the window normal sized • **3** means show the window maximized • **7** means show the window minimized; not active **WkDir**. The shortcut's working directory.

[ThirdPartyApps]

This section contains information about third-party products that are installed with the feature.

Item	Purpose
ThirdPartyApp[no.]=Source Directory, Description, Synchronous/Asynchronous, FileName	Indicates the following specifications for the third party applications: **Source Directory.** Source location of the executable for running the third party application. **Description.** Description of the third party application. **Synchronous/Asynchronous.** Indicates whether the installation of the third party application can occur in parallel (synchronous) or must install serially (asynchronous). **FileName.** The name of the file that launches the third party application.

[ODBCDataSources]

This section contains information about ODBC Data sources that are installed with the feature.

ODBC data sources have 2 sections in the feature INF One section contains header information and the other contains the detail. The feature.inf contains one header section listing all data source components included in the feature. For each data source listed in the header there is a corresponding detail section. Only the header section is described below. Refer to the documentation that came with the selected ODBC Driver for information about the detail section.

Item	Purpose
DataSourceName=DataSourceDriver	Indicates the following specifications for the ODBC Data Sources: **DataSource Name.** Name of the ODBC data source. **DataSource Driver.** The driver used for the data source.

Deployment

After you have assembled, defined, and built a package, there are several ways to deploy the package to workstations and servers.

This section contains the following topics about deploying packages to both workstations and servers:

- ❑ Understanding package deployment
- ❑ Defining machines, locations, and deployment groups
- ❑ Working with the Package Deployment Director
- ❑ Deploying server packages
- ❑ Using Push Installation
- ❑ Installing OneWorld workstations from CD
- ❑ Deploying partial package templates

Understanding Package Deployment

After you build a package there are several methods available for deploying the package to workstations and servers throughout your enterprise. For workstations, the method you select depends on whether OneWorld is already installed on the workstation.

This chapter contains the following topics:

- ❑ Deployment to workstations without OneWorld
- ❑ Deployment to workstations with OneWorld already installed
- ❑ Deployment to servers
- ❑ Deployment to tiered deployment locations
- ❑ Deployment to workstations from CD

Deployment to Workstations without OneWorld

If a workstation does not currently have OneWorld installed, you can deploy the package through the Workstation Installation program. Workstation Installation is used to deploy only full and partial packages; you cannot use Workstation Installation to deploy an update package to a workstation that doesn't have OneWorld installed.

Workstation Installation retrieves from the central object data source the items specified in the package. A package is like a bill of materials with instructions describing from where to pull all of the necessary components that the Workstation Installation program deploys to the local workstation. This program can be run interactively (initiated by a person at a workstation) or in silent mode and scheduled through the push installation feature. For more information about the Workstation Installation application, see the *OneWorld Installation Guide*.

You can use Package Deployment to deploy the package if you use the push installation feature. Push installation enables the OneWorld administrator to initiate the installation of a package from the deployment server to workstations without requiring any user interaction. In order to use this feature, the push installation "listener" application must be installed on the workstation, and the machine must be defined through the Machine Identification application (P9654A). For more information about push installation, see *Using Push Installation* in this section.

Deployment to Workstations with OneWorld Already Installed

To reload a new package on workstations that already have OneWorld installed, use one of two methods:

- Workstation Installation (for full and partial packages)
- Package Deployment (for full, partial, and update packages).

After you assemble and build a package, use Package Deployment to schedule the package for deployment to individual workstations or to selected groups. On the specified deployment date, when the users scheduled to receive the package sign on to OneWorld, they are given the opportunity to load the package.

Unless you are using the Push Installation feature, Package Deployment requires that OneWorld be already loaded on the workstation. You can schedule either a new full or partial package to replace the existing package, or an update package to be merged with the existing package on the workstation.

There are advantages to both deployment methods. Workstation Installation is a good method to use when you want to install a package immediately or soon after it is built, without having to schedule the package. On the other hand, Package Deployment is useful if you need to control when the package becomes available, if you want to make the package installation mandatory, or if you want to deploy the package to servers as well as workstations.

Deployment to Servers

Servers receive the same package you build for the workstation, but in a different format. When you assemble the package and create the package build definition, you can specify the servers to which you want to deploy the package. Deployment is accomplished via the Package Deployment application, which uses the same scheduling mechanism used to deploy packages to workstations. In fact, you can easily schedule deployment to both client workstations and servers on the same form. You cannot use the push installation feature for deploying to servers.

Deployment to Tiered Deployment Locations

Multitier deployment allows you to install software on workstations from more than one deployment location and more than one deployment machine. Use this deployment method if your site has more than 50 workstations performing OneWorld software installations per day, or when workstation installations over your WAN are too slow. For information about multitier deployment, see *Multitier Deployment*.

Deploying to Workstations from CD

If your system has a CD writer, you can define the CD writer as a deployment location. Doing this essentially defines the CD writer as a pseudo deployment server from which you can copy a OneWorld package onto a blank CD. You can then use this CD to install OneWorld on workstations by using the Workstation Installation program contained on the CD.

For more information about deploying from CD, see *Installing OneWorld Workstations From CD*.

Defining Machines, Locations, and Deployment Groups

Before you deploy packages, you must define the workstations, servers, groups, or locations that will receive your package. Defining these ensures that when you are ready to schedule packages using the Package Deployment Director, the machines, groups, or locations you want to receive your package will be available as package recipients.

A deployment group is a group of workstations classified by a criterion such as job function, team, or any other grouping you specify. For example, you might have a software development group, a testing group, a production group, and so on. The Machine Group Identification application enables you to define or revise groups comprised of several workstations.

A location is a group of workstations and servers that corresponds to a physical location. For example, you might have locations for Corporate and Branch, or for Building 5 and Building 7. Locations are also useful if you use multitier deployment or deploy across a wide area network. In this case you might have a location defined for each of your geographic locations. The Machine Identification application enables you to define or revise machines and locations in your enterprise.

Both of these applications simplify the deployment process when you need to deploy a package to several users. Rather than requiring you to schedule deployment to each workstation or server, you can schedule deployment according to location or group.

When you enter a machine definition you are really defining its usage in the OneWorld configuration. For example, a deployment server can be used as a data server. When you enter machine definitions, keep in mind the following recommendations from J.D. Edwards:

- A Java application server (JAS) can be defined only as a Java application server, not as a data server, enterprise server, and so on.
- A deployment server should not be used as a workstation.
- A deployment server can be used as a data server.
- A deployment server should not be used as an enterprise server for tuning and performance reasons.

This chapter contains the following tasks:

❑ Defining machines

- ❏ Defining locations
- ❏ Defining package deployment groups
- ❏ Revising a deployment group

Defining Machines

Before you use the Package Deployment Director to deploy a package to individual client workstations, make sure that each machine that will receive the package has a record in the Machine Master table (F9650).

There are two ways to populate this F9650 table:

- Manually. Use the Machine Identification application (P9650) to manually enter each new machine that has never signed on to OneWorld.
- Automatically. OneWorld automatically creates a record in the F9650 table when a user on a new machine signs on to OneWorld for the first time. (Existing records in the F9650 table are also updated each time a person signs on to the workstation.)

The simplest way to populate the F9650 machine master table is to have all users on new machines sign on to OneWorld. In cases where you need to deploy a package before this can happen, you must manually enter machine information as described in the following task. The Machine Identification application enables you to do just that.

In addition to defining workstations, you can also use the Machine Identification application to enter or revise definitions for the following machines:

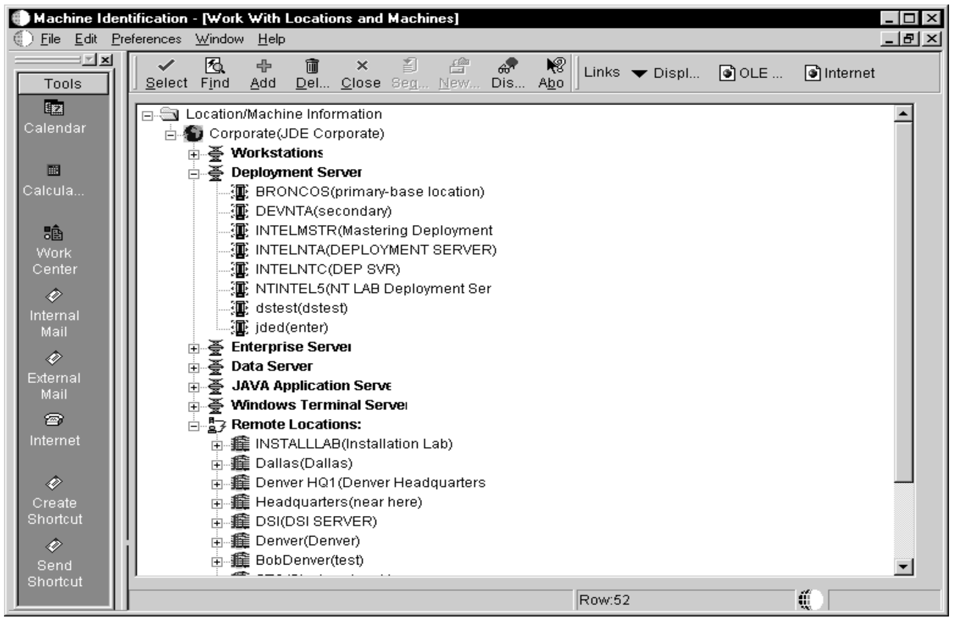
- Deployment servers
- Enterprise servers
- Data servers
- Java application servers
- Windows terminal servers

You can define a machine to be a workstation and a data server or as a data server only, but no other combinations are allowed. For example, you cannot define a machine as a workstation and a deployment server.

You can enter or revise definitions for these machines in multiple locations, including remote locations. For more information about setting up locations rather than machines, see *Defining Locations*.

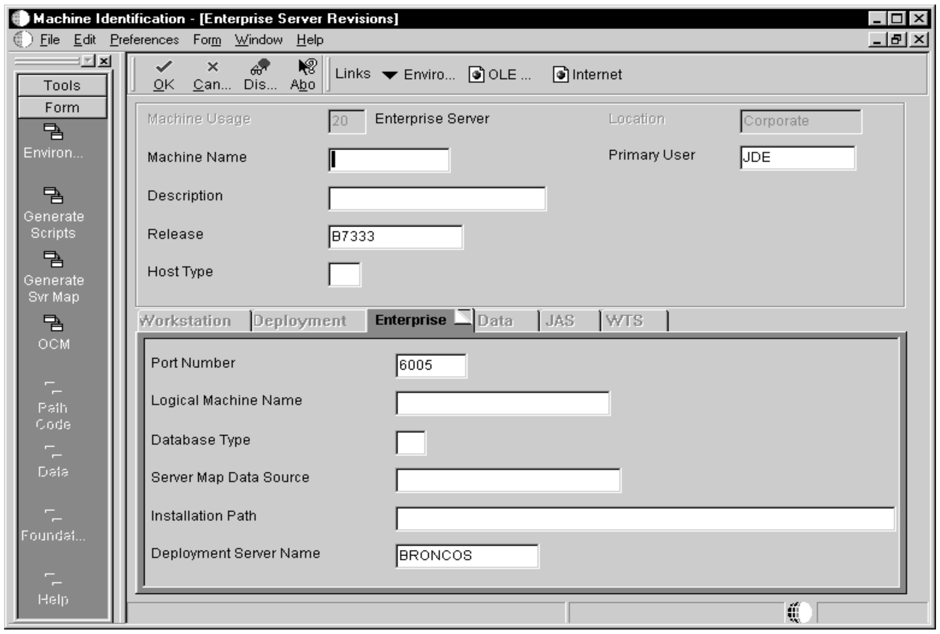
▶ To define a machine

From the Package and Deployment Tools menu (GH9083), choose Machine Identification (P9654A).


Machine Identification - [Work With Locations and Machines]
File Edit Preferences Window Help
Tools
Calendar
Calcula...
Work Center
Internal Mail
External Mail
Internet
Create Shortcut
Send Shortcut
Select Find Add Del... Close Seq... New... Dis... Abo
Links Displ... OLE ... Internet
Row:52

Location/Machine Information
Corporate(JDE Corporate)
Workstations
Deployment Server
BRONCOS(primary-base location)
DEVNTA(secondary)
INTELMSTR(Mastering Deployment
INTELNTA(DEPLOYMENT SERVER)
INTELNTC(DEP SVR)
NTINTEL5(NT LAB Deployment Ser
dstest(dstest)
jded(enter)
Enterprise Server
Data Server
JAVA Application Serve
Windows Terminal Server
Remote Locations:
INSTALLLAB(Installation Lab)
Dallas(Dallas)
Denver HQ1(Denver Headquarters
Headquarters(near here)
DSI(DSI SERVER)
Denver(Denver)
BobDenver(test)

1. On Work With Locations and Machines, underneath the appropriate location, choose the type of machine you want to add:
   - Workstation
   - Deployment server
   - Enterprise server
   - Data server
   - Java application server
   - Windows terminal server
2. Click Add to add a new machine. The Machine Revisions form appears. This form displays different fields depending on the type of machine you are adding.


Machine Identification - [Enterprise Server Revisions]
File Edit Preferences Form Window Help
Tools
Form
Environ...
Generate Scripts
Generate Svr Map
OCM
Path Code
Data
Foundat...
Help
OK Can... Dis... Abo
Links Enviro... OLE ... Internet
Workstation Deployment Enterprise Data JAS WTS

Machine Usage	20 Enterprise Server
Location	Corporate
Machine Name	
Primary User	JDE
Description	
Release	B7333
Host Type	
Port Number	6005
Logical Machine Name	
Database Type	
Server Map Data Source	
Installation Path	
Deployment Server Name	BRONCOS

3. On Machine Revisions, complete the following fields:

   - Machine Name

     The machine name is case-sensitive. To avoid problems with inconsistent naming conventions, define the machine name using all uppercase characters.

   - Description
   - Release
   - Host Type (For example, AS/400, HP9000, Intel NT, and so on)
   - Primary User (The name of the machine's primary user.)

4. The tab corresponding to the type of machine you are defining appears automatically. Enter the fields for the machine you are defining:

   On the Workstation tab:

   - Deployment Server Name (display-only field)

   On the Deployment [Server] tab:

   - Primary Deployment Server

     If you have set up a primary deployment server, the Primary Deployment Server field will not be accessible when you define a new deployment server. This field can be modified only when you are revising the the primary deployment server definition, or when you change your primary deployment server to a secondary server.

In this case you could specify a different server as your primary deployment server.

- Server Share Path

When you define a secondary deployment server, Form menu options enable you to select path codes, data items, foundation modules, and help items. (These options are not available for the primary deployment server.)

On the Enterprise [Server] tab:

- Port Number
- Logical Machine Name
- Database Type
- Server Map Data Source
- Installation Path
- Deployment Server Name

When you define an enterprise server, Form menu options enable you to generate installation scripts, generate and populate server map tables, and use the Object Configuration manager (OCM) to update the workstation server map. For an enterprise server you can also display the machine environment and description.

Note that some of the fields may be already be defined and can not be changed.

On the Data [Server] tab:

- Data Source Type

On the JAS [Server] tab:

- Installation Path

On the WTS (Windows Terminal Server) tab:

- Installation Path

5. From the menu, choose Form - Environment.
6. On Machine Environment Revisions, click on the Environment column and select one or more environments to add to the new machine.
7. Click OK.
8. On Machine Revisions, click OK again to return to the Work with Locations and Machines form.
9. One Work with Locations and Machines, click Close to exit.

The process for revising existing machine definitions is similar to adding a new definition. Instead of clicking Add on the Work with Locations and Machines form, find and choose the machine whose definition you want to revise and click Select. The same revision form appears and allows you to change the machine's definition.

Field	Explanation
Machine Usage	The purpose for this machine. For example: database server, logic server, TSE server, and so on.
Machine Name	For World, the Location indicates the machine (server or client). For OneWorld, the Location or Machine Key indicates the name of the machine on the network (server or workstation).
Release	For World, the release number as defined in the Software Versions Repository. For OneWorld, the release number as defined in the Release Master.
Host Type	Host Machine Type.
Location	The name of the deployment location.
Primary User	The primary user for the listed machine.
Server Map Data Source	The data source name.
Deployment Server Name	The name of the specific server that is being used for deployment.
Primary Deployment Server	This field specifies whether a deployment server is the primary deployment server for a specific location.
Database Type	The type of database.
Logical Machine Name	The logical machine name assigned to this unique machine and port. A machine can be a workstation. Because you can have more than one instance of OneWorld running on a given machine, you must assign a logical machine name that identifies the unique physical machine name and port where this instance runs. J. D. Edwards recommends that the logical machine name represent the release and purpose of the machine, such as Financial Data Server-B73.3 or Distribution Logic Server-B73.3.
Package Date / Time	The date and time a full package was deployed to a specific workstation.

Field	Explanation
Package Name	A package describes where on the server to find the components you want to deploy to workstations. There are three package types: Full: Contains the full suite of OneWorld applications (all specifications). Partial: A minimum configuration of OneWorld. This package type allows users to load the desired applications at run-time rather than initially installing all applications. Update: OneWorld objects contained in this type of package are loaded after the workstation receives the package and the user signs on to OneWorld. If the update package includes objects without the corresponding specifications, old versions of the application are deleted from the workstation and replaced by the current version the next time the user accesses that application. Update packages are always deployed on the date and time specified by the OneWorld administrator.
System Update Date / Time	The date and time the current system was deployed to the specified workstation.
Package Update Date / Time	This field represents the date and time of the most recent update package installation on the specified workstation.
Package Update Name	This field represents the name of the most recent update package that has been deployed to the specified workstation.
Port Number	Identifies the port for a given instance of OneWorld. Because the JDE.ini file controls the port to which a workstation will connect, for workstations this port number is for reference only.
Server Share Path	For World, the Server Share Path Field is used by the environment to determine the location of the current server. For OneWorld, this field indicates the shared directory for this Path Code. The objects that are stored on a file server will be found in this path.

Defining Locations

In some cases, an enterprise may span several buildings, cities, or even countries. In these situations it is often easier to deploy a package to a location rather than to individual workstations and servers. Then, a secondary deployment server at each location can deploy the package to the workstations and servers at that location.

The larger your enterprise, the more you can benefit from creating and deploying to locations. If you use multitier deployment to deploy packages to remote locations, the concept of locations is crucial.

In OneWorld terms, a location is essentially a user-defined group of machines, databases, and environments. In some cases the location is an actual physical location connected by a wide area network (WAN), such as when you have remote offices that are geographically separate from your main office. For example, a location could be a floor in your office building, a separate building on your corporate campus, a branch office across town, or a facility in another city.

Once you have created a new location you can add workstations and servers for that location by defining the machine names associated with that location.

The topmost location that is displayed when you launch the Machine Identification application is the base location. You cannot change or remove this base location, but you can create or revise locations beneath it.

When you create a location beneath another location, the original location is known as the parent location, and the location beneath is known as the child location. For example, if you have a location called “Seattle” and then create a location called “Redmond” under Seattle, Seattle is the parent location and Redmond is the child location.

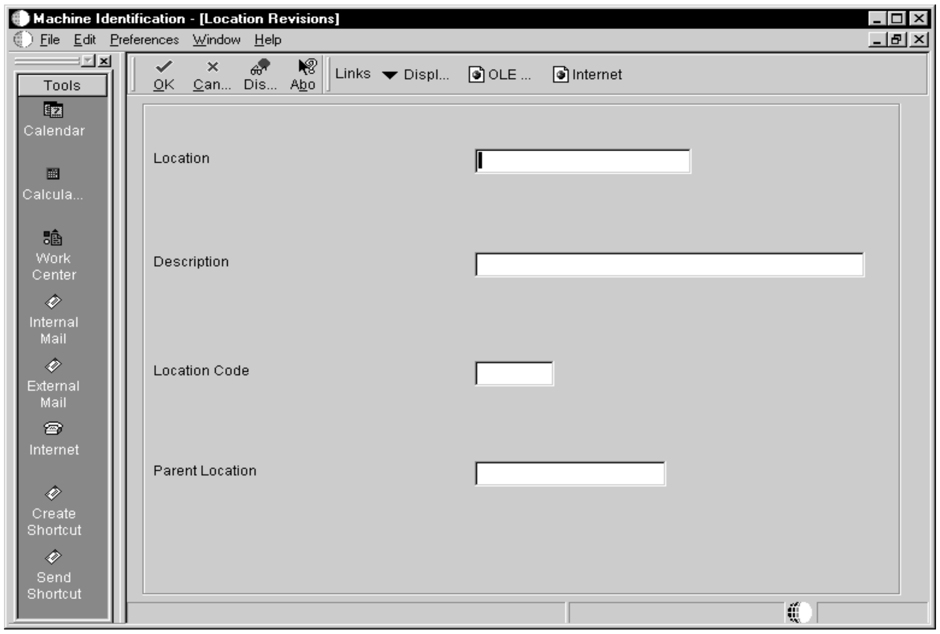
See Also

- *Multitier Deployment.*

▶ To define a location

From the Package and Deployment Tools menu (GH9083), choose Machine Identification (P9654A).

1. On Work With Locations and Machines, select the current location under which you want the new location to reside. For example, if you are adding a new remote location, choose the Remote Locations icon.
2. Click Add to add a new location.



Location

Description

Location Code

Parent Location

3. On Location Revisions form, enter the following fields:
   - Location
   - Description
   - Location Code
   - Parent Location
4. After selecting the location, click Close.
5. On Location Revisions, click OK.
6. On Work with Locations and Machines, click Close.

The process for revising existing locations is similar to adding a new location. Instead of clicking Add on the Work with Locations and Machines form, find and choose the location you want to revise and click Select. The same revision form appears and allows you to change the location.

Field	**Explanation**
Location	The name of the deployment location.
Location Code	This field represents the current location for OneWorld deployment.
Parent Location	The name of the parent location.

Defining Package Deployment Groups

You can create a deployment group based on department, team, or function. For example, you might have an administration group, a testing group, a production group, and so on.

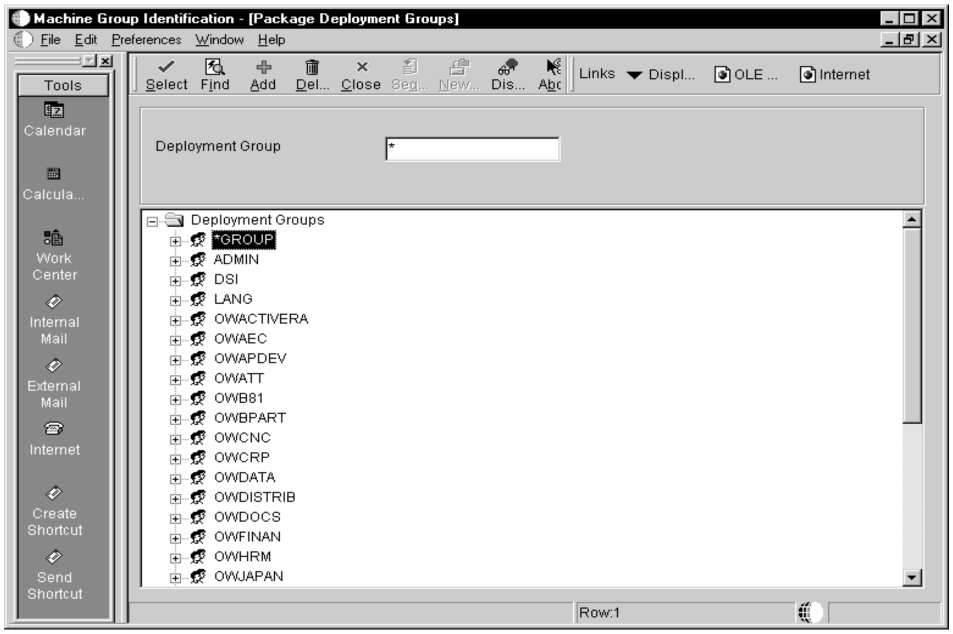
Package deployment groups are particularly useful in large enterprises where it would be very time-consuming to schedule a package for deployment to several individual workstations. In these environments it is much faster to create deployment groups.

A group can contain a subgroup (or group within a group). For example, you might have a group called “Quality Assurance” within a larger “Development” group.

It will be helpful to the person who builds and schedules packages if deployment groups have easily identifiable names. For example, if you have a group composed of quality assurance specialists who are responsible for testing, it is better to name this deployment group “Testing” rather than “Green Team.”

▶ To define a package deployment group

From the Package and Deployment Tools menu (GH9083), choose Machine Group Identification (P9652A).


Machine Group Identification - [Package Deployment Groups]
File Edit Preferences Window Help
Select Find Add Del... Close Seq... New... Dis... Abc
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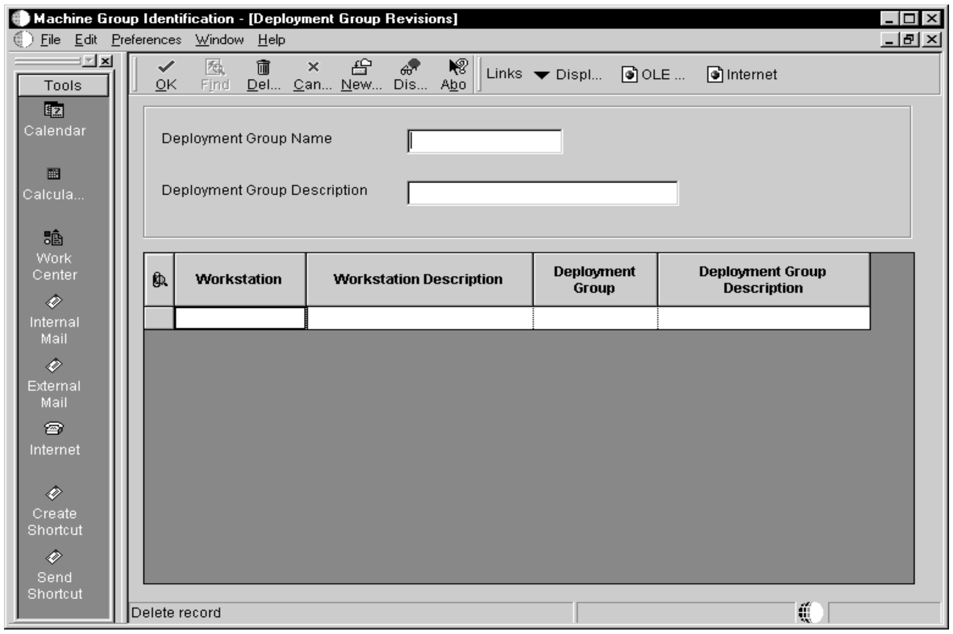
Work Center
Internal Mail
External Mail
Internet
Create Shortcut
Send Shortcut
Row:1

Deployment Group *

Deployment Groups
- *GROUP
- ADMIN
- DSI
- LANG
- OWACTIVERA
- OWAEC
- OWAPDEV
- OWATT
- OWB81
- OWBPART
- OWCNC
- OWCRP
- OWDATA
- OWDISTRIB
- OWDOCS
- OWFINAN
- OWHRM
- OWJAPAN

1. On Package Deployment Groups, ,click Add to add a new deployment group.


Machine Group Identification - [Deployment Group Revisions]
File Edit Preferences Window Help
Tools
Calendar
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Work Center
Internal Mail
External Mail
Internet
Create Shortcut
Send Shortcut
OK Find Del... Can... New... Dis... Abo
Links Displ... OLE ... Internet
Deployment Group Name
Deployment Group Description
Workstation
Workstation Description
Deployment Group
Deployment Group Description
Delete record

2. Enter the deployment group name and description.
3. Enter the the workstations or deployment groups you want to include in the group. You can do this by manually typing the workstation name or group name in the Workstation field or Deployment Group field, or by using the visual assist feature.

   When you use the visual assist at the Workstation field, the Machine Select form appears. When you use the Deployment Group field's visual assist, the Package Deployment Group Search form appears.

4. Click OK when you are finished adding workstations or deployment groups. You return to the Package Deployment Groups form.
5. Click Close to exit from the the Package Deployment Groups form.

Field	**Explanation**
Deployment Group Name	A profile used to classify users into groups for security purposes. Some rules for creating a User Class/Group are as follows: • The 'Class/Group' profile must begin with * so that it does not conflict with any System profiles. • The 'User Class/Group' field must be blank when entering a new group profile.
Deployment Group Description	The description for the selected deployment group.

Field	Explanation
Workstation	For World, the Location indicates the machine (server or client). For OneWorld, the Location or Machine Key indicates the name of the machine on the network (server or workstation).
Workstation Description	A user defined name or remark.
Deployment Group	This field represents a group that is defined to be part of a parent group.
Deployment Group Description	The description for the selected deployment group.

Revising a Deployment Group

The following task describes how to revise an existing package deployment group.

▶ To revise a package deployment group

From the Package and Deployment Tools menu (GH9083), choose Machine Group Identification (P9652A).

1. On Package Deployment Groups, choose the desired group and click Select.

   When you revise an existing group you cannot change the group name, but you can change the description.

2. On Deployment Group Revisions, to add to the group, choose the last row (the empty one) and enter the name of the workstation or deployment group to which you want to add. You can do this by manually typing the name in the Workstation or Deployment Group field, or by using the visual assist at those fields.

   When you use the visual assist at the Workstation field, the Machine Select form appears. When you use the Deployment Group field's visual assist, the Deployment Group Search form appears.

3. Click OK when you are finished adding or revising workstations or deployment groups. You return to the Package Deployment Groups form.
4. Click Close to exit from the the Package Deployment Groups form.

Working with the Package Deployment Director

After you define and build a package, use Package Deployment to schedule the package for deployment to individual workstations, deployment servers, or enterpriser servers. On the specified deployment date, users who are scheduled to receive the package are given the opportunity to load the package when they sign on to OneWorld.

Alternatively, you can schedule the package to deployment groups or locations instead of specific machines. Deployment groups are useful in large enterprises that routinely deploy packages to many workstations and servers.

This chapter contains the following topics:

- ❑ Understanding the Package Deployment Director
- ❑ Using the Package Deployment Director
- ❑ Activating the scheduled package
- ❑ Installing a scheduled package

Understanding the Package Deployment Director

The Package Deployment Director is designed to simplify and expedite the process of scheduling built packages to workstations and servers. The director displays a series of forms that allow you to specify the package you want to deploy, the deployment destinations, and the deployment time.

After specifying the package you want to deploy, you specify any of the following destinations:

- Client workstation
- Enterprise server
- Deployment server

OR

- Deployment groups
- Locations

You can deploy a package either to specific workstations and servers, or you can schedule the deployment based on deployment groups or location. You cannot do both; you must choose one method or the other.

You can make the package mandatory, which means users cannot access OneWorld until they have installed the package. If the package is optional, users will be given the option of installing the package every time they sign on to OneWorld until they either install or decline the package.

In addition, you can specify a "push installation," which means the package can be pushed from the deployment server to the workstations you specify, without requiring any interaction from the user. For more information on push installation, see *Using Push Installation* in this guide.

The Package Deployment Director requires that OneWorld be already loaded on the workstation, unless you are using push installation. You can schedule either a new full or partial package to replace the existing package, or an update package to be merged with the existing package on the workstation.

The Package Deployment Director uses the following tables:

- Machine Master (F9650)
- Machine Detail (F9651)
- Deployment Group Header (F9652)
- Deployment Group Detail Definitions (F9653)
- Deployment Location Definitions (F9654)
- Package Deployment Information (F98825)
- Package Deployment on Servers (F98826)
- Software Package Header (F9603)

The following summarizes each of the Package Deployment Director's forms and their function:

Welcome form	View this form for a description of the Package Deployment Director.
Package Selection form	Use this form to find and select the package you want to deploy.
Package Deployment Targets form	Use this form to specify the destination for your package. You can select individual client workstations, deployment servers, and enterprise servers, or you can deploy the package to a deployment group or location.

Package Deployment Attributes form	Use this form to enter the date and time you want the package deployed. Also specify whether the package is mandatory (that is, it must be installed by every package recipient) and whether you want to use Push Installation to deploy the package. For more information about Push Installation, see *Using Push Installation*.
Deployment Client Workstation Selection form	Use this form to select each of the client workstations that will receive the package.
Deployment Server Selection form	Use this form to select each of the deployment servers that will receive the package.
Enterprise Server Selection form	Use this form to select each of the enterprise servers that will receive the package.
Deployment Location Selection form	Use this form to specify the deployment location that will receive your package.
Deployment Groups Selection form	Use this form to specify the deployment groups whose members will receive your package.
Build Selection form	Use this form to specify the server or client package for multi-tier deployment you want to deploy to the destination deployment server.
Work with Package Deployment form	Use this form to review and revise the locations and package recipients you entered through the Package Deployment Director.

Using the Package Deployment Director

Once you have assembled and built your package, defined all machines, and verified your deployment groups, you are ready to use the Package Deployment Director to specify package recipients and schedule the package for deployment.

Throughout the deployment process, you always have the option of going to the previous or next form by clicking Previous or Next. Also, regardless of where you are in the process, you can always cancel the deployment process by clicking Cancel.

When you schedule a package for deployment to a machine rather than a deployment group or location, you can schedule to deploy the package to client workstations, deployment servers, enterprise servers, or a combination. Depending on your selection, different forms appear so you can enter information pertaining to your selection. For example, if you indicate that you want to schedule a package for deployment to client workstations and a deployment server, the forms for selecting specific workstations and deployment servers appear. If you schedule a package for deployment to only client workstations, the server selection form does not appear.

This section describes the following tasks:

- Schedule a package for deployment to a client workstation or server
- Schedule a package for deployment to a deployment group or location
- Revise deployment options

When you access the Package Deployment Director, the Work with Package Deployment form enables you to view deployed package information according to one of the following four different ways: machines, deployment groups, locations, or packages.

Depending on your display selection, the tree displays different information as you expand the tree. The following describes the information displayed as you expand the tree level by level:

- **Machines**

  Level One: Client Workstation, Deployment Server, and Enterprise Server headings

  Level Two: Specific machines under each of the above three headings

  Level Three: Specific packages deployed to the machine, if any

- **Deployment Groups**

  Level One: Specific groups

  Level Two: Members of those groups

  Level Three: Specific packages deployed to the group member

- **Locations**

  Level One: Specific locations

  Level Two: Client Workstation, Deployment Server, Enterprise Server, and Remote Locations headings

  Level Three: Specific machines under the Client Workstation, Deployment Server, and Enterprise Server headings

  Level Three under Remote Locations only: Defined remote locations

Level Four: Specific packages deployed to each machine, if any

Level Four under Remote Locations only: Client Workstation, Deployment Server, and Enterprise Server headings

Level Five under Remote Locations only: Specific machines under the Client Workstation, Deployment Server, and Enterprise Server headings

Level Six under Remote Locations only: Specific packages deployed to each machine, if any

- **Packages**

  Level One: Package names

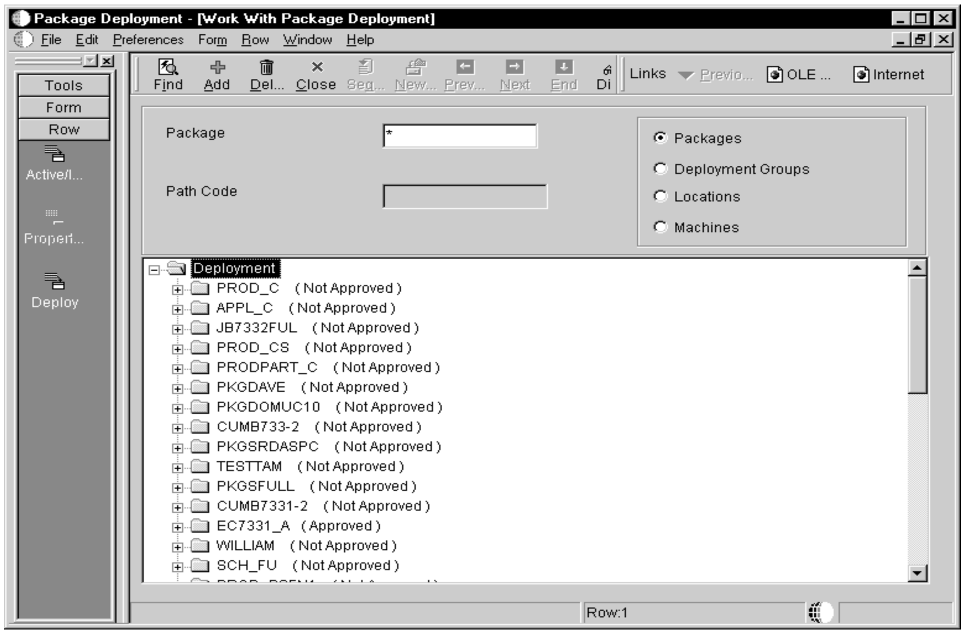
  Level Two: Client Workstation, Deployment Server, and Enterprise Server headings

  Level Three: Package deployment dates and times for each heading

  Level Four: Specific machines that have deployed that package for that date and time

▶ To schedule a package for deployment to a client workstation or server

From the Package and Deployment Tools menu (GH9083), choose Package Deployment (P9631).


Package Deployment - [Work With Package Deployment]
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Links Previo... OLE ... Internet
Row:1

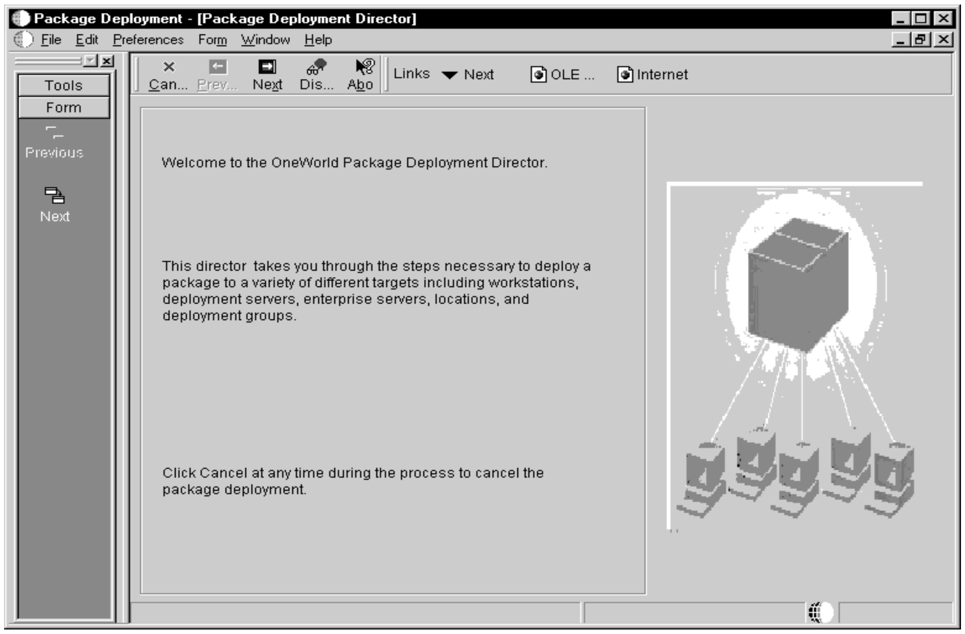
Package *

Path Code

(● Packages) ○ Deployment Groups ○ Locations ○ Machines

Deployment
- PROD_C (Not Approved)
- APPL_C (Not Approved)
- JB7332FUL (Not Approved)
- PROD_CS (Not Approved)
- PRODPART_C (Not Approved)
- PKGDAVE (Not Approved)
- PKGDOMUC10 (Not Approved)
- CUMB733-2 (Not Approved)
- PKGSRDASPC (Not Approved)
- TESTTAM (Not Approved)
- PKGSFULL (Not Approved)
- CUMB7331-2 (Not Approved)
- EC7331_A (Approved)
- WILLIAM (Not Approved)
- SCH_FU (Not Approved)

1. On Work with Package Deployment, click Add to launch the Package Deployment Director.


Package Deployment - [Package Deployment Director]
File Edit Preferences Form Window Help
Can... Prev... Next Dis... Abo
Links Next OLE ... Internet
Tools
Form
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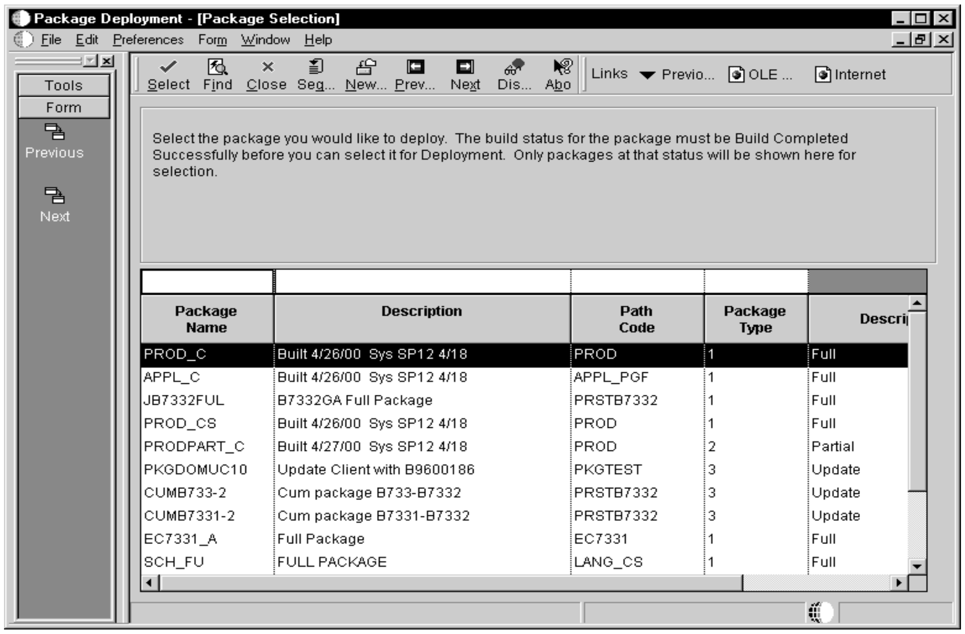
Next

Welcome to the OneWorld Package Deployment Director.

This director takes you through the steps necessary to deploy a package to a variety of different targets including workstations, deployment servers, enterprise servers, locations, and deployment groups.

Click Cancel at any time during the process to cancel the package deployment.

2. On Package Deployment Director, click Next.


Package Deployment - [Package Selection]
File Edit Preferences Form Window Help
Select Find Close Seq... New... Prev... Next Dis... Abo
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Tools
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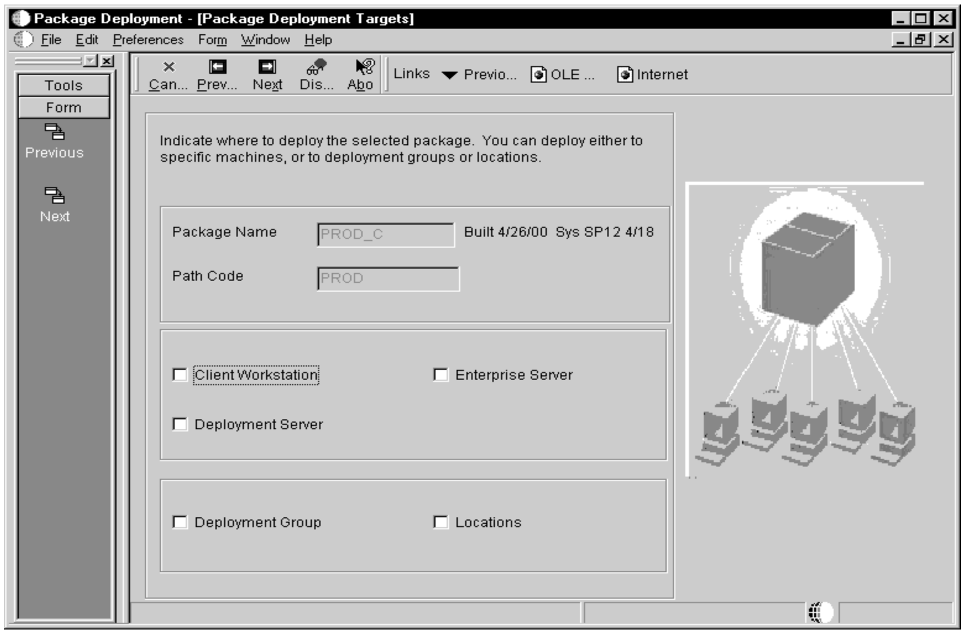
Next

Select the package you would like to deploy. The build status for the package must be Build Completed Successfully before you can select it for Deployment. Only packages at that status will be shown here for selection.

Package Name	Description	Path Code	Package Type	Descri
PROD_C	Built 4/26/00 Sys SP12 4/18	PROD	1	Full
APPL_C	Built 4/26/00 Sys SP12 4/18	APPL_PGF	1	Full
JB7332FUL	B7332GA Full Package	PRSTB7332	1	Full
PROD_CS	Built 4/26/00 Sys SP12 4/18	PROD	1	Full
PRODPART_C	Built 4/27/00 Sys SP12 4/18	PROD	2	Partial
PKGDOMUC10	Update Client with B9600186	PKGTEST	3	Update
CUMB733-2	Cum package B733-B7332	PRSTB7332	3	Update
CUMB7331-2	Cum package B7331-B7332	PRSTB7332	3	Update
EC7331_A	Full Package	EC7331	1	Full
SCH_FU	FULL PACKAGE	LANG_CS	1	Full

3. On Package Selection, choose the package you want to deploy.

4. Click Next.


Package Deployment - [Package Deployment Targets]
File Edit Preferences Form Window Help
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Form
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Can... Prev... Next Dis... Abo
Links Previo... OLE ... Internet

Indicate where to deploy the selected package. You can deploy either to specific machines, or to deployment groups or locations.

Package Name PROD_C Built 4/26/00 Sys SP12 4/18

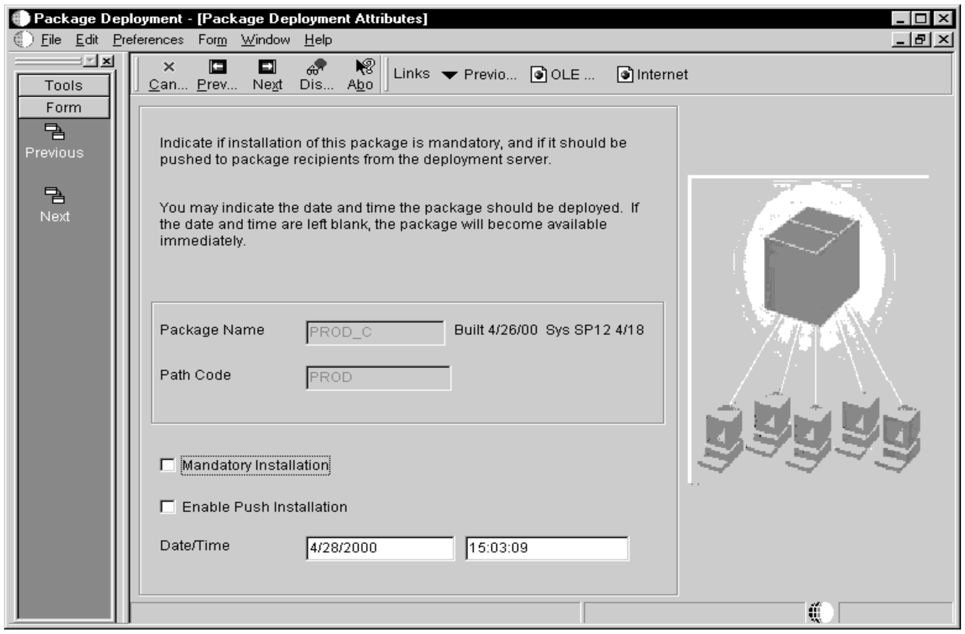
Path Code PROD

☐ Client Workstation ☐ Enterprise Server

☐ Deployment Server

☐ Deployment Group ☐ Locations

5. On Package Deployment Targets, indicate the type of machines to which you want to deploy your package:
   - Client Workstations
   - Deployment Servers
   - Enterprise Servers
6. Click Next.


Package Deployment - [Package Deployment Attributes]
File Edit Preferences Form Window Help
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Form
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Can... Prev... Next Dis... Abo
Links Previo... OLE ... Internet

Indicate if installation of this package is mandatory, and if it should be pushed to package recipients from the deployment server.

You may indicate the date and time the package should be deployed. If the date and time are left blank, the package will become available immediately.

Package Name PROD_C Built 4/26/00 Sys SP12 4/18

Path Code PROD

☐ Mandatory Installation

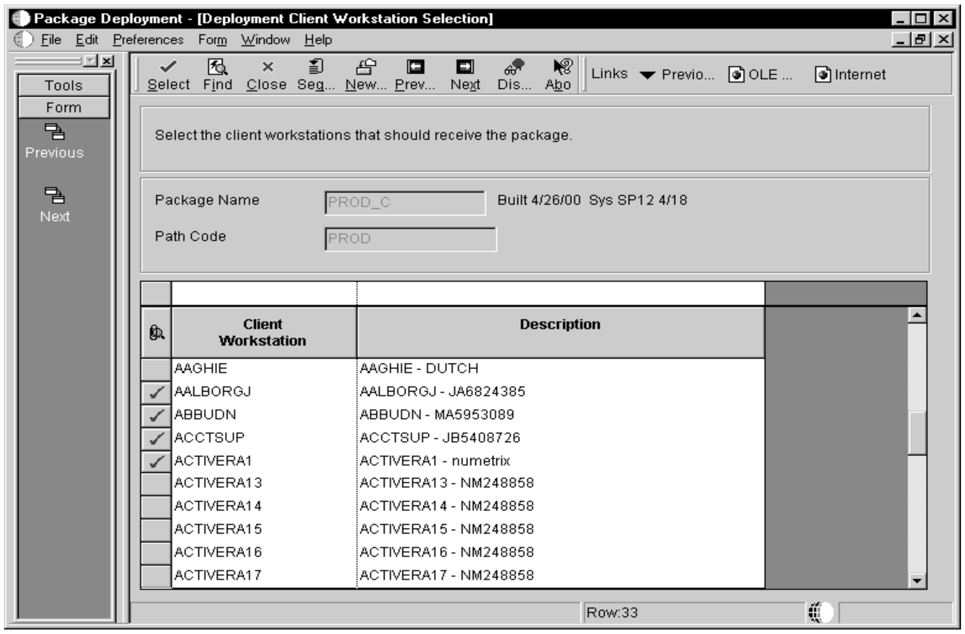
☐ Enable Push Installation

Date/Time 4/28/2000 15:03:09

7. On Package Deployment Attributes, complete the following fields:
   - Mandatory Package
   - Enable Push Installation
   - Effective Date
   - Object Deployment Time

   Click the Enable Push Installation option if you want to deploy the package using push installation, which "pushes" the package to workstations from the deployment server. For more information about push installation, see *Using Push Installation* in this guide.

8. Click Next. If you are deploying to workstations, the Deployment Client Workstation Selection form appears. If you are not deploying to workstations, skip the following step.


Package Deployment - [Deployment Client Workstation Selection]
File Edit Preferences Form Window Help
Select Find Close Seq... New... Prev... Next Dis... Abo
Links Previo... OLE ... Internet
Tools
Form
Previous
Next
Row:33

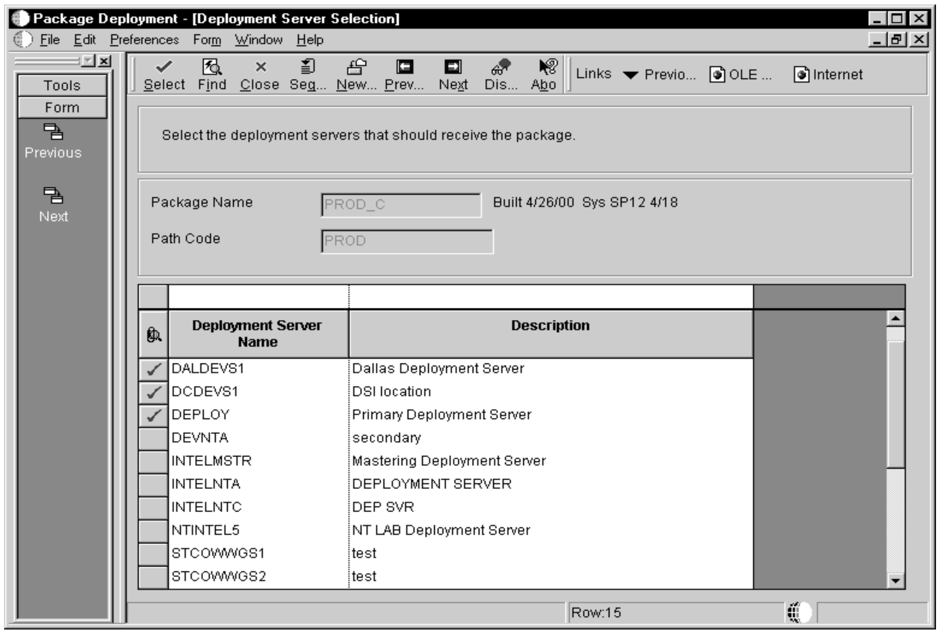
Select the client workstations that should receive the package.

Package Name: PROD_C Built 4/26/00 Sys SP12 4/18
Path Code: PROD

	Client Workstation	Description
	AAGHIE	AAGHIE - DUTCH
✓	AALBORGJ	AALBORGJ - JA6824385
✓	ABBUDN	ABBUDN - MA5953089
✓	ACCTSUP	ACCTSUP - JB5408726
✓	ACTIVERA1	ACTIVERA1 - numetrix
	ACTIVERA13	ACTIVERA13 - NM248858
	ACTIVERA14	ACTIVERA14 - NM248858
	ACTIVERA15	ACTIVERA15 - NM248858
	ACTIVERA16	ACTIVERA16 - NM248858
	ACTIVERA17	ACTIVERA17 - NM248858

9. Find and choose the workstations to which you want to deploy the package. Choose a workstation by double-clicking in the column to the left of the Client Workstation column. A checkmark appears next to each workstation you choose. Click Next.

10. If you are deploying to a deployment server, the Deployment Server Selection form appears. If you are not deploying to a deployment server, skip this step.


Package Deployment - [Deployment Server Selection]
File Edit Preferences Form Window Help
Tools
Form
Previous
Next
Select Find Close Seq... New... Prev... Next Dis... Abo
Links Previo... OLE ... Internet

Select the deployment servers that should receive the package.

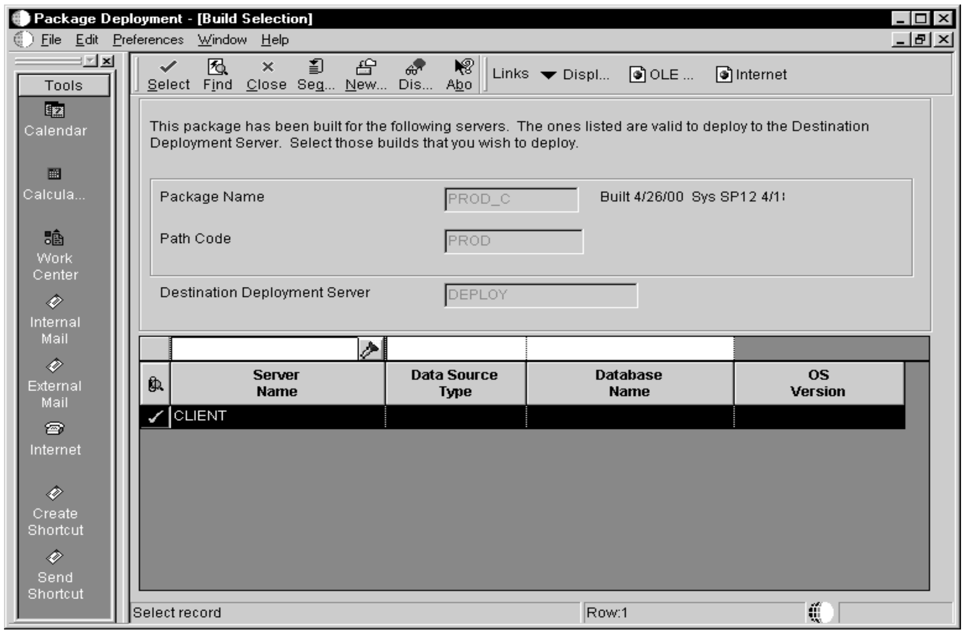
Package Name	PROD_C Built 4/26/00 Sys SP12 4/18
Path Code	PROD

	Deployment Server Name	Description
✓	DALDEVS1	Dallas Deployment Server
✓	DCDEVS1	DSI location
✓	DEPLOY	Primary Deployment Server
	DEVNTA	secondary
	INTELMSTR	Mastering Deployment Server
	INTELNTA	DEPLOYMENT SERVER
	INTELNTC	DEP SVR
	NTINTEL5	NT LAB Deployment Server
	STCOWWGS1	test
	STCOWWGS2	test

Row:15

Find a the deployment server to which you want to deploy the package. Select a server by double-clicking the column to the left of the Deployment Server Name column. A checkmark appears next to each server you select. Click Next.

11. On Build Selection, select the server package build you want to deploy to the destination deployment server.


Package Deployment - [Build Selection]
File Edit Preferences Window Help
Tools
Calendar
Calcula...
Work Center
Internal Mail
External Mail
Internet
Create Shortcut
Send Shortcut
Select Find Close Seq... New... Dis... Abo
Links Displ... OLE ... Internet

This package has been built for the following servers. The ones listed are valid to deploy to the Destination Deployment Server. Select those builds that you wish to deploy.

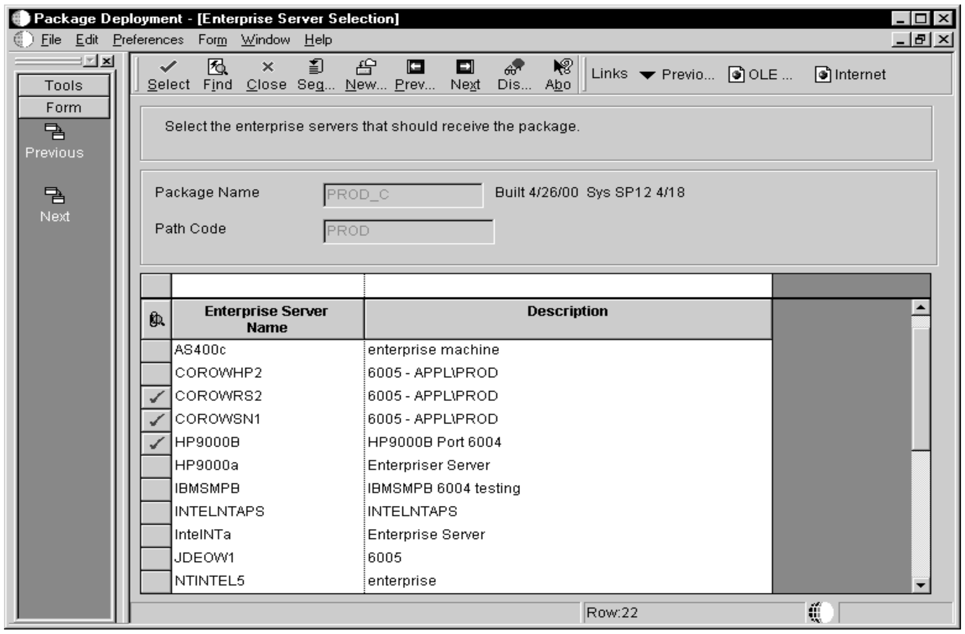
Package Name	PROD_C Built 4/26/00 Sys SP12 4/1
Path Code	PROD
Destination Deployment Server	DEPLOY

	Server Name	Data Source Type	Database Name	OS Version
✓	CLIENT			

Select record Row:1

After you have selected a server package, click Close.

12. Click Next. If you are deploying to an enterprise server, the Enterprise Server Selection form appears. If you are not deploying to an enterprise server, skip to the next step.


Package Deployment - [Enterprise Server Selection]
File Edit Preferences Form Window Help
Select Find Close Seq... New... Prev... Next Dis... Abo
Links Previo... OLE ... Internet
Tools
Form
Previous
Next

Select the enterprise servers that should receive the package.

Package Name PROD_C Built 4/26/00 Sys SP12 4/18
Path Code PROD

	Enterprise Server Name	Description
	AS400c	enterprise machine
	COROWHP2	6005 - APPL\PROD
✓	COROWRS2	6005 - APPL\PROD
✓	COROWSN1	6005 - APPL\PROD
✓	HP9000B	HP9000B Port 6004
	HP9000a	Enterpriser Server
	IBMSMPB	IBMSMPB 6004 testing
	INTELNTAPS	INTELNTAPS
	IntelNTa	Enterprise Server
	JDEOW1	6005
	NTINTEL5	enterprise

Row:22

Find and choose the enterprise server to which you want to deploy the package. Choose a server by double-clicking in the column to the left of the Enterprise Server Name column, then click Next.

13. On Work with Package Deployment, review your deployment selections. To change any of your selections, click Prev to return to the appropriate previous form.

Package Deployment - [Work With Package Deployment]
File Edit Preferences Form Row Window Help
Find Add Del... Close Seq... New... Prev... Next End Di
Links Row OLE ... Internet
Tools
Form
Row
Active/I...
Propert...
Deploy

Package Name PROD_C
Path Code PROD

Packages
Deployment Groups
Locations
Machines

Deployment
PROD_C (Not Approved)

Row:1

14. When you are finished viewing or changing your deployment selections, click End.
15. If you are deploying a server package, you must find and choose the server package on the Work with Package Deployment form, and then choose Deploy from the Row menu. For more information about this step, see *Scheduling a Server Package for Push Installation*.

After you schedule your package for deployment, at the specified time on the date you specified, the package will be deployed to workstations. This package will be made available when the user signs onto OneWorld.

If you are using Push Installation, the package will be automatically installed at the time you specify through the Scheduler application. For more information, see *Using Push Installation*.

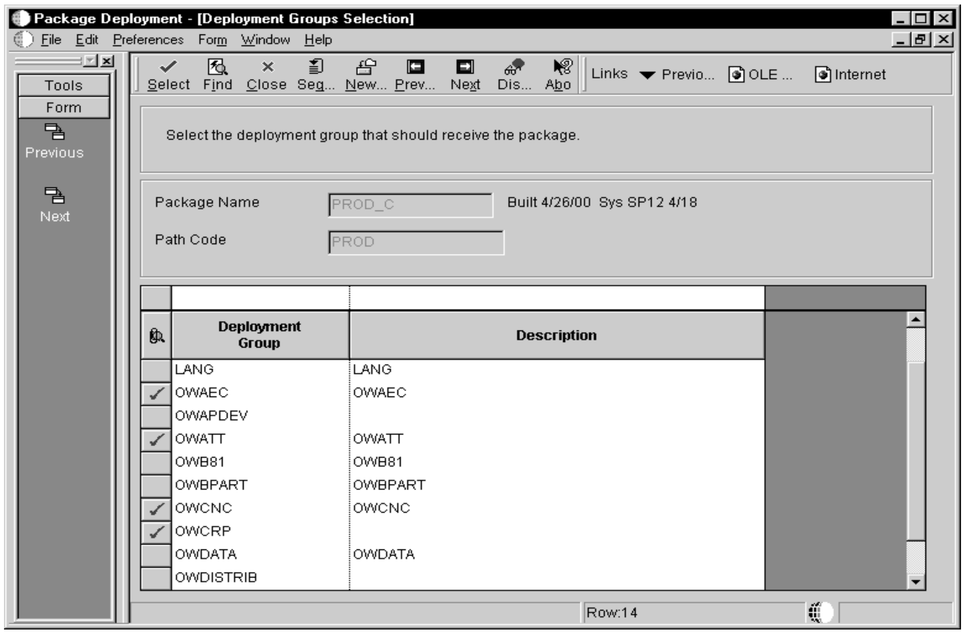
▶ To schedule a package for deployment to a deployment group or location

From the Package and Deployment Tools menu (GH9083), choose Package Deployment (P9631).

1. On Work with Package Deployment, click Add to launch the Package Deployment Director.
2. On Package Deployment Director, click Next.
3. On Package Selections, choose the package you want to deploy.
4. Click Next.
5. On Package Deployment Targets, choose either Deployment Group or Locations.
6. Click Next.
7. On Package Deployment Attributes, complete the following fields:
   - Mandatory Package
   - Enable Push Installation
   - Effective Date
   - Object Deployment Time

   Click the Enable Push Installation option if you want to deploy the package using push installation, which “pushes” the package to workstations from the deployment server. For more information about push installation, see *Using Push Installation* in this guide.

8. Click Next. If you are deploying to a location, skip this step.


Package Deployment - [Deployment Groups Selection]
File Edit Preferences Form Window Help
Tools
Form
Previous
Next
Select Find Close Seq... New... Prev... Next Dis... Abo
Links Previo... OLE ... Internet

Select the deployment group that should receive the package.

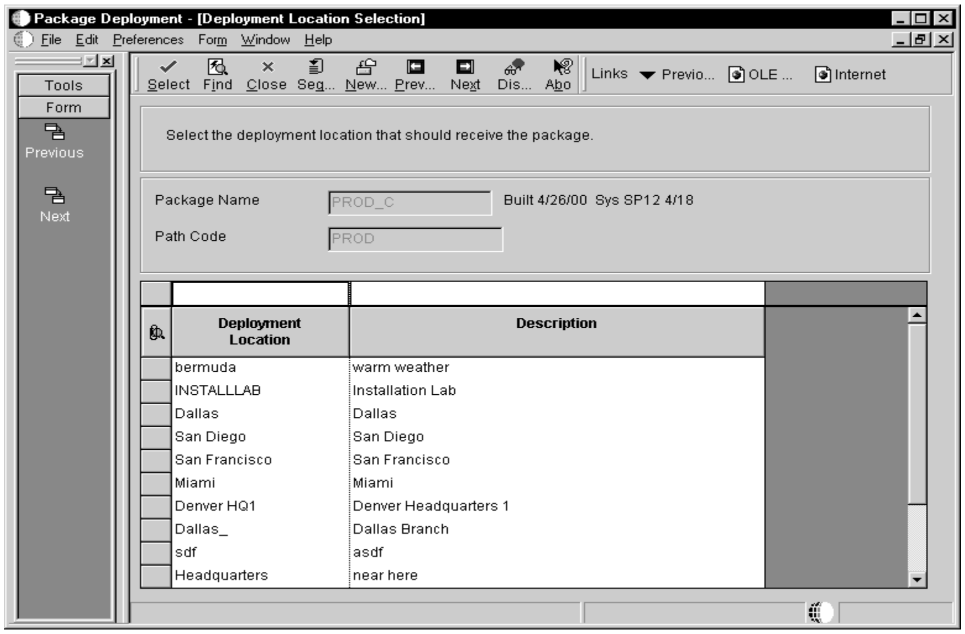
Package Name	PROD_C	Built 4/26/00 Sys SP12 4/18
Path Code	PROD	

	Deployment Group	Description
	LANG	LANG
✓	OWAEC	OWAEC
	OWAPDEV	
✓	OWATT	OWATT
	OWB81	OWB81
	OWBPART	OWBPART
✓	OWCNC	OWCNC
✓	OWCRP	
	OWDATA	OWDATA
	OWDISTRIB	

Row:14

If you are deploying to a deployment group, the Deployment Groups Selection form appears. Find and choose the deployment group you want to receive the package. Choose a group by double-clicking in the column to the left of the Deployment Group column. Skip the next step, which applies only to location deployment. Click Next.

9. If you are deploying to a location, the Deployment Location Selection form appears.


Package Deployment - [Deployment Location Selection]
File Edit Preferences Form Window Help
Tools
Form
Previous
Next
Select Find Close Seq... New... Prev... Next Dis... Abo
Links Previo... OLE ... Internet

Select the deployment location that should receive the package.

Package Name	PROD_C	Built 4/26/00 Sys SP12 4/18
Path Code	PROD	

	Deployment Location	Description
	bermuda	warm weather
	INSTALLLAB	Installation Lab
	Dallas	Dallas
	San Diego	San Diego
	San Francisco	San Francisco
	Miami	Miami
	Denver HQ1	Denver Headquarters 1
	Dallas_	Dallas Branch
	sdf	asdf
	Headquarters	near here

Find and choose the deployment location you want to receive the package. Choose a location by double-clicking in the column to the left of the Deployment Location column.

10. Click Next.

    On Work with Package Deployment, review your deployment selections. To change any of your selections, click Prev to return to the appropriate previous form.

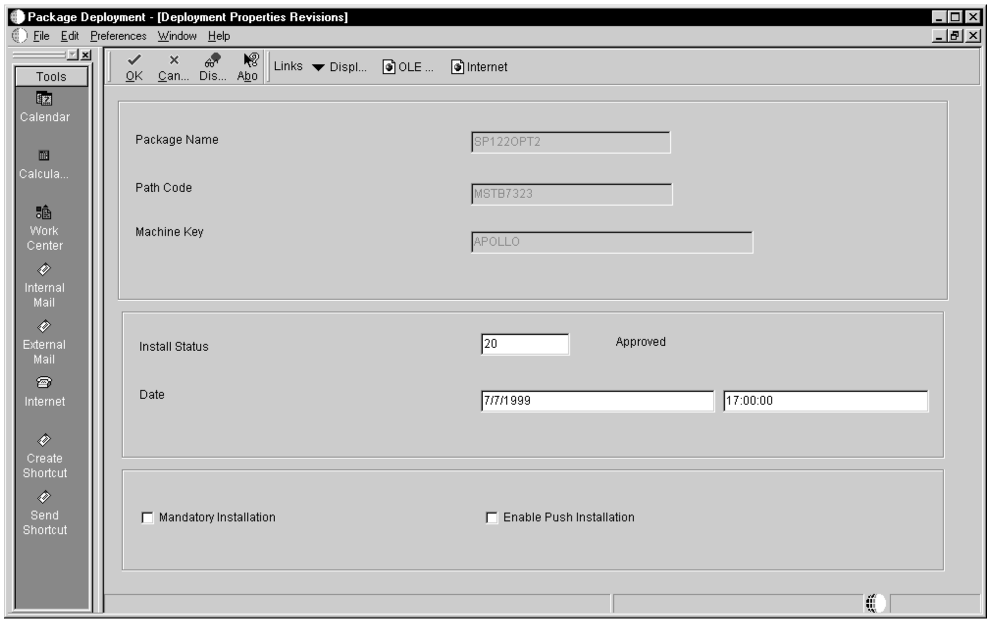
11. When you are finished viewing or changing your deployment selections, click End.
12. If you are deploying a server package, you must find and choose the server package on the Work with Package Deployment form, and then choose Deploy from the Row menu. For more information about this step, see *Scheduling a Server Package for Deployment.*

After you schedule your package for deployment, at the specified time on the date you specified, the package will be deployed to workstations. This package will be made available when the user signs onto OneWorld.

If you are using Push Installation, the package will be automatically installed at the time you specify through the Scheduler application. For more information, see *Using Push Installation*.

▶ To revise deployment options

1. From the Package and Deployment Tools menu (GH9083), choose Package Deployment (P9631). The Work with Package Deployment form appears.
2. Choose Machines and click Find to display information according to machine name.
3. Find and choose the deployed package whose options you want to modify, and then choose Properties from the Row menu. The Deployment Properties Revisions form appears.



Package Name SP122OPT2

Path Code MSTB7323

Machine Key APOLLO

Install Status 20 Approved

Date 7/7/1999 17:00:00

☐ Mandatory Installation ☐ Enable Push Installation

4. Revise any of the following fields:
   - Install Status
   - Date
   - Mandatory Installation
   - Enable Push Installation
5. When you are finished making revisions, click OK to return to the Work with Package Deployment form.

Field	**Explanation**
Package Name	A package describes where on the server to find the components you want to deploy to workstations. There are three package types: Full: Contains the full suite of OneWorld applications (all specifications). Partial: A minimum configuration of OneWorld. This package type allows users to load the desired applications at run-time rather than initially installing all applications. Update: OneWorld objects contained in this type of package are loaded after the workstation receives the package and the user signs on to OneWorld. If the update package includes objects without the corresponding specifications, old versions of the application are deleted from the workstation and replaced by the current version the next time the user accesses that application. Update packages are always deployed on the date and time specified by the OneWorld administrator.

Field	Explanation
Path Code	The path code is a pointer to a set of OneWorld objects, and is used to keep track of sets of objects and their locations within OneWorld. For OneWorld, a Path Code is a pointer to a specific set of objects. A Path Code is used to locate: • Central objects - The central location where objects are deployed from. Objects such as specifications are stored in a relational database, other objects such as DLLs and sources are stored on a file server. Both types make up a Path Code. • Replicated objects - A copy or replicated set of the central objects must reside on each client and server that run OneWorld. The Path Code indicated in the directory that these objects are located in.
Mandatory Installation	Indicates whether the package is mandatory or optional. Valid choices are: Y The deployment is mandatory. The user must install the package. N The deployment is optional to the user.
Enable Push Installation	A 1 in the field allows the package to be installed through Push Installation.
Date/Time	Date to deploy updated objects to the listed machine.

Activating the Scheduled Package

After a package deployment is successfully defined, you must activate the package so it is available for installation using the Workstation Installation program. If you do not activate the package, it will not be included in the list of available packages when users launch the Workstation Installation program.

There may also be situations where you need to control which packages are available for installation. If, for example, you have a package that is for the testing group only, you would want to make that package inactive so it is not available for installation through the Workstation Installation program. This package could then be scheduled for deployment to the members of the testing group through Package Deployment.

The following task describes how to activate or inactivate a built package.

▶ To activate a package

From the Package and Deployment Tools menu (GH9083), choose Package Deployment (P9631). The Work with Package Deployment form appears.

1. On Work with Package Deployment, click the Packages button at the upper right of the form, and then click Find.
2. Choose from the list the packages you want to activate or inactivate. Alternatively, you can enter the package name at the Package field.
3. Choose Active/Inactive from the Row menu.

Installing a Scheduled Package

When users receive a package, they will be given the opportunity to install the package when they sign onto OneWorld on or after the scheduled deployment date.

If the package is mandatory, users will be unable to access OneWorld until they load the package.

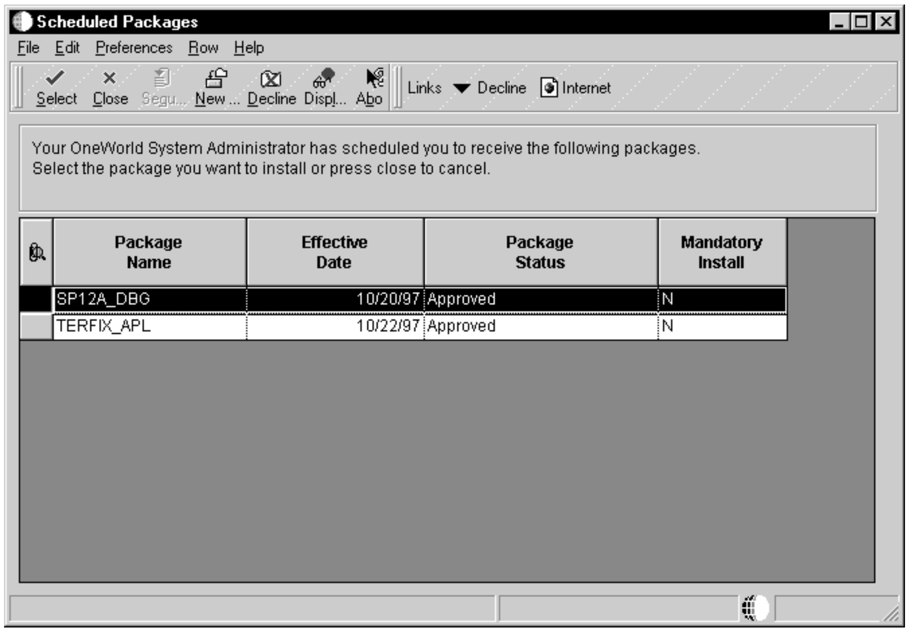
If the package is optional, users can decline the package or decide whether to load the package now or later. If they decide to load later, OneWorld Explorer launches, and they will be given the opportunity to install the package the next time they sign on.

If a package scheduled for push installation fails to load for some reason (such as if the scheduled user neglected to leave the workstation switched on during the time the package was scheduled to deploy), that package will be included in the list of available packages when the user signs onto OneWorld.

▶ To install a scheduled package

1. Sign on to OneWorld the same way you normally do.

   When you are scheduled to receive a package, the Just-In-Time Installation program launches and the Scheduled Packages form.


Scheduled Packages
File Edit Preferences Row Help
Select Close Sequ... New ... Decline Displ... Abo
Links Decline Internet

Your OneWorld System Administrator has scheduled you to receive the following packages.
Select the package you want to install or press close to cancel.

Package Name	Effective Date	Package Status	Mandatory Install
SP12A_DBG	10/20/97	Approved	N
TERFIX_APL	10/22/97	Approved	N

2. Select one of the following options:
   - To load the package immediately, skip to the next step.
   - If you never want to load the package, click Decline from the row menu.
   - To list all items in the package, click Package Detail from the row menu.
   - To load the package at another time, click Close. If the package is mandatory, you will be unable to access OneWorld Explorer until you load the package.
3. To load the package, choose one or more packages you want to install and click Select.

   The Workstation Installation program loads the package. If you selected more than one package, the program installs them sequentially. When the installation is complete, OneWorld Explorer starts.

Deploying Server Packages

The process for deploying a server package is nearly identical to deploying a package to a workstation. In both cases you need to assemble, define, build, and schedule the package for deployment by using the Package Assembly, Package Build, and Package Deployment applications.

After you schedule a server package for deployment, you will need to perform an additional step to launch the batch application that enables you to deploy to servers. You must perform this task whenever you deploy a package to an enterprise server or deployment server. This task is described in *Scheduling a Server Package for Deployment*.

Caution: Deploy server packages only when necessary, because the enterprise server is not available to process business applications and batch processes during the installation process. The enterprise server does not actually shut down during package installation. Instead, OneWorld queues any jobs submitted to the enterprise server and runs them as soon as the installation finishes. For this reason, J.D. Edwards recommends that you schedule enterprise server packages to be deployed after hours to minimize impact on users. (Before you deploy a package to an enterprise server, make sure that the OneWorld services will be up and running during the deployment.)

To further minimize impact on the network and users, if your development environment is on the same enterprise server as your production environment, consider not allowing developers to move their own objects through server packages. Instead, require that an administrator perform this function.

Server packages are deployed by choosing the Deploy function from the Work with Package Deployment form's Row menu. This is the same function used to deploy packages to deployment servers during multitier deployment.

OneWorld determines which batch applications to call based on what is currently selected on the Work with Package Deployment form when you choose the Deploy function from the Row menu:

- If a specific deployment server is selected, choosing Deploy launches the Multitier Deployment batch application (R98825C).
- If the Deployment Server folder is selected, choosing Deploy launches the Multitier Deployment batch application for every deployment server that has a package scheduled.
- If a specific enterprise server is selected, choosing Deploy launches the Enterprise Server Deployment batch application (R98825D).

- If the Enterprise Server folder is selected, choosing Deploy launches the Enterprise Server Deployment batch application for every enterprise server that has a package scheduled.
- If a specific workstation or the Workstations folder is selected, the Deploy option is unavailable.
- If a specific package is selected, choosing Deploy launches the Multitier Deployment batch application, and then the Enterprise Server Deployment batch application for the selected package.
- If you sort by packages and the Deployment folder selected, choosing Deploy launches both the Multitier Deployment batch application and Enterprise Server Deployment batch applications for all packages.

When a batch application launches for all servers or all packages, deployment does not occur unless the package has been previously scheduled for a specific server.

See Also

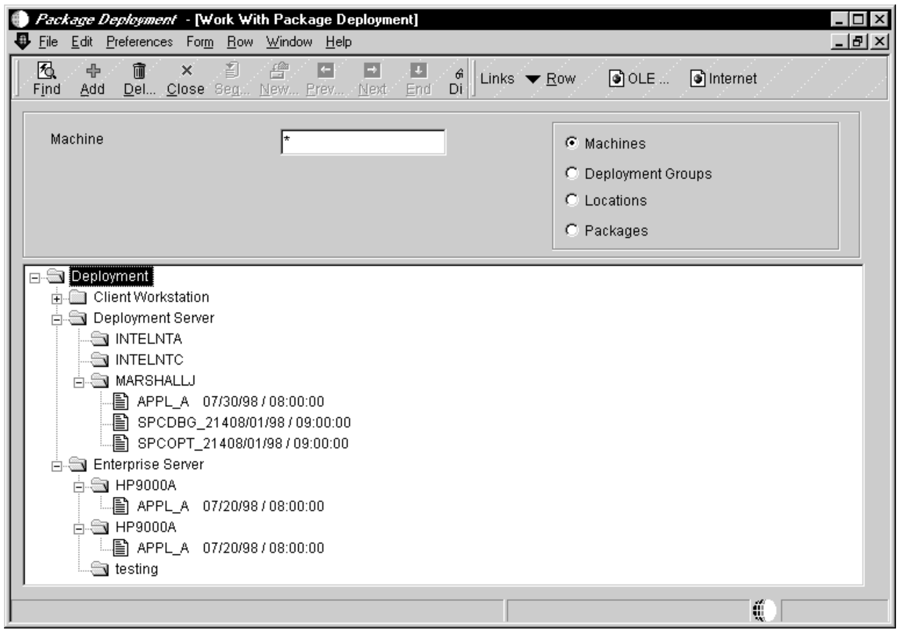
- *Assembling Packages*
- *Defining Package Builds*
- *Deploying Packages*

Before You Begin

- ❑ Assemble the server package
- ❑ Define the server package
- ❑ Build the server package
- ❑ Schedule the package for deployment to the appropriate server

▶ To deploy a server package

From the Package and Deployment Tools menu (GH9083), choose Package Deployment (P9631).

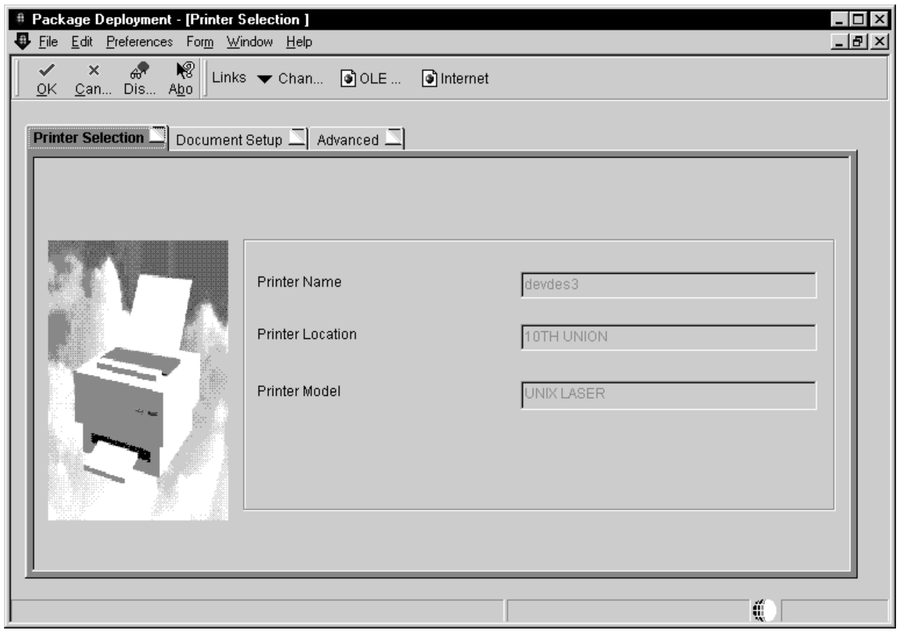

Package Deployment - [Work With Package Deployment]
File Edit Preferences Form Row Window Help
Find Add Del... Close Seq... New... Prev... Next End Di
Links Row OLE ... Internet
Machines
Deployment Groups
Locations
Packages

Machine: *

[✓ Machines]

- Deployment
  - Client Workstation
  - Deployment Server
    - INTELNTA
    - INTELNTC
    - MARSHALLJ
      - APPL_A 07/30/98 / 08:00:00
      - SPCDBG_21408/01/98 / 09:00:00
      - SPCOPT_21408/01/98 / 09:00:00
  - Enterprise Server
    - HP9000A
      - APPL_A 07/20/98 / 08:00:00
    - HP9000A
      - APPL_A 07/20/98 / 08:00:00
    - testing

1. On Work with Package Deployment, find and choose the server package you want to deploy. Alternatively, choose the enterprise server (or the Enterprise Servers folder if the package is scheduled to more than one server).
2. Choose Deploy from the Row menu.


Package Deployment - [Printer Selection]
File Edit Preferences Form Window Help
OK Can... Dis... Abo
Links Chan... OLE ... Internet
Printer Selection
Document Setup
Advanced

Printer Name: devdes3

Printer Location: 10TH UNION

Printer Model: UNIX LASER

3. On Printer Selection, complete the following field:
   - Printer Name
   - Printer Location

- Printer Model

4. Click OK to continue.

Using Push Installation

Push installation is the only deployment method that provides automatic and unattended package deployment. This means the OneWorld system administrator can deploy a package (or several packages) to a workstation or group without requiring any action from workstation users.

For example, an administrator might schedule a package to a particular group for deployment after hours. When members of that group report to work the following morning, that package will be available for immediate use.

Push installation is particularly useful in situations where you need to quickly deploy packages with a minimum of intrusion or impact upon your normal production and development routines. By planning and scheduling package deployment judiciously, administrators can also minimize the impact upon network performance that can accompany large numbers of package deployments. Administrators can also use push installation to install OneWorld on a workstation for the first time. This ability can greatly minimize downtime and provide maximum deployment flexibility.

This chapter contains the following topics:

- ❑ Understanding push installation
- ❑ Preparing the enterprise server for push installation
- ❑ Preparing workstations for push installation
- ❑ Scheduling a package for push installation
- ❑ Scheduling the push installation batch application
- ❑ Running the Push Package Installation Results report

Understanding Push Installation

Push installation is so named because package contents are pushed from the deployment server to the workstation. In contrast to push installation, the Workstation Installation program pulls package contents from the deployment server to the workstation. Installations set up to use Package Deployment for scheduled packages that are not “push enabled” also pull packages.

In terms of deployment, the end result is the same regardless of whether package contents are pushed or pulled. However, the advantage of a push installation is that no action is required from the workstation user other than to leave the workstation switched on during the time when the package is scheduled to deploy.

For a partial package or an update package that contains application specifications, the term *package contents* refers to specifications. For a full package or an update package that does not contain application specifications, *package contents* refers to objects.

The following list summarizes the steps in the push installation process:

1. Install a push installation "Listener" application on each workstation that will receive pushed packages. This Listener monitors the progress of the Push Installation batch application (R98825) running on the server and performs functions such as monitoring installation status. The Listener can run as either a local service or a network service.
2. Schedule the package using Package Deployment (P9631). The Push Installation batch application reads the scheduling table and sends a message to the Listener on all workstations for which a package has been scheduled.
3. Use the Scheduler application (P91300) to launch the batch application on the enterprise server. This application enables you to specify the job name, version, start date and time, and recurrence.
4. At the specified start time, the Scheduler launches the Push Installation batch application, which initiates the package installation process from the deployment server. The Listener and the batch application interact during the process until installation is complete. Codes are passed from the Listener to the batch application to indicate the installation status (for example, failed, successful, in progress, and so on).
5. When the installation is finished, OneWorld sends an e-mail message to the workstation's primary user. This message informs the user whether the installation was successful. E-mail notification works only if the package recipient is listed in the F9650 table and has an e-mail address in the profile.
6. If the push installation fails for some reason (for example, if the package recipient neglected to leave the workstation powered on), the installation status will change to Failed. If you want to reschedule the installation you must first delete the row with the failed job, and then schedule the job again.

If the push installation is not successful, when the user signs on to OneWorld the standard scheduling screen appears. At this point the user can either accept the mandatory package or exit OneWorld.

Preparing the Enterprise Server for Push Installation

In order to set up your server for push installation, you must first install and configure the Microsoft Domain Name Service (DNS) that is included with Microsoft Windows NT Server 4.0. If you don't already have a domain name service set up, you can install Microsoft DNS by selecting the Network icon in the Control Panel, selecting the Services tab, and then adding Microsoft DNS Server.

After you have added Microsoft DNS, you will need to configure the DNS by specifying your domain name and servers.

UNIX and AS/400 Considerations

In an environment configured for Dynamic Host Configuration Protocol (DHCP), a server that is not running Windows NT Server 4.0 cannot resolve workstation addresses because the Windows NT server dynamically assigns them.

In order to enable name resolution you need to configure your servers to resolve their IP address lookup through a Windows NT DNS server, which must in turn be configured to look at the WINS database when DHCP is enabled in the network domain.

Configuring your servers in this way ensures that the following process flow occurs during the push installation process:

1. From the host server on which the Push Installation batch application runs, a business function attempts to retrieve the machine host address by looking at the DNS server.
2. Because the DNS server does not contain IP addresses, it looks to the WINS server for the address.
3. The WINS server returns the address to the DNS server.
4. The DNS server returns the address to the host server.
5. The host server finds the Listener on the client workstation and sends workstation installation information.
6. The workstation installation process starts.

Preparing Workstations for Push Installation

Before you can push an installation to a workstation, you must install a "Listener" on the workstation, which interacts with the batch application running on the server. You must install this Listener on all workstations that you want to be enabled for push installation, regardless of whether you want to deploy packages to a machine that already has OneWorld installed or if you are installing OneWorld for the first time.

The Listener runs continuously on the Windows NT workstation as a service (and on a Windows 95 machine as a pseudo-service) and can be monitored by administrators using the Task Manager. The Listener communicates with the batch application on the server, receiving and sending messages during the installation process. The Listener also monitors the progress of the installation and saves the installation completion code.

For more information, see the following topics:

- Installing the Listener
- Installing the Listener using Silent Installation
- Stopping the Listener
- Uninstalling the Listener
- Changing default parameter settings

Installing the Listener

When you install the Listener on your enterprise's workstations, you specify whether to run a local service or a network service. If you run the service locally on the workstation, the user must be logged on to receive a package that has been scheduled for push installation. If you run the service on the network, the Listener runs as a network account and the user does not have to be logged on to receive a package through push installation. The network service must have an administrator's user ID.

The disadvantage of running the service on the network is that it can be difficult to administer for all users on the enterprise. For example, because the Listener's parameters would apply to every user on the network, push installation users would be required to install OneWorld to and from the same locations. For example, one user could not have OneWorld Xe on drive C and another user have the same release on drive D. Also, every time users change their signon password the system administrator would have to update the Listener service with the new passwords in order for the service to work for those users. For these reasons, J.D. Edwards recommends installing the Listener locally on each workstation.

Whether you run the Listener as a local service or network service, the workstation must be switched on to receive a scheduled package.

There are four main ways to install the Listener on a workstation:

- Using a third-party software distribution system such as the Tivoli Management Environment (TME10) Software Distribution System or the Microsoft System Management Server (SMS) software
- Distributing an executable installation program (a setup.exe file) and the accompanying ancillary files via an intranet Web site or the Worldwide Web

- Using Windows NT logon scripts (a .bat file) to call a C program
- Installing from the Worldwide Web

Caution: If the Listener is not installed and running on the workstation (or if the workstation is switched off) the push installation cannot occur. After you schedule a package, be sure to remind package recipients to leave their workstations on and the Listener service running, even during off-hours. If you set up the Listener to run as a local service, also remind users to remain logged on.

Before You Begin

Before you install the Listener on the workstation, J.D. Edwards recommends that you do the following:

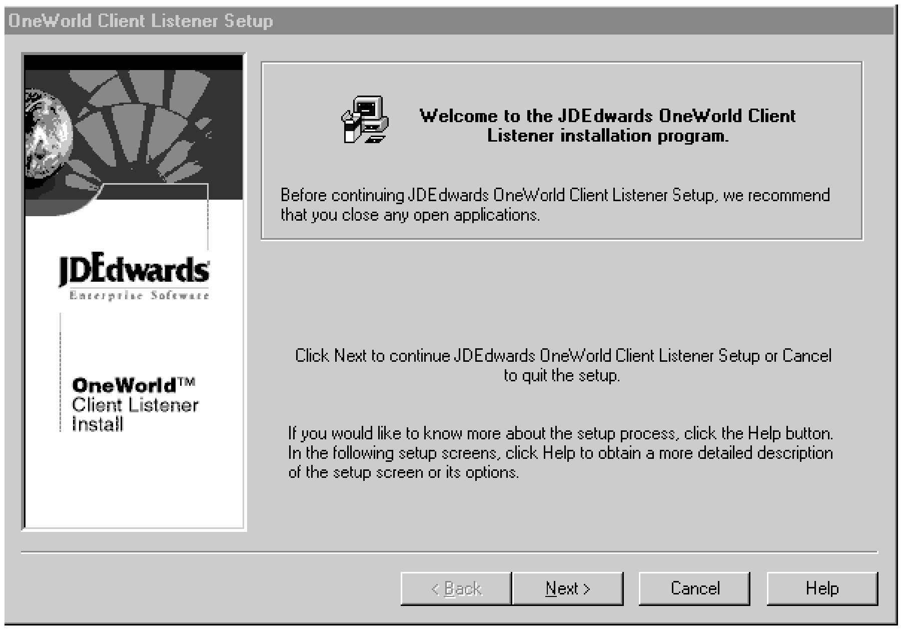
- ❑ Close any applications currently open.
- ❑ Verify that the destination directory where you will be installing the Listener has sufficient disk space. You will need approximately 2MB of free disk space to install all of the Listener files and components.

▶ To install the Listener on workstations

The following task describes how to install the Listener by launching an installation program (that is, a "setup.exe" program). You can distribute this program to users on your enterprise by sending them either the program or a shortcut using e-mail, or by pointing them to the program location on your server.

If you have a previous version of the Listener already installed, the installation program removes the previous version before copying the new version to your workstation.

1. Launch the installation program by double-clicking on the setup.exe icon.


OneWorld Client Listener Setup
JDEdwards
Enterprise Software
OneWorld™ Client Listener Install
< Back
Next >
Cancel
Help

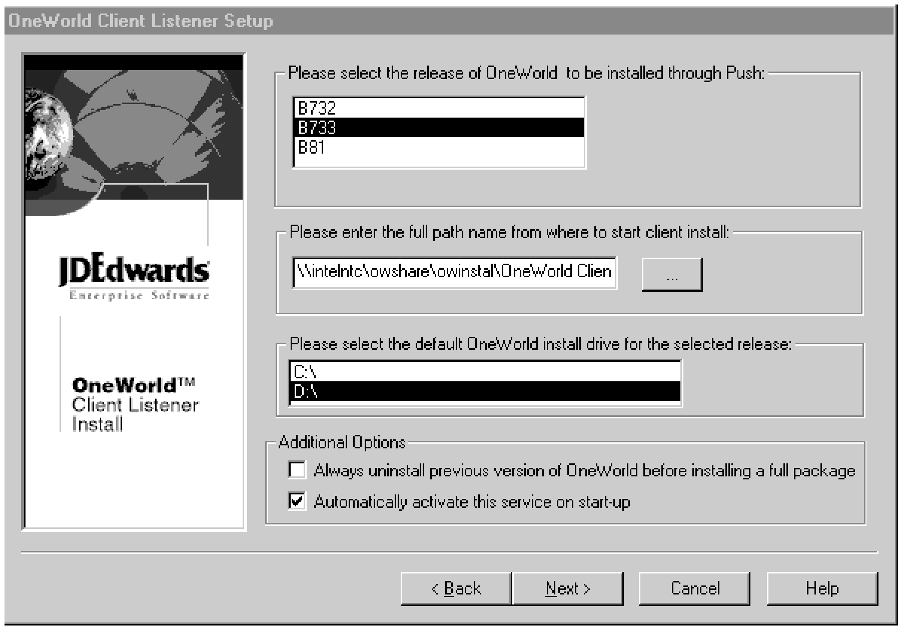
Welcome to the JDEdwards OneWorld Client Listener installation program.

Before continuing JDEdwards OneWorld Client Listener Setup, we recommend that you close any open applications.

Click Next to continue JDEdwards OneWorld Client Listener Setup or Cancel to quit the setup.

If you would like to know more about the setup process, click the Help button. In the following setup screens, click Help to obtain a more detailed description of the setup screen or its options.

2. On the Welcome form, click Next.


OneWorld Client Listener Setup
JDEdwards
Enterprise Software
OneWorld™ Client Listener Install
...
< Back
Next >
Cancel
Help

Please select the release of OneWorld to be installed through Push:
- B732
- B733 (selected)
- B81

Please enter the full path name from where to start client install: \\intelntc\owshare\owinstal\OneWorld Clien

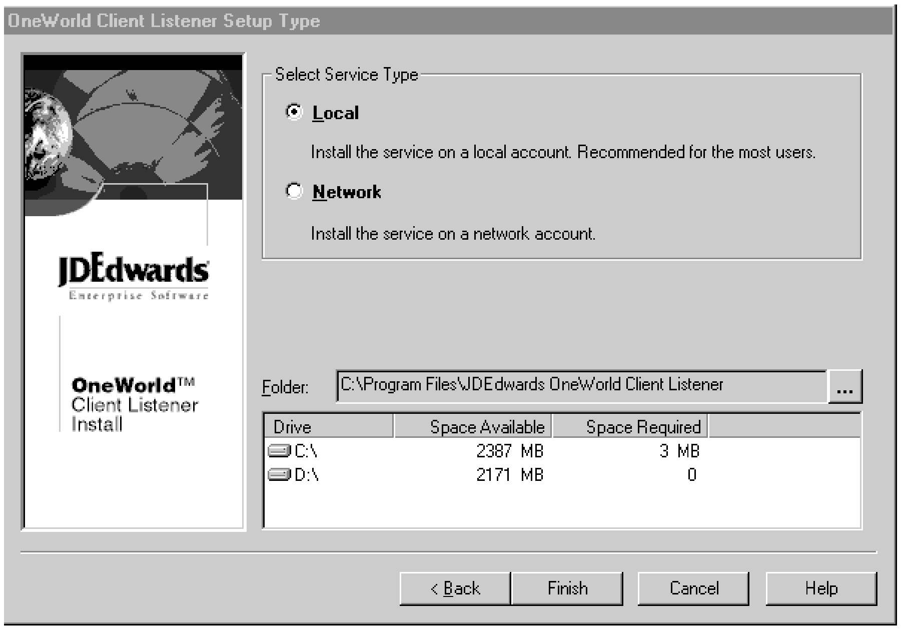
Please select the default OneWorld install drive for the selected release:
- C:\
- D:\ (selected)

Additional Options
- [ ] Always uninstall previous version of OneWorld before installing a full package
- [✓] Automatically activate this service on start-up

3. Complete the following fields:
   - OneWorld release. Choose the OneWorld release you want to install through push installation
   - Path name. For the OneWorld release you selected, enter the full path name on the deployment server from which to initiate the OneWorld installation

- OneWorld installation drive. Specify the drive where you want to install the specified release of OneWorld
- Uninstall previous releases. Turn on the uninstall OneWorld option to uninstall existing versions of OneWorld before installing a new full package
- Start the Listener automatically on startup. Turn on the autostart option to automatically start the Listener service whenever your workstation starts up

4. Click Next to proceed to the next installation form.



Select Service Type

(●) Local

Install the service on a local account. Recommended for the most users.

( ) Network

Install the service on a network account.

Folder: C:\Program Files\JDEdwards OneWorld Client Listener

Drive	Space Available	Space Required
C:\	2387 MB	3 MB
D:\	2171 MB	0

5. Complete the following fields:
   - Local or Network. Unless your system administrator tells you to install the Listener on the network, click Local to install the Listener on your local workstation.
   - Folder. Specify the destination drive and folder in which the Listener files will reside.
6. Click Finish to complete the installation.

After you have successfully installed the Listener on the workstation, a small "ear" icon appears on the Windows taskbar, indicating that the Listener has been loaded. By right-clicking this icon, you can start or stop the Listener, or change the default parameter settings as explained in *Changing Default Parameter Settings*.

Installing the Listener Using Silent Installation

In some cases it might be more convenient to install the Listener on workstations via silent installation. Using this method, the OneWorld administrator enters configuration settings for all workstations and distributes a batch file that automatically initiates the Listener installation the next time the user signs on to the workstation.

The advantage of using silent installation to install the Listener is that the process is transparent to workstation users, and each user is not required to enter configuration information or step through the installation process.

The following task describes how to install the Listener via silent installation. This task would typically be performed by the OneWorld administrator.

▶ Installing the Listener using silent installation

1. Edit the following settings in the listen_silent_setup.inf file that came on the software CD:

   - **ServiceType**

     Enter Local or Network, depending on where you want to run the Listener service.

   - **WorkstationDirPath**

     Enter the location on the workstation where you want to install the Listener program and related files. For example, C:\Program Files\OneWorld Client Listener.

   - **Release**

     Enter the OneWorld base release. For example, B733. Do not enter a cumulative update release, such as B733.1.

   - **InstallPath**

     Enter the location on the workstation where OneWorld is installed. For example, D:\b7.

   - **LaunchPath**

     Enter the deployment server name and the location from which the Client Workstation Installation program runs. For example, *server name*\b733\OneWorld Client Install\setup.exe.

   - **AutoStart**

Enter 1 to automatically start the Listener service when the workstation starts up. Enter 0 if you don't want Autostart enabled.

- **UninstallPackage**

  Enter 1 if you want to automatically uninstall previous versions of OneWorld before installing a new full package. Enter 0 if you don't want automatic uninstall enabled.

2. Create or modify a batch file to include the silent installation parameter "/s" (without quotation marks) for the ListenSetup.exe program. The batch file must reside in the same location as the ListenSetup.exe program.

   For example, your batch file might contain the following line:

```
start \\servername\b733\client\misc\ListenSetup.exe /s listen_silent_setup.inf
```

3. Distribute the inf file and the batch file to workstation users. You can distribute these files or place them on a network server where workstation users can copy the files to their workstation.
4. Instruct users to restart their workstation to run the batch file and load the Listener via silent installation.

After workstation users have successfully installed the Listener, the Listener icon displays on the Windows taskbar. Users can click this icon to start and stop the Listener or change Listener settings as described in *Changing Default Parameter Settings*.

Caution: You cannot change the name of the Listener silent installation file shipped with OneWorld. The filename must be listen_silent_setup.inf.

Stopping the Listener

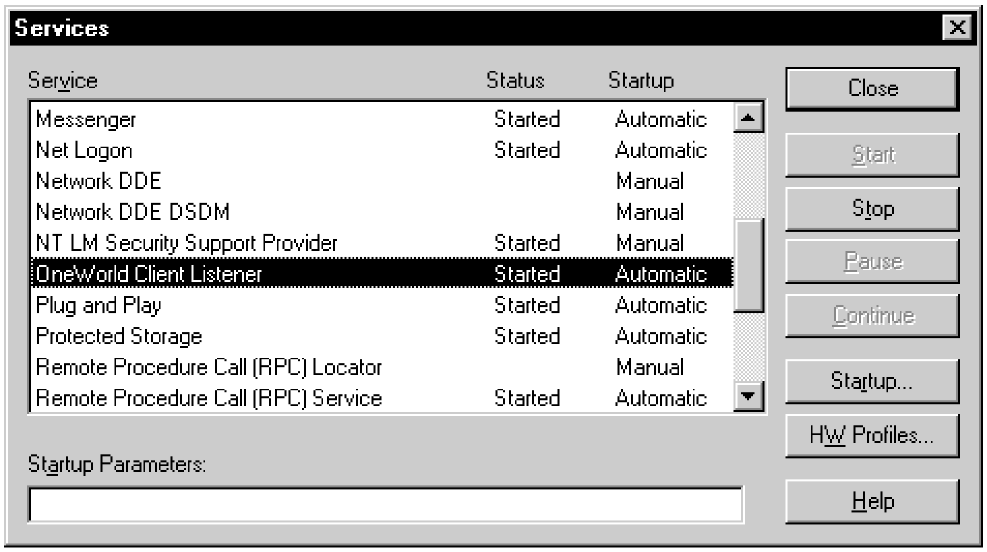
The only reason you would need to stop the Listener is if you are certain you do not want to use push installation to install OneWorld packages. If you change your mind later, you can always start the Listener again.

▶ To stop the Listener

The easiest way to stop the Listener is to right-click the Listener icon on the Windows taskbar and choose Stop Listener.

Alternatively, you can stop the Listener by following these steps:

1. Open the Control Panel.
2. Choose Services.



Service	Status	Startup
Messenger	Started	Automatic
Net Logon	Started	Automatic
Network DDE		Manual
Network DDE DSDM		Manual
NT LM Security Support Provider	Started	Manual
OneWorld Client Listener	Started	Automatic
Plug and Play	Started	Automatic
Protected Storage	Started	Automatic
Remote Procedure Call (RPC) Locator		Manual
Remote Procedure Call (RPC) Service	Started	Automatic

3. Choose OneWorld Client Listener.
4. Click Stop.

Uninstalling the Listener

▶ To uninstall the Listener

1. Open the Control Panel.
2. Choose Add/Remove Programs.
3. Choose OneWorld Client Listener.
4. Click Remove All Components.

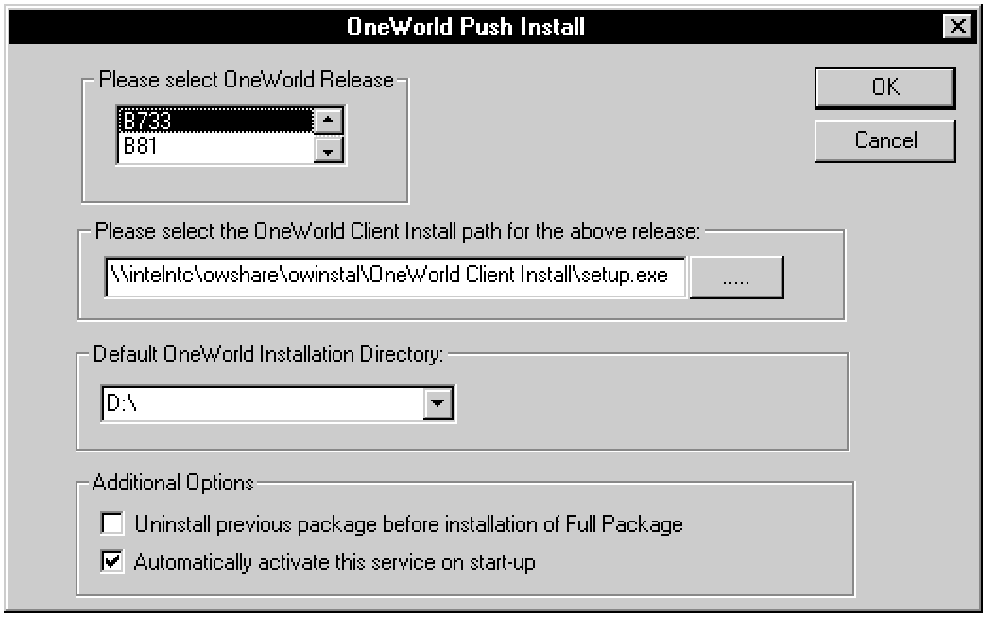
Changing Default Parameter Settings

The Listener's "ear" icon that appears at the far right side of the Windows taskbar enables you to change the default parameter settings you entered when you initially installed the Listener. You can specify the following:

- The OneWorld release and client installation path for that release
- The default OneWorld installation directory
- Whether to uninstall the previous package before installing a new full package

▶ To change default parameter settings

1. Right-click the Listener icon on the the Windows taskbar.
2. In the popup window, choose Change Default Parameters. The OneWorld Push Install form appears.


OneWorld Push Install

Please select OneWorld Release: B733, B81

Please select the OneWorld Client Install path for the above release: \\intelntc\owshare\owinstal\OneWorld Client Install\setup.exe

Default OneWorld Installation Directory: D:\

Additional Options
- [ ] Uninstall previous package before installation of Full Package
- [✓] Automatically activate this service on start-up

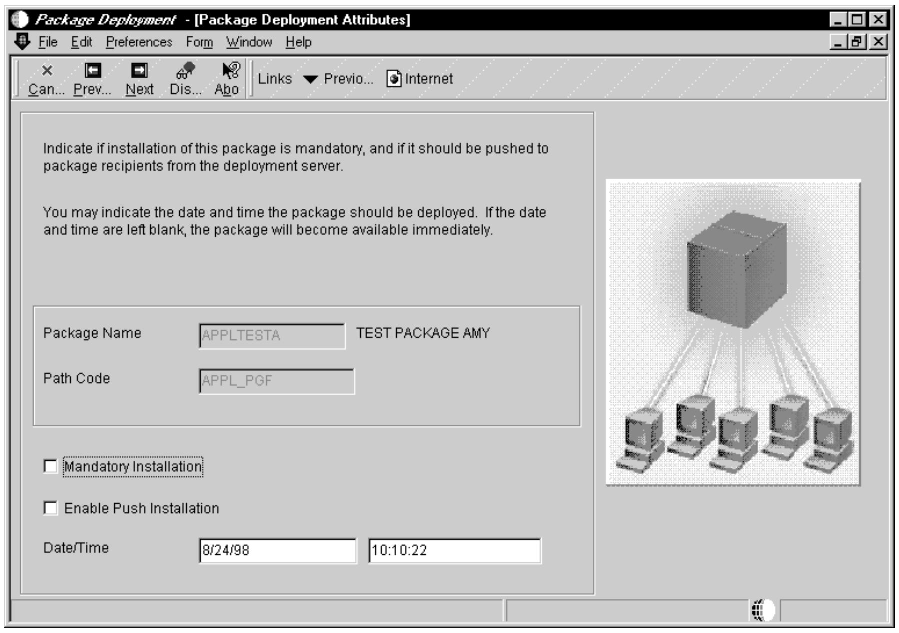
3. Complete the following fields:
   - OneWorld release. Choose the OneWorld release you want to install through push installation
   - Path name. For the OneWorld release you selected, enter the full path name on the deployment server from which to initiate the OneWorld installation. If necessary, click on the button to the right of the field to browse for available paths.
   - OneWorld installation directory. Specify the drive where you want to install the specified release of OneWorld.
   - Uninstall previous releases. Indicate whether you want to uninstall previous packages before installing a full package. When you turn on this option, OneWorld completely uninstalls the existing package before installing a new full package.
   - Automatically activate this service on start-up. Turn on this option if you want the Listener service to automatically start when the user signs on to the workstation.
4. Click OK when you are finished making changes.

Scheduling a Package for Push Installation

After you have installed the Listener on your workstations, you can schedule a package for deployment.

The process for scheduling a package for push installation is identical to scheduling a package using the Package Deployment application. When you schedule the package through this application, make sure to turn on the Enable Push Installation option on the Package Deployment Attributes form. If you do not turn on this option, the package will be deployed through normal scheduled deployment.

When you use the Scheduler application, you can set recurrence, which determines how frequently the job runs until it completes successfully. If you do not set recurrence, the job runs only one time. In the case of Push Installation, recurrence determines the interval of time between installation attempts. Once the package has been successfully deployed, the job does not keep running.


Package Deployment - [Package Deployment Attributes]
File Edit Preferences Form Window Help
Can... Prev... Next Dis... Abo
Links Previo... Internet

Indicate if installation of this package is mandatory, and if it should be pushed to package recipients from the deployment server.

You may indicate the date and time the package should be deployed. If the date and time are left blank, the package will become available immediately.

Package Name APPLTESTA TEST PACKAGE AMY

Path Code APPL_PGF

☐ Mandatory Installation

☐ Enable Push Installation

Date/Time 8/24/98 10:10:22

As with scheduling any other package for deployment, all machine names (that is, package recipients) must be defined in the Machine Master (F9650) table. This table is populated when users sign on to OneWorld. Alternatively, you can enter machine names manually via the Machine Identification application (P9654A). For more information about defining machine names and scheduling packages for deployment, see *Deployment*.

Scheduling the Push Installation Batch Application

After you have installed the Listener on all affected workstations and have scheduled the package through the Package Deployment application, you must use the Scheduler application to run the Push Installation batch application (R98825) on the server.

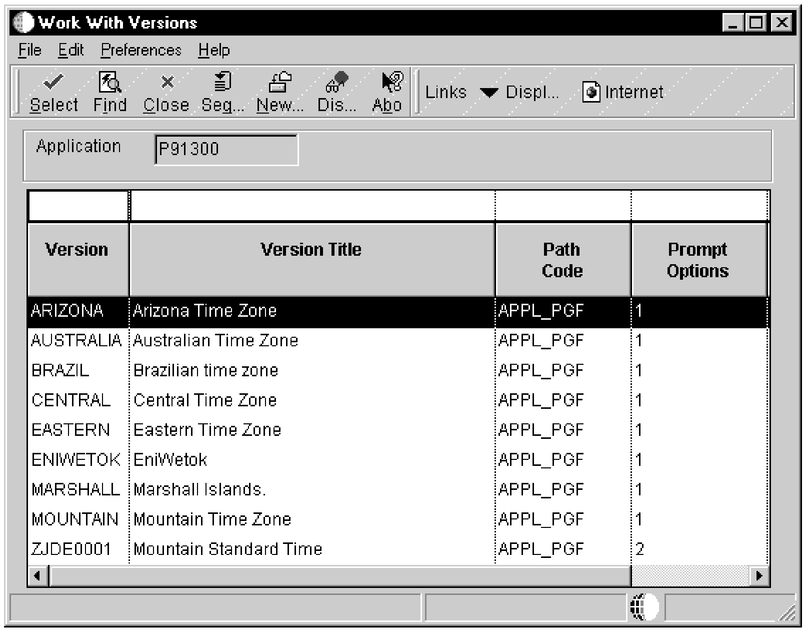
Before You Begin

Before you run the batch application, make sure you have done the following:

- ❑ Remind package recipients to leave their workstation running, even after hours.
- ❑ Remind users who are using a local service that they must be signed on.
- ❑ Remind package recipients to verify that the Listener is running.

▶ To schedule the Push Installation batch application

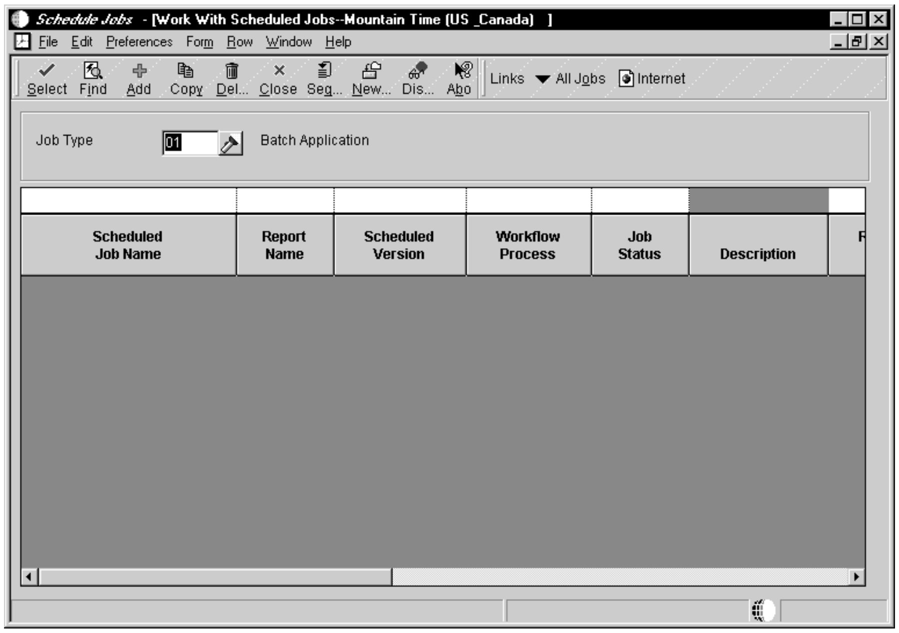
From the Job Scheduler menu (GH9015), choose Schedule Jobs (P91300).


Work With Versions
File Edit Preferences Help
Select Find Close Seg... New... Dis... Abo
Links Displ... Internet

Application P91300

Version	Version Title	Path Code	Prompt Options
ARIZONA	Arizona Time Zone	APPL_PGF	1
AUSTRALIA	Australian Time Zone	APPL_PGF	1
BRAZIL	Brazilian time zone	APPL_PGF	1
CENTRAL	Central Time Zone	APPL_PGF	1
EASTERN	Eastern Time Zone	APPL_PGF	1
ENIWETOK	EniWetok	APPL_PGF	1
MARSHALL	Marshall Islands.	APPL_PGF	1
MOUNTAIN	Mountain Time Zone	APPL_PGF	1
ZJDE0001	Mountain Standard Time	APPL_PGF	2

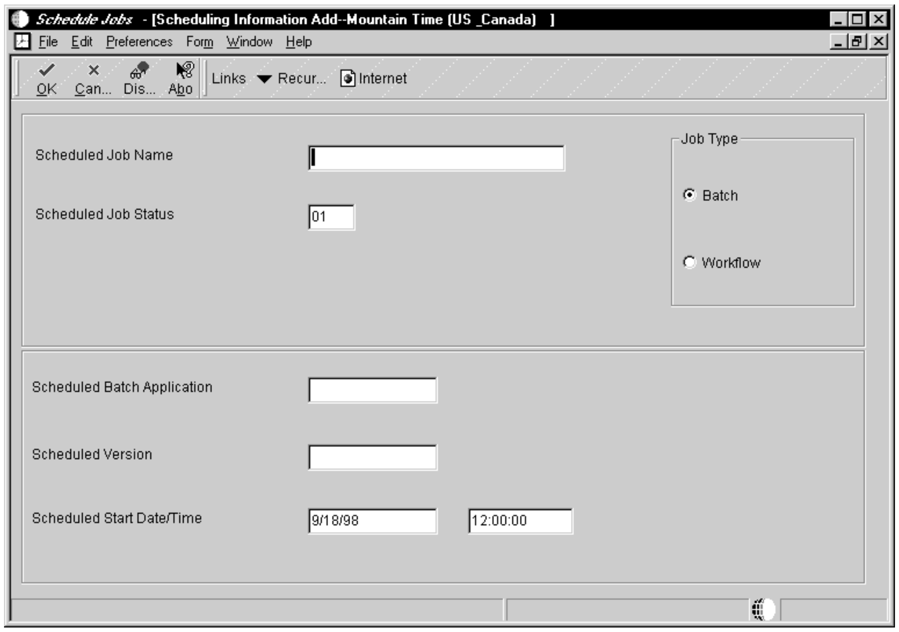
1. On Work with Versions form, choose the time zone that applies to your setup.


Schedule Jobs - [Work With Scheduled Jobs--Mountain Time (US _Canada)]
File Edit Preferences Form Row Window Help
Select Find Add Copy Del... Close Seq... New... Dis... Abo
Links All Jobs Internet

Job Type 01 Batch Application

Scheduled Job Name	Report Name	Scheduled Version	Workflow Process	Job Status	Description

2. On Work with Scheduled Jobs, click Add to enter a new job.


Schedule Jobs - [Scheduling Information Add--Mountain Time (US _Canada)]
File Edit Preferences Form Window Help
OK Can... Dis... Abo
Links Recur... Internet

Scheduled Job Name

Scheduled Job Status 01

Job Type: [✓ Batch] Workflow

Scheduled Batch Application

Scheduled Version

Scheduled Start Date/Time 9/18/98 12:00:00

3. On Scheduling Information, click Batch as the job type and complete the following fields:
   - Scheduled Job Name
   - Scheduled Job Status
   - Scheduled Batch Application

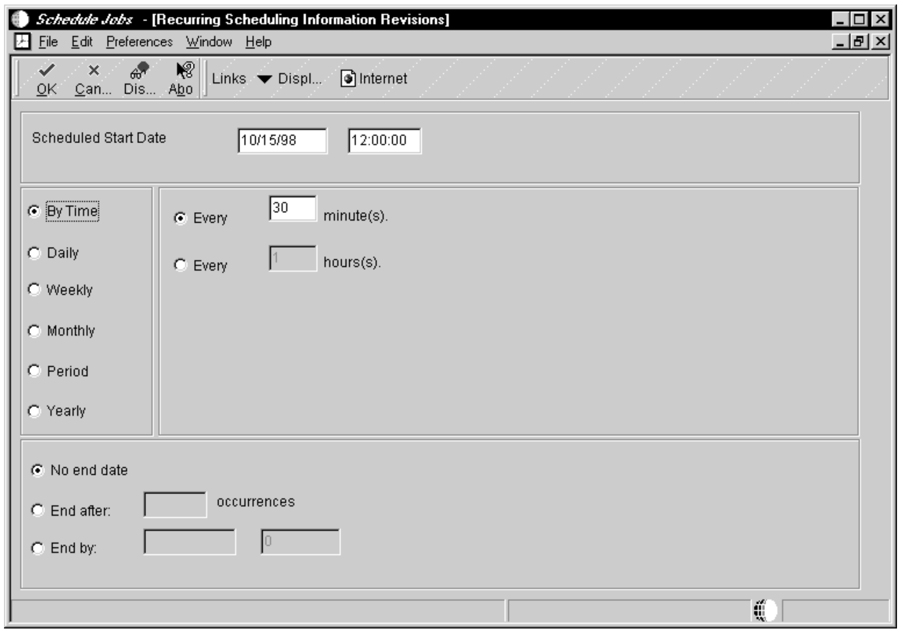
     Type R98825 into this field

- Scheduled Version

  (for example, XJDE0001)

- Scheduled Start Date/Time

4. To set the job recurrence (that is, to specify how frequently the job runs) choose Recurrence from the Form menu.


Schedule Jobs - [Recurring Scheduling Information Revisions]
File Edit Preferences Window Help
OK Can... Dis... Abo Links Displ... Internet

Scheduled Start Date 10/15/98 12:00:00

[✓ By Time] Daily Weekly Monthly Period Yearly

[✓ Every] 30 minute(s).

Every 1 hours(s).

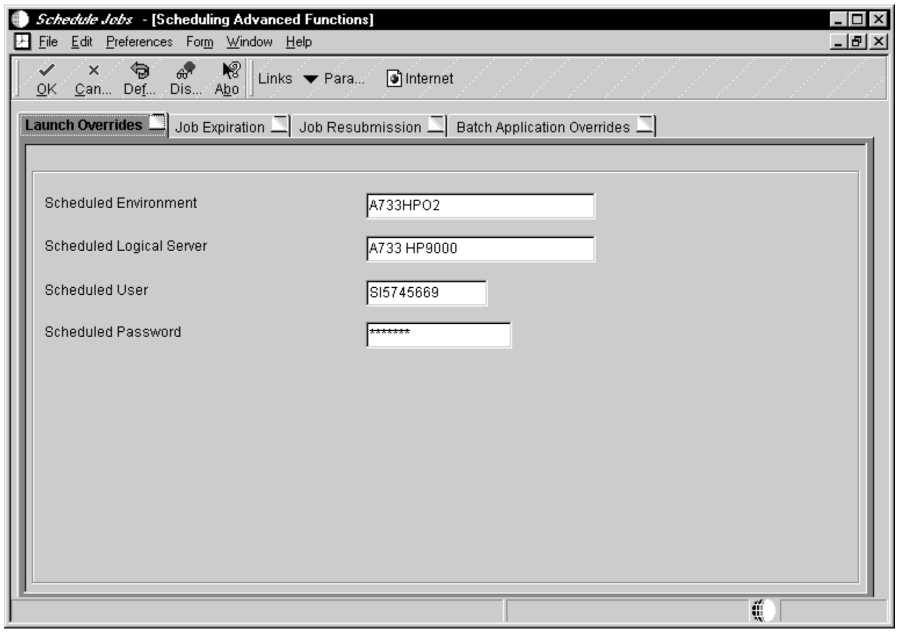
[✓ No end date]

End after: occurrences

End by: 0

If you do not specify a recurrence by completing the fields on this form, the job runs only one time. J.D. Edwards recommends that you set recurrence for the Push Installation batch application to run every 30 minutes.

5. On Recurring Scheduling Information Revisions, click OK.
6. On Scheduling Information, to enter any overrides, resubmission, or expiration options, choose Advanced Functions from the Form menu.


Schedule Jobs - [Scheduling Advanced Functions]
File Edit Preferences Form Window Help
OK Can... Def... Dis... Abo
Links Para... Internet
Launch Overrides
Job Expiration
Job Resubmission
Batch Application Overrides

Scheduled Environment	A733HPO2
Scheduled Logical Server	A733 HP9000
Scheduled User	SI5745669
Scheduled Password	*******

7. On Scheduling Advanced Functions, click the tab corresponding to the information you want to enter or revise:
   - Launch Overrides
   - Job Expiration
   - Job Resubmission
   - Batch Application Overrides

   For more information about using the Scheduler application, see *Scheduling Jobs* in the *System Administration Guide*.

8. Click OK.

After scheduling the job you may want to use Object Configuration Manager (P986110) to verify that the server on which the Push Installation batch application is running points to the same Package Scheduling (F98825) and Machine Master (F9650) tables that the Package Deployment application uses.

Field	**Explanation**
Scheduled Job Name	A name that uniquely identifies to the system and the user a scheduled job. Use this name to indicate the job function, such as Monthly Close or Nightly Back Up.

Field	Explanation
Scheduled Job Status	The current status of the scheduled job. As long as the status is active, the Scheduler determines if the job should be submitted to the server for execution. When the scheduled end date for the job has been reached, the status changes to Not Active. To stop the Scheduler from considering the job for submission, you can change the status to Not Active (or suspended) at any time prior to the end date. You can reactivate the job if you want the scheduler to include the job again, but you can reactivate a job only if the end date is in the future.
Scheduled Batch Application	The object name of the report that the Scheduler submits to the server.
Scheduled Version	The version of the report scheduled to run. A version identifies a specific set of data selections and sequencing settings the batch job uses.
Scheduled Start Date/Time	The next date on which the Scheduler submits the scheduled job to the server for execution.

Running the Push Package Installation Results Report

The Package and Deployment Tools menu contains a report called Push Package Installation Results (R98825B). This report shows the push installation results. This report essentially provides the same information you get when you run the Push Installation batch application (R98825).

The report includes the following information:

- Machine key
- Package name and path code
- User class or group
- Package status and status description
- Install status
- Package installation description
- Mandatory install (yes or no)

You can run this report by choosing Push Package Installation Results (R98825B) from the Package and Deployment Tools menu (GH9083).

Push Installation Status Codes

The following lists the status codes and descriptions used by the Push Installation application. Codes marked with an asterisk indicate conditions in which the Push Installation application will continue attempting installation the next time the Push Installation batch application runs.

Status Code	**Description**
200*	Scheduled
210*	In Progress
220	Successful Install
230	Install Failed
240*	Install Running
250*	OneWorld Running
260*	Listener Not Started/Installed
270	General Error
280	Already Installed
290	Invalid Package
300	Install Attempted
310	Machine Down

Installing OneWorld Workstations from CD

If your system includes a CD writer (also known as a CD burner) you can build and deploy packages to the CD writer location. After copying the package to a CD, you can then use the CD as a “portable” deployment tier from which to perform workstation installations. That is, you can run from the CD the setup.exe program that launches the OneWorld Workstation Installation program.

This chapter outlines the steps necessary to set up your enterprise so you can deploy packages to the CD writer and install OneWorld from a CD.

There are three main tasks involved in setting up installation from CD:

- ❑ Defining the CD writer location
- ❑ Deploying a package to the CD writer location
- ❑ Creating the OneWorld installation CD

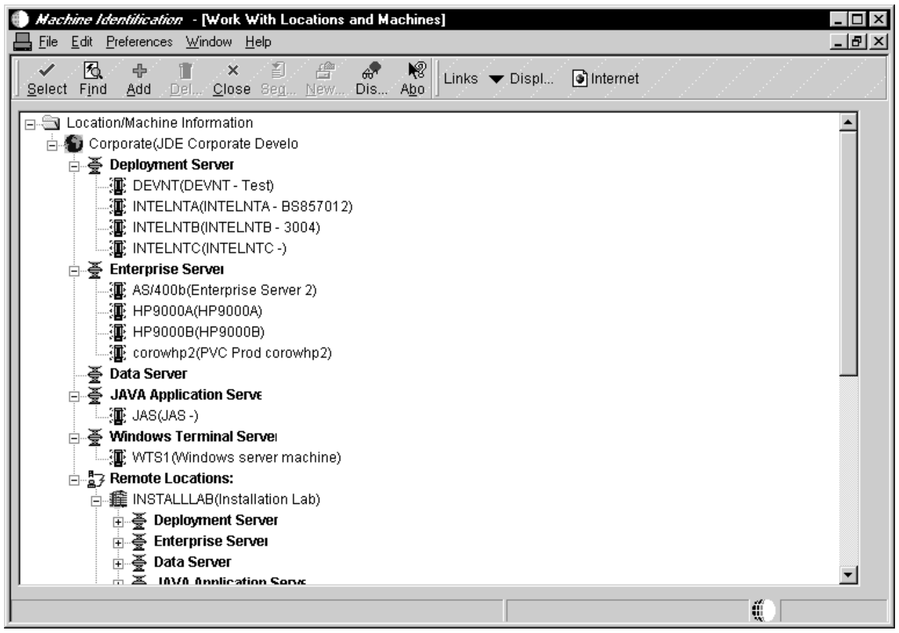
Defining the CD Writer Location

The first step in the process of configuring your system for deployment from CD is to define the CD writer location, if it is not already defined. In this step you are essentially creating a pseudo deployment server from which you will later copy package data onto the CD by using your CD writer’s software.

The process for defining this location is identical to defining any other new deployment server. For more information about adding a new server definition, see *Defining Machines*.

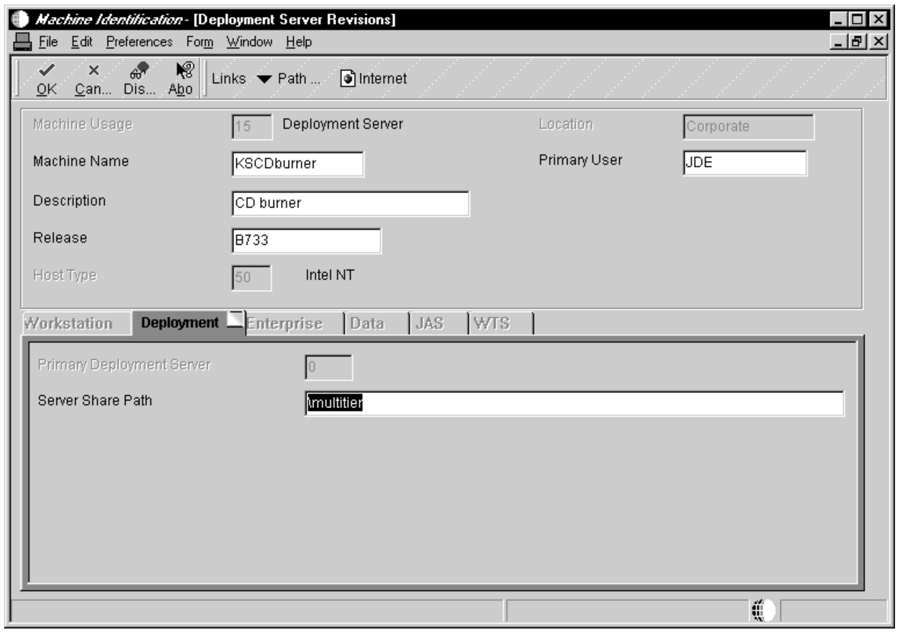
▶ To define the CD writer location

1. From the Package and Deployment Tools menu (GH9083), choose Machine Identification (P9654A). The Work With Locations and Machines form appears.


Machine Identification - [Work With Locations and Machines]
File Edit Preferences Window Help
Select Find Add Del... Close Seq... New... Dis... Abo Links Displ... Internet

```
Location/Machine Information
  Corporate(JDE Corporate Develo
    Deployment Server
      DEVNT(DEVNT - Test)
      INTELNTA(INTELNTA - BS857012)
      INTELNTB(INTELNTB - 3004)
      INTELNTC(INTELNTC -)
    Enterprise Server
      AS/400b(Enterprise Server 2)
      HP9000A(HP9000A)
      HP9000B(HP9000B)
      corowhp2(PVC Prod corowhp2)
    Data Server
    JAVA Application Serve
      JAS(JAS -)
    Windows Terminal Server
      WTS1(Windows server machine)
    Remote Locations:
      INSTALLLAB(Installation Lab)
        Deployment Server
        Enterprise Server
        Data Server
```

2. Underneath the appropriate location, choose Deployment server.
3. Click Add to add a new machine. The Deployment Server Revisions form appears.


Machine Identification - [Deployment Server Revisions]
File Edit Preferences Form Window Help
OK Can... Dis... Abo Links Path ... Internet
Workstation Deployment Enterprise Data JAS WTS

Machine Usage	15 Deployment Server
Location	Corporate
Machine Name	KSCDburner
Primary User	JDE
Description	CD burner
Release	B733
Host Type	50 Intel NT
Primary Deployment Server	0
Server Share Path	\multitier

4. On the Deployment Server Revisions form, complete the following fields:
   - Machine Name
   - Description
   - Release

- Primary User
- Server Share Path

5. If you want to specify a location for data, a foundation, or help files, do so by choosing Data, Foundation, or Helps from the Form menu. If you do not specify a location for data, foundation or helps, the default locations will be used.
6. Click OK to return to the Work with Locations and Machines form.
7. Click Close to exit from the Work with Locations and Machines form.
8. In Windows Explorer, locate the folder named OneWorld Client Install. Copy this folder by dragging the folder to the CD writer location. (The location is the server share path you entered on the Deployment Server Revisions form.)

Field	**Explanation**
Machine Name	For World, the Location indicates the machine (server or client). For OneWorld, the Location or Machine Key indicates the name of the machine on the network (server or workstation).
Release	For World, the release number as defined in the Software Versions Repository. For OneWorld, the release number as defined in the Release Master.
Primary User	The primary user for the listed machine.
Server Share Path	For World, the Server Share Path Field is used by the environment to determine the location of the current server. For OneWorld, this field indicates the shared directory for this Path Code. The objects that are stored on a file server will be found in this path.

Deploying a Package to the CD Writer Location

After you have defined the CD writer as a deployment server, you are ready to deploy a package to the CD writer location you specified. This task involves two procedures:

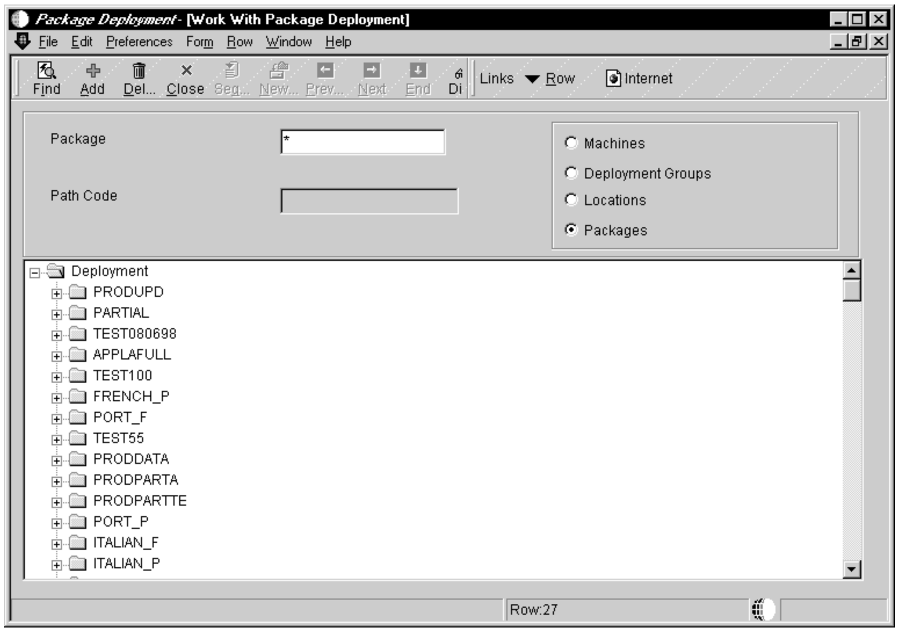
- Deploy to the CD writer location the package you want to write to the CD. For more information about deploying packages, see *Deployment*.
- Modify the Install.inf and Package.inf files in preparation for writing the package contents to the CD.

Before You Begin

❑ Assemble, define, and build the package you want to write to the CD as explained in *Package Build*.

▶ To deploy the package to the CD writer location

1. From the Package and Deployment Tools menu (GH9083), choose Package Deployment Scheduling (P9631). The Work With Package Deployment form appears.


Package Deployment - [Work With Package Deployment]
File Edit Preferences Form Row Window Help
Find Add Del... Close Seq... New... Prev... Next End Di
Links Row Internet

Package *

Path Code

Machines ( ) Deployment Groups ( ) Locations ( ) Packages (•)

Deployment
PRODUPD
PARTIAL
TEST080698
APPLAFULL
TEST100
FRENCH_P
PORT_F
TEST55
PRODDATA
PRODPARTA
PRODPARTTE
PORT_P
ITALIAN_F
ITALIAN_P

Row:27

2. Click Add. The Package Deployment Director launches.
3. Complete the Deployment Director's forms as you would for any other package. For more information about deploying packages, see *Working With the Package Deployment Director*.
4. From the Work with Package Deployment form, find and choose the package you just scheduled for deployment. Choose Deploy from the Row menu to deploy the package.

After you deploy the package to the CD writer location, the directory structure for that location will look similar to the following:

```
Multitier\package_inf\Appl_B.inf
Multitier\systemcomp\system.cab
Multitier\datacomp\data.cab
Multitier\helpscomp\helps.cab
Multitier\Appl_pgf\Package\Appl_B
Multitier\OneWorld Client Install
```

In the previous example, “Multitier” is the name of the server share path. “Appl_B” is the package name.

Note: The server share path name is not included when you copy folders to the CD. Using the previous example, the items copied to the CD would be \package_inf\Appl_B.inf, \systemcomp\system.cab, and so on.

▶ To modify the Install.inf and Package.inf files

1. In Windows Explorer, find the CD writer location and open the folder containing the package you deployed. This folder will have the name you entered at the Server Share Path field on the Deployment Server Revisions form when you defined the CD writer location. (In the previous example, the server share path name was “Multitier.”)
2. Open the folder OneWorld Client Installation, and then open the file Install.inf. That is, double-click the file’s icon to launch the Microsoft Notepad application.
3. Under the section [FileLocations], modify the line so that two periods and a backslash (\) precede the “package_inf” entry. The line should look like the following after modification:

```
[FileLocations]
PackageInfs=..\package_inf
```

4. Similarly, open the Package_inf folder and open the *package name*.inf file. In the previous example, this file would be named Appl_b.inf.
5. Under the section [SrcDirs], modify each of the lines so that two periods and a backslash (\) precede each entry. After modification, the [SrcDirs] section should look similar to the following:

```
[SrcDirs]
SAPPL_PGF=..\APPL_PGF\package\APPL_B
SSYS=..\systemcomp
SAPPL_PGFDATA=..\datacomp
SHELP=..\helpscomp
```

Creating the OneWorld Installation CD

After you have deployed the package to the CD writer location and modified the Install.inf and Package.inf files, you are ready to copy the package contents to the CD. This process is accomplished with the software that came with your CD writer, and typically involves copying the package contents to the CD. Refer to the documentation that came with your CD writer for more information about this process.

You copy the package to the CD by copying the subdirectories beneath the server share path directory. The server share path directory is not created on the CD. (In the previous example, the server share path directory was called "Multitier" and is the same name you entered at the Server Share Path field on the Deployment Server Revisions form.)

When you are finished copying the directories to the CD, the CD should contain the following directories:

- Appl_pgf (contains package information)
- datacomp (contains database cabinet file)
- helpscomp (contains helps cabinet file)
- systemcomp (contains foundation cabinet file)
- package_inf (contains the package.inf file)
- OneWorld Client Install (contains the Workstation Installation program)

Note: Actual names may not be the same as those listed, since there may be differences for each system.

Deploying Partial Package Templates

OneWorld users who use laptop computers may find that a full package requires too much disk space. Also, many of these users never need to use all of the OneWorld applications contained in a full package. To accommodate these users, J.D. Edwards has devised a solution that enables OneWorld administrators to create and deploy a partial package *template* specifically designed for laptop computer users. A partial package template is based on the standard OneWorld partial package, and also contains the objects necessary for laptop computer users to run specific applications.

Because each situation will be unique and the needs of every company different, the actual components put into the partial package template will vary. For example purposes, this chapter describes how to create a partial package template for the Sales Force Automation application.

You create and deploy a partial package template by using the same tools you would use to create any other partial package: the Package Assembly Director, Package Build Definition Director, and Package Deployment Director.

This chapter describes the following tasks:

- ❑ Assembling a partial package template
- ❑ Building a partial package template
- ❑ Deploying a partial package template
- ❑ Testing a partial package template
- ❑ Package build time comparison

Assembling a Partial Package Template

The first step in creating a partial package template is to use the Package Assembly Director to assemble a partial package. The process is identical to assembling any other partial package. When you assemble the package, be sure to add the object components users will need to run the application after they load the partial package template.

For more information about assembling packages, see *Assembling Packages*.

▶ To assemble a partial package template

1. From the Package and Deployment Tools menu (GH9083), choose Package Assembly (P9601). The Work with Packages form appears.
2. Click Add to assemble a new package. The Package Assembly Director launches.
3. From the Welcome screen, click Next. The Package Information form appears.

   Complete the following fields:

   - Package Name
   - Description
   - Path Code
4. Click Next. The Package Type Selection form appears.

   Click the Partial radio button to indicate that you are assembling a partial package.

5. Click Next. The Foundation Component form appears.

   On this form and the following two forms (Help Component and Database Component,) accept the displayed default location by clicking Next, or click Browse to specify another location for the foundation, help file, or database you want to use.

   For more information about entering a foundation, help location, or database location, see *Entering a Foundation Location*, *Entering a Help Location*, and *Entering a Database Location*.

6. Click Next. The Object Component form appears. This form allows you to specify the individual objects you want to include in your package.
7. Click Browse to display the Object Component Selection form. Use this form to locate and select the objects you want to include in your package. These are the components that are necessary for users to run the application for the package template you are creating.

   The objects you specify are in addition to the objects that are automatically included in every partial package. You must include the following objects in your partial package:

   - Interactive and batch applications (APPL and UBE objects)
   - Data structures (DSTR objects)
   - Business views (BSVW objects)

For example, if you are creating a package template for the Sales Force Automation application, you would need to include the following system codes using the APPL (interactive application), DSTR (data structure), and BSVW (business view) object types:

- 00 Foundation Environment
- 01 Address Book
- 17 CSM
- 32 Configuration Management
- 40 Inventory/OP Base
- 41 Inventory Management
- 42 Sales Management
- 45 Advanced Pricing

For more information about adding objects, see *Adding Objects to a Package*.

8. When you are finished adding objects, click Close to return to the Object Component form.
9. Click Next to display the Language Component form. This form allows you to add to your package language specifications for a language other than English.
10. Click Next to display the Package Component Revisions form. This form allows you to see at a glance the current foundation, help, and database locations, as well as the objects in the package and any language selection.

    To change any of these package components, click the icon for the component you want to change. The form for that package component appears.
11. When you are finished assembling the package, click End to exit from the Package Assembly Director.
12. From the Work with Packages form, choose the package you just created. Activate the package by choosing Active/Inactive from the Row menu.

Building a Partial Package Template

After you have assembled the partial package you are ready to define the package build using the Package Build Definition Director. For more information about defining package builds, see *Defining Package Builds*.

▶ To build a partial package template

1. Access the Package Build Definition Director from the Work With Packages form by selecting the partial package you just assembled, and then choosing Build Director from the Row menu. The Package Build Definition Director form appears.

   If the package's definition is still In Definition, before you can build the package you must change the status to Definition Complete. To do so, choose the package and choose Activate from the Row menu.

2. Click Next. The Package Build Location form appears. Since you are building a partial package, you will not be allowed to build the package for a server.
3. Click the Client checkbox to build a package for workstations.
4. Click Next. The Build Specification Options form appears.
5. Check the Build Specification Options checkbox.
6. Click Next. The Business Function Options form appears.

   If a full package has been built recently, it is not necessary to check the Build Functions Options checkbox.

7. Click Next. The Compression Options form appears.

   Check the Compress Options checkbox.

8. Click Next. The Package Build Revisions form appears.

   This form allows you to see at a glance the current build options, business function options, and compression options you have specified for the package. To change any of these options, click the tab for the type of option you want to change.

9. When you are finished reviewing or changing your build options, click End to exit from the Package Build Definition Director. The Work With Package Build Definition form appears.
10. Choose the partial package and choose Active/Inactive from the Row menu.
11. When you are ready to initiate the package build, choose Submit Build from the Row menu.
12. Choose a destination for the build report, and click OK:
    - On Screen
    - To Printer

The form automatically closes and OneWorld begins building the package. Build time varies, depending on the number and size of the items in your package. When the build is finished, the report will either display or print, depending on the destination you specified.

Deploying a Partial Package Template

After you have created the partial package template, you should deploy the package to a workstation and test it before making the package available for all of your laptop users. The procedure for deploying the partial package template is identical to deploying any other package. For more information about deploying packages, see the *Deployment* section in this guide.

▶ To deploy a partial package template

1. From the Package and Deployment Tools menu (GH9083), choose Package Deployment (P9631). The Work with Package Deployment form appears.
2. Click the Packages radio button, and then click Find to locate the partial package template.
3. Select the package you want to deploy, and then choose Active/Inactive from the Row menu to activate the package.
4. Click Add to launch the Package Deployment Director. The Package Deployment Director form appears.
5. Click Next. The Package Selection form appears.
6. Choose the package you want to deploy, and then complete the Package Deployment Director's remaining forms. These forms enable you to do the following:
   - Specify the package you want to deploy
   - Enter attributes such as mandatory installation, Push Installation, and deployment date and time
   - Indicate the workstations that should receive the package

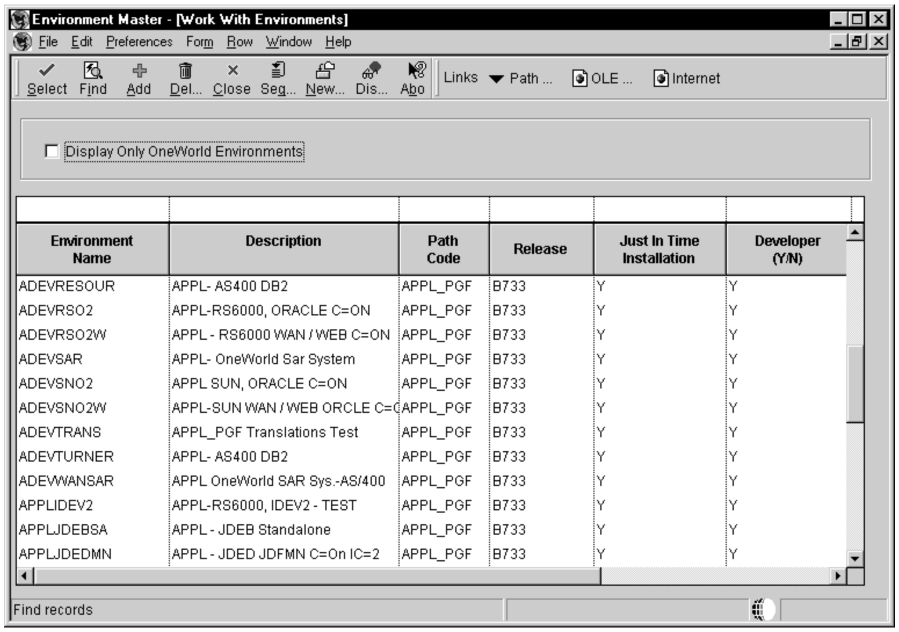
After you schedule your package for deployment, at the specified time on the date you specified, the package will be deployed to workstations. This package will be made available when the user signs onto OneWorld.

Testing a Partial Package Template

After you have installed the partial package template onto a workstation (laptop), you should test it to see if you are able to run the application. You should be able to run the application while disconnected from the network, without having objects installed onto your laptop via just-in-time installation.

▶ To test a partial package template

1. Make sure the laptop is connected to the network.
2. Launch OneWorld and sign on.
3. From the Environments menu (GH9053), choose Environment Master (P0094). The Work With Environments form appears.

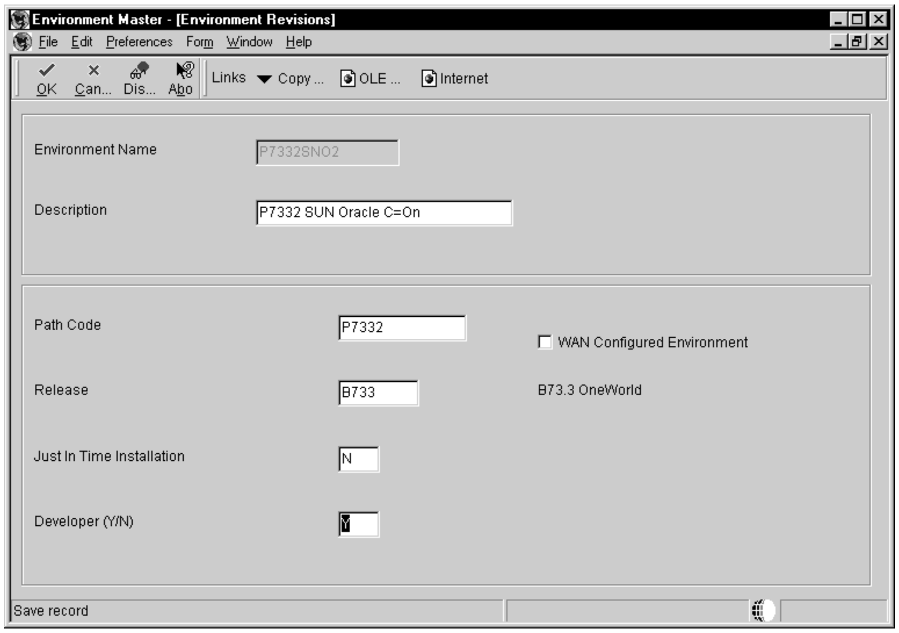

Environment Master - [Work With Environments]
File Edit Preferences Form Row Window Help
Select Find Add Del... Close Seg... New... Dis... Abo
Links Path ... OLE ... Internet

Display Only OneWorld Environments

Environment Name	Description	Path Code	Release	Just In Time Installation	Developer (Y/N)
ADEVRESOUR	APPL- AS400 DB2	APPL_PGF	B733	Y	Y
ADEVRSO2	APPL-RS6000, ORACLE C=ON	APPL_PGF	B733	Y	Y
ADEVRSO2W	APPL - RS6000 WAN / WEB C=ON	APPL_PGF	B733	Y	Y
ADEVSAR	APPL- OneWorld Sar System	APPL_PGF	B733	Y	Y
ADEVSNO2	APPL SUN, ORACLE C=ON	APPL_PGF	B733	Y	Y
ADEVSNO2W	APPL-SUN WAN / WEB ORCLE C=(	APPL_PGF	B733	Y	Y
ADEVTRANS	APPL_PGF Translations Test	APPL_PGF	B733	Y	Y
ADEVTURNER	APPL- AS400 DB2	APPL_PGF	B733	Y	Y
ADEVWANSAR	APPL OneWorld SAR Sys.-AS/400	APPL_PGF	B733	Y	Y
APPLIDEV2	APPL-RS6000, IDEV2 - TEST	APPL_PGF	B733	Y	Y
APPLJDEBSA	APPL - JDEB Standalone	APPL_PGF	B733	Y	Y
APPLJDEDMN	APPL - JDED JDFMN C=On IC=2	APPL_PGF	B733	Y	Y

Find records

4. Find and select the environment you used to create the partial package template. The Environment Revisions form appears.


Environment Master - [Environment Revisions]
File Edit Preferences Form Window Help
OK Can... Dis... Abo
Links Copy ... OLE ... Internet

Environment Name	P7332SNO2
Description	P7332 SUN Oracle C=On
Path Code	P7332
Release	B733
Just In Time Installation	N
Developer (Y/N)	Y

WAN Configured Environment

B73.3 OneWorld

Save record

5. Verify that the Just In Time Installation field is set to N. Setting this field to N switches off just-in-time installation. Just-in-time installation should be switched off when the laptop is not connected to the server.
6. Disconnect the laptop from the network and run the application.

You should be able to run the application while disconnected from the server. If you did not include in the package an object required by the application, you will receive an error message informing you that just-in-time installation has been disabled for the environment you are using.

If you receive this message, you will need to determine the missing objects and build another package before you can use the laptop while disconnected from the server.

Package Build Time Comparison

For comparison purposes, the following table shows package build and compression times for a typical full package, partial package, partial packages with limited numbers of objects, and the Sales Force Automation partial package used as an example in this document.

Package Type	**Package Size**	**Build Time**	**Compression Time**	**Total Build Time**
Full	1.25 GB	8 – 9 hours	NA	8 – 9 hours
Partial	137 MB	25 minutes	13 minutes	38 minutes
Partial with 1447 A/R objects	183 MB	30 minutes	15 minutes	45 minutes
Partial with 1307 A/P objects	190 MB	33 minutes	16 minutes	49 minutes
Partial with 2676 SFA objects	293 MB	58 minutes	20 minutes	78 minutes

Multitier Deployment

OneWorld software is normally distributed to workstations from a centralized location. In many cases you can minimize the performance impact on a single deployment server by using systematic scheduling for software installations. For example, if your site has more than 50 workstations requiring a package installation but you release software only four times a year, you can effectively schedule the installations over a weekend, at night, or during off-peak hours.

While this distribution method is the simplest approach for software deployment, configurations that have either multiple remote sites or large numbers of users at a single site are constrained during the actual installation by network capacity. For example, software installations to workstations connected to the centralized deployment location by a 56KB circuit can take 4 to 6 hours to run.

Multitier deployment provides sites the flexibility of installing packages onto workstations and servers from more than one deployment location and more than one deployment server. These additional deployment locations and servers are referred to as *deployment tiers*. Specifically, instead of installing multiple workstations across a WAN circuit, multitier deployment enables you to transfer a compressed package from the centralized location to the remote workgroup server that acts as a second deployment tier. Hence, multitier deployment simply means deploying from more than one deployment tier.

For example, you might have one deployment server at your main location, and a second deployment server that serves a remote location. Because the server at the remote location is responsible for deploying to workstations and servers at that location, you aren't required to deploy packages from the main deployment server across a WAN as you would in a single-tier deployment configuration.

Workgroup servers can also be used as second tier deployment locations in a LAN environment where large numbers of workstations need to install software concurrently. J.D. Edwards recommends that you consider implementing multitier deployment if your site has more than 50 workstations performing OneWorld software installations per day.

This section describes the following tasks:

- ❑ Understanding multitier deployment
- ❑ Defining deployment servers
- ❑ Scheduling packages for deployment locations
- ❑ Distributing software to deployment locations

- ❑ Installing workstation packages from deployment locations
- ❑ Multitier deployment for server packages
- ❑ Understanding a multitier deployment case study

Understanding Multitier Deployment

The primary function of multitier deployment is to reduce network traffic (and the resultant delays that come with heavy traffic) by enabling enterprises with more than one geographic location to deploy from a secondary deployment server at the remote site. Instead of installing packages across the WAN from the deployment server to workstations at a remote location, you can copy the package and the package.inf file from the deployment server at the primary location to the deployment server at the remote location. This server at the remote location can then deploy the package to the workstations and servers at that location.

There are two main reasons to consider implementing a multitier deployment configuration:

- If too many workstations are installing packages from the same location, the server and network performance will suffer.
- If the workstations are remotely connected to the deployment server over a WAN, the installation time may be unacceptable.

Normally, you will decide to implement multitier deployment during CNC implementation. Although you can enable this function at any time, typically you will set it up after you have already installed OneWorld and are preparing your production sites to go live.

To set up multitier deployment you must define the machines (and their associated path codes) that are used for deployment. In addition, you can use a scheduler function to define when software should be pushed to the tiered deployment location.

You must also define individual user characteristics for multitier deployment. Normally this is done by modifying the user profiles to indicate the deployment location from which a user will pull a package.

Multitier Deployment Features

Multitier deployment offers the following features:

- You can deploy workstations from any number of deployment servers.
- You can easily add deployment locations, and the deployment machine does not need to be a server; it could be a Windows 95 or Windows NT workstation.

- Setup and administration are straightforward tasks.
- You maintain central control over files and data transferred to remote deployment locations.
- You can easily schedule software for deployment to remote sites.
- Multitier deployment is integrated into the Package Deployment Director, so the process for deploying is essentially the same as deploying in a single-tiered setup.

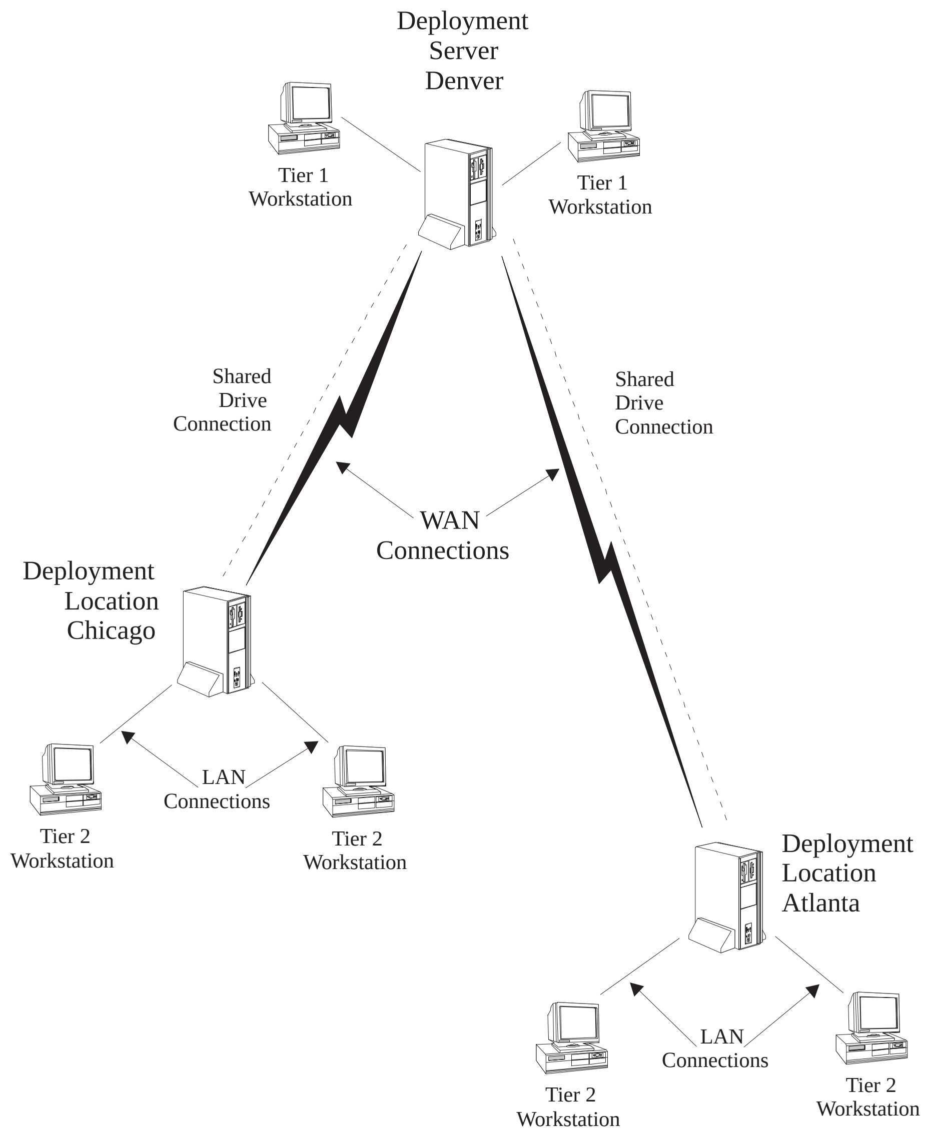
Multitier Deployment Terminology

The following describes multitier deployment terms:

Primary Deployment Location (tier 1)	The primary or base deployment location is where the package to be deployed to secondary or remote locations is built. OneWorld requires at least one deployment server for installing and maintaining the software. The server at the primary deployment location should be dedicated solely to deploying and operating OneWorld and should not be used for any other purposes in your company. See the *OneWorld Installation Guide* for this machine's hardware and software requirements.
Tier Deployment Location (tier 2)	Tier deployment locations (also know as remote or secondary locations) have one or more deployment servers that allow you to install OneWorld software onto the workstations at that location. These servers receive their packages from the deployment server at the primary or base location. Machines at the tier deployment locations will not be able to use Object Librarian functions such as object check-in and check-out. These machines are designed for deployment use only and are not designed to be used for remote development. The number of tiered locations you can have depends on the network and server capacity.
Tier Workstations	Tier workstations are workstations that connect to a tier deployment location for software installation. The number of workstations per deployment location depends on the network and machine load. All tiered workstations must also have a Windows NT domain connection that enables them to connect to, read, and copy files from the shared drives of their respective deployment location. See the *OneWorld Installation Guide* for the hardware and software requirements of these machines.

Example: Two-Tier Deployment Strategy

The following illustrates a typical two-tier deployment strategy:



Multitier Implementation

Packages are always built on the deployment server at the primary location. Once you have built the package that you want to deploy to remote locations, you must follow these steps to implement multitier deployment.

1. Define deployment locations

You must define each physical location to which you want to deploy. For example, if your main office is in Denver and you want to deploy to your branch office in Seattle, you would need to define the Seattle deployment location. For information, see *Defining Locations*.

2. Create Deployment Server Definitions

   You must also define the deployment server at each remote location. For more information, see *Defining Deployment Servers*.

   Note: This step is not necessary if you used the Remote Location Workbench to create deployment server definitions when you installed OneWorld. For more information about the Remote Location Workbench, see the *OneWorld Installation Guide*.

3. Schedule the Package

   The next step in the process is to schedule the package for deployment using the Package Deployment application (P9631). The process of scheduling a package for multitier deployment is identical to scheduling any other package. For more information, see *Distributing Software to Deployment Locations*.

4. Deploy the Package to Workstations

   Once you have deployed the package to the deployment server at the remote location, that server can deploy to the workstations at that location.

Before You Begin

Before you begin implementing multitier deployment you should do the following:

❑ Ensure that you have a thorough understanding of CNC concepts that will allow you to define and implement packages, workstation installations, path codes, central objects, replicated objects, and user profiles.

❑ Ensure that there is adequate disk space on the disk drive for the machine you will be using as a tier deployment location. For more information about minimum disk space requirements for a deployment server, see *OneWorld Disk Space Requirements* in the *OneWorld Installation Guide*. Also keep in mind that each full package you deploy will add approximately 1.4GB, and each additional partial package will add approximately 165MB. The amount of required disk space will vary, depending on the amount of data you replicate to a Microsoft Access database.

Defining Deployment Servers

The Machine Identification application (P9654A) enables you to either add a new deployment server definition or modify an existing definition. When you add a new deployment server definition, OneWorld creates a record in the Deployment Locations Definition table (F9654) for each deployment location. Each server at each deployment location must be defined.

Typically, there will be one record for the primary deployment server and one record per deployment location for each release. If you are running multiple releases of OneWorld, you must create multiple records for the servers at each deployment location.

If you used the Remote Location Workbench to create deployment server definitions when you installed OneWorld, you do not need to define deployment servers again. For more information about the Remote Location Workbench, see the *OneWorld Installation Guide*.

Defining a New Deployment Server

The following task describes how to define a new deployment server. You would need to do this, for example, if you open a branch office in another city and need to define a secondary deployment server that can handle deployment to the workstations at that location.

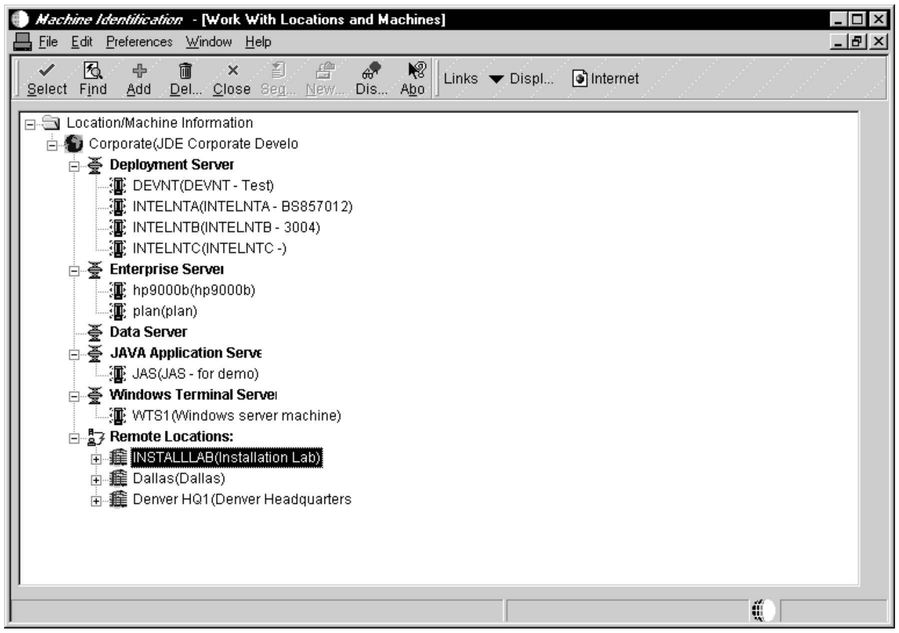
Before You Begin

❑ If you are adding a new definition for a deployment server at a remote location, you first need to define that location. For information about defining locations, see *Defining Locations*.

Note: J.D. Edwards recommends that you do not define deployment locations with a DEV path code. This is because the DEV path code is normally associated with development staff that is not located at remote locations.

▶ To add a new deployment server definition

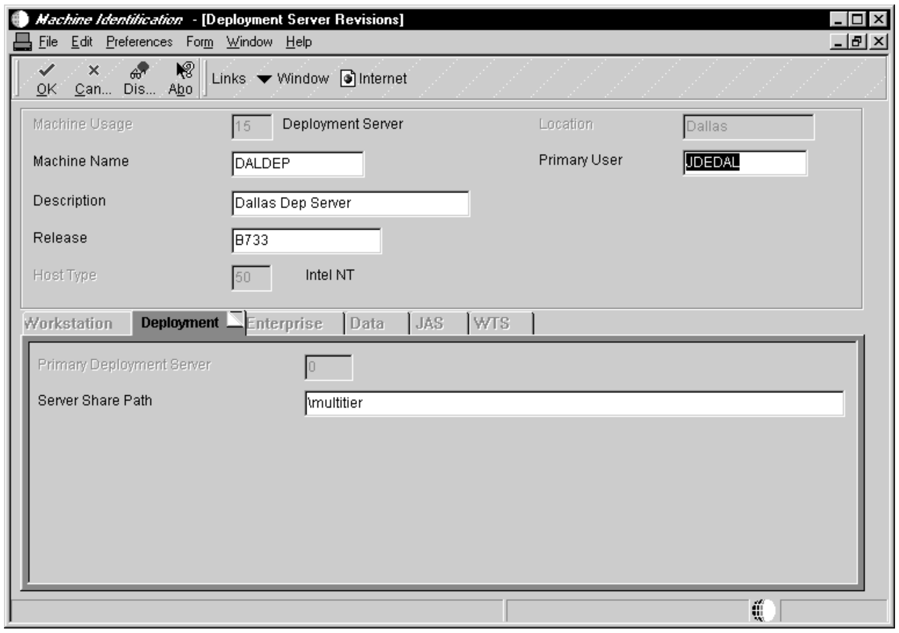
1. From the Package and Deployment Tools menu (GH9083), choose Machine Identification (P9654A). The Work With Locations and Machines form appears.


Machine Identification - [Work With Locations and Machines]
File Edit Preferences Window Help
Select Find Add Del... Close Seq... New... Dis... Abo Links Displ... Internet

Location/Machine Information
Corporate(JDE Corporate Develo
Deployment Server
DEVNT(DEVNT - Test)
INTELNTA(INTELNTA - BS857012)
INTELNTB(INTELNTB - 3004)
INTELNTC(INTELNTC -)
Enterprise Server
hp9000b(hp9000b)
plan(plan)
Data Server
JAVA Application Serve
JAS(JAS - for demo)
Windows Terminal Server
WTS1(Windows server machine)
Remote Locations:
INSTALLLAB(Installation Lab)
Dallas(Dallas)
Denver HQ1(Denver Headquarters

2. Find the location where the deployment server resides, and expand the tree, if necessary, to display the different machine types.

3. Choose the Deployment Server heading and then click Add. The Deployment Server Revisions form appears.


Machine Identification - [Deployment Server Revisions]
File Edit Preferences Form Window Help
OK Can... Dis... Abo Links Window Internet
Workstation Deployment Enterprise Data JAS WTS

Machine Usage	15 Deployment Server	Location	Dallas
Machine Name	DALDEP	Primary User	JDEDAL
Description	Dallas Dep Server		
Release	B733		
Host Type	50 Intel NT		

Primary Deployment Server	0
Server Share Path	\multitier

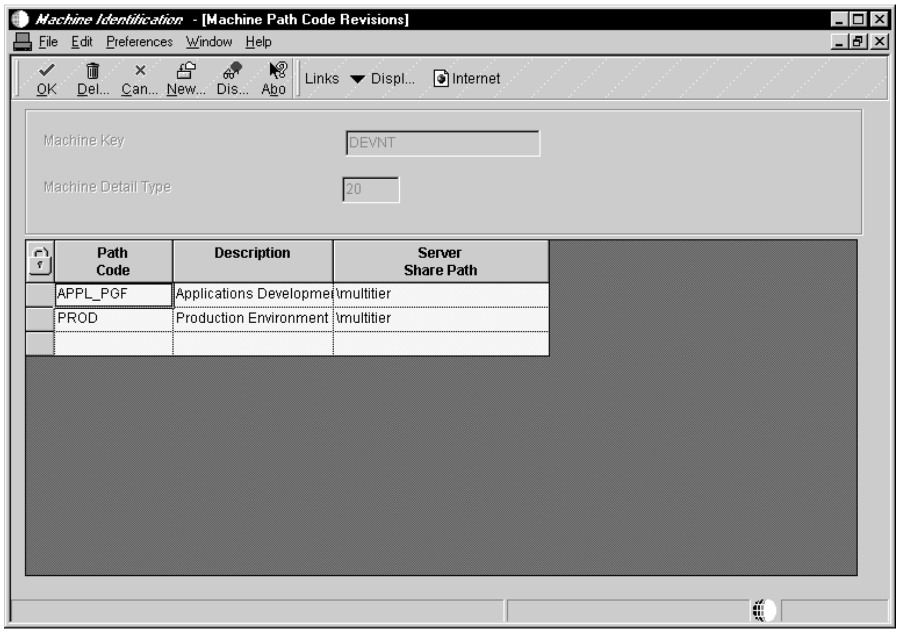
4. On the Deployment Server Revisions form, complete the following fields:

- Machine Name
- Description
- Release

- Primary User
- Server Share Path

Because you are entering a definition for a server other than your primary deployment server, the field Primary Deployment Server is not available. You can enter this field only if you first delete the definition for your current primary deployment server.

5. Choose Path Code from the Form menu. The Machine Path Code Revisions form appears.


Machine Identification - [Machine Path Code Revisions]
File Edit Preferences Window Help
OK Del... Can... New... Dis... Abo
Links Displ... Internet

Machine Key: DEVNT

Machine Detail Type: 20

Path Code	Description	Server Share Path
APPL_PGF	Applications Developmer	\multitier
PROD	Production Environment	\multitier

6. On the Machine Path Code Revisions form, enter the path code for the primary or base location from which the secondary location will receive the package. When you enter the path code, the server share path will default to the base server share path for that machine.

   Important: You must specify the path code for each deployment server at all secondary locations. If you do not indicate the path code, multitier deployment may not work.

7. If your package includes a user-defined foundation, data, or help files, specify those items by choosing Foundation, Data, or Helps from the Form menu.
8. On the Deployment Server Revisions form, click OK to return to the Work With Locations and Machines form.

Field	Explanation
Machine Name	For World, the Location indicates the machine (server or client). For OneWorld, the Location or Machine Key indicates the name of the machine on the network (server or workstation).
Description	A user defined name or remark.
Release	For World, the release number as defined in the Software Versions Repository. For OneWorld, the release number as defined in the Release Master.
Primary User	The primary user for the listed machine.
Server Share Path	For World, the Server Share Path Field is used by the environment to determine the location of the current server. For OneWorld, this field indicates the shared directory for this Path Code. The objects that are stored on a file server will be found in this path.

Revising an Existing Deployment Server Definition

There may be situations in which you need to modify the definition for a deployment server you already defined. For example, you would need to change the definition if the server share path or OneWorld release changes, or if you want to designate a different server as your primary deployment server.

The procedure for revising an existing deployment server definition is very similar to adding a new definition.

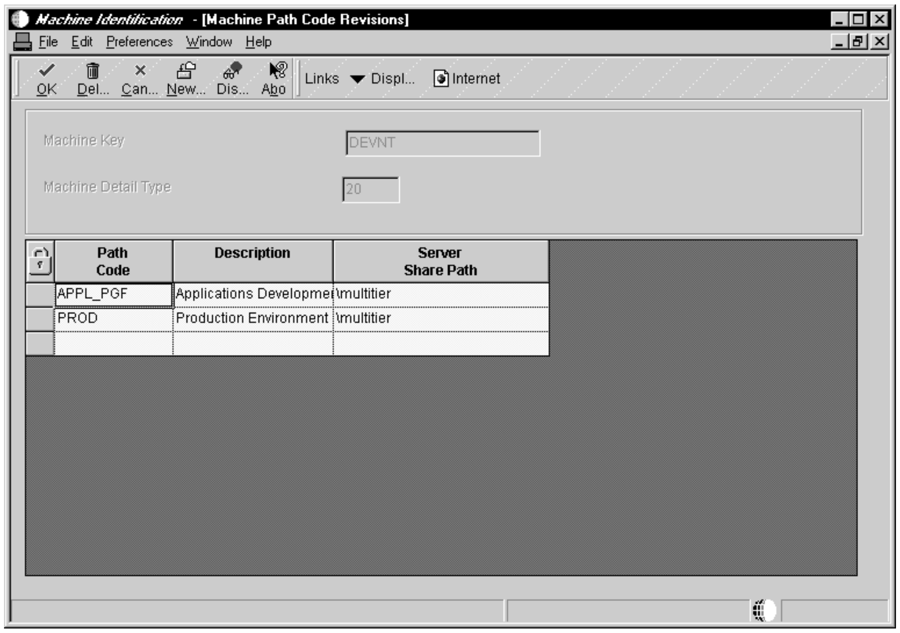
▶ To revise an existing deployment server definition

1. From the Package and Deployment Tools menu (GH9083), choose Machine Identification (P9654A). The Work with Locations and Machines form appears.
2. Find the deployment server whose definition you want to modify, and then click Select. The Deployment Server Revisions form appears.
3. On the Deployment Server Revisions form, you can modify the following fields:
   - [Machine] Description
   - Release
   - Primary User

- Server Share Path

If you are modifying the primary deployment server, you can also change the Primary Deployment Server. For any other server you will be unable to change this field. A 1 at this field indicates that the deployment server is the primary deployment server. You can have only one primary deployment server.

4. Choose Path Code from the Form menu. The Machine Path Code Revisions form appears.


Machine Identification - [Machine Path Code Revisions]
File Edit Preferences Window Help
OK Del... Can... New... Dis... Abo
Links Displ... Internet

Machine Key: DEVNT

Machine Detail Type: 20

Path Code	Description	Server Share Path
APPL_PGF	Applications Developmen	\multitier
PROD	Production Environment	\multitier

5. On the Machine Path Code Revisions form, enter the path code for the primary or base location from which the secondary location will receive the package. When you enter the path code, the server share path will default to the base server share path for that machine.

   Important: You must specify the path code for each deployment server at all secondary locations. If you do not indicate the path code, multitier deployment may not work.

6. If your package includes a user-defined foundation, data, or help files, specify those items by choosing Foundation, Data, or Helps from the Form menu.
7. On the Deployment Server Revisions form, click OK.

For more information about defining machines, locations, and deployment groups, see *Defining Machines, Locations, and Deployment Groups*.

Scheduling Packages for Deployment Locations

You can define which packages your primary deployment server distributes to your deployment locations. You can also define when and where the packages are deployed.

Workstations that install from tier deployment locations will access the tier deployment server for the help files unless you choose to deploy the help files to the workstation.

After you have created or modified a deployment location, you can schedule packages for deployment by using the Package Deployment application (P9631). The process for scheduling packages to a secondary deployment server is identical to scheduling a package to a primary server. Be sure to specify the secondary server location when you schedule the package.

Note: When you are creating a distribution schedule, keep in mind that you cannot schedule multiple packages to deploy at the same time.

Before You Begin

❏ Create or modify an existing deployment location and deployment server definition. See *Defining Deployment Servers* and *Defining Machines* for more information.

See Also

- *Deploying Packages*.

Distributing Software to Deployment Locations

The process of distributing software to deployment locations is handled through the Package Deployment application (P9631) or the Multitier Deployment batch application (R98825C). Use the Package Deployment application to define the scheduling parameters or to deploy the package immediately. Otherwise, use a version of the Multitier Deployment batch application to distribute the software to deployment locations.

Whether you push or pull the software depends on the machine on which you run the scheduling application's deployment function or batch application. You will be pushing the software if you run the application or report on the primary deployment server or from a workstation. Conversely, you will be pulling the software if you run the application from a workstation at the tier deployment location. In either case, make sure to execute the application on the primary deployment server machine for push, or the destination deployment location for pull.

Caution: If you push the software you must have full read and write privileges for both deployment servers (that is, the primary deployment server and the tier deployment location or destination machine), even if you do not run the batch application. If you do not have read and write authority on both servers, the deployment will fail.

After the package software has been automatically distributed through the Package Deployment application or Multitier Deployment batch application, you will have to manually copy the workstation installation programs from the primary deployment server to the tier deployment location. These programs are located in the client portion of the base installation directory.

This chapter describes the following tasks:

- ❑ Distributing software through Package Deployment
- ❑ Distributing software through the Multitier Deployment batch application
- ❑ Copying workstation installation programs to deployment locations

See Also

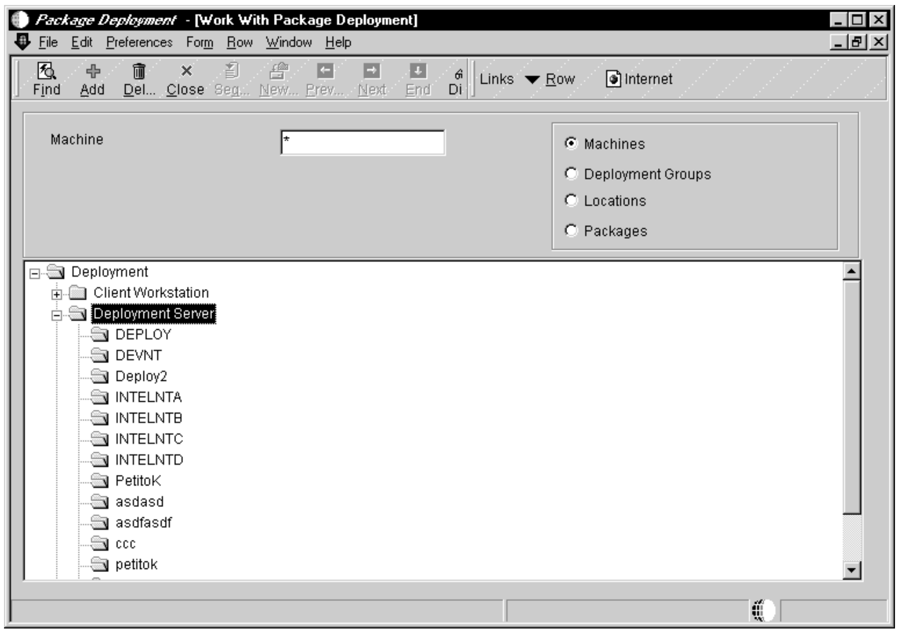
- Scheduling Packages for Deployment Locations

Distributing Software through Package Deployment

Use this method if you want to distribute software immediately after you define a deployment schedule. If you choose this option, the software will be distributed immediately regardless of the timing parameters you specify in the scheduling fields.

▶ To distribute software through Package Deployment

1. From the Package and Deployment Tools menu (GH9083), choose Package Deployment (P9631). The Work with Package Deployment form appears.


Package Deployment - [Work With Package Deployment]
File Edit Preferences Form Row Window Help
Find Add Del... Close Seq... New... Prev... Next End Di
Links Row
Internet

Machine *

(●) Machines
( ) Deployment Groups
( ) Locations
( ) Packages

```
Deployment
  Client Workstation
  Deployment Server
    DEPLOY
    DEVNT
    Deploy2
    INTELNTA
    INTELNTB
    INTELNTC
    INTELNTD
    PetitoK
    asdasd
    asdfasdf
    ccc
    petitok
```

2. Click the Machines option at the upper right of the form, and then click Find. Choose the deployment server to which you want to deploy.

   If you have scheduled packages to more than one deployment server, you can choose the Deployment Server folder to deploy to all applicable servers, rather than deploying to each individual server.

3. Choose the deployment server name to deploy all packages listed under the server name. Alternatively, choose only the package you want to deploy.
4. From the Row menu, choose Deploy. This launches the R98825C batch application that enables you to deploy to deployment servers.

   This same Deploy option is also used to launch a batch application that deploys enterprise server packages, so if you choose an enterprise server name or the Enterprise Server folder on the Work With Package Deployment form, the Enterprise Server Deployment batch application will be launched, not the Multitier Deployment batch application. When you choose a workstation, the Deploy option is not available.

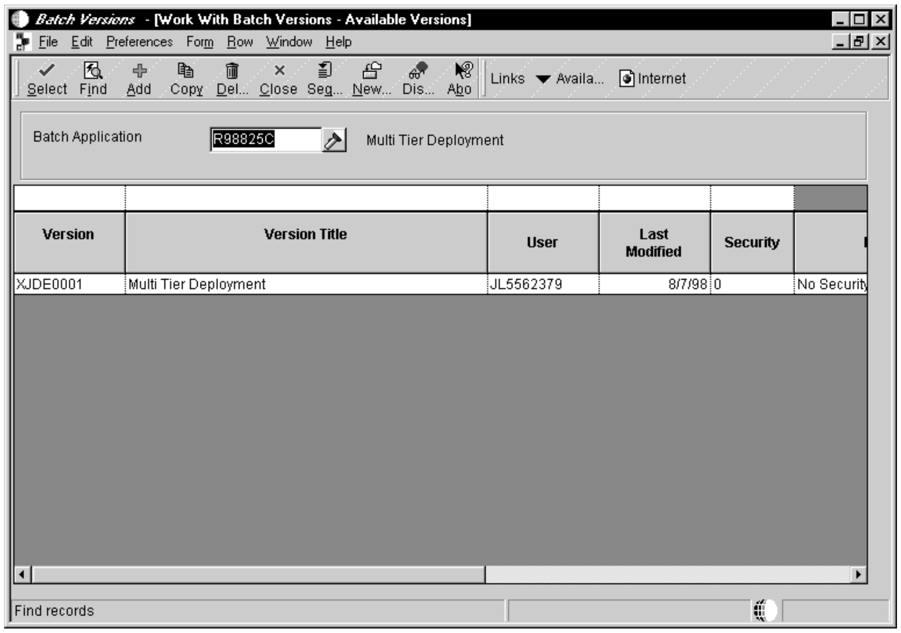
Distributing Software Through the Multitier Deployment Batch Process

Use this method if you want to distribute software that has been previously defined and scheduled through the Package Deployment application (P9631). Running the batch application deploys the software if the scheduled date and time have already passed.

For example, if you schedule a report to run at 1300 hours on June 1, 2005, running the report at 1300 hours on May 31, 2005 will have no effect. In this example, in order to distribute the software you must run the batch process report at some time after 1300 hours on June 1, 2005.

▶ To distribute software through the Multitier Deployment batch application

1. From the System Administration Tools menu (GH9011), choose Batch Versions (P98305). The Work with Batch Versions form appears.


Batch Versions - [Work With Batch Versions - Available Versions]
File Edit Preferences Form Row Window Help
Select Find Add Copy Del... Close Seq... New... Dis... Abo
Links Availa... Internet

Batch Application R98825C Multi Tier Deployment

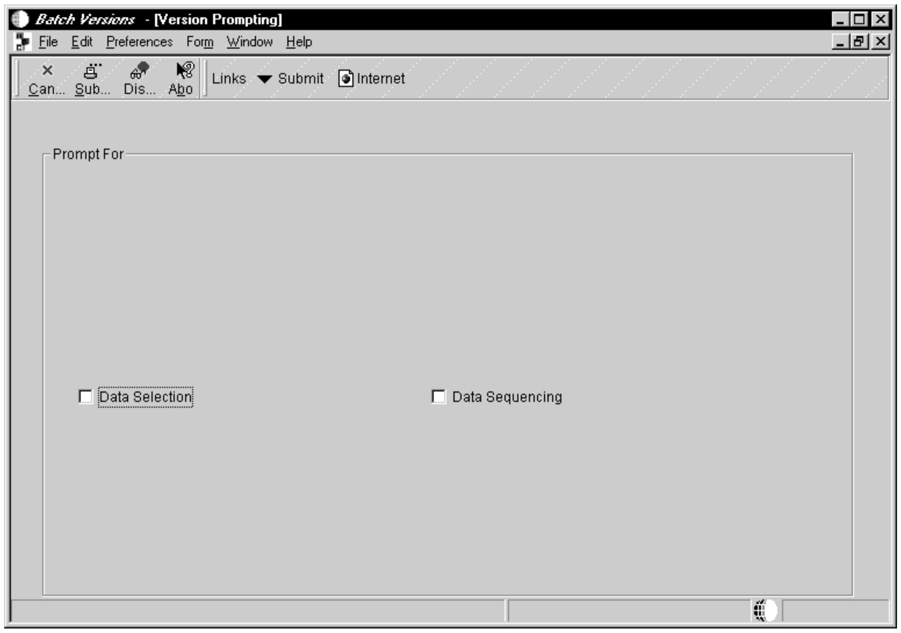
Version	Version Title	User	Last Modified	Security	
XJDE0001	Multi Tier Deployment	JL5562379	8/7/98	0	No Security

Find records

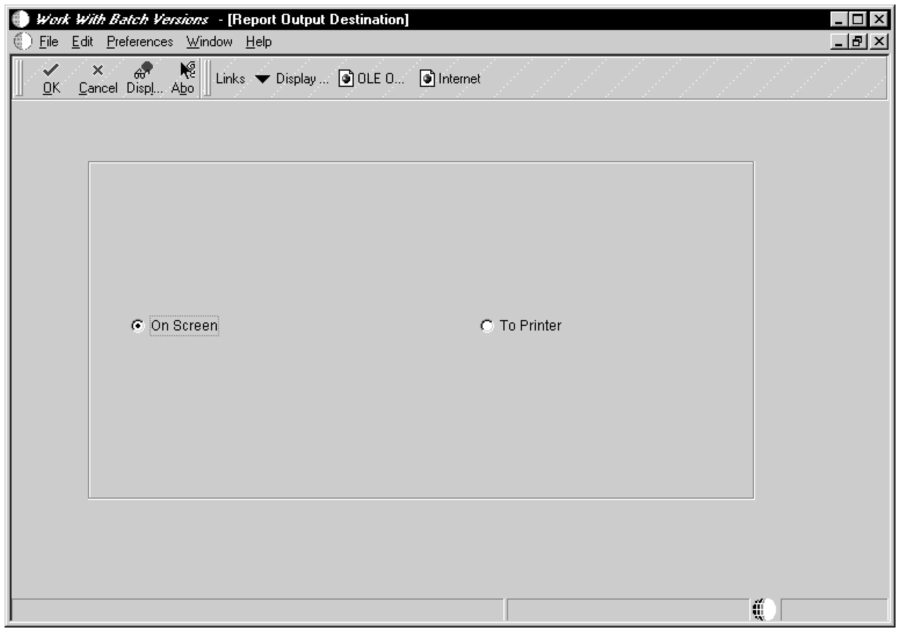
2. Complete the following field:
   - Batch Application

     Enter R98825C at the Batch Application field.

3. Find and choose the Multitier Deployment version you want to use. The Version Prompting form appears.



4. Click Submit. The Report Output Destination form appears.


Work With Batch Versions - [Report Output Destination]
File Edit Preferences Window Help
OK Cancel Displ... Abo
Links Display ... OLE O... Internet

(● On Screen) (○ To Printer)

5. On Report Output Destinations, click one of the following options:
   - On Screen
   - Printer

   The output is directed to the Adobe Acrobat Reader application. This output should indicate that the report was successfully completed.

Copying Workstation Installation Programs to Deployment Locations

Regardless of which method you use to distribute the package, you must manually copy the Client Workstation Installation programs from the primary deployment server to the tier 2 deployment locations. You must also change the package.inf file to reflect the machine name and environment of the remote deployment location.

Doing these steps ensures that OneWorld runs the Client Workstation Installation program locally at the deployment location. If you do not do these two steps, OneWorld looks for the Client Workstation Installation application and associated files at the base location, and will copy the files across the WAN to the deployment location.

See Also

- *Understanding Package.inf Files* for information about locating and modifying the package.inf file.

▶ To copy workstation installation programs to deployment locations

1. Connect to each deployment location and use Windows Explorer to drag the following client directory to the tier 2 workstation:

   \\Tier1DeploymentServerName\B7333\OneWorld Client Install

2. Open the package.inf file and locate the [FileLocations] section. Change the PackageInfs line to reflect the deployment server machine name and environment at the deployment location. For example:

   ```
   PackageInfs=\\machine name\environment\ENVIRON\Evapps
   \appl_pgf\package_inf
   ```

3. Save your changes by choosing Save from the File menu.
4. Exit from the package.inf file by choosing Exit from the File menu.

Installing Workstation Packages From Deployment Locations

The process for installing packages to workstations from deployment locations is very similar to that of a normal package installation. Basically, it consists of running the setup.exe program.

In the case of multitier deployment, this program is resident on the tier deployment location in the \client subdirectory that is under the base installation directory. The workstation attached to the deployment location must have read access to this directory on the deployment location.

For more information about the Workstation Installation program, see the *OneWorld Installation Guide*.

Multitier Deployment for Server Packages

Server multitier deployment lets you automatically deploy a server package from one deployment server to another. The target deployment server to which you are deploying the package can be either in the same location as the source deployment server that sends the package, or in one or more remote locations.

Packages are typically built on the primary deployment server at the base location, but there might be advantages to using a different server for installations from the base location. There might also be situations where it would be preferable to deploy a server package to a server at a remote location rather than requiring remote users to access the server package over a WAN.

Server package multitier deployment gives users the ability to choose which package builds they want to deploy. For example, if you are building a Prod package for multiple server platforms, you can select the build for the platform that has been successfully built. The benefit of having the ability to choose builds is that users are no longer required to wait to install a new client package.

Server multitier deployment works through the Package Deployment application (P98631). When you deploy a server package, the following components are copied:

- Foundation, Data, and Helps
- Subdirectories under the package name directory:
  - bin32
  - include
  - lib32
  - obj
  - source
  - spec
- Subdirectories under the server build directories:
  - bin32
  - spec
  - obj
  - lib32
- The ServerPackage.inf file under the server build directories
- The package.inf file

- The pack directory under the package name directory

When server builds only are deployed without client builds, none of the subdirectories under the package name directory are copied except for the pack subdirectory.

The following shows where major package components are copied from and to during the deployment process. The server share path is derived from the Machine Detail table (F9651).

Package Component:	Copied From:	Copied To:
Package	Copied from the path indicated in the SrcDirs section of the package.inf file.	Copied to **<server share path>\<path code>\<package name>** on the destination deployment server.
Foundation, data, and helps	Copied from the path indicated in the SrcDirs section of the package.inf file.	If the default location is selected, foundation, data and helps are copied to **<server share path>\systemcomp** on the destination deployment server.
Package.inf file	If the source deployment server is the primary deployment server in the base location, this file is copied from the path indicated in the Release Master table (F00942). Otherwise, this file is copied from the path to the package.inf file in the Machine Detail table (F9651).	Copied to **<server share path>\package_inf** on the destination deployment server.

Smart Deployment

Server multitier deployment incorporates the “smart deployment” feature, which tells OneWorld to make available only the server packages that match the package destination’s available servers. For example, if there are server packages at the base location for the HP9000 and the AS/400 but the destination location has only an HP9000, only the HP9000 package is made available for deployment to that location. In other words, you cannot deploy a server package unless the package destination supports that server platform.

Even if you have multiple locations, smart deployment ensures that only the server packages matching the destination’s platform are available.

Automatic Package.inf File Updating

When you deploy a server package to a remote location, the following sections of the package.inf file are updated:

- SrcDirs
- Attributes
    - DeploymentServerName
    - Location

The package.inf file is not copied when you deploy to a deployment server in the base location.

Deploying a Server Package with Multitier Deployment

After you have created the server package you want to deploy using multitier deployment, you can use the Package Deployment application to schedule that package to a server at the same location or a remote location. Make certain that the server package is compressed, because unlike client packages, you will not be allowed to deploy a non-compressed server package using multitier deployment.

Also, before you can deploy a server package with server multitier deployment, the package status must be either 50 (Build Completed Successfully) or 70 (Build Completed with Errors). If the package does not have a status of 50 or 70, it will be unavailable when you schedule the deployment.

Before You Begin

❏ Assemble and build the server package as described in the *Package Build* section.

The following task summarizes the steps involved in scheduling a server package for multitier deployment. This process is essentially the same as for scheduling packages within the same location. For more detailed information, see the *Deployment* section.

Unless specified otherwise, after the Package Deployment Director launches, click Next to proceed to the next form.

▶ To schedule a server package for multitier deployment

1. From the Package and Deployment Tools menu (GH9083), choose Package Deployment (P9631). The Work With Package Deployment form appears.

2. Click Add to launch the Package Deployment Director.
3. Select the server package you want to deploy.
4. On the Package Deployment Targets form, choose the Deployment Server option.
5. On the Package Deployment Attributes form, enter the deployment date and time, and choose any deployment options.
6. On the Deployment Server Selection form, enter the machine name to which you want to deploy the server package. Be sure to select the machine by double-clicking in the column to the left of the deployment server name.
7. On the Build Selection form, select the build (or version) of the package you want to deploy by double-clicking in the column next to the server name.

   Because of the Smart Deployment feature, only package builds that match the configuration at the destination location will be available for selection. For example, if there are package builds for an AS/400 and an HP9000 but the destination location has only an HP9000, the AS/400 build will not be available for selection.

8. Click Close to exit from the Build Selection form.
9. On the Work With Package Deployment form, click End to finish the server package scheduling process.

After you have scheduled the package, you can deploy it by using one of the two methods described in *Distributing Software to Deployment Locations*: either through the Package Deployment application, or through the Multitier Deployment batch process.

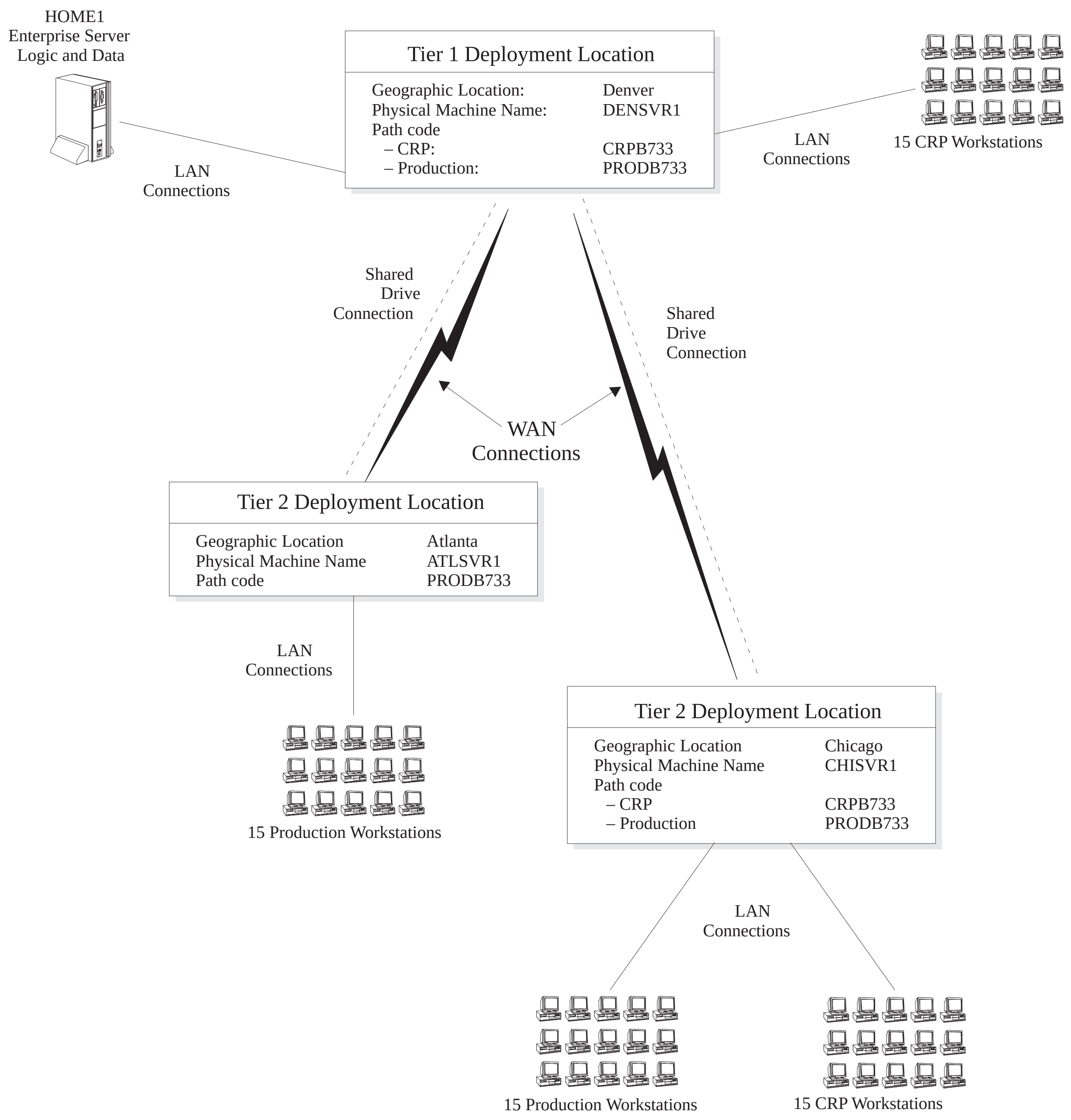
Understanding a Multitier Deployment Case Study

This chapter presents a case study for a two-tier deployment environment. As this case study shows, it is generally not efficient to deploy OneWorld packages to workstations using WAN connections. Instead, you should deploy from a primary deployment server to tier deployment locations. After that, you can install packages to LAN-attached workstations from each local deployment location.

For OneWorld package installations, a remote deployment location functions as a file server. You cannot build packages at a remote deployment location; packages must be built at the primary deployment location.

While locally attached workstations can pull packages from the tier deployment location, these workstations still require OneWorld enterprise server and database server connectivity.

The following diagram presents an illustration of this case study.


HOME1
Enterprise Server
Logic and Data
LAN
Connections
Tier 1 Deployment Location
Geographic Location: Denver
Physical Machine Name: DENSVR1
Path code
– CRP: CRPB733
– Production: PRODB733
LAN
Connections
15 CRP Workstations
Shared
Drive
Connection
Shared
Drive
Connection
WAN
Connections
Tier 2 Deployment Location
Geographic Location Atlanta
Physical Machine Name ATLSVR1
Path code PRODB733
LAN
Connections
15 Production Workstations
Tier 2 Deployment Location
Geographic Location Chicago
Physical Machine Name CHISVR1
Path code
– CRP CRPB733
– Production PRODB733
LAN
Connections
15 Production Workstations
15 CRP Workstations

The following table shows the assumptions used by the Tier 1 location in this case study.

Denver (home office, Tier 1 deployment location)		
Characteristic	**Setting**	
Enterprise server name	HOME1	
Deployment server name	Denver	DENSVR1
	Atlanta	ATLSVR1
	Chicago	CHISVR1
Prototype workstations	Denver	15
	Atlanta	0
	Chicago	15
Production workstations	Denver	0
	Atlanta	15
	Chicago	15
OneWorld release	B7333	
Deployment tier	Denver	1
	Atlanta	2
	Chicago	2
Path codes	Denver	PD7333
		PY7333
	Atlanta	PD7333
	Chicago	PD7333
		PY7333

▶ To configure your system for multitier deployment

The following summarizes the steps necessary to configure your system for multitier deployment.

1. **Define the Deployment Locations.** On the deployment server (DENSVR1 in this example)

   Use the Machine Identification application (P9654A) to define all deployment locations. See *Defining Locations.*

   For this case study, you would define three locations: one for each deployment location (Denver, Atlanta, and Chicago). Values for the fields on the Location Revisions form are summarized in the following table.

Field	Value
Location	Enter the name of the deployment location. In this case study, you would assign names for each physical deployment location: Denver Atlanta Chicago
Description	Enter a description (any value up to 30 characters) for each deployment location. For example: Denver: Denver – Tier 1 Atlanta: Atlanta – Tier 2 Chicago: Chicago – Tier 2
Location Code	Enter the current location for OneWorld deployment. For example, DEN.

Field	Value
Parent Location	Enter the name of the parent location for the location you are adding. For example, Corporate.

2. **Create Deployment Server Definitions**.

   Use the Machine Identification application (P9654A) to create a definition for each deployment server at the deployment locations you created. For this case study, you would need to define a deployment server for Atlanta and Chicago. The deployment server in Denver would already be defined because it is the primary (tier 1) server. See *Defining Deployment Servers.*

   For this case study, you would complete the fields on the Deployment Server Revisions form as shown in the following table.

Field	Value
Machine Name	Enter the name of the physical machine. In this case study, you would enter the following values: Denver DENSVR1 Atlanta ATLSVR1 Chicago CHISVR1
Description	Enter a description (any value up to 30 characters). For example, Multitier Deployment - Denver.
Release	Enter the OneWorld release. For example, B7333.
Primary User	Enter the primary user for the machine you entered.
Server Share Path	Enter the name of the shared directory for the path code where system files and other files reside. For example, \B7333.

3. **Schedule the Package**.

   Schedule the package to be deployed from the tier 1 deployment server to the tier 2 deployment servers through the Package Deployment application (P9631) or the Multitier Deployment batch application (R98825C). See *Distributing Software to Deployment Locations*.

Glossary

action message. With OneWorld, users can receive messages (system-generated or user-generated) that have shortcuts to OneWorld forms, applications, and appropriate data. For example, if the general ledger post sends an action error message to a user, that user can access the journal entry (or entries) in error directly from the message. This is a central feature of the OneWorld workflow strategy. Action messages can originate either from OneWorld or from a third-party e-mail system.

alphabetic characters. Characters on the keyboard including letters of the alphabet and all other symbols (such as *, &, #), but excluding numerals 0 through 9. For example, "ABC*" is a string of alphabetic characters, but "ABC123" is not. Also referred to as an alpha character. Contrast with alphanumeric characters and numeric characters.

alphanumeric characters. The complete set of characters on the keyboard including letters of the alphabet, symbols, and numerals. For example, "ABC*123" is a string of alphanumeric characters. Contrast with alphabetic characters and numeric characters.

alternate language. A language other than English, which is designated in the user profile. A language preference code is used to set the preferred language for each user to display data for online and printed output.

applet. A small application, such as a utility program or a limited-function spreadsheet. It is generally associated with the programming language Java, and in this context refers to Internet-enabled applications that can be passed from a Web browser residing on a workstation.

application. A computer program or set of programs used to accomplish a task. In OneWorld, there are interactive applications and batch applications. Interactive applications are made up of a set of forms through which the user interacts with OneWorld. Interactive application identifiers begin with "P." For example, Address Book Revisions (P01012) is an interactive application. Batch applications run without user interaction. Reports and table conversions are examples of batch applications. Batch application identifiers begin with "R." For example, the Print Mailing Labels report (R01401) is a batch application.

application programming interface (API). A software function call that can be made from a program to access functionality provided by another program.

application server. A server in a local area network (LAN) that contains applications used by network clients.

application workspace. The area on a workstation display in which all related forms within an application appear.

architecture. The underlying design of a computer that defines data storage methods, operations, and compatibility requirements with other systems and software. It also refers to specific components of a computer system, the way they interact with each other, and the type of CPU chip that is used as the basis of a computer system.

AS/400 common. The AS/400 library that typically contains WorldSoftware control files. Can also refer to as an AS/400 Common data source used in OneWorld.

AS/400 COMMON. A data source that resides on an AS/400 and holds data that is common to the coexistent library allowing OneWorld to share information with World.

asynchronous. A method of running table conversions in which starting one conversion does not rely on another conversion's successful completion.

audit trail. The detailed, verifiable history of a processed transaction. The history consists of the original documents, transaction entries, and posting of records and usually concludes with a report.

automatic accounting instruction (AAI). A code that refers to an account in the chart of accounts. AAIs define rules for programs that automatically generate journal entries, including interfaces between the Accounts Payable, Accounts Receivable, Financial Reporting, and General Accounting systems. Each system that interfaces with the General Accounting system has AAIs. For example, AAIs can direct the General Ledger Post program to post a debit to a specific expense account and a credit to a specific accounts payable account.

base release. The first generally available software for a OneWorld release. See also release, release level.

batch. A group of similar records or transactions that the computer treats as a single unit during processing. For identification purposes, the system usually assigns each batch a unique identifier known as a batch number.

batch application. A single task or groups of tasks that the system treats as a single unit during processing. The computer performs batch applications (jobs) with little or no user interaction. Printing reports and purging files are examples.

batch control. A feature that verifies the number of transactions and the total amount in each batch that you enter into the system.

batch input. A group of transactions loaded from an external source.

batch job. A task or group of tasks you submit for processing that the system treats as a single unit during processing, for example, printing reports and purging files. The system performs a batch job with little or no user interaction.

batch processing. A method by which the system selects jobs from the job queue, processes them, and sends output to the outqueue. Contrast with interactive processing.

batch server. A server on which OneWorld batch processing requests (also called UBEs) are run instead of on a client, an application server, or an enterprise server. A batch server typically does not contain a database nor does it run interactive applications.

batch type. A code assigned to a batch job that designates to which system the associated transactions pertain, thus controlling which records are selected for processing. For example, the Post General Journal program selects for posting only unposted transaction batches with a batch type of O.

batch-of-one immediate. A transaction method that allows a client application to perform work on a client workstation, then submit the work all at once to a server application for further processing. As a batch process is running on the server, the client application can continue performing other tasks. See also direct connect, store-and-forward.

binary large object (BLOB). A database field that has no maximum size limit and holds any digitized information. This field is often used to store objects, such as graphical representations or data structures, rather than standard alphanumeric data.

binary string (BSTR). A length prefixed string used by OLE automation data manipulation functions. Binary strings are wide, double-byte (Unicode) strings on 32-bit Windows platforms.

broadcast message. 1) An e-mail message that you send to multiple recipients. 2) A message that appears on a form instead of in your mailbox.

browser. A client application that translates information sent by the Worldwide Web. A client must use a browser to receive, manipulate, and display Worldwide Web information on the desktop. Also known as a Web browser.

business function. An encapsulated set of business rules and logic that can normally be reused by multiple applications. Business functions can execute a transaction or a subset of a transaction (check inventory, issue work orders, and so on). Business functions also contain the APIs that allow them to be called from a form, a database trigger, or a non-OneWorld application. Business functions can be combined with other business functions, forms, event rules, and other components to make up an application. Business functions can be created through event rules or third-generation languages, such as C. Examples of business functions include Credit Check and Item Availability.

business function event rule. Encapsulated, reusable business logic created using through event rules rather than C programming. Contrast with embedded event rule. See also event rule.

business view. Used by OneWorld applications to access data from database tables. A business view is a means for selecting specific columns from one or more tables whose data will be used in an application or report. It does not select specific rows and does not contain any physical data. It is strictly a view through which data can be handled.

Business View Design Aid (BDA). A OneWorld GUI tool for creating, modifying, copying, and printing business views. The tool uses a graphical user interface.

category code. A type of user defined code for which you can provide the title. For example, if you were adding a code that designated different sales regions, you could change category code 4 to Sales Region, and define E (East), W (West), N (North), and S (South) as the valid codes. Sometimes referred to as reporting codes. See also user defined code.

central objects. Objects that reside in a central location and consist of two parts: the central objects data source and central C components. The central objects data source contains OneWorld specifications, which are stored in a relational database. Central C components contain business function source, header, object, library, and DLL files and are usually stored in directories on the deployment server. Together they make up central objects.

Central Objects merge. A process that blends a customer's modifications to the objects in a current release with objects in a new release.

central processing unit (CPU). Computer component which carries out the logic, calculation and decision–making functions. Interprets and executes instructions upon receipt.

character conversion. The process of converting characters of the same language from one encoding scheme to another while sending and receiving data in a heterogeneous environment.

character set. An ordered set of characters representing any particular language.

chart. OneWorld term for tables of information that appear on forms in the software. See forms.

chart of accounts. The structure for general ledger accounts. The chart of accounts lists types of accounts, describes each account, and includes account numbers and posting edit codes.

check-in location. The directory structure location for the package and its set of replicated objects. This is usually \\deploymentserver\release\path_code\package\packagename. The subdirectories under this path are where the central C components (source, include, object, library, and DLL file) for business functions are stored.

child. See parent/child form.

client. 1) A workstation or PC in a client/server environment. 2) The receiving end of the spectrum in a request/supply relationship between programs.

client workstation. The computer on which a user operates OneWorld software applications.

client/server. A relationship between processes running on separate machines. The server process is a provider of software services. The client is a consumer of those services. In essence, client/server provides a clean separation of function based on the idea of service. A server can service many clients at the same time and regulate their access to shared resources. There is a many-to-one relationship between clients and a server, respectively. Clients always initiate the dialog by requesting a service. Servers passively wait for requests from clients.

cluster. A group of two or more servers with identical configurations used to provide protection against failure. If one server fails, the other can continue processing.

code page. An ordered set of characters in which an alphanumeric value (code point) is associated with each character set.

code point. The numeric identifier assigned to a character. Its value is usually expressed in a hexadecimal notation.

coexistence. An AS/400 configuration of J.D. Edwards software that allows shared data interface operation to occur between OneWorld and WorldSoftware.

commit. A process that ensures that all database changes for a single transaction occur simultaneously. The changes are treated as a single unit; either all changes occur or none of the changes occur, thereby maintaining the integrity of the database.

common object request broker architecture. An object request broker standard endorsed by the Object Management Group.

component object model (COM). A specification developed by Microsoft for building software components that can be assembled into programs or add functionality to existing programs running on Microsoft Windows platforms. COM components can be written in a variety of languages, although most are written in C++, and can be unplugged from a program at runtime without having to recompile the program.

Conference Room Pilot environment. A OneWorld environment used as a staging environment for production data, which includes constants and masters tables, such as company constants, fiscal date patterns, and item master. Use this environment along with the test environment to make sure your configuration works before you release changes to end–users.

configurable client engine. Allows user flexibility at the interface level. Users can easily move columns, set tabs for different data views, and size grids according to their needs. The configurable client engine also enables the incorporation of Web browsers in addition to the Windows 95- and Windows NT-based interfaces.

Configurable Network Computing (CNC). An application architecture that allows interactive and batch applications, composed of a single code base, to run across a TCP/IP network of multiple server platforms and SQL databases. The applications consist of reusable business functions and associated data that can be configured across the network dynamically. The overall objective for businesses is to provide a future-proof environment that enables them to change organizational structures, business processes, and technologies independently of each other.

constants. Parameters or codes that you set and that the system uses to standardize the processing of information by associated programs.

control. Any data entry point allowing the user to interact with an application. For example, check boxes, pull-down lists, hyper-buttons, entry fields, and similar features are controls.

Control Table Workbench. During the Installation Workbench process, Control Table Workbench runs the batch applications for the planned merges that update the data dictionary, user defined codes, menus, and user overrides tables.

Control Tables merge. A process that blends a customer's modifications to the control tables with the data that accompanies a new release.

cumulative update. A version of OneWorld software that includes fixes and enhancements made since the last release or update.

custom gridlines. A grid row that does not come from the database, for example, totals. To display a total in a grid, sum the values and insert a custom gridline to display the total. Use the system function Insert Grid Row Buffer to accomplish this.

custom installation. One of the two types of installations you can set up in the Installation Planner application. A custom installation gives the customer flexibility in creating a plan with Java and Windows terminal servers, custom environments, and custom data sources. See also typical installation.

custom modifications. Changes customers make to OneWorld to make the software run more efficiently for them or to meet their particular requirements.

customer. The company that purchases and uses OneWorld. A customer contains individual users.

data dictionary. A database table that OneWorld uses to manage the definitions, structures, and guidelines for the usage of fields, messages, and help text. J.D. Edwards has an active data dictionary, which means that it is accessed at runtime.

Data Dictionary merge. A process that updates a customer's data dictionary tables with the data that accompanies a new release.

data mart. Department-level decision support databases. They usually draw their data from an enterprise data warehouse that serves as a source of consolidated and reconciled data from around the organization. Data marts can be either relational or multidimensional databases.

data only upgrade. A process that preserves customer business data when moving from a previous release of OneWorld to a new release. This shortens the upgrade process by eliminating the need to perform the merges and table conversions that incorporate J.D. Edwards data into a customer's existing data.

data replication. In a replicated environment, multiple copies of data are maintained on multiple machines. There must be a single source that "owns" the data. This ensures that the latest copy of data can be applied to a primary place and then replicated as appropriate. This is in contrast to a simple copying of data, where the copy is not maintained from a central location, but exists independently of the source.

data server. A machine required for AS/400 users who need to put central objects in SQL Server or Oracle. Putting central objects on a data server tells OneWorld they are not on the enterprise server.

data source. A specific instance of a database management system running on a computer. Data source management is accomplished through Object Configuration Manager (OCM) and Object Map (OM).

Data Source Workbench. During the Installation Workbench process, Data Source Workbench copies all data sources that are defined in the installation plan from the Data Source Master and Table and Data Source Sizing tables in the Planner data source to the System – release number data source. It also updates the Data Source Plan detail record to reflect completion.

data structure. A group of data items that can be used for passing information between objects, for example, between two forms, between forms and business functions, or between reports and business functions.

data warehouse. A database used for reconciling and consolidating data from multiple databases before it is distributed to data marts for department-level decision support queries and reports. The data warehouse is generally a large relational database residing on a dedicated server between operational databases and the data marts.

database. A continuously updated collection of all information that a system uses and stores. Databases make it possible to create, store, index, and cross-reference information online.

database administrator. The person who has special skills or training in one or more types of database software, for example, SQL Server or Oracle.

database driver. Software that connects an application to a specific database management system.

database management system (DBMS). A computer program that manages data by providing centralized control, data independence, and complex physical structures for efficient access, integrity, recovery, concurrence, control, privacy, and security.

database server. A server that stores data. A database server does not have OneWorld logic.

default. A code, number, or parameter that the system supplies when the user does not specify one.

default. A value that the system assigns when the user does not enter a value. For example, if the default value for an input is N and nothing is entered in that field, the system assumes the default is an N value.

deployment environment. A OneWorld environment used to run OneWorld on the deployment server. This environment administers information for the system data source, such as user profiles, packages, and environments.

deployment server. The computer used to install, maintain, and distribute OneWorld software to one or more enterprise servers and client workstations.

detail. The specific information that makes up a record or transaction. Contrast with summary.

detail area. An area of a form that displays detailed information associated with the records or data items displayed on the form. See also grid.

development environment. A OneWorld environment used to test modified development objects before transferring them to the conference room pilot environment.

direct connect. A transaction method in which a client application communicates interactively and directly with a server application. See also batch-of-one immediate, store-and-forward.

director. A OneWorld user interface that guides a user interactively through a OneWorld process.

disk. A direct access storage device.

distributed computing environment (DCE). A set of integrated software services that allows software running on multiple computers to perform in a manner that is seamless and transparent to the end-users. DCE provides security, directory, time, remote procedure calls, and files across computers running on a network.

distributed database management system (DDBMS). A system for distributing a database and its control system across many geographically dispersed machines.

Do Not Translate (DNT). A type of data source that must exist on the AS/400 because of BLOB restrictions.

double–byte character set (DBCS). A method of representing some characters using one byte and other characters using two bytes. Double-byte character sets are necessary to represent some characters in the a Japanese, Korean, and Chinese languages.

double–byte enabled. A data storage feature that allows a computer to store ideographic characters from Asian languages. J.D. Edwards coding techniques accommodate both ideographic and alphabetic characters, making it easier to translate an application into another language.

driver. A program or portion of a program that controls the transfer of data from an input or output device.

duplicated database. A decision support database that contains a straightforward copy of operational data. The advantages involve improved performance for both operational and reporting environments. See also enhanced analysis database, enterprise data warehouse.

dynamic link library (DLL). A set of program modules that are designed to be invoked from executable files when the executable files are run, without having to be linked to the executable files. They typically contain commonly used functions.

dynamic partitioning. The ability to dynamically distribute logic or data to multiple tiers in a client/server architecture.

Electronic Data Interchange (EDI). The paperless, computer-to-computer exchange of business transactions, such as purchase orders and invoices, in a standard format with standard content.

embedded event rule. An event rule that is specific to a particular table or application. Examples include form-to-form calls, hiding a field based on a processing option value, and calling a business function. Contrast with business function event rule. See also event rule.

Employee Work Center. This is a central location for sending and receiving all OneWorld messages (system and user generated) regardless of the originating application or user. Each user has a mailbox that contains workflow and other messages, including Active Messages. With respect to workflow, the Message Center is MAPI compliant and supports drag and drop work reassignment, escalation, forward and reply, and workflow monitoring. All messages from the message center can be viewed through OneWorld messages or Microsoft Exchange.

encapsulation. The ability to confine access to and manipulation of data within an object to the procedures that contribute to the definition of that object.

end user. An individual who uses OneWorld software.

enhanced analysis database. A database containing a subset of operational data. The data on the enhanced analysis database performs calculations and provides summary data to speed generation of reports and query response times. This solution is appropriate when external data must be added to source data, or when historical data is necessary for trend analysis or regulatory reporting. See also duplicated database, enterprise data warehouse.

enterprise. Every server, PC, and database that is on an organization's network.

enterprise data warehouse. A complex solution that involves data from many areas of the enterprise. This environment requires a large relational database (the data warehouse) that is a central repository of enterprise data, which is clean, reconciled, and consolidated. From this repository, data marts retrieve data to provide department-level decisions. See also duplicated database, enhanced analysis database.

enterprise server. A database server and logic server. See database server. Also referred to as host.

Enterprise Workflow Management. A OneWorld system that provides a way of automating tasks, such as notifying a manager that a requisition is waiting for approval, using an e-mail-based process flow across a network.

environment. A path code with a set of Object Configuration Manager (OCM) mappings that allow a user to locate data and a specific set of objects. Examples include Conference Room Pilot (CRP), development, production, and pristine.

Environment Checker. An application you can run before installing or upgrading OneWorld to diagnose configuration and setup issues that may exist at the operating system level.

Environment Workbench. During the Installation Workbench process, Environment Workbench copies the environment information and Object Configuration Manager tables for each environment from the Planner data source to the System release number data source. It also updates the Environment Plan detail record to reflect completion.

Ethernet. A commonly used, shared media LAN technology, which broadcasts messages to all nodes on the network segment. Ethernet connects up to 1,024 nodes at 10MB per second over twisted pair cable, coaxial cable, and optical fiber.

event. An action that occurs when an interactive or batch application is running. Example events are tabbing out of an edit control, clicking a push button, initializing a form, or performing a page break on a report. The GUI operating system uses miniprograms to manage user activities within a form. Additional logic can be attached to these miniprograms and used to give greater functionality to any event within a OneWorld application or report using event rules.

event rule. Used to create complex business logic without the difficult syntax that comes with many programming languages. These logic statements can be attached to applications or database events and are executed when the defined event occurs, such as entering a form, selecting a menu bar option, page breaking on a report, or selecting a record. An event rule can validate data, send a message to a user, call a business function, as well as many other actions. There are two types of event rules:

1 Embedded event rules.
2 Business function event rules.

executable file.

A computer program that can be run from the computer's operating system. Equivalent terms are "application" and "program.".

facility. An entity within a business for which you want to track costs. For example, a facility might be a warehouse location, job, project, work center, or branch/plant. Sometimes referred to as a business unit.

field. 1) An area on a form that represents a particular type of information, such as name, document type, or amount. 2) A defined area within a record that contains a specific piece of information. For example, a supplier record consists of the fields Supplier Name, Address, and Telephone Number.

file. A set of information stored under one name. See also table.

file transfer protocol (FTP). A set of TCP/IP commands used to log on to a network, list directories, and copy files. FTP is also a communications protocol used to transmit files without data loss.

find/browse. A type of form used to:

1 Search, view, and select multiple records in a detail area.
2 Delete records.
3 Exit to another form.
4 Serve as an entry point for most applications.

firewall.

A set of technologies that allows an enterprise to test, filter, and route all incoming messages. Firewalls are used to keep an enterprise secure.

fix/inspect. A type of form used to view, add, or modify existing records. A fix/inspect form has no detail area.

form. The element of the OneWorld graphical user interface by which the user exchanges data with interactive applications. Forms are made up of controls, such as fields, options, and the grid. These controls allow the user to retrieve information, add and revise information, and navigate through an application to accomplish a task.

Form Design Aid (FDA). The OneWorld GUI development tool for building interactive applications and forms.

form interconnection. Allows one form to access and pass data to another form. Form interconnections can be attached to any event; however, they are normally used when a button is clicked.

form type. The following form types are available in OneWorld:

1 Find/browse.
2 Fix/inspect.
3 Header detail.
4 Headerless detail.
5 Message.
6 Parent/child.
7 Search/select.

fourth generation language (4GL).

A programming language that focuses on what you need to do and then determines how to do it. Structured Query Language is an example of a 4GL.

general release. See release.

generic text structures. See Media Storage Objects.

graphical user interface (GUI). A computer interface that is graphically based as opposed to being character-based. An example of a character-based interface is that of the AS/400. An example of a GUI is Microsoft Windows. Graphically based interfaces allow pictures and other graphic images to be used in order to give people clues on how to operate the computer.

grid. A control that displays detail information on a form. The grid is arranged into rows, which generally represent records of data, and columns, which generally represent fields of the record. See also detail area.

header. Information at the beginning of a table or form. Header information is used to identify or provide control information for the group of records that follows.

header detail. A type of form used to add, modify, or delete records from two different tables. The tables usually have a parent/child relationship.

headerless detail. A type of form used to work with multiple records in a detail area. The detail area is capable of of receiving input.

host. In the centralized computer model, a large timesharing computer system that terminals communicate with and rely on for processing. It contrasts with client/server in that those users work at computers that perform much of their own processing and access servers that provide services such as file management, security, and printer management.

hypertext markup language (HTML). A markup language used to specify the logical structure of a document rather than the physical layout. Specifying logical structure makes any HTML document platform independent. You can view an HTML document on any desktop capable of supporting a browser. HTML can include active links to other HTML documents anywhere on the Internet or on intranet sites.

index. Represents both an ordering of values and a uniqueness of values that provide efficient access to data in rows of a table. An index is made up of one or more columns in the table.

inheritance. The ability of a class to recieve all or parts of the data and procedure definitions from a parent class. Inheritance enhances developement through the reuse of classes and their related code.

install. To load a full or partial set of OneWorld software on a machine that has existing or nonexisting OneWorld software, such as install OneWorld for the 0first time, install an upgrade, or install an update.

installation. The process of putting OneWorld software on your computer for the first time. An example of an installation is B73.2. As in OneWorld Installation Guide.

Installation Planner. OneWorld program that runs on the deployment server as a system administration tool. Installation Planner guides you through the installation setup process, including defining the enterprise server and deployment platform information, setting up environments, and defining data sources.

Installation Workbench. OneWorld system administration program that allocates and configures software and resources on servers and workstations according to the plan you created in Installation Planner.

installer. The person who can perform most tasks and processes during a OneWorld installation, upgrade, or update.

integrated toolset. Unique to OneWorld is an industrial-strength toolset embedded in the already comprehensive business applications. This toolset is the same toolset used by J.D. Edwards to build OneWorld interactive and batch applications. Much more than a development environment, however, the OneWorld integrated toolset handles reporting and other batch processes, change management, and basic data warehousing facilities.

integration. A situation in which J.D. Edwards software and the software of another company access the same database.

integrity test. A process used to supplement a company's internal balancing procedures by locating and reporting balancing problems and data inconsistencies.

interactive processing. Processing actions that occur in response to commands that you enter directly into the system. During interactive processing, you are in direct communication with the system, and it might prompt you for additional information while processing your request. Contrast with batch processing.

interactive processing. A job the computer performs in response to a command. During interactive processing, the user communicates directly with the computer, which may prompt the user to input additional information during the processing of a request.

Internet. The worldwide constellation of servers, applications, and information available to a desktop client through a phone line or other type of remote access.

Internet address. A specified path used to send and receive messages on the Internet. The parts of the address identify the contact, company, and type of business.

interoperability. The ability of different computer systems, networks, operating systems, and applications to work together and share information.

intranet. A small version of the Internet usually confined to one company or organization. An intranet uses the functionality of the Internet and places it at the disposal of a single enterprise.

IP. A connectionless communication protocol that by itself provides a datagram service. Datagrams are self-contained packets of information that are forwarded by routers based on their address and the routing table information contained in the routers. Every node on a TCP/IP network requires an address that identifies both a network and a local host or node on the network. In most cases the network administrator sets up these addresses when installing new workstations. In some cases, however, it is possible for a workstation, when booting up, to query a server for a dynamically assigned address.

IServer Service. Developed by J.D. Edwards, this Internet server service resides on the Web server, and is used to speed up delivery of the Java class files from the database to the client.

J.D. Edwards Database. See JDEBASE Database Middleware.

Java. An Internet executable language that, like C, is designed to be highly portable across platforms. This programming language was developed by Sun Microsystems. Applets, or Java applications, can be accessed from a Web browser and executed at the client, provided that the operating system or browser is Java-enabled. (Java is often described as a scaled-down C++). Java applications are platform independent.

Java application server. A server through which a user can interact with OneWorld applications using a Web browser.

Java Database Connectivity (JDBC). The standard way to access Java databases, set by Sun Microsystems. This standard allows you to use any JDBC driver database.

JDBNET. A database driver that allows heterogeneous servers to access each other's data.

jde.ini. J.D. Edwards file (or member for AS/400) that provides the runtime settings required for OneWorld initialization. Specific versions of the file/member must reside on every machine running OneWorld. This includes workstations and servers.

JDE.LOG. The main diagnostic log file of OneWorld. Always located in the root directory on the primary drive. Contains status and error messages from the startup and operation of OneWorld.

JDEBASE Database Middleware. J.D. Edwards proprietary database middleware package that provides two primary benefits:

1. Platform-independent APIs for multidatabase access. These APIs are used in two ways:
   a. By the interactive and batch engines to dynamically generate platform-specific SQL, depending on the data source request.
   b. As open APIs for advanced C business function writing. These APIs are then used by the engines to dynamically generate platform-specific SQL.
2. Client-to-server and server-to-server database access. To accomplish this OneWorld is integrated with a variety of third-party database drivers, such as Client Access 400 and open database connectivity (ODBC).

JDECallObject. An application programming interface used by business functions to invoke other business functions.

JDEIPC. Communications programming tools used by server code to regulate access to the same data in multiprocess environments, communicate and coordinate between processes, and create new processes.

JDENET communications middleware. J.D. Edwards proprietary communications middleware package for OneWorld. It is a peer-to-peer, message-based, socket based, multiprocess communications middleware solution. It handles client-to-server and server-to-server communications for all OneWorld supported platforms.

job. A single identifiable set of processing actions that user directs the computer to perform. Jobs are initiated by selecting menu options, entering commands, or pressing designated function keys.

job queue. A group of jobs waiting to be batch processed. See also batch processing.

just in time installation (JITI). OneWorld's method of dynamically replicating objects from the central object location to a workstation.

just in time replication (JITR). OneWorld's method of replicating data to individual workstations. OneWorld replicates new records (inserts) only at the time the user needs the data. Changes, deletes, and updates must be replicated using Pull Replication.

landscape. A printer orientation for a page with greater width than height. Contrast with portrait.

language preference code. An abbreviation that identifies the preferred language to be used for the text for online and printed output. This code is used in the user profile to designate the user's preferred language(s).

local area network (LAN). A short distance network consisting of workstations, servers, a NOS, and a communications link. It is distinguished by the absence of telecommunications service.

location. The method by which OneWorld manages the organizational entities within an enterprise. The differentiation between locations can be physical (for example, New York and Tokyo) or virtual (for example, Headquarters and Accounting). A location is identified by a three-character location code, which is set up during OneWorld installation.

Location Workbench. During the Installation Workbench process, Location Workbench copies all locations that are defined in the installation plan from the Location Master table in the Planner data source to the System data source.

log files. Files that track operations for a process or application. Reviewing log files is helpful for troubleshooting problems. The file extension for log files is .LOG.

master table. A database table used to store data and information that is permanent and necessary to the system's operation. Master tables might contain data, such as paid tax amounts, supplier names, addresses, employee information, and job information.

media storage objects. Files that use one of the following naming conventions that are not organized into table format: Gxxx, xxxGT or GTxxx.

menu masking. A security feature that lets you prevent individual users from accessing specified menus or menu selections.

menu merge. A process that blends a customer's modifications to the menu tables with the data that accompanies a new release.

merge. A OneWorld process that takes a customer's custom modifications and blends them into the data that accompanies a new release.

Messaging Application Programming Interface (MAPI). An architecture that defines the components of a messaging system and how they behave. It also defines the interface between the messaging system and the components.

middleware. A general term that covers all the distributed software needed to support interactions between clients and servers. Think of it as the software that's in the middle of the client/server system or the "glue" that lets the client obtain a service from a server.

modal. A restrictive or limiting interaction created by a given condition of operation. Modal often describes a secondary window that restricts a user's interaction with other windows. A secondary window can be modal with respect to it's primary window or to the entire system. A modal dialog box must be closed by the user before the application continues.

modeless. Not restricting or limiting interaction. Modeless often describes a secondary window that does not restrict a user's interaction with other windows. A modeless dialog box stays on the screen and is available for use at any time but also permits other user activities.

multitier architecture. A client/server architecture that allows multiple levels of processing. A tier defines the number of computers that can be used to complete some defined task.

named event rules (NER). Also called business function event rules. Encapsulated, reusable business logic created using event rules, rather than C programming.

National Language Support (NLS). Mechanisms provided to facilitate internationalization of both system and application user interfaces.

network addresses. A unique position assigned to a node operating in a network that other nodes use when communicating with it. For Ethernet and Token Ring network adapters, unique addresses are assigned at the factory and consist of a 6-byte address. Half of this address identifies the board's manufacturer, while the last half is unique to the board and is assigned when the board is manufactured. Communication errors are prevented, because no two Ethernet or Token Ring NICs will have identical addresses.

network computer. As opposed to the personal computer, the network computer offers (in theory) lower cost of purchase and ownership and less complexity. Basically, it is a scaled-down PC (very little memory or disk space) that can be used to access network-based applications (Java applets, ActiveX controls) via a network browser.

network computing. Often referred to as the next phase of computing after client/server. While its exact definition remains obscure, it generally encompasses issues such as transparent access to computing resources, browser-style front-ends, platform independence, and other similar concepts.

next numbers. A feature used to control the automatic numbering of items such as new G/L accounts, vouchers, and addresses. Next numbers provides a method of incrementing numbers.

node. A termination point for two or more communications links. A node can serve as the control location for forwarding data among the elements of a network or multiple networks, as well as perform other networking and, in some cases, local processing.

normalized. In database management, normalization applies a body of techniques to a relational database in order to minimize the inclusion of duplicate information. Normalization significantly simplifies query and update management, including security and integrity considerations.

numeric characters. Digits 0 through 9 that are used to represent data. Contrast with alphanumeric characters.

object. A self-sufficient entity that contains data as well as the structures and functions used to manipulate the data. For OneWorld purposes, an object is a reusable entity that is based on software specifications created by the OneWorld toolset. See also Object Librarian.

Object Configuration Manager (OCM). OneWorld's object request broker and the control center for the runtime environment. It keeps track of the runtime locations for business functions, data, and batch applications. When one of these objects is called, the Object Configuration Manager directs access to it using defaults and overrides for a given environment and user.

object embedding. When an object is embedded in another document, an association is maintained between the object and the application that created it; however, any changes made to the object are also only kept in the compound document. See also object linking.

Object Librarian. A repository of all versions, applications, and business functions reusable in building applications. It provides check-out and check-in capabilities for developers, and it controls the creation, modification, and use of OneWorld objects. The Object Librarian supports multiple environments (such as production and development) and allows objects to be easily moved from one environment to another.

Object Librarian merge. A process that blends any modifications to the Object Librarian in a previous release into the Object Librarian in a new release.

object linking. When an object is linked to another document, a reference is created with the file the object is stored in, as well as with the application that created it. When the object is modified, either from the compound document or directly through the file it is saved in, the change is reflected in that application as well as anywhere it has been linked. See also object embedding.

object linking and embedding (OLE). A way to integrate objects from diverse applications, such as graphics, charts, spreadsheets, text, or an audio clip from a sound program. See also object embedding, object linking.

object-based technology (OBT). A technology that supports some of the main principles of object-oriented technology: classes, polymorphism, inheritance, or encapsulation.

object-oriented technology (OOT). Brings software development past procedural programming into a world of reusable programming that simplifies development of applications. Object orientation is based on the following principles: classes, polymorphism, inheritance, and encapsulation.

OneWorld. A combined suite of comprehensive, mission-critical business applications and an embedded toolset for configuring those applications to unique business and technology requirements. OneWorld is built on the Configurable Network Computing technology, J.D. Edwards' own application architecture, which extends client/server functionality to new levels of configurability, adaptability, and stability.

OneWorld application. Interactive or batch processes that execute the business functionality of OneWorld. They consist of reusable business functions and associated data that are platform independent and can be dynamically configured across a TCP/IP network.

OneWorld object. A reusable piece of code that is used to build applications. Object types include tables, forms, business functions, data dictionary items, batch processes, business views, event rules, versions, data structures, and media objects. See also object.

OneWorld process. Allows OneWorld clients and servers to handle processing requests and execute transactions. A client runs one process, and servers can have multiple instances of a process. OneWorld processes can also be dedicated to specific tasks (for example, workflow messages and data replication) to ensure that critical processes don't have to wait if the server is particularly busy.

OneWorld Web development computer. A standard OneWorld Windows developer computer with the additional components installed:

- Sun's JDK 1.1.
- JFC (0.5.1).
- Generator Package with Generator.Java and JDECOM.dll.
- R2 with interpretive and apllication controls/form.

open database connectivity (ODBC). Defines a standard interface for different technologies to process data between applications and different data sources. The ODBC interface is made up of a set of function calls, methods of connectivity, and representation of data types that define access to data sources.

Open Systems Interconnection (OSI). The OSI model was developed by the International Standards Organization (ISO) in the early 1980s. It defines protocols and standards for the interconnection of computers and network equipment.

operating system (OS). The software that runs on the hardware. For example, AIX 4.1 is a version of an operating system.

Oracle. A relational DBMS from Oracle. Runs on a broad variety of computers, which allows data to be entered and maintained on multiple hardware platforms.

output queue. See print queue.

package. OneWorld objects are installed to workstations in packages from the deployment server. A package can be compared to a bill of material or kit that indicates the necessary objects for that workstation and where on the deployment server the installation program can find them. It is a point-in-time "snap shot" of the central objects on the deployment server.

package location. The directory structure location for the package and its set of replicated objects. This is usually \\deployment server\release\path_code\package\ package name. The subdirectories under this path are where the replicated objects for the package will be placed. This is also referred to as where the package is built or stored.

Package Workbench. During the Installation Workbench process, Package Workbench transfers the package information tables from the Planner data source to the System - release number data source. It also updates the Package Plan detail record to reflect completion.

parallel release. A configuration of OneWorld software that lets multiple release or update levels run in separate environments on the same machine for testing, training, or development purposes. For release levels running in parallel, no tables or data are shared. For cumulative update levels running in parallel, system and server map data are shared.

parameter. A number, code, or character string you specify in association with a command or program. The computer uses parameters as additional input or to control the actions of the command or program.

parent/child form. A type of form that presents parent/child relationships in an application on one form. The left portion of the form presents a tree view that displays a visual representation of a parent/child relationship. The right portion of the form displays a detail area in browse mode. The detail area displays the records for the child item in the tree. The parent/child form supports drag and drop functionality.

partitioning. A technique for distributing data to local and remote sites to place data closer to the users who access. Portions of data can be copied to different database management systems.

path code. A pointer to a specific set of objects. A path code is used to locate:

1. Central objects.
2. Replicated objects.

plan. Refers to an installation plan. A plan is the standard means for installing, upgrading, or updating a OneWorld configuration. Plans, which are used in various phases of installation, contain information about data sources you will use, environments you will install, and packages.

planner environment. A OneWorld environment in which you prepare the main components of a OneWorld configuration.

platform. The hardware, operating system, and database on which your software is operating, for example, an HP 9000 processor using HP-UX as the operating system and Oracle as the database.

platform independence. A benefit of open systems and Configurable Network Computing. Applications that are composed of a single code base can be run across a TCP/IP network consisting of various server platforms and SQL databases.

polymorphism. A principle of object-oriented technology in which a single mnemonic name can be used to perform similar operations on software objects of different types.

port number. A numeric code that identifies a unique process for which a service can be provided on a machine.

portability. Allows the same application to run on different operating systems and hardware platforms.

portrait. The default printer orientation for a page with greater height than width. Contrast with landscape.

primary key. A column or combination of columns that uniquely identifies each row in a table.

print queue. A list of tables, such as reports, that you have submitted to be written to an output device, such as a printer. The computer spools the tables until it writes them. After the computer writes the table, the system removes the table identifier from the print queue.

pristine environment. A OneWorld environment used to test unaltered objects with J.D. Edwards demonstration data or for training classes. You must have this environment so you can compare pristine objects that you modify.

process. A complete unit of work with a defined start and end, which a computer performs. Some operating systems, such as Windows NT, HP-UX, and AIX, track processes by assigning identifiers to them. In Windows NT, a process is a running instance of an executable file.

processing option. A feature that allows you to direct the functions of a program. For example, processing options allow you to specify defaults for certain forms, control the format in which information prints on reports, and change how information appears on a form or in a report.

production environment. A OneWorld environment in which users operate OneWorld software.

protocol. A set of formalized rules specifying how hardware and software on a network should interact when transmitting and receiving information.

published table. Also called a "Master" table, this is the central copy to be replicated to other machines. Resides on the "publisher" machine. the Data Replication Publisher Table (F98DRPUB) identifies all of the published tables and their associated publishers in the enterprise.

publisher. The server that is responsible for the published table. The Data Replication Publisher Table (F98DRPUB) identifies all of the published tables and their associated publishers in the enterprise.

pull replication. One of the OneWorld methods for replicating data to individual workstations. Such machines are set up as pull subscribers using OneWorld's data replication tools. The only time pull subscribers are notified of changes, updates, and deletions is when they request such information. The request is in the form of a message that is sent, usually at startup, from the pull subscriber to the server machine that stores the Data Replication Pending Change Notification table (F98DRPCN).

purge. The process of removing records or data from a system table.

push. Technology used to force information from a centralized server to another server or client.

push installation. A process that allows a system administrator to schedule the automatic installation of OneWorld on workstations.

push replication. A server-to-server method of data replication that notifies subscriber machines when a change is made to the publisher table. If the subscriber machine is not running when the notification is sent, the subscriber receives the message at startup.

query by example (QBE). Located at the top of a detail area, it is used to search for data to be displayed in the detail area.

queue. A stored arrangement of computer data or program waiting to be processed in the order in which they were submitted. A queue may refer to a print queue, job queue, or message queue.

record. A collection of related, consecutive fields of data that the system treats as a single unit of information.

redundancy. Storing exact copies of data in multiple databases.

referential integrity. Ensures that a parent record cannot be deleted from the database when a child record for exists.

refresh. To modify OneWorld software, or subset of it, such as a table or business data, so that it functions at a new release or cumulative update level, such as B73.2 or B73.2.1.

regenerable. Source code for OneWorld business functions can be regenerated from specifications (business function names). Regeneration occurs whenever an application is recompiled, either for a new platform or when new functionality is added.

relationship. Links tables together and facilitates joining business views for use in an application or report. Relationships are created based on indexes.

release. A release of OneWorld regardless of any updates that might be applied. For example, the term Release B73.2 refers generically to B73.2, B73.2.1, and B73.2.2. Sometimes referred to as a general release. See also base release, release level.

release level. A specific level of OneWorld software. A release level is achieved by installing a base release and applying one or more updates. A release level also can be installed directly. See also base release, release.

release/release update. A "release" contains major new functionality, and a "release update" contains an accumulation of fixes and performance enhancements, but no new functionality.

replicated object. A copy or replicated set of the central objects must reside on each client and server that run OneWorld. The path code indicates the directory where these objects are located.

replication. A copy of an object, usually a table in a relational database, which is placed in another location. As part of replication, the object may undergo a transformation from one type of table, such as an Oracle table, to another, such as a TAM file on a client machine.

Report Design Aid (RDA). The OneWorld GUI tool for operating, modifying and copying report batch applications.

retrofitting. The process of integrating a customer's modifications into a new release of OneWorld.

rollback. A process which changes data back to a previous state after it has been committed to a database.

runtime objects. Packages of objects that are deployed to any machine that will run OneWorld.

scalability. Allows software, architecture, network, or hardware growth that will support software as it grows in size or resource requirements. The ability to reach higher levels of performance by adding microprocessors.

scripts. A collection of SQL statements that perform a specific task.

search/select. A type of form used to search for a value and return it to the calling field.

security server. A dispatched kernel process running on a server for security validation. A security server protects computer resources using security applications and redundant functionality.

server. Provides the essential functions for furnishings services to network users (or clients) and provides management functions for network administrators. Some of these functions are storage of user programs and data and management functions for the file systems. It may not be possible for one server to support all users with the required services. Some examples of dedicated servers that handle specific tasks are backup and archive servers, application and database servers.

Server Administration Workbench. A OneWorld application that provides the server administrator with vital statistics about the internal functions of OneWorld.

Server Workbench. During the Installation Workbench process, Server Workbench copies the server configuration files from the Planner data source to the System release number data source. It also updates the Server Plan detail record to reflect completion.

service. A type of Microsoft Windows NT process that does not require anyone to be logged on to the operating system. Examples are jdesnet.exe and jdesque.exe.

servlet. Servlets provide a Java-based solution used to address the problems currently associated with doing server-side programming, including inextensible scripting solutions. Servlets are objects that conform to a specific interface that can be plugged into a Java-based server. Servlets are to the server what applets are to the client.

single–byte character set (SBCS). An encoding scheme in which each alphabetic character is represented by one byte. Most Western languages, such as English can be represented using a single-byte character set.

socket. A communications end point through which an application sends or receives packets of data across a network. Also known as Berkley Socket, developed by the University of California at Berkley.

software action request (SAR). An entry in the AS/400 database used for requesting modifications to J.D. Edwards software.

Specification merge. The Specification merge is comprised of three merges: Object Librarian merge, Versions List merge, and Central Objects merge. The merges blend customer modifications with data that accompanies a new release.

Specification Table Merge Workbench. During the Installation Workbench process, Specification Table Merge Workbench runs the batch applications that update the specification tables.

specifications. A complete description of a OneWorld object. Each object has its own specification, or name, which is used to build applications.

specifications. A description of a OneWorld object, such as a table's width and depth, placement of fields, and fonts used.

spool. The function by which the system stores generated output to await processing.

static text. Short, descriptive text that appears next to a control variable or field. When the variable or field is enabled, the static text is black; when the variable or field is disabled, the static text is gray.

store-and-forward. A transaction method that allows a client application to perform work and, at a later time, complete that work by connecting to a server application. This often involves uploading data residing on a client to a server. See also batch-of-one immediate, direct connect.

structured query language (SQL). A fourth generation language used as an industry standard for relational database access. It can be used to create databases and to retrieve, add, modify, or deleta data from databases. SQL is not a complete programming language because it does not contain control flow logic.

subscriber. The server that is responsible for the replicated copy of a published table. Such servers are identified in the Subscriber Table.

subscriber table. The Subscriber table (F98DRSUB), which is stored on the Publisher Server with the Data Replication Publisher table (F98DRPUB) identifies all of the subscriber machines for each published table.

summary. The presentation of data or information in a cumulative or totaled manner in which most of the details have been removed. Many systems offer forms and reports that summarize information stored in certain tables. Contrast with detail.

synchronous. A method of running processes in which one process must finish before the next one can begin.

system. A group of related applications identified by a name and a system code. For example, the Address Book system code is 01. All applications, tables, and menus within a system can be identified by the system code.

system administrator. The person who has access to perform tasks such as issue signon names or maintain security.

system code. A code that identifies a system, for example, 01 for the Address Book system and 31 for the Shop Floor Management system.

system function. A program module, provided by OneWorld, available to applications and reports for further processing.

table. In database environments, a two-dimensional entity made up of rows and columns. All physical data in a database are stored in tables. See also file.

table. A two-dimensional entity made up of rows and columns. All physical data in a database are stored in tables. A row in a table contains a record of related information. An example would be a record in an Employee table containing the Name, Address, Phone Number, Age, and Salary of an employee. Name is an example of a column in the employee table.

table. A file in OneWorld software.

table access management (TAM). The OneWorld component that handles the storage and retrieval of user defined data. TAM stores information such as data dictionary definitions; application and report specifications; event rules; table definitions; business function input parameters and library information; and data structure definitions for running applications, reports, and business functions.

table conversion. During an upgrade or update, this process changes OneWorld technical and application tables to the format for the new release.

Table Conversion Workbench. During the Installation Workbench process, Table Conversion Workbench runs the table conversions that change the technical and application tables to the format for the new release of OneWorld. It also updates the Table Conversions and Controls detail records to reflect completion.

Table Design Aid (TDA). A OneWorld GUI tool for creating, modifying, copying, and printing database tables.

table event rules. Use table event rules to attach database triggers (or programs) that automatically run whenever an action occurs against the table. An action against a table is referred to as an event. When you create a OneWorld database trigger, you must first determine which event will activate the trigger. Then, use Event Rules Design to create the trigger. Although OneWorld allows event rules to be attached to application events, this functionality is application specific. Table event rules provide embedded logic at the table level.

TCP/IP. Transmission Control Protocol/Internet Protocol. The original TCP protocol was developed as a way to interconnect networks using many different types of transmission methods. TCP provides a way to establish a connection between end systems for the reliable delivery of messages and data.

TCP/IP services port. Used by a particular server application to provide whatever service the server is designed to provide. The port number must be readily known so that an application programmer can request it by name.

technical data. A type of OneWorld data source that contains information about how OneWorld operates.

technical tables. Tables used for technical processes such as installation and upgrade of OneWorld, in contrast with tables used by applications.

Telnet. A terminal emulation protocol frequently used on the Internet that allows a user to log on and run a program from a remote computer. Telnet is part of the TCP/IP communications.

test environment. A OneWorld environment used along with the Conference Room Pilot environment to test OneWorld software or the modifications made in the development path code before you release changes to the end user.

third generation language (3GL). A programming language that requires detailed information about how to complete a task. Examples of 3GLs are COBOL, C, Pascal and FORTRAN.

third–party. Describes other software that is used in conjunction with J.D. Edwards software.

token. A bit configuration circulated among workstations, which lets workstation send data to the network.

token ring. A LAN access mechanism in which all stations attached to a bus wait for a broadcast token to be passed to them before they are able to transmit. However, though token-passing technology is in a physical ring, the next receiving station might not be the next physical station.

TP monitor. Transaction Processing monitor. A monitor that controls data transfer between local and remote terminals and the applications that originated them. TP monitors also protect data integrity in the distributed environment and may include programs that validate data and format terminal screens.

trace. A process that helps the user troubleshoot problems.

trigger. Allow you to attach default processing to a data item in the data dictionary. When that data item is used on an application or report, the trigger is invoked by an event associated with the data item. OneWorld also has three visual assist triggers: calculator, calendar and search form.

typical installation. One of the two types of installations you can set up in the Installation Planner application. A typical installation is the quickest way to create an installation plan, because it uses all of the J.D. Edwards default information for environment and data sources. See also custom installation.

uniform resource locator (URL). Names the address of a document on the Internet or an intranet. The following is an example of URL:http://www.jdedwards.com. This is J.D. Edwards Internet address.

unnormalized. Data that is a random collection of data elements with repeating record groups scattered throughout. Also see Normalized.

update. The process of refreshing OneWorld software to a new release level, such as from B73.2 to B73.3.

upgrade. The process of refreshing OneWorld software to a new release level, such as from B73.2 to B73.3.

user. An individual who uses OneWorld software.

user defined code (UDC). A code that users can define, assign code descriptions, and assign valid values. Examples of such codes are unit-of-measure codes, state names, and employee type codes.

user defined code type. The identifier for a table of codes with a meaning that you define for the system, such as ST for the Search Type codes table in Address Book. OneWorld provides a number of these tables and allows you to create and define tables of your own.

User Defined Codes merge. The User Defined Codes merge blends a customer's modifications to the user defined code tables with the data that accompanies a new release.

user display preferences. A set of values that represents a user's preferred language, date format, decimal format, and other country specific conventions.

User Overrides merge. The User Overrides merge adds new user override records into a customer's user override table.

user profile. The predefined characteristics required for each user. The user profile includes a library list, default print queue, and default job queue, as well as several other characteristics.

Versions List merge. The Versions List merge preserves any non-XJDE and non-ZJDE version specifications for objects that are valid in the new release as well as their processing options data.

visual assist. Forms that can be invoked from a control to assist the user in determining what data belongs in the control.

vocabulary overrides. A feature that you can use to override field, row, or column title text on forms and reports.

wchar_t. Internal type of a wide character. Used for writing portable programs for international markets.

Web client. Any workstation that contains an internet browser. The Web client communicates with the web server for OneWorld data.

Web server. Any workstation that contains the IServer service, SQL server, Java menus and applications, and Internet middleware. The Web server receives data from the web client, and passes the request to the enterprise server. When the enterprise server processes the information, it sends it back to the Web server, and the Web server sends it back to the Web client.

wide area network (WAN). A network that extends beyond an area served by the dedicated communication lines of a LAN and is capable of covering long distance. It is distinguished by the requirement that a phone company or telecommunications provider be part of the transmission.

workflow. According to the Workflow Management Coalition, worlflow means “the automation of a business process, in whole or part, during which documents, information, or tasks are passed from one participant to another for action, according to a set of procedural rules.”.

workgroup server. A remote database server usually containing subsets of data replicated from a master database server. This server does not performance an application or batch processing. It may or may not have OneWorld running (in order to replicate data).

WorldSoftware Architecture. The broad spectrum of application design and programming technology that J.D. Edwards uses to achieve uniformity, consistency, and complete integration throughout its software.

Worldwide Web. A part of the Internet that can transmit text, graphics, audio, and video. The Worldwide Web allows clients to launch local or remote applications.

z file. For store and forward (network disconnected) user, OneWorld store-and-forward applications perform edits on static data and other critical information that must be valid to process an order. After the initial edits are complete, OneWorld stores the transactions in work tables on the workstation. These work table are called Z files. When a network connection is established, Z files are uploaded to the enterprise server and the transactions are edited again by a master business function. The master business function will then update the records in your transaction files.

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