Peregrine Desktop Inventory Application Encyclopedia User's Guide

For use with Desktop Inventory 8.0



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Summary

About This Guide

This User's Guide serves as an introduction to the Desktop Inventory Application Encyclopedia (ApE) and as such is recommended reading for anyone working with the product.

It contains details of the application, a description of the features and details of how you would use the application.

Knowledge Requirements

As an Application Encyclopedia user, you need a basic knowledge of the environment in which you are working (Windows 95/98/2000/NT/XP or UNIX).

Who Uses Application Encyclopedia

Typically, you will have someone in your IT department who is responsible for managing in-house applications and keeping your application library up to date.

Organization of This Guide

This guide is organized around the main functions associated with the Application Encyclopedia. The following table shows you which part of the manual you need to reference to find the information you require.

To find this	Look here
Application Encyclopedia overview; get to know Application Encyclopedia's components.	Introduction
Application Encyclopedia's relationship with the Desktop Inventory products.	Introduction
How to update the data in your Application Encyclopedia database and how to plan this project	ApE Database Maintenance
How to use the Application Encyclopedia Explorer menus, toolbars and buttons.	ApE Explorer
Logging on to and logging out from the Application Encyclopedia Explorer.	ApE Explorer
How to view information in the Application Encyclopedia Explorer	ApE Explorer
How to use the MSI Importer to teach the contents of a set of MSI files.	The MSI Importer
How to view the structure and contents of the MSI files using the MSI browser	The MSI Importer
How to use MSI Scanner command line utility to create an XML file containing a summary of the MSI	The MSI Importer

Contacting Peregrine Systems

For technical support on this or any other product from Peregrine Systems, Inc., refer to the Customer Support Web site at:

http://support.peregrine.com



This chapter provides an overview of the Desktop Inventory Application Encyclopedia (also referred to as ApE in this document).

You will find information on the following topics:

- Application Encyclopedia Overview on page 10
- *The ApE Components* on page 11

Application Encyclopedia Overview

Application Encyclopedia (ApE) is a database-style recognition library which provides the application recognition technology foundation for Peregrine Systems's Desktop Inventory products.

After you have configured a Scanner and scanned the computers in your population, a scan file is produced which contains inventory data about those computers.

The scan file does not initially contain a list of recognized software applications. Instead the Scanner collects information about executable files. This information is then analyzed to determine the applications the files are part of.

This analysis makes use of a Software Application Index (SAI) file (which resides in the following directory by default:

C:\Program Files\Peregrine\Desktop Inventory\8.0.0\Common

A SAI file contains encoded knowledge of what software applications can be recognized. Once applications have been recognized, the scan file is rewritten, or 'enriched', to include the application list.

There are three ways to update the SAI file with knowledge of new applications.

- You can download a new SAI file from the Peregrine support web site. This file is updated on a quarterly basis to reflect the on-going work of our software librarians.
- You can export (generate) a SAI file with knowledge of your own applications using the Application Encyclopedia (ApE) Explorer. The ApE Explorer is also used to maintain your database.
- A customized SAI file (user.sai) can be created using Analysis Workbench or the SAI Editor. This file contains applications that you have taught to it.

Further Information

You can find further information about SAI files and how they are used for recognition in the Desktop Inventory User's Guide.

The ApE Components

The Application Encyclopedia recognition engine consists of three components:

Application Encyclopedia Database

This database contains information about software applications. You can export this information to a SAI file used when application recognition is required for Analysis Workbench and Viewer.

Application Encyclopedia Server

The ApE Server is a software component that manages updates to the ApE database. It ensures that user customizations are maintained and integrated with Peregrine data from new SAIs.

Application Encyclopedia Explorer

The ApE Explorer is a Windows-based tool that allows multiple users to manage, view and update the information in the ApE database. It is possible to get several views of the data in the database, add new applications to the recognition library, export the contents of the database to the SAI format, import SAI files, ApE explorer connects to an ApE Server via IP sockets.

The MSI Importer is an ApE Explorer module that uses the MSI standard to add applications packaged in MSI-based installers directly to the ApE database without having to install then first.

See *ApE Explorer* on page 25 for further information about using the ApE Explorer.

See *The MSI Importer* on page 81 for further information about using the MSI Importer.

These components work together to create a recognition data maintenance system.

The following diagram shows the communication between the three components of the Application Encyclopedia.

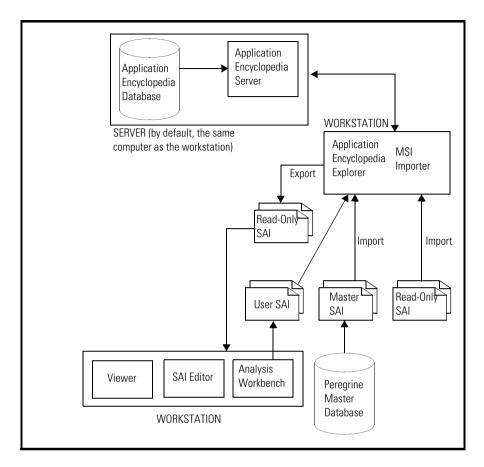


Figure 1-1: The Ape components

ApE Database Maintenance

You will find information on the following topics in this chapter:

- *Keeping Your ApE Database Up-To-Date* on page 14
- Techniques Used to Maintain the ApE Database on page 14
- Importing SAIs Into Your ApE Database on page 15
- Manually Updating Your ApE Database (Teaching) on page 16
- Using the MSI Importer to Add Applications to the ApE Database on page 22
- Database Backups on page 22
- *Frequently Asked Questions* on page 22

Keeping Your ApE Database Up-To-Date

You will want to keep your ApE database up to date, so that it includes in-house applications and any applications that you may have taught to User SAIs in Analysis Workbench.

When you first install Desktop Inventory, the ApE database is unpopulated and you populate it with data from Peregrine's Master database (Master SAI). The ApE database can also be populated with data from National SAIs (currently French and German SAI) if you have national editions of the applications installed across your software population.

Note: If no such applications are installed then we recommend that you import only the Master SAI.

If you are upgrading from a previous version of InfraTools Desktop Discovery, you may have a customized database that you wish to use. You may do this by exporting an SAI from your old installation and importing that into the new database. Once you have your existing data in the new database you may import the latest Master SAI to ensure that the Peregrine portions of your software library are up to date.

Further information

- Further information about the SAIs and how to maintain them is covered in detail in the Desktop Inventory User's Guide.
- The procedures used to manually update the ApE database are covered in *ApE Explorer* on page 25.

Techniques Used to Maintain the ApE Database

The Application Encyclopedia Explorer is used to maintain and update the data in the Application Encyclopedia database by:

- Importing file data from a scan file. This should be the main way in which you update files in the ApE database.
- Importing a User SAI file that may have applications in it that you have manually taught via Analysis Workbench.
- Manually adding publishers, applications, releases, files and release relations.

Importing SAIs Into Your ApE Database

In this section...

- Types of SAI Files on page 15
- Master Application Libraries and National Libraries on page 15

Types of SAI Files

Entries can be added to an SAI file. These SAI files can be imported into the Application Encyclopedia database. Three types of SAI files can be imported.

SAI updates (Master.sai)

Peregrine Systems hold a master copy of the database. This Master database is being continually updated and new information is made available in the form of SAI Updates. You can obtain these updates by visiting the Peregrine Customer Support website. These SAI updates can then be imported into the customer Application Encyclopedia database.

User SAIs (User.sai)

User SAIs are custom created using the Analysis Workbench.

Read Only SAIs

A Read Only SAI is an export from your ApE database. It can be imported back, although doing so will wipe out the existing entries in your database. If you want to have your own entries as well as the new entries from the Master Library when setting up the database, **ReadOnly.sai** must be imported first.

The mechanics of importing SAI files are covered in *Importing Data from an SAI* on page 56 of this guide.

Master Application Libraries and National Libraries

The central Peregrine ApE database is called the Master Database and is distributed to customers as a set of Master SAI files:

- Master.sai
- French.sai
- German.sai

It is exported from the Peregrine Master database by Peregrine Librarians and posted as a quarterly update on the Customer Support website. The Master.sai contains English (English US, English UK, international English and others) versions of software and language-independent application versions or neutral versions.

The French.sai and German.sai files are exports from the Master database. Although Master.sai contains only English and neutral applications, the Master database contains all data, that is, including French and German data.

These SAI files can be used to keep your ApE database up to date (quarterly) in addition to adding entries of your own to the ApE database.

The ApE database can then be used to produce a single SAI file to be used for your recognition purposes in applications such as Analysis Workbench, XML Enricher and Viewer.

Note: When importing National SAI files, you must import the Master SAI first.

Manually Updating Your ApE Database (Teaching)

The process of manually updating your database with new entries is also known as teaching entries to the ApE database.

Manual updates to the Application Encyclopedia database are used to update publishers, applications and versions.

Important: This is not the preferred way of maintaining the files in the database, since numerous properties must be manually entered into the database for each file to be described.

ApE database maintenance can be broken down into four stages:

- Stage 1 Obtaining the Software on page 17
- Stage 2 Application Structure Analysis and Installation of All the Components on page 17
- Stage 3 Adding Obtained Information Into the Library on page 18
- Stage 4 Creating a New SAI File For Recognition Purposes on page 22

Further Information

The actual teaching procedure is covered in detail in *Teaching New Applications to the ApE Database* on page 62.

Stage 1 - Obtaining the Software

This stage involves deciding which software is to be added to the ApE database and where it can be obtained from. Generally, this will be in-house software that your company has produced or any new commercial applications acquired by your company.

Stage 2 Application Structure Analysis and Installation of All the Components

This stage involves the installation and analysis of the software. However, before the installation of the software takes place a certain amount of preparation work should be done.

Preparation Work

We recommend that you have at least one test machine for the purpose of application installations. For installations of Client/Server applications access to an additional machine should be considered.

The best way to collect all the necessary information about files belonging to an application is to make a 'clean' installation of that application. That is, install the application on a machine which has only an operating system installed.

Since it can be very time consuming to install an operating system on a machine every time the application installation is required, we recommend that you install it once and then use some kind of imaging software. By using this software the images of all base operating systems can be created. When a certain operating system is required, the image can be quickly restored.

Application Analysis

In order to add application data into the database you will have to establish:

- The hardware and software requirements for an application installation and whether they can be met.
- The platforms an application is designed for

- What third party applications must be installed for the application to function correctly (for example, Interbase Server is required for Delphi).
- What the structure of the application is. That is:
 - What the components of the application are (whether they are standalone)
 - What the Main files of the application are and each of the components
 - What the Associated and Third Party files are

For definitions of these file types, refer to *Recognition File Types* on page 20.

A clean installation of the application and each of the standalone components should be made on every platform the application is designed for. Data should be scanned and added into an application library.

Warning: The default Scanner might be changed to include other executables if required.

Stage 3 - Adding Obtained Information Into the Library

During this stage, application data is added into the ApE database, taking into account release relations between different application components (provided there are any) and naming conventions for the Publisher/Application/Version names.

Naming Conventions

In order to provide and maintain data consistency in the ApE database, applications should be described in a standardized way. This can potentially guarantee that if different people work with the database, the standard is not reduced.

Publisher

We define a publisher of a software application as a company that holds the full Copyright for the application. It is not necessarily the company that developed the product. Sometimes, the developers of the product do not own the copyright or have only partial copyright. If there is more than one company listed in the Copyright list, the one with the full Copyright should be chosen.

All publisher names should be spelled the same way in the ApE database. Before adding a new publisher name to the database it is a good idea to check whether the entry for the publisher already exists. Generally, publisher names should be entered into the database the way it was spelled in the Copyright for the product. However, there are a few things that should be kept in mind.

- Publisher Names with The in the title. For example, The Wollongong Group. The article (The) should be omitted, since most people will look for the name 'Wollongong' not 'The Wollongong'.
- If it is a publisher group (for example, Matrox Electronic Systems consists of Matrox Graphics, Matrox Imaging, Matrox Networks, Matrox Video), the branch of the company responsible for a particular development should be considered the publisher. You can enter a note in the Publisher details that the company is a member of a certain Publisher group.
- If one publisher acquires another, then use the following convention to rename the publisher that has been acquired:
 - The acquiring company name should be written first followed by the name of the publisher that acquired it in brackets. For example, Peregrine (fPrint).

Application

We define an application as a group of files that performs certain tasks for users.

If during an application installation you have to agree to a licence agreement, then we would say that the application requires a licence. The licence can be free of charge (for example, Netscape Communicator and Internet Explorer).

All applications should be spelled in the same way. Before adding an application into the database it is a good idea to check whether this application already exists in the database.

If the application is not already in the database, Application Name should be entered into the database the way it is spelled in the following sources (whatever is available):

- Help About... information box in the installation of the product
- CD-ROM cover for the product CD
- Properties... Product Name in Windows Explorer (not always consistent)
- **Product Name field** of the Windows Version resource data in the scan file.

Version

The version of an application is a release in which application functionality has been changed significantly compared to the previous release. This is reflected in the file data changes and/or structure of the application.

Version Name consists of the version number, operating system details and the language description. It is relatively difficult to establish how far you should go with the version number level (2, 4, 6, digits or more....).

The general rule is that it should contain enough differences so the recognition engine can distinguish it from the other releases. By the Operating Systems in the version description we mean the operating system(s) that the application version was designed for, as opposed to the operating systems it would be able to run on.

The version information should be taken from the following sources:

- Help About... information box (provided it is possible to launch the product after the installation)
- Properties...Product Version in Window Explorer, although that information is not always consistent
- Product Version field of the Windows Version resource Data in the FSF

Recognition File Types

Each file in the ApE database is categorized as Main, Associated or 3rd Party.

Main file

This is a key application file, that is, it is a file without which the application could not be running. It should always be present whenever the application is installed regardless of whether it is a minimum or complete installation. An application can have more than one Main file. If at least one of them is found on the machine, the application will be reported.

Associated file

This is a non-key file that is part of the application and is written by the publisher that developed the product.

3rd Party

This is a file written by another Publisher (3rd Party) and is used in the current application. Examples of 3rd party files are some DLL files that are technically used by the application, but are also distributed freely and can be used by other applications.

Releases

When a publisher releases updates for an existing version of one of their products, they typically don't change the name of that version. Any particular version of a product could have several updates to it. ApE refers to the umbrella version as the Release, and to each of the updates as a Version.

Release Relations

The release relation mechanism has been implemented in order to report the correct number of licences required for an application installation.

If an application is a suite of products (for example, Microsoft Office or Lotus SmartSuite) the suite products (for example, Access, Excel, PowerPoint) need to be covered by one suite licence when they are installed as part of the suite and by individual licences when they are bought separately.

Release relations connect the main components that represents the suite (Office Tools in the case of Microsoft Office or Lotus SmartCenter in the case of Lotus SmartSuite) with other products belonging to the suite.

In the case when the main suite component is not installed on the machine, the installed suite components will be regarded as individual products.

Release relations are also useful when an application has a complex component structure. If application components can be installed on their own, they should be treated as independent applications, but the connection with the application should be reflected in release relations of that application.

Further Information

For further in formation about release relations please see *What is a Release Relation?* on page 72.

Stage 4 - Creating a New SAI File For Recognition Purposes

When you have made additions to the ApE database, export an SAI file from it that can be used for the recognition purposes when using Analysis Workbench and Viewer.

Further Information

For further in formation about creating a new SAI file, see *Exporting Data to an SAI* on page 60.

Using the MSI Importer to Add Applications to the ApE Database

The MSI Importer imports applications into the ApE Database without having to install them or perform and scan machines.

For further information about the MSI Importer and how to use it, see the *MSI Importer* Chapter.

Database Backups

To protect the Application Encyclopedia database from potential data loss, the database should be backed up regularly. In addition, it is recommended to store the backup medium in a different physical location from the database server.

The Application Encyclopedia database can be backed up by making a copy of the following directory and zipping it

<mysql_install_dir>\data\apeserver

Typically this will be:

c:\program files\peregrine\Desktop Inventory\8.0.0\mysql\data

Frequently Asked Questions

In This Section...

- How Often Are Recognition Libraries Released?
- For Which Languages Are Recognition Libraries Available?

- *Can I Use a New Recognition Library With An Old Version of the Software?*
- I See That SAI Updates Are Available Regularly, What About Updates to the Server Based APE Database?
- Can I Get Peregrine to Add an Application Into the Master SAI?
- Does Peregrine Have a Unix Master SAI?

How Often Are Recognition Libraries Released?

Recognition libraries for all languages are released once each quarter via the secure customer support site. Library updates are available without additional charge for all customers under maintenance.

For Which Languages Are Recognition Libraries Available?

There are currently three languages of libraries available for Desktop Inventory, in all cases the master (English) library should be used. This can be supplemented currently by French and German language libraries.

Can I Use a New Recognition Library With An Old Version of the Software?

As technology is always improving, it is necessary for the recognition libraries to evolve in conjunction with the application recognition technology within product releases.

The latest library can be only be safely assumed to be fully compatible with the current release. However, when attempting to use a new recognition library with an old version of the software, the software will warn you if the SAI version is not supported.

I See That SAI Updates Are Available Regularly, What About Updates to the Server Based APE Database?

Quarterly updates to the SAI and ApE databases are distributed. For both of these kinds of updates, an SAI file is used as the transfer medium.

For users of ApE, the updated file is used to identify and apply the changes since the last update, including additions, changes and deletions. The update file is automatically applied through the ApE Explorer's Import SAI function.

Can I Get Peregrine to Add an Application Into the Master SAI?

If the application is a "mainstream" application, this is possible. Contact support@peregrine.com for details.

If the application is the result of in-house development or is very specialized in nature, Peregrine will not add it to the standard application library.

Does Peregrine Have a Unix Master SAI?

Yes, Desktop Inventory comes with a UNIX Master SAI. The file is called **unix.sai** and can be found in the following default location:

C:\Program Files\Peregrine\Desktop Inventory\8.0.0\Common

We currently have support for Solaris, AIX and HP-UX.



This chapter describes the Application Encyclopedia (ApE) Explorer, which is used to maintain the data in the ApE database and for importing and exporting data to different formats.

You will find information on the following topics:

- Overview of ApE Explorer on page 26
- *Getting Started* on page 26
- The Application Encyclopedia Explorer Interface on page 32
- Using the ApE Explorer on page 39
- Release Relations on page 72
- Verifying Recognition on page 75

Overview of ApE Explorer

The ApE Explorer is used to do the following:

- View information in your ApE database
- Add a new software publisher/application/release/version/file to the ApE database
- Delete an existing software publisher/application/release/version/file from the ApE database
- Edit the properties for an existing software publisher/application/release/version/file in the ApE database
- Import data from a Software Application Index (SAI) file
- Export a data to a SAI file
- Manually teach new applications to the ApE database

Getting Started

In This Section...

- If Upgrading From a Previous IDD Release on page 26
- Installing ApE Explorer on page 27
- Manually Creating the ApE Database on page 28
- Required Operating Environment on page 29
- Starting and Stopping the ApE Server Service on page 29
- Launching ApE Explorer on page 30
- Logging in to ApE Explorer on page 30
- Initial Activity on page 31
- Viewing Log Files on page 31

If Upgrading From a Previous IDD Release

Important: If you are exporting a Read Only SAI from InfraTools Desktop Discovery version 6.00 after the date of the latest Master SAI you will not be able to import the latest Master.SAI after importing the Read only SAI.

There are two workarounds:

- 1 Change the date on your PC before exporting a Version 6.00 Read Only SAI to a date prior to the latest Master.sai. Change the date back before importing the Read Only SAI and the latest Master.sai into ApE
- 2 Import the latest Version 6.00 Master.sai into the IDD Version 6.00 ApE database before exporting the Read Only SAI

If upgrading from an InfraTools Desktop Discovery release, do the following:

- 1 Create a Read-Only SAI by exporting it from your old InfraTools Desktop Discovery ApE database.
- **2** When you have installed the new Desktop Inventory software, import this SAI into the new APE database.

The new ApE Server will convert the data and place it in the ApE database.

3 Once you have imported the old SAI, import the new Master SAI into the new database.

Warning: This action will wipe the database. We recommend that you perform this procedure on an empty database.

For further information on the upgrade procedure, refer to the Desktop Inventory Installation Guide.

Installing ApE Explorer

Refer to the Desktop Inventory Installation Guide for instructions on how to install the Application Encyclopedia client.

Elements Installed

On installation the following components are installed on the workstation:

- ApE Server
- ApE Explorer

This component communicates with the ApE server for customization of the database.

Manually Creating the ApE Database

Important: The following procedure will delete all data in an existing ApE database should one exist already. Caution should therefore be used.

If Desktop Inventory is installed on a computer that already has a version of MySQL installed then the installer will not attempt to install an additional copy. The ApE Server can use the existing MySQL installation.

However, the installer will not be able to automatically create the ApE database - this would require the use of a MySQL administrator login and password, unknown to the installer if it didn't install the MySQL installation in question.

The ApE Database needs to be created by a user who can provide a MySQL login and password with sufficient rights to create databases and tables, and to insert rows.

To manually create the ApE Database:

1 Using the Windows Explorer, copy the files apeserv.sql and userids.sql from the ape server directory (C:\Program Files\Peregrine\Desktop Inventory\8.0.0\Ape Server by default) to the MySQL bin directory (C:\Program Files\Peregrine\Desktop Inventory\8.0.0\mysql\bin by default)

This is necessary due to a bug in the MySQL client which prevents the client from accessing files that reside in a directory with spaces in the path name.

2 Launch the MySQL command line client. This is done by running the following:

c:\mysql\bin\mysql -u <username> -p

from a command prompt. If you installed MySQL to a non-default location, the path to mysql.exe will be different.

<username> refers to the MySQL login that you intend to use to create the database. The MySQL client will prompt you for a password.

3 Once successfully logged in, execute the following command:

\. apeserv.sql

This will execute the SQL script that creates the database.

4 Execute the following command:

\. userids.sql

This inserts the initial ID records into the ApE database.

5 Execute the following command:

\. userprefs.sql This creates the ApE logins ApeUser and ApeAdmin.

- 6 Type exit to quit the MySQL client.
- 7 You may now delete the copies of the SQL scripts from C:\mysql\bin.

Your ApE database will now be created, and you can use the ApE software as described in this User's Guide.

Required Operating Environment

The Application Encyclopedia Explorer works on any Windows-32 bit Operating System.

These are the platforms on which the Ape Server component will run:

Supported OS	Notes
Windows NT 4.0 with SP6	
Windows 2000	Preferred platform
Windows XP	

Starting and Stopping the ApE Server Service

The ApE Server is an NT service. By default, this service is **started** when the program is installed.

If you should ever need to stop or start this service manually, there are two ways in which you can start and stop an NT service:

- Using the Services facility in Control panel.
- Using Net Start and Net Stop commands in a DOS window.

Refer to the documentation supplied with your Windows installation for more information on how to do this.

Important: You can configure various settings for the ApE Server by changing entries in the **apeserv.ini** file. Further information on how to do this is given in *Viewing Log Files* on page 31.

Launching ApE Explorer

To launch the Application Encyclopedia Explorer:

- Select the Application Encyclopedia Explorer entry in the Peregrine Desktop Inventory 8.0.0 sub menu of the Start menu.
 - **Note:** Multiple ApE Explorer clients can run concurrently on different workstations, connecting to the same ApE Database.

Logging in to ApE Explorer

Once you have launched the program, a splash screen is displayed showing the version of the software.

After a few seconds the Ape Explorer login dialog is displayed.

ApE Server Connection					
?	Provide the fi server.	ollowing login information in order to log on to the ApE			
	<u>H</u> ostName:	localhost			
	<u>P</u> ort:	8106			
		Login Cancel			

To log in to the Application Encyclopedia Explorer:

1 Enter the Hostname and Port for the Ape Server.

Double check that you have entered the correct details. A failed connection is usually due to incorrect information being entered here.

Note: The Hostname is not case sensitive.

2 Click the Login button.

You are now logged into the ApE Explorer.

Initial Activity

When ApE is first installed, all of the tables in the database are empty and need to be populated. The method used to initially populate a database is to import a Master.sai (French.sai, German.sai, if necessary).

Important: If you are planning to migrate your old ApE database to this version do not import the **Master.sai** file. Refer to the Installation Guide for Upgrade instructions.

Refer to *Importing Data from an SAI* on page 56 for further information on how to do this.

Viewing Log Files

You can view the **Apeserv.log** file using any text editor. By default this log file can be found in the following location:

Peregrine\Desktop Inventory\8.0.0\ApE Server

The Application Encyclopedia Explorer Interface

In This Section...

- Application Encyclopedia Explorer Workspace on page 32
- *Icons* on page 33
- Menus on page 33
- Toolbars on page 37
- Shortcut Keys on page 37

Application Encyclopedia Explorer Workspace

Once login has been successful and you have imported data from the Master SAI, you will see data in the Application Encyclopedia Explorer.

ApE Explorer displays a hierarchical structure of software publishers, application names, releases, application versions and files contained in the ApE database.

	📢 ApE Explorer							_ 🗆 🗙
	Item <u>V</u> iew <u>T</u> ools <u>H</u> elp							
	6a 🖆 🗃 🗙 📸 🎝							
Software Publisher	🕂 👘 Peregrine (Apsylog)	-	Name	Size	C	Rel	Sig	Exe 🔺
	🖶 🍗 Peregrine (fPrint)		👼 aamapi40.dll	25070	Yes	Ass	007	Win
	🕀 🛬 Peregrine (Knowlix)		🗟 acadi.exe	352528	Yes	Ass	BF1	Win
	🖻 🛬 Peregrine Systems		🗟 adbc.dll	22162	Yes	Ass	505	Win
Application Name	🕀 🕎 Asset Manager		🗟 am.exe	409600	Yes	Main	2FA	Win
			🗟 am.ovl	72747	Yes	Ass	25D	Win
	<u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u></u>		🗟 amdba.exe	43870	Yes	Ass	8FE	Win
Belease			🗟 amdbal.exe	26954	Yes	Ass	891	Win
	👘 🕤 4 🖓 4.00 - English, Windows NT4/2		🗟 amexp.exe	25193	Yes	Ass	29F	Win
Version			🗟 amexpl.exe	15116	Yes	Ass	38F	Win
	4.1.0 - English, Windows 3x/N		🗟 amimpl.exe	24906	Yes	Ass	4D3	Win
	4.1.0 - German, Windows 9x/N		🗟 amsrv.exe	38873	Yes	Ass	27B	Win
	4.1.0 · French, Windows 98/N		🐻 ci14.dll	106496	Yes	Ass	A9A	Win
Main and	4.1.1 - English, Windows 98/N		🗟 ci2k.dll	106496	Yes	Ass	A9A	Win
Associated	- 🖓 4.1.1 - French, Windows 98/N		🖹 crpaig80.dll	618496	Yes	3rd	655	Win
	4.1.1 - German, Windows 98/N		🗟 crpe32.dll	53370	Yes	3rd	969	Win
files related to	- 🖓 4.2.0 - English, Windows NT4/		🗟 crxlat32.dll	24576	Yes	3rd	F51	Win
that version	- 🧐 4.2.0 - French, Windows NT4/		🗟 dbl50t.dll	102912	Yes	3rd	1F1	Win
		1	🗟 expat.dll	438339	Yes	Ass	6AB	Win
			🗟 genasset.exe	41232	Yes	Ass	7E5	Win
	4.2.1 - French, Windows 98/N	-	🗟 implode.dll	17920	Yes	Ass	4FC	Win 💌
			4					•
	Ready							//

lcons

Icons are used to represent the various elements of the database.

lcon	Element
E	Software Publisher
	Application Name
3	Release
-92	Application Version
	File

Menus

Four menus are available:

- The Item Menu
- The View Menu
- The Tools Menu
- Help Menu

Menu item	Description
New	Depending on what has been selected in the main window, this option will display a dialog enabling you to create a new item in that category.
	For example, if have selected a version and you select New, then the New File dialog is displayed.
Expand	Expand the tree under the point you have selected.
Delete	Deletes the currently selected item. A confirmation message is displayed.
Properties	Displays a properties dialog that shows the characteristics and parameters for the selected item. You can edit the entries in this dialog.
Edit Release Relations	Displays a dialog which allows you to establish or edit a release relation between two or more applications.
	Only displayed if an Application Release is selected.
Get Install String From Scan File	Allows you to add an install string from a scan file that you know contains this detail. An install string is the line that is shown in Windows Add/Remove Programs.
	Only displayed if an Application Version is selected.
Import Version Data From A Scan File	Displays the Scanfile Import Wizard.
	This dialog is used when teaching new applications to the ApE database.
	Only displayed if an Application Version is selected.
Connect To Server	Establishes a connection with the Ape Server.
Disconnect From Server	Disconnect from the Ape Server.
Exit	Exit the ApE Explorer.

The Item Menu

The View Menu

This menu contains only one option:

Refresh F5

Updates the display with the current information from the database.

The Tools Menu

Menu item	Description
Edit Application Types	Allows you to add, edit or remove application types in the database.
Edit Operating Systems	Allows you to add, edit or remove Operating systems in the database.
Import/Export SAI	 This option has two purposes: Allows the import of data from the SAI files into the Application Encyclopedia database. Allows the export of data from the Application Encyclopedia database to a customer read-only SAI file that can be used for recognition in Analysis Workbench and Viewer.
Verify Recognition	This feature allows you to load in a scan file and check what the recognition results will be. You can also use this feature to add versions from the scan file directly to the ApE database.
Search for Files	Allows you to search the database for a named file.
Import MSI Installer	The MSI Importer can be used to teach any application that was packaged using the MSI Installer. This module allows software teaching based on an MSI file, which removes the need to install and scan software in order to add it to the ApE database. See the <i>MSI Importer</i> Chapter for more information.

Help Menu

The Help menu contains options for displaying the About box and the Online Help.

Toolbars

Toolbars allow you to access various commands without using the menu.

Click on the toolbar icon to activate the function associated with it.
 Buttons in the ApE Explorer toolbar offer the following functionality:

lcon	Name	Function
<u>₿</u> ъ	Expand	Expands the tree under the point you have selected
Ë	New	Depending on what has been selected in the panes, this option will display a dialog that enables you to create a new item in that category.
r	Properties	Displays a properties dialog that shows the characteristics and parameters for the selected item. You can edit the entries in this dialog.
×	Delete	Deletes the currently selected item. A confirmation message is displayed.
2	Import/Export SAI	Displays a wizard that allows the import of data from the SAI files into the Application Encyclopedia database and the export of data from the Application Encyclopedia database to a customer read-only SAI file.
2	Search for files in the ApE database	Allows you to search the database for a named file.

Note: When the mouse pointer passes over an icon, a tooltip appears indicating the command corresponding to the icon.

Shortcut Keys

You can quickly accomplish tasks you perform frequently by using shortcut keys.

Keyboard Shortcut	Function
Ctrl-A	Selects all of the items visible in the right-hand pane (the list view).
Ctrl-F	Allows you to search the database for a named file.

Keyboard Shortcut	Function
F5	Updates the display with the current information from the database.
Del	Deletes the currently selected entry.

Using the ApE Explorer

In This Section...

- Viewing Information in the APE Explorer on page 40
- Displaying Information About Software Applications on page 40
- Searching For Files on page 41
- Adding a New Software Publisher on page 42
- Deleting an Existing Software Publisher on page 43
- Editing the Properties for a Software Publisher on page 45
- Adding a New Software Application on page 45
- Deleting a Software Application on page 47
- Moving a Software Application to Another Publisher on page 47
- Adding a New Release on page 47
- Deleting an Existing Release on page 48
- Editing the Properties for a Release on page 49
- Adding a New Software Version on page 50
- Deleting an Existing Software Version on page 51
- Editing the Properties for a Software Version on page 51
- Moving a Software Version to Another Release on page 52
- Adding the Install String From a Scan File on page 52
- Adding a New File on page 53
- Deleting an Existing File on page 55
- Editing the Properties for a File on page 55
- *Importing Data from an SAI* on page 56
- *Exporting Data to an SAI* on page 60
- *Teaching New Applications to the ApE Database* on page 62

Viewing Information in the APE Explorer

ApE Explorer displays a hierarchical structure of software publishers, application names, releases, application versions and files contained in the ApE database.

Software Publisher

This is the name of the company or corporation that released the software application. For example, Peregrine Systems, Inc. is a software publisher.

Application Name

This is the name of the software program. For example, Desktop Inventory is an application name.

Release Application Version

When a publisher releases updates for an existing version of one of their products, they typically don't change the name of that version. Any particular version of a product could have several updates to it. In this scenario, ApE refers to the umbrella version as the Release.

Application Version

Each of the updates to an umbrella release is referred to as a Version.

Files

Each file in the ApE database is categorized as Main, Associated or 3rd Party. For an explanation of these file categories please refer to *Recognition File Types* on page 20.

Displaying Information About Software Applications

To display information about software applications:

1 Click on the + sign next to a **Publisher** in the tree. You can also use the **Expand** option in the **Item** menu.

All the **Applications** by that software publisher are shown. A detailed view of the software applications is shown in the right pane.

- 2 Expand an application to display the **Releases** for it. A detailed view of the Releases is shown in the right pane.
- **3** Expand the tree further to display the **Versions** of that particular software application release that are in the database. Details for the software versions are shown in the right pane.

4 Click on a version of the software to display the main, associated and 3rd Party Files for that version in the right pane.

In summary

- When a software publisher is selected, the applications associated with that publisher are displayed in the right pane.
- When a software application is selected, the releases associated with that application are displayed in the right pane.
- When a software release is selected, the versions associated with that release are displayed in the right pane.
- When a software version is selected, the files associated with that version are displayed in the right pane.

Searching For Files

To search for a file in the ApE Database:

1 Click the sicon or select the Search for Files... option from the Tools menu. The following dialog is displayed:

Search For Files
Search for Files Named: Search
Search Results
Name Size Signature Publisher Application Version

- 2 In the Search for Files Named field, type all or part of the file name or folder you want to find.
- **3** Click the **Search** button. The results will be displayed in the **Search Results** pane.

earch For Files				
Search for Files Name earch Results ————————————————————————————————————	d: pereg	rine		Search
Name	Size	Signature	Publisher	Application
Cauprbm.peregrine.dll	104960	C181-FB6D	Peregrine Systems	SCAuto for L
📓 peregrineapi. dll	143436	00E3-E8BA	Peregrine Systems	Get-Service
📓 peregrinepmm. dll	32768	3E66-DA93	Peregrine Systems	Get-Service
🗟 peregrinepmmcfg.exe	28672	E6DD-D606	Peregrine Systems	Get-Service:
•				•

4 Double click on an entry to go directly to that file in the ApE Explorer window.

Using Wildcard Characters

You can use the asterisk as a substitute for one or more characters.

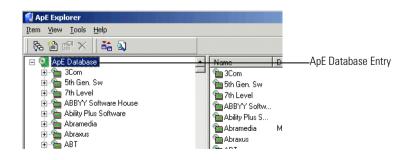
For any search string entered, even one with no wildcards, there is an implicit wildcard at the beginning and at the end of the search string. So **myfile** is the same as ***myfile***, and **my*le** is the same as ***my*le***.

Adding a New Software Publisher

This procedure is used to add a new software publisher to the ApE database.

To add a new software publisher:

1 Right-click on the Ape Database entry in the tree. It is the first entry (the root) of the tree.



2 Select the New... option. You can also select the New option from the Item menu or click the 🖺 toolbar icon.

The Publisher Properties box appears:

Enter the Name and Description for the new software publisher.

Warning: Ensure that the Publisher Name is spelled correctly. Before adding a publisher name to the database, check whether the entry for the publisher already exists in the database.

3 Click OK.

Once the new publisher is added, its details are displayed in the tree.

Deleting an Existing Software Publisher

This procedure is used to delete an existing software publisher from the ApE database.

To delete an existing publisher:

- 1 In the tree, right-click on the software publisher to be deleted.
- 2 Select the **Delete** option. You can also select the **Delete** option from the **Item** menu or click the ★ toolbar icon.

A confirmation message is displayed.



3 Click Yes to delete the software publisher and all its associated sub-items.

Editing the Properties for a Software Publisher

This procedure is used to edit the contact details and other properties for a software publisher.

- 1 In the tree, right-click on the software publisher to be edited.
- 2 Select the Properties option. You can also select the Properties... option from the Item menu or click the Item toolbar icon.

The Publisher Properties box appears.

- **3** Edit the details as required.
- 4 Click the OK button to complete the edit.

Once the publisher details have been edited, the amended details are displayed in the tree.

Adding a New Software Application

This procedure is used to add a new software application to the ApE database.

To add a new software application:

- 1 In the tree, right-click on the software publisher the application belongs to.
- 2 Select the New... option. You can also select the New option from the Item menu or click the 🗎 toolbar icon.

plication Properties		
General		
8	New Application	
Publisher:	3Com	
<u>N</u> ame:	New Application	
Description:		
Application type:	Other	•
	ОК	Cancel

The Application Properties box appears:

Enter the following information:

Name

The name of the new application (must be entered)

Description

A text description indicating the application activity (optional).

Application Type

From the pull-down list select the software category that the application falls under (for example, word processor and spreadsheet).

3 Click OK to add the new application to the database.

Warning: Ensure that the application is spelled correctly. Before adding the application, check whether this application already exists in the database.

Deleting a Software Application

This procedure is used to delete an existing software application from the ApE database.

To delete an existing application:

- 1 In the tree, right-click on the software application to be deleted.
- 2 Select the **Delete** option. You can also select the **Delete** option from the Item menu or click the imes toolbar icon.

A confirmation message is displayed.

Confirm	
2	Are you sure you want to delete '5th Gen. Sw' and all its subitems?

3 Click Yes to delete the software application and its associated sub-items.

Moving a Software Application to Another Publisher

You can move an application so that is contained under another software publisher.

To move a software application:

1 Drag and drop the application onto the software publisher entry in the tree.

A confirmation message is displayed.



2 Click Yes to move the application.

Adding a New Release

This procedure is used to add a new software release to the ApE database.

To add a new software release:

1 In the tree, right-click on the software application the release belongs to.

2 Select the New... option. You can also select the New option from the Item menu or click the 🖺 toolbar icon.

The Release Label Properties box appears:

Release Label Pr	operties	x
General		
New	Release Label	
Publisher:	Ability Plus Software	
Application:	Ability Office	
<u>N</u> ame:	New Release Label	
		1
	OK	Cancel

- **3** Enter the name of the new release (must be entered)
- 4 Click OK to add the new application to the database.

Warning: Ensure that the release is spelled correctly. Before adding the release, check whether it already exists in the database for this application.

Deleting an Existing Release

This procedure is used to delete an existing software release from the ApE database.

To delete an existing software release:

- 1 In the tree, right-click on the software release to be deleted.
- 2 Select the **Delete** option. You can also select the **Delete** option from the Item menu or click the imes toolbar icon.

A confirmation message is displayed.



3 Click Yes to delete the software release and its associated sub-items.

Editing the Properties for a Release

This procedure is used to edit the properties for a software release.

To edit the properties for a release:

- 1 In the tree, right-click on the release to be edited.
- 2 Select the **Properties** option. You can also select the **Properties...** option from the **Item** menu or click the 🖆 toolbar icon.

The Release Label Properties box appears.

- 3 Edit the name as required (this is the only property you can edit for a release).
- 4 Click the OK button to complete the edit.

Once the release details have been edited, the amended details are displayed in the tree.

Adding a New Software Version

This procedure is used to add a new software version to the ApE database.

To add a new software version:

- 1 In the tree, right-click on the software release the version belongs to.
- 2 Select the New... option. You can also select the New option from the Item menu or click the 🗎 toolbar icon.

The Version Properties box appears:

Version Properties		×
General		
2	New Version	
Publisher:	ABBYY Software House	
Application:	FineReader	
Release Label:	6 CE	
<u>N</u> ame:	New Version	
Description:		
Install string:		
Operating System	: <generic></generic>	
Language:	<neutral></neutral>	
	OK Cancel	

3 Enter the following details:

Name

Name of the new version (must be entered)

Description

This is a user defined field that can contain any text.

Install String

This is the line that the version writes to the add/remove programs list when it is installed.

Operating System

The Base Operating System of the application version (for example, Windows NT). Select the Base OS from the drop-down list.

Language

Select the language of the application version from the drop-down list.

4 Click OK to add the new application to the database.

Deleting an Existing Software Version

This procedure is used to delete an existing software version from the ApE database.

To delete an existing version:

- 1 In the tree, right-click on the software version to be deleted.
- 2 Select the Delete option. You can also select the Delete option from the Item menu or click the X toolbar icon. You can also select multiple versions for deletion by holding down the Shift key while selecting them.
 A confirmation message is displayed.
- 3 Click Yes to delete the software version and its associated sub-items.

Editing the Properties for a Software Version

This procedure is used to edit the properties for a software version.

To edit the properties for a software version:

- 1 In the tree, right-click on the version to be edited.
- 2 Select the **Properties** option. You can also select the **Properties**... option from the **Item** menu or click the **Select** toolbar icon.

The Version Properties box appears.

- **3** Edit the details as required:
 - Name

Name of the new version (must be entered)

Description

This is a user defined field that can contain any text.

Install String

This is the line that the version writes to the add/remove programs list when it is installed.

Operating System

The Base Operating System of the application version (for example, Windows NT). Select the Base OS from the drop-down list.

Language

Select the language of the application version from the drop-down list.

4 Click the OK button to complete the edit.

Once the version details have been edited, the amended details are displayed in the tree.

Moving a Software Version to Another Release

You can move a software version and its contents so that is contained under another release.

To move a software version:

- 1 Drag and drop the version onto the software release entry in the tree. A confirmation message is displayed.
- 2 Click Yes to move the version.

Adding the Install String From a Scan File

You can add an install string from a scan file that you know contains this detail. An install string is the line that is shown in Windows Add/Remove Programs.

To add an install string from a scan file:

- 1 Right click on a version in the ApE Explorer tree and select the **Get Install String From Scan File...** option.
- 2 Navigate to the scan file which contains the install string.

The following dialog is displayed showing a list of all install string contained in the scan file.

Select Install String From Datafile	×
SATI mach64 Display Driver	
🛛 🛞 WinZip	
🚯 USB Supplement to OSR2	
8	
Microsoft Internet Explorer 5.5 and Internet Tools	
8	
8	
ି ବ ବ ବ ବ	
1 Q	
1 🕸	
1 <u>%</u>	
Microsoft Outlook Express 5	-
•	•
ОК	Cancel

3 Select the appropriate application install string and click OK.

Now when you right click on the version and select **Properties...** you will see the install string has been populated automatically with the value you selected previously.

Adding a New File

Warning: This method is not recommended for teaching files, because it is very prone to errors. Many file characteristics have to be added manually. The recommended method is to import files from data scan files. See *Teaching New Applications to the ApE Database* on page 62

This procedure is used to add a new file to the ApE database.

To add a new file:

- 1 In the tree, right-click on the software version that the file belongs to.
- 2 Select the New... option. You can also select the New option from the Item menu or click the 🗎 toolbar icon.

ile Properties	
General	
	New File
Publisher:	ABBYY Software House
Application:	FineReader
Release:	6 CE
Version:	6.0 CE
<u>N</u> ame:	New File
<u>S</u> ize:	0
<u>C</u> are about Size:	
<u>R</u> elation to App:	Associated
Signature:	0000-0000
<u>E</u> xe File Type:	Unknown
VerDLL String:	
	OK Cancel

The File Properties box appears:

- **3** Enter the following details:
 - Name

Name of the new file (must be entered)

Size

The size of the file

Care about size

When this option is enabled, the size of the file is used as a recognition criteria. When disabled, file size will not be used in recognition and N/A will be displayed in the size column.

Relation to App:

Whether the file is a Main, Associated or 3rd Party file. See *Recognition File Types* on page 20 for definitions of these terms.

Signature

The signature is a checksum of the first 8 Kilobyte of a file.

Exe File Type

The type of executable file (for example, DOS com or DOS exe).

VerDLL string

The **VerDLL** is a concatenation of a set group of version data fields. Do not change the entry in this field unless absolutely necessary.

4 Click OK to add the new file to the database.

Warning: Ensure that the file name is spelled correctly. Before adding the file, check whether it already exists in the database for this version.

Deleting an Existing File

This procedure is used to delete an existing file from the ApE database.

To delete an existing file:

- 1 In the tree, right-click on the file to be deleted.
- 2 Select the Delete option. You can also select the Delete option from the Item menu or click the × toolbar icon. You can also select multiple files for deletion by holding down the Shift key while selecting them.

A confirmation message is displayed.

3 Click Yes to delete the software file.

Editing the Properties for a File

This procedure is used to edit the properties for a file.

To edit the properties for a file:

- 1 In the right pane navigate to and right-click on the file to be edited.
- 2 Select the **Properties** option. You can also select the **Properties...** option from the **Item** menu or click the 🖆 toolbar icon.

The File Properties box appears.

- **3** Edit the details as required:
 - Name

Name of the new file (must be entered)

Size

The size of the file

Relation to App:

Whether the file is a Main, Associated or 3rd Party file. See *Recognition File Types* on page 20 for definitions of these terms.

Signature

The signature is a checksum of the first 8 Kilobytes of a file.

Exe File Type

The type of executable file (for example, DOS com or DOS exe).

VerDLL string

The VerDLL is a concatenation of a set group of version data fields. Do not change the entry in this field unless absolutely necessary.

4 Click the OK button to complete the edit.

Once the file details have been edited, the amended details are displayed in the tree.

Importing Data from an SAI

This procedure takes you through the steps required to import the data from a SAI file into the database.

This procedure can be used either to perform an initial database load or to allow User SAI files or updated Master SAI files to be added to the existing ApE database.

The following types of SAI files can be imported into the Application Encyclopedia database:

- The Master database is supplied to customers in the form of three SAIs:
 - Master SAI
 - French SAI
 - German SAI

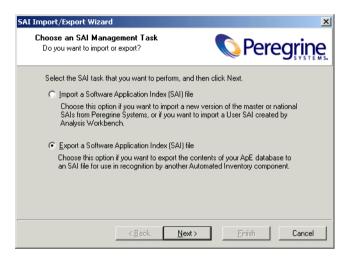
The French and German SAI files are also exports from the Master database.

- User editable SAIs (User.sai) which are created by the Analysis
 Workbench. You may have taught new applications to your User SAI in Analysis Workbench. You can import this file into your own ApE database to make sure that these changes are included.
- Read Only SAIs are exports from a customer ApE database. They contain everything that was in the database. They can be imported into the ApE database, for example, when you are upgrading from InfraTools Desktop Discovery 6.xx to Desktop Inventory 8.0.0.

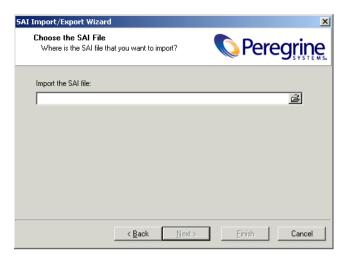
Warning: When upgrading, the Read Only SAI has to be imported before the latest Master.SAI. Importing the SAI on top of existing data will wipe out the entire database.

To import data from an SAI:

1 Click the toolbar button or select the Import/Export SAI... option from the Tools menu. The SAI Import/Export Wizard is displayed:



- 2 Select the Import a Software Application Index (SAI) file option.
- 3 Click Next to continue. The second page of the wizard appears.



4 Navigate to the SAI file that the data is to be imported from. The default location for the Master SAI is

Program Files\Peregrine\Desktop Inventory\8.0.0\Common\Master.sai

5 Click Next to continue. The third page of the Wizard appears.

SAI Import/Export Wiza	rd
Loading the SAI File The SAI file is being I	
LogTime	Log Message
2004/05/21 16:25:00	Application Types: 89
2004/05/21 16:25:00	Operating Systems: 25
2004/05/21 16:25:00	Languages: 43
2004/05/21 16:25:00	Publishers: 916
2004/05/21 16:25:00	Applications: 3511
2004/05/21 16:25:00	Release Labels: 5063
2004/05/21 16:25:00	Versions: 685
2004/05/21 16:25:00	Files: 69176
2004/05/21 16:25:00	Release Relations: 0
2004/05/21 16:25:00	The SAI file has been successfully loaded.
•	× •
	< <u>₿</u> ack <u>N</u> ext > <u>Finish</u> Cancel

This page shows the SAI being loaded and verified. It shows the numbers of application types, operating systems, languages, publishers, applications, releases, versions and files that were loaded from the SAI.

6 Once it has finished this process, click the **Next** button to continue. The fourth page of the Wizard appears.

SAI Import/Export Wizard	×
Sending the SAI to the ApE server The Wizard is communicating with the ApE server.	Peregrine
Import Log Progress	
The SAI Import/Export Wizard is sending your SAI file to t a few minutes - please wait for it to complete. Deleted Items	he server. This process will take
< <u>₿</u> ack <u>N</u> ext>	<u>Einish</u> Cancel

The **Progress** tab page shows the progress of the actual import. The contents of the SAI file are sent to the ApE Server.

7 Once the import process is complete, you can view a log of the events that took place by clicking the **Import Log** tab.

Note: The log is also available during the import procedure.

Import/Export Wizard		
Sending the SAI to the ApE The Wizard is communicating		O Peregrine
mport Log Progress		
LogTime	Log Message	
2004/05/21 16:25:36	Sending the to the /	ApE server
3 2004/05/21 16:25:36	Finished sending the	e to the ApE server
Q 2004/05/21 16:25:36	Sending the Filtered	Items to the ApE server
Q 2004/05/21 16:25:40	The ApE server has	finished processing Filtered Ite
4	Back Next>	Finish Cancel
	Frank Tilow A	Enter

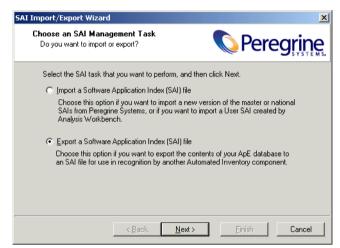
8 Click the Finish button. The import is now complete and the results can be seen in the ApE Explorer workspace.

Exporting Data to an SAI

Allows you to export data directly from the Application Encyclopedia database to a Read Only SAI that can be used for recognition in Analysis Workbench or Viewer.

To export data from an SAI:

 Click the toolbar button or select the Import/Export SAI option from the Tools menu. The SAI Import/Export Wizard is displayed:



- 2 Select the Export a Software Application Index (SAI) file option.
- 3 Click Next to continue. The second page of the wizard appears.

SAI Import/Export Wizard	×
Choose the SAI Location Where do you want to place the generated SAI files?	Peregrine
Export the database to:	
	B
SAI Description:	
< <u>B</u> ack <u>N</u> ext>	<u>Einish</u> Cancel

- 4 Navigate to the location that the data is to be exported to.
- **5** Enter a description for the SAI file.
- 6 Click Next to continue. The following page is displayed:



This page shows the progress of the export to the SAI. You can click between the **Progress** and **Export Log** tab pages.

Exporting the SAI The Wizard is exporting the	ie SAI. 💫 Peregr	ine
xport Log Progress		
LogTime	Log Message	
3 2004/05/21 16:36:32	The export process started at 21/05/2004 16:36:32.	
3 2004/05/21 16:36:32		
2004/05/21 16:43:55	Export statistics for ReadOnly	
2004/05/21 16:43:55	76 Operating Systems exported.	
2004/05/21 16:43:55	43 Languages exported.	
3 2004/05/21 16:43:55	89 AppTypes exported.	
2004/05/21 16:43:55	916 Publishers exported.	
2004/05/21 16:43:55	3511 Applications exported.	
2004/05/21 16:43:55	5063 Release Labels exported.	
12		_
		_
	<back next=""> Finish Ca</back>	ncel

If you should encounter any errors, these will be shown on the **Export Log** page.

7 Once the export is complete, click the Finish button to end the export process. A new Read Only SAI file will have been created in the location you specified. This file can now be used for recognition in Analysis Workbench or Viewer. It will contain Master SAI entries as well as entries added by you.

Teaching New Applications to the ApE Database

See *Manually Updating Your ApE Database (Teaching)* on page 16 for detailed information about the planning of a teaching project.

Before You Start...

Before you start this procedure, ensure that you have done the following:

- Started with a scan of a machine before the application is installed.
- Installed the application
- Taken a scan of the machine after the application has been installed.

To teach new applications to the ApE database:

- 1 Create a new version for the application in the ApE Explorer, unless you want to add files to an existing version.
- 2 Click on the version in the tree view and select the **Import version data from** a Scan File option from the File menu. The Scanfile Import Wizard appears.

Depending on what entry you clicked in the tree, the information on the pages of the wizard will reflect this. In the following example, we have created a new version of MSN Messenger Service. In the tree and wizard it looks like the following:



3 Click **Next**> to continue. A **Filtering** dialog is displayed. Set options in this dialog to specify which files should be loaded and optionally passed to the recognition engine.

file Import Wiz Filtering Specifying the scanfiles.	hard filtering to be used when reading the Reregrin
Files Directorie C <u>All files</u> C <u>N</u> o files	hould be loaded and optionally passed to the recognition engine. s
C Some files	Some riles By extension Executable files Files within Archives
	< <u>B</u> ack <u>N</u> ext > ⊡ritish Cancel

- 4 In the Files tab page, select the Load filter, select one from the following options:
 - All files Loads all files.
 - No files No files are loaded. For example, for hardware only analysis.
 - Some files Enables the Some files options:

By extension... This allows you to specify the extensions of any files that you want to be included. Select the extensions from the drop-down list (this list maintains a history of previously entered extensions) or type the extension directly in to the box. Multiple extension must be separated by semi colons.

Executable files This will allow all executable files to be processed against the recognition engine. Executable files include *.exe, *.com files, DLLs and other files containing executable code.

Files within Archives This will process any files in archive files (for example, Zip files, CAB, LZH). When this option is checked, any files matching the other criteria (extension and/or executable) are loaded, even if they are inside an archive. If the option is cleared, no files within archives are loaded.

If this is the only option enabled, nothing is loaded - it is not possible to load only files within archives.

5 In the Directories tab page, specify the directories to exclude.

Scanfile Import Wizard	×
Filtering Specifying the filtering to be used when reading the scanfiles.	OPeregrine
Specify which files should be loaded and optionally passed to Files Directories	he recognition engine.
Exclude files in these directories	
	Load list
< <u>B</u> ack <u>N</u> ext >	<u>Einish</u> Cancel

- 6 Select the Exclude files in these directories check box.
- 7 Place the cursor in the list box and type in the path (do not include the drive letter) of the directories to be excluded. An example of the format is as follows:

\WinNT\\$NTServicePackUninstall\$

- 8 You can save the current list displayed in the list box. To do this, click the Save list... button and specify the filename and path of the text file to save to. The default filename is dirlist.txt.
- **9** You can load a previously saved text list file by clicking the Load list... button to display a dialog box. Enter the filename and path or navigate to the file to be loaded.
- 10 Click Next to continue. The Scanfile Selection dialog is displayed.

Scanfile Import Wizard	×
Scanfile Selection Selecting the scanfiles that the new version will be taught from	Peregrine
This wizard requires one scan file from prior to MSN Mes- the same machine after MSN Messenger was installed. I specified if patches needed to be installed. Pre-installation scan file:	
Post-installation scan files:	
Filename Asset Tag Description	<u>A</u> dd
	<u>R</u> emove
< <u>B</u> ack <u>N</u> ext	Einish Cancel

- 11 The wizard requires two scan files. The first scan file (pre-installation scan file) is the result of a scan performed on a machine prior to the installation of the program (in this case MSN Messenger Service) and the second (Post-installation scan file) is the result of the scan of the same machine after the new version of MSN Messenger Service was installed.
 - **a** Enter the path to the pre-installation scan file.
 - **b** Enter the post-installation scan files. Click the Add... button and navigate to the file. You can specify more than one file for cases where patches need to be installed too.
- 12 Click the Next button. If the Asset Tags of the two scan files are not identical, the following message will be displayed.

Confirm			×
1	identical. This wo scanfiles result fro	these two scanfiles are uld indicate that the tw m scans of different ma izard will be unable to r nfiles.	vo selected achines. The
Don't	ask again	Yes	No

13 Click Yes if you want to continue.

nfile Import Wiza	ard			2
Version Selecti Selecting the ve modelled on	on ersions that the new ve	ersion should be	© Per	egrine
	ne versions of this appl you would like to mode		ready in the databas	e. Select
If you are unsure, u	- se the following rule of version prior to the upg	thumb: If you are		
Version	Language	Description		
🗖 🖓 6.0	English			
🗖 🕎 6.1	English			
∐ % <u>2</u>] 6.1	English			
L 92 6.1	English			
L 92 6.1	English			
_ 92 6.1 ▲	English			>

14 The wizard displays any versions of the software already contained in the ApE database. You can select versions you want to model this installation on. If you are unsure, use the following rule of thumb.

If you are adding an upgrade to a software product, select the version prior to the upgrade. If you installed this application from scratch, leave the selection empty.

15 Click **Next** to continue.



- **16** Highlight and select the string that this version's installer added to the list of installed applications.
- 17 Click Next to continue.

Changed File Verifying the scanfiles		that differ betv	veen the two	Peregrine
nsure that only th Filename	ose files th Size	at are applicat Signature	le to this app	lication are checked:
isetup	49136	E240-2961	Win 32	C:\Program Files\Outlook Express
☑ 管_noccup	29972	8D2F-2221	DOS Exe	C:\WTSRV\system32\clients\tsclient\r
🗹 🖀 ACiniu	42768	9E49-6C73	Win 32	C:\WTSRV\Application Compatibility S.
ACLED	136976	6901-A349	Win 32	C:\WTSRV\system32
🗹 管 acmbo	81520	9971-B2D1	Win 16	C:\WTSRV\system32\clients\tsclient\r
🗹 管 acmset	526848	3EC9-BFF5	PE Other	C:\WTSRV\system32\clients\tsclient\r
🗹 管 acmset	352768	75EF-C52C	Win 32	C:\WTSRV\system32\clients\tsclient\r
🗹 管 acmset	252448	3E57-0E12	Win 16	C:\WTSRV\system32\clients\tsclient\r
🗹 管 ACReg	33552	07B8-1321	Win 32	C:\WTSRV\Application Compatibility S.
🗹 管 ACSR	29968	F246-C37D	Win 32	C:\WTSRV\Application Compatibility S.
•				

18 This page shows files the teacher has picked up that differ between the two scan files. Check the files applicable to this application only. Different icons are used to denote the following:

lcon	Meaning
*	New file added by the installation.
	File changed by the installation.

19 Click **Next** to continue.

	n Relationships lationship between the version and its	eregrine
Name	Path	Relationship
A _isetup.exe	C:\Program Files\Outlook Express	Associated
A _mssetup.exe	C:\WTSRV\system32\clients\tsclient\net\win16	Associated
🗛 ACiniupd.Exe	C:\WTSRV\Application Compatibility Scripts	Associated
A ACLEDIT.DLL	C:\WTSRV\system32	Associated
A acmboot.exe	C:\WTSRV\system32\clients\tsclient\net\win16	Associated
A acmsetup.exe	C:\WTSRV\system32\clients\tsclient\net\win32a	Associated
A acmsetup.exe	C:\WTSRV\system32\clients\tsclient\net\win32	Associated
A acmsetup.exe	C:\WTSRV\system32\clients\tsclient\net\win16	Associated
🗛 ACRegL.Exe	C:\WTSRV\Application Compatibility Scripts	Associated
A ACSR.Exe	C:\WTSRV\Application Compatibility Scripts	Associated
A actmovie.exe	C:\WTSRV\system32	Associated
	< <u>B</u> ack <u>N</u> ext > Einish	Cancel

20 Set the relationship between the version and its files. Right click on an entry and you will see a menu which allows you to categorize the type of the file. You can also use the space bar or click on an icon to cycle through the various possibilities.

lcon	File type	Meaning
M	Main	This is a key application file, that is, it is a file without which the application could not be running. It should always be present whenever the application is installed regardless of whether it is a minimum or complete installation.
A	Associated	This is a non-key file that is part of the application and is written by the publisher that developed the product.
3	3rd Party	This is a file written by another Publisher (3rd Party) and is used in the current application. An example of a 3rd party files is some DLL files that are technically used by the application, but are also distributed freely and can be used by other applications.

- **21** Check the list of files and the status they have been given. If necessary, change them as required.
- 22 Click Next to continue.

Final Confirmation Verifying the imported version's information						
oplication: MSN Messenge stall string:	r version New Versi	on, published by	Microsoft	Advanced		
Name	Size	Signature	App Relation	Ехе Туре 🔺		
🖺 _isetup.exe	49136	E240-2961	Associated	Win 32 Exe		
🖹 _mssetup.exe	29972	8D2F-2221	Associated	DOS Exe		
🖀 ACiniupd.Exe	42768	9E49-6C73	Associated	Win 32 Exe		
ACLEDIT.DLL	136976	6901-A349	Associated	Win 32 Exe		
🖹 acmboot.exe	81520	9971-B2D1	Associated	Win 16 Exe		
🖹 acmsetup.exe	526848	3EC9-BFF5	Associated	PE Other		
acmsetup.exe	352768	75EF-C52C	Associated	Win 32 Exe		
acmsetup.exe	252448	3E57-0E12	3rd Party	Win 16 Exe		
ACRegL.Exe	33552	07B8-1321	Associated	Win 32 Exe 💌		

23 This page is the final confirmation page. It asks you to verify the imported version's information. It shows the application name and publisher, the install string as shown in the installed applications list and a list of files. Different icons are used to denote the following:

lcon	Meaning
1	New file added by the installation.
	File that was changed by the installation.
@	File was selected in the Advanced selection, not in the standard wizard pages.

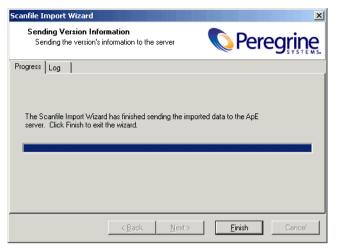
•

Advanced configuration

Click the Advanced... button. Now another window is displayed.

This is an explorer style window which allows you to select files that were found relating to the version in the scan file loaded. It provides you with a view of the whole scan file, so you can add whatever you want. If you browse to the files already included by the wizard, you will see that they are already checked.

1 Click the Next button to continue.



- **2** The wizard sends the details you entered to the ApE server and the data is imported into the ApE database.
- **3** Click **Finish** to exit the wizard.

You have now taught an application to the ApE database.

Release Relations

In This Section...

- What is a Release Relation? on page 72
- Establishing a Release Relation Between Two or More Applications on page 73

What is a Release Relation?

Each identified file is categorized as either Main, Associated, or 3rd Party. The recognition library can contain any number of files in a particular version as belonging to either category.

When at least one Main file is identified on a machine, a licence is required for the application, unless another application on the machine assumes licence responsibility for the application. Release relations are part of the Application Library; when two interdependent applications are identified on a machine, one application can assume licence ownership on that particular machine. The chain of release relations can be any number of levels deep.

Release relations solve the problem of Suite licensing simply and effectively, and is applicable to licence relationships outside of what would normally be considered a software suite.

For example, MS Office 2000 licenses MS Access, Word, Excel, PowerPoint and Outlook and is a well-known software suite. In addition Outlook licenses MS Data Access Components (ADO) 2.1 sp1 - if Outlook or another licensing application is not present on the machine, a licence is required for the software, but if Outlook is installed on the machine, Outlook assumes licence ownership.

Further Information

For further information about release relations, see *Release Relations* on page 21.

Establishing a Release Relation Between Two or More Applications

To establish a release relation between two or more applications:

- 1 Click on a release in the explorer tree view.
- 2 Select the Edit Release Relations option from the Files menu. The Release Relations Editor appears. This dialog is a non modal dialog. This means you can have it displayed while working in the ApE main window. Position the two dialogs on your screen so that you can work with both dialogs at the same time.

release 2000 Pr	ed here are releases that are I ro. If this release of Office is blicence is required to legally computer.	installed on a
Release	Application	Publisher
2000	Access	Microsoft
🛐 2000	Excel	Microsoft
🛐 2000	Outlook	Microsoft
🛐 2000	PowerPoint	Microsoft
🛐 2000	Word	Microsoft
🛐 1.0	MSDE	Microsoft
🛐 2000	Publisher	Microsoft
🛐 2000	Small Business Cus	Microsoft

There are two tab pages in this dialog.

Licenses

The versions listed in this tab page are versions that are licensed by the selected application.

Licensed By

The versions listed in this tab page are versions that license the selected application.

- **3** To add an entry to either of these tab pages, drag and drop the entry from the explorer tree view.
- 4 If you make a mistake, you can remove the entry from the tab page by right--clicking on it and selecting the **Delete** option.
- **5** Right click on an entry and select the **GoTo** option to display the application version in the main ApE window,

Verifying Recognition

The Application Encyclopedia Explorer has a feature that allows you to load in a scan file and check what the recognition results will be. You can also use this feature to add files from the scan file directly to the ApE database. Each of these functions are covered in this section.

In This Section...

- Checking Scan File Recognition on page 75
- Adding Versions from a Scan File Directly Into the ApE Database on page 77

Checking Scan File Recognition

This feature allows you to view recognition results when a scan file is loaded into ApE Explorer.

To check scan file recognition:

1 Select the Verify Recognition option from the Tools menu. The following dialog is displayed:

ognition Verificatio			
elect the scanfile to p	erform recognition on:		
iltering of files passed	to the server		
By extension	EXE;COM;DLL		T
Executable files			
Files within Archiv	es		
		Cancel	OK

- 2 Navigate to the scan file to perform recognition on. You can also apply filters on files to be passed to the ApE server.
 - By extension
 - Executable files
 - Files within archives
- 3 Click the OK button. The following dialog is displayed with the Log page showing.

D 2004/05/24 09:53:58 Dire D 2004/05/24 09:53:58 Dire	ctory 'C:\WINDOWS\SYSTEM\mui\0413' finis ctory 'C:\WINDOWS\SYSTEM\mui\0414' finis ctory 'C:\WINDOWS\SYSTEM\mui\0415' finis ctory 'C:\WINDOWS\SYSTEM\mui\0416' finis
2004/05/24 09:53:58 Dire	ctory 'C:\WINDOWS\SYSTEM\mui\0412' finis ctory 'C:\WINDOWS\SYSTEM\mui\0413' finis ctory 'C:\WINDOWS\SYSTEM\mui\0414' finis ctory 'C:\WINDOWS\SYSTEM\mui\0415' finis ctory 'C:\WINDOWS\SYSTEM\mui\0419' finis
2004/05/24 09:53:58 Dire	ctory 'C:\WINDOWS\SYSTEM\mui\0414' finis ctory 'C:\WINDOWS\SYSTEM\mui\0415' finis ctory 'C:\WINDOWS\SYSTEM\mui\0416' finis
2004/05/24 09:53:58 Dire 2004/05/24 09:53:58 Dire 2004/05/24 09:53:58 Dire 2004/05/24 09:53:58 Dire	ctory 'C:\WINDOWS\SYSTEM\mui\0415' finis ctory 'C:\WINDOWS\SYSTEM\mui\0416' finis
2004/05/24 09:53:58 Dire 2004/05/24 09:53:58 Dire	ctory 'C:\WINDOWS\SYSTEM\mui\0416' finis
2004/05/24 09:53:58 Dire	,
<u>.</u>	etoru 'C:\WINDOWS\SYSTEM\mui\0419' finis
2004/05/24 09:53:58 Dire	citity c. with bows to ron childhowro hine
	ctory 'C:\WINDOWS\SYSTEM\mui\041B' finis
2004/05/24 09:53:58 Dire	ctory 'C:\WINDOWS\SYSTEM\mui\041D' fini
2004/05/24 09:53:58 Dire	ctory 'C:\WINDOWS\SYSTEM\mui\041F' finis
2004/05/24 09:53:58 Dire	ctory 'C:\WINDOWS\SYSTEM\mui\0424' finis
2004/05/24 09:53:58 Dire	ctory 'C:\WINDOWS\SYSTEM\mui\042D' fini:
2004/05/24 09:53:58 Dire	ctory 'C:\WINDOWS\SYSTEM\mui\0804' finis
2004/05/24 09:53:58 Dire	ctory 'C:\WINDOWS\SYSTEM\mui\0816' finis
2004/05/24 09:53:58 Dire	ctory 'C:\WINDOWS\TEMP' finished: 0 Knowr
2004/05/24 09:53:58 Dire	ctory 'C:\WINDOWS\TEMP\.\$iftsetup' finished
2004/05/24 09:53:58 Dire	ctory 'C:\WINDOWS\TEMP_ISTMP0.DIR' fir
2004/05/24 09:53:58 Starl	ting reprocessing.

4 Click the Files tab.

les Log	1		(7
Name	Size	Signature	Exe Type
? AMD-SIS.exe	681922	7830-8649	Win 32 Exe
AMD-VIA.exe	710703	7830-8649	Win 32 Exe
ATIIISXX.EXE	12864	6744-B964	Win 16 Exe
? CYRX-ALI.exe	1451842	7830-8649	Win 32 Exe
🛃 unstall.exe	141583	F588-549C	Win 32 Exe
UNSTALL.EXE	114509	5805-145C	Win 32 Exe
SETUP.EXE	25600	CF42-1DF7	Win 32 Exe
🛃 rtvscn95.exe	438272	92E8-1640	Win 32 Exe
🛃 Cliscan.dll	249856	5E8D-EEA1	Win 32 Exe
SETUP32.EXE	6729752	379F-B027	Win 32 Exe
SETUP25I.EXE	1950007	1F4A-A2DA	Win 16 Exe
AOLSETUP.EXE	49664	1018-63A3	Win 32 Exe
🛃 wabmig.exe	34576	324C-95A8	Win 32 Exe
🛃 wabimp.dll	84752	F050-CD4F	Win 32 Exe
🛃 wabfind.dll	9488	1BA2-9E12	Win 32 Exe
🛃 wab.exe	20752	18C3-3720	Win 32 Exe
🛃 setup50.exe	75024	35E3-7423	Win 32 Exe
🕗 oemiqlib.dll	39184	5C7F-F49E	Win 32 Exe

This tab page shows how the Ape Server recognized files in the scan file. Icons are used to indicate the following:

lcon	Meaning
•	Has been recognized with a high degree of confidence.
Ľ	Has been recognized, but the recognition cannot be guaranteed 100%.
2	Does not exist in the ApE database and has not been recognized.

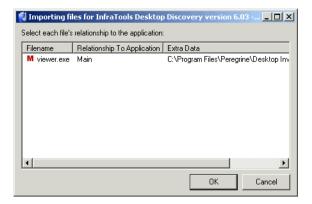
Adding Versions from a Scan File Directly Into the ApE Database

To add versions from a scan file directly into the ApE database:

- 1 The ApE Recognition Verification dialog is a non modal dialog. This means you can have it displayed while working in the ApE Server. Position the two dialogs on your screen so that you can work with both dialogs at the same time.
- **2** In the Ape Explorer, navigate to the Application version you want to add the file(s) to. In the following example we will be adding a file to the Peregrine InfraTools Desktop Discovery 6.03 version.
- **3** From the **Files** tab in the **ApE Recognition Verification** dialog, select a file(s) to be added to that Application version. Multiple files can be selected by holding down the Shift key while clicking on the files.
- **4** Drag and drop the file(s) directly onto the version.

Image Size C. Rel. Sig. Exe. V Image Size Sig. Sig. Sig. V K Image Sig.	ApE Explorer Item View Tools Help							×		
B analysis work										
InfraCenter for Workgroups ibaserunning, ibidkind exe ibidkind exe ibidkindexe ibidkind exe	Source of the server of t	iii) analysis work iii) ape client.exe iii) apeserver.exe iii) apeupdate.exe iii) apeweb.exe iii) cascade upd iii) cascade.exe iiii) cascade.exe iiiii) cascade.exe iiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiii	. 5 4 1 5 5 . 2 1 Ap	671 Y 448 Y 050 Y 85568 Y 20464 Y 99520 Y 192 Y 473 Y Recogni 2 22	Main Main Main Ass Main Ass Ass tion Veri	587 28 100 48 E1 68F EA 780	Wi Wi Wi Wi Wi Wi Wi Wi Wi Wi		egrine\Deskto	op Inve.
Drag and drop the file(s) to the version Paragend drop the version Paragend	 InfraCenter for Workgroups InfraTools Desktop Discovery 5 6 6 6.00 - English, Windows NT4/2 6.02 - English, Windows NT4/2 6.03 - English, Windows NT4/2 	gbak.exe ibaserunning.e iddkind.exe idcence mana. ilcence mana. ib log viewer.exe imifgen.exe imigrate.exe	ł	Name v oemig v oeimp v msoen v msoen v msoen v msoen v sapi3 v 9xmig. v Analys v msisca	50.exe ort.dll es.dll dll exe &1.dll dll sis Workbe anner.exe		63760 74512 911872 1174288 42768 65593 7168 5657088 619008	4FCC-D2DF 15F4-E408 EBA0-D888 6CE6-8D5A 4085-E9C1 175A-B961 9CC6-2085 2A2C-AD7E 8597-D4F0	Win 32 Exe Win 16 DLL Win 32 Exe Win 32 Exe	
	Drag and drop the file(s) to the version			FSF C SAI U SAI U Scanr Scanr IDDKi Viewe vncvie vncvie unins0	onverter W pdate Wiz- ner Genera nd.exe r.exe swer.exe 100.exe	Vizard.exe ard.exe	1192960 871424 2138624 2256 2780672 233472	4583-95F4 6E5C-CAFE 093E-D923 64A7-81EE AF74-CD4D 7F9C-997E	Win 32 Exe Win 32 Exe Win 32 Exe DOS Exe Win 32 Exe Win 32 Exe	

5 The following dialog is displayed.



6 Right-click on the file and from the menu, select the file's relationship to the Application. You have the following choices:

lcon	Meaning
M	This is a key application file, that is, it is a file without which the application could not be running. It should always be present whenever the application is installed regardless of whether it is a minimum or complete installation.
A	This is a non-key file that is part of the application and is written by the publisher who developed the product.
3	This is a file written by another Publisher (3rd Party) and is used in the current application. Examples of 3rd party files are some DLL files that are technically used by the application, but are also distributed freely and can be used by other applications.

7 Once you have done this, click **OK**. The file(s) is added to the application version.

4 The MSI Importer

This chapter describes the Application Encyclopedia (ApE) MSI Importer, which is used to import applications into the ApE Database without having to install them or perform and scans of machines.

You will find information on the following topics:

- Overview of the MSI Importer on page 82
- Components of a Software Installation on page 85
- Launching the MSI Importer on page 93
- The MSI Importer Workspace on page 93
- An Example of Teaching an MSI Based Installer to the ApE Database on page 106
- The MSI Scanner Command Line Utility on page 117
- The MSI Scanner Deposit Program on page 120

Overview of the MSI Importer

In This Section...

- What is the MSI Importer? on page 82
- The Advantages of Using the MSI Importer on page 83
- The Challenges of Using the MSI Importer on page 83

What is the MSI Importer?

The **MSI Importer** can be used to teach any application that was packaged using the MSI Installer. This module allows software teaching based on an MSI file, which removes the need to install and scan software in order to add it to the ApE database.

MSI is short for Microsoft Installer and was introduced with Windows 2000, although Microsoft provides MSI as a separately deployable piece of software that can be added to older Windows operating systems.

To distribute an installer for a piece of software, a publisher no longer has to rely on proprietary installer packages for managing creation of directories, registry entries, copying of files or uninstallation. If instead the installer is distributed as one or more MSI files, the MSI process in Windows takes care of the details.

The MSI Importer is an ApE module that uses this standard to add applications packaged in MSI-based installers directly to the ApE database without having to install them first.

To teach the contents of an MSI files in ApE Explorer

- 1 Use the MSI Importer to view the structure and contents of the file. See *Components of a Software Installation* on page 85.
- 2 Once you have become familiar with the structure of the MSI file, teach the contents of the MSI file to the ApE database. See *An Example of Teaching an MSI Based Installer to the ApE Database* on page 106.

Important: The MSI Importer supports Microsoft's self extracting installers and installers that were generated using Wise for Windows Installer versions 3.5 and 4.0.1

Further Information

You can find comprehensive information about the MSI standard at:

http://msdn.microsoft.com

The Advantages of Using the MSI Importer

Speed

The overhead of having to install the software and scan the machine is removed.

Convenience

The teaching is accomplished using only one computer, as the need for a separate 'clean' computer to install the software is removed.

Completeness

An installer often contains files that are only installed under certain conditions. For example, an application might require certain extra libraries under older operating systems to make up for missing functionary available under newer versions of Windows. Using the traditional method of installing software before teaching it, these extra files would only be found if the correct combination of software and operating system was used during installation. The MSI Importer, on the other hand, retrieves all of the files available in the installer.

The Challenges of Using the MSI Importer

Understanding MSI structure

You will need to understand how MSI files are structured. With MSI, every installation is different. It is necessary to browse the MSI Installer (and its associated directories) to understand how the installer has been structured before teaching the application.

It is also necessary to understand what components the application has. For example, the same installer might contain application Server and Client components. While browsing, special attention should be paid to shared components included in the MSI installer. Some of them may already exist in the Microsoft library applications, such as MSDE (Microsoft SQL Server Desktop Engine) or DAO components.

Lack of MSI installations

More and more software companies are adopting MSI as their installer platform. However, it will be some time before all software companies ship their products in MSI Installers. For these products, the traditional method of scan-install-scan-teach will still have to be used. See Chapters 2 and 3 for more information about this method.

Hybrid MSI Installers

Some MSI installers invoke legacy proprietary installers to install some components of the product. The files in the invoked legacy installers will not be available for teaching from the MSI Importer.

Components of a Software Installation

In This Section...

- Software Components Provided in an MSI Packaged Installation on page 85
- Locating the MSI and Setup Files for Different Application Installations on page 86
- Other MSI Files on the Install Media on page 88
- MSI Installers and External Files on page 89
- Identifying Main Files on page 89
- Identifying Third Party Files on page 89
- The Structure of an Application Packaged in an MSI Installer on page 89
- How to Open an Installshield MSI Installer in the MSI Browser on page 91

Software Components Provided in an MSI Packaged Installation

A software publisher must provide three components when publishing an application:

- The MSI System installer
- The .msi file
- The Setup.exe file

MSI was introduced with Windows 2000. Consequently, some computers will not be able to install MSI-based installers if they are provided only as **.msi** files.

It is for this reason that most MSI based installers are still invoked by running an executable file usually named **Setup.exe**.

The Setup.exe file:

- 1 Checks to see if the MSI system is installed
- 2 Installs it, if necessary
- **3** Once it has done the previous two steps, invokes the installation of the **.msi** file.
 - **Note:** The MSI system is available as a downloadable module from Microsoft. This module can be installed for the purpose of MSI installation.

Locating the MSI and Setup Files for Different Application Installations

There are two ways in which a software application can be made available:

- Applications Shipped on a CD
- Applications Downloaded from the Internet

Applications Shipped on a CD

Important: When loading such an installer into the MSI Importer, load the .msi file.

If the application is shipped on a CD, all three of the components will normally be placed separately on the CD. An installer packaged in this way may be identified by the following:

- A .msi file will be found in the same directory as the Setup.exe file.
- The Setup.exe file will normally be no larger than 1 MB
- An installer for the MSI system will be located either in the same directory or in a subdirectory.

Name 🔺	Size	Туре	Modified
autorun		File Folder	5/22/2001 10:42 AM
🗀 MSI		File Folder	5/22/2001 10:42 AM
MSSQL7		File Folder	5/22/2001 10:42 AM
PFILES		File Folder	5/22/2001 10:43 AM
DJCNTRL		File Folder	5/22/2001 10:44 AM
🗀 SP		File Folder	5/22/2001 10:44 AM
SQL SQL		File Folder	5/22/2001 10:46 AM
SUPPORT		File Folder	5/22/2001 10:46 AM
SYSTEM		File Folder	5/22/2001 10:47 AM
SYSTEM95		File Folder	5/22/2001 10:47 AM
SYSTEMNT		File Folder	5/22/2001 10:47 AM
VALUPACK		File Folder	5/22/2001 10:47 AM
WGSETUP		File Folder	5/22/2001 10:47 AM
		File Folder	5/22/2001 10:47 AM
AUTORUN.INF	1 KB	Setup Information	5/5/1999 8:52 AM
🛃 INSTALL.MSI	1,046 KB	Windows Installer Package	3/21/2000 5:02 PM
README.TXT	26 KB	Text Document	2/23/2000 11:05 AM
😼 SETUP.EXE	267 KB	Application	2/22/2000 8:21 PM
SETUP.HLP	17 KB	Help File	11/23/1999 4:08 PM
📓 SETUP.INI	3 KB	Configuration Settings	2/16/2000 8:56 PM
SETUPCLT.EXE	267 KB	Application	2/22/2000 8:21 PM
SETUPCLT.INI	3 KB	Configuration Settings	2/26/2000 3:54 PM
SETUPSVR.EXE	264 KB	Application	2/4/2000 12:05 AM
5ETUPSVR.INI	3 KB	Configuration Settings	2/26/2000 3:54 PM
SQLWRAP.EXE	28 KB	Application	2/4/2000 12:05 AM
BURGENT.MSI	689 KB	Windows Installer Package	2/24/2000 1:31 PM
BWEBSVR.MSI	1,299 KB	Windows Installer Package	3/21/2000 5:07 PM
		266 KB	🕂 Local intranet

An example of this type of installer is Microsoft Project 2000, as shown in the figure below.

Applications Downloaded from the Internet

Important: When importing a self-extracting installer to the MSI Importer, load the Setup.exe. The MSI Importer will display an error message if you attempt to load an unsupported installer package.

If the application is downloaded from the Internet, a publisher will typically provide a single-file download. The **Setup.exe** file will be a sophisticated self-extracting archive containing the other two components.

You can identify this type of installer by the following:

- There is no associated MSI file
- The **Setup.exe** file will be several MB in size.

 Elle Edit View Favorites Iools Help

 Elle Edit View Favorites Iools Help

 History

 History

 History

 Links (*)

 Address

 C:\Downloads

 C:\Downloads

An example of this type of installer is MSN, as shown in the figure below.

Other MSI Files on the Install Media

Often a search of the install media (the CD) will reveal a number of additional **.msi** files in subdirectories. These **.msi** files are usually installers for additional components the publisher provides with the application. Examples of these are required system updates and third-party database engines.

You will need to examine these **.msi** files to determine whether their contents should be added to the application in the ApE database.

- If the MSI appears in the nested installers tab, it should be taught but only once.
- If the **.msi** file was provided by another publisher then its contents should either be added to the application as **third party files** or, in case when a component exists as a separate application, the MSI file data should be taught to the respective application. The connection between the two applications should be established through Release Relations (see *Release Relations* on page 72).
- If the software publisher has provided one of the additional .msi files themselves, then its contents should either be added to the application as associated files or, in the case when the supplied component exists as a separate application, the data should be taught to the respective application. The connection between the two applications should be established through Release Relations (see *Release Relations* on page 72).

MSI Installers and External Files

Some of the files referenced by an MSI file might be outside the MSI Installer package itself. This may take the form of a relative path directory structure or an Cab file outside of the MSI.

If an MSI file is moved, for example, it might cause a problem if external files are referenced. Always check the **MSI Reading Log** page to see if a **CAB Missing Error** has been displayed. If this is the case, ensure that all the files are in the correct locations. If you have copied a file from a CD, ensure that all the external files have been copied too.

Identifying Main Files

The Main file will probably be pointed to by a Windows shortcut installed in the Start menu. Use the list of shortcuts to identify and add the Main files. Bear in mind that an application may have more than one shortcut, and that not all of those shortcuts will point to Main files. You will need to examine the file and its internal version information to determine whether it is a Main file.

You can view more information about the list of shortcuts on the Summary page of the MSI Importer. See *Summary Tab Page* on page 95 for further information.

Identifying Third Party Files

Third Party files can be identified by checking the name of the publisher in the version information contained in most executable files. If the publisher name specified differs from the publisher of the product, the file is a third party file.

You can view the version information in the MSI Database page of the MSI Importer. See *MSI Database Tab Page* on page 97 for further information.

The Structure of an Application Packaged in an MSI Installer

An application packaged in an MSI-based installer is divided up by the software publisher into:

- Features
- Components

A Feature can contain any number of Components. Essentially, when you decide to install a feature, you are deciding to install all of the Components that comprise that Feature.

Features

A Feature is a part of an application's total functionality that is user recognizable and can be installed independently.

For example, a Feature could be a spell-checker, a thesaurus, or a group of clip art. Hierarchical relationships of parent and child Features commonly exist such that if a child Feature is installed, the parent Feature is automatically included as well.

Every, MSI-based installer contains a tree-like structure of Features. Each Feature could potentially contain children. If you decide to install a Feature then you could further decide whether or not to install its children.

An example of Features is shown in the figure below, which shows the Custom Setup page of the Desktop Inventory 7.3.0 Installation program.

🖶 Peregrine Desktoj	p Inventory 7.3	.0 Installation Wiza	nrd	×
Custom Setup Select the program f	eatures you want	installed.	Infrastru	cture Managemen
Click on an icon in the l	ist below to chang	e how a feature is ins	talled.	
Analysi → ApE Ex ApE Ex ApE Se → FSF Co → SAI Upo SAI Upo Scanne	rver	red by all compo	This feature rec your hard drive	quires 35MB on
C:\Program Files\Pereg	rine\Desktop Inve	ntory\7.3.0\Common\		Change
Help	Space	< <u>B</u> ack	<u>N</u> ext >	Cancel

Components

A Component is a piece of the application or product to be installed. Example of Components included single files, a group of related files, COM objects, registration, registry keys, shortcuts, resources, libraries grouped into a directory, or shared pieces of code such as MFC or DAO.

Components can appear in more than one Feature.

How to Open an Installshield MSI Installer in the MSI Browser

InstallShield is a popular installer authoring tool, used by many people worldwide. While ApE Explorer is unable to extract MSI files directly from InstallShield installers, it is possible to use the installer itself to extract the required files.

How Can You Tell if an Installer is Built Using Installshield?

When installing the application, the words **...is preparing the InstallShield wizard...** appear somewhere in the text of the opening page.

How Can You Tell if an Installer is MSI Based?

Very shortly after starting the installer, the following screen will be shown. The graphic on the left hand side is characteristic of MSI based installers.

Windows Installer			
Preparing to install			
		Cancel	

Importing the InstallShield MSI Based Installer

The process to import an InstallShield based MSI installer takes advantage of the fact that InstallShield extracts the MSI in its entirety to the TEMP directory when it runs.

Start the installer and leave it open while you import the MSI and cancel it afterwards. When the installer closes it will delete the MSI and associated files that it extracted to the TEMP directory.

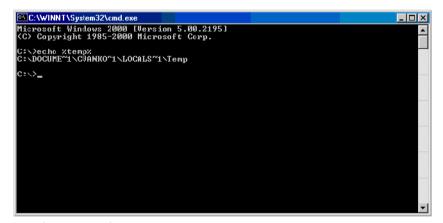
- 1 Start the installer.
- 2 Wait until the installer stops and waits for user interaction. This could be the Welcome page of the installer, or even an error message indicating that the installer cannot continue, like the following:



- **3** Leave the installer open and waiting for interaction until you have finished this process. If you close the installer it will delete the MSI file that you are attempting to import.
- 4 Determine where your temp directory is on the system. You can do this by opening a command prompt, and typing the following:

echo %temp%.

For example:



- **5** Open the ApE explorer.
- 6 Select Import MSI Installer... from the Tools menu
- 7 Enter (copy and paste or type in) the TEMP location revealed above.
- 8 Look for a directory named _is* where * is any combination of alphanumerical characters.
- 9 You will find the extracted MSI file in this directory select it.
- **10** When you have finished importing the appropriate files, the installer can be closed. You can also cancel the installation (you do not need to install the application).

The MSI Importer Workspace

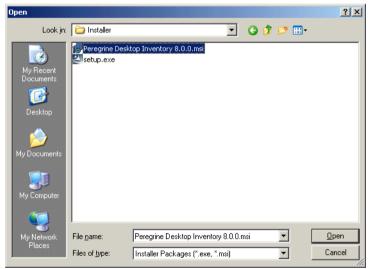
In This Section...

- Launching the MSI Importer on page 93
- Summary Tab Page on page 95
- MSI Database Tab Page on page 97
- The Features and Components Tree on page 98
- The Files Pane on page 99
- The Version Information Pane on page 100
- *Toolbar* on page 100
- Actions Tab Page on page 105
- MSI Reading Log Tab Page on page 106

Launching the MSI Importer

To launch the MSI Importer:

In the ApE Explorer, select the Import MSI Installer... from the Tools menu.
 A File Open dialog is displayed.



2 Navigate to and select the installer file (this is either the setup.exe or the .msi file depending on how the publisher published the application).

For further information on which file to choose, see *Locating the MSI and Setup Files for Different Application Installations* on page 86.

UpgradeCode Manufacturer Name Version PackageCode	(46986277-8523-4304-9110-599886333711) Peregrine Systems, Inc. Peregrine Desktop Inventory 8.0.0 8.0.0 (3F985D01-089E-4118-9CC6-88337F7686EB)
Name → Analysis Workbench : Analysis Work → APEEXP~1IApE Explorer → APEEXP~1IApE Explorer → APEEXP~1IApE Explorer → APEEXP~1IApE Explorer → APEEXP~1IApE Explorer	Direct Comp Descr Argu Deskt Antay Deskt ApE Deskt FSEC
IP IFSFCON~1 FSF Converter Wizard FSF_Converter : FSF Converter	

The Import MSI Installer workspace is displayed.

The **Import MSI Installer** window is non modal. This means you can have it displayed while working in the ApE database. Position the two windows on your screen so that you can work with both at the same time.

The MSI Importer window consists of four tab pages.

- Summary
- MSI Database
- Actions
- MSI Reading Log

Summary Tab Page

The Summary page shows information extracted from the MSI file.

Property ProductCode	Value {7282B352-840C-41BC-A1F9-D78759C06CF6}
JpgradeCode	{469B6277-B523-4304-9110-599BB6333711}
Aanufacturer Jame	Peregrine Systems, Inc. Peregrine Desktop Inventory 8.0.0
/ersion	8.0.0
PackageCode	{3F985D01-089E-411B-9CC6-B8337F7686EB}
- Inalysis_Workbench : Analysis Work - IAPEEXP~1 ApE Explorer	C — — — — — — — — — — — — — — — — — —
🔤 ApE_Explorer : ApE Explorer	
FSFCON~1 FSF Converter Wizard	Deskt FSFC
E FSF_Converter : FSF Converter	
sages	

Information includes:

- Product Codes
 - Product Code

The product code is an ID that is the main identifier for an application or product.

Upgrade Code

This is an identifier used by the MSI system to determine which installed products are affected by a given upgrade.

Manufacturer

The software application publisher

Name

The name of the application. This is the application's install string.

Version

The version of the application

Package Code

The package code is an ID identifying a particular Windows Installer package. It associates an .msi file with an application or product.

Shortcut information

Lists the shortcuts this installer created and shows the targets under each shortcut.

Name Di	irectory	Component	Description	Arguments	Working Directi
🖃 🖉 APEEXP~1 ApE Explorer 🛛 🛛 H	elp	ApE_Explorer			
E ApE_Explorer : ApE Explorer					
🗄 🗷 ANALYS~1 Analysis Workbench 🛛 🛛 H	elp	AnalysisWork			
🔄 📄 Analysis_Workbench : Analysis Work					
🗄 🛛 USER'S~1 User's Guide 🛛 🛛 D	ocumentation	User_Guide			
📄 Common : Common Footuros (Boguiro					

The following information about the shortcut is given:

- Name of the shortcut
- The Directory the shortcut points to
- The file pointed to
- A description of the shortcut command
- Any arguments applied if relevant
- The Working directory

The **Go** to button is only enabled when you select a Feature or if a shortcut's target exists in only one feature and you select the shortcut. If you select a shortcut in this pane and click the **Go** to button you will be automatically redirected to the MSI Database tab page and the file will be highlighted.

Warnings

Warning are provided whenever actions are found that require further examination. You will need to examine the entries associated with the action warnings and decide whether they are files that need to be taught to the application and what relationship they have with the application. Examine the warnings by clicking on the links in the bottom pane. You will be automatically directed to the appropriate place in the **Actions** tab page.

MSI Database Tab Page

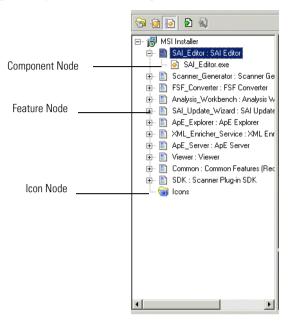
The MSI Database tab page has several components:

- The Features and Components tree
- The Files pane
- The Version Information pane
- Toolbar

nport MSI Installer			
Summary MSID atabase Actions MSIReading Log			
🖻 🔯 🖻 🧕 Toolbar			
∃ 👭 MSI Installer	Filename	Size	Signature
SAI Editor : SAI Editor	🞯 FSFDelta.exe	207872	9D1F-6750
🖃 🖺 Scanner_Generator : Scanner Generator	🛃 IDDKind.exe	2256	64A7-81EE
Sample_Scanners : Sample Scanners	SCANNE~1.EXE Scanner Generat	2586624	6D47-5C85
- 🖹 FSF_Converter : FSF Converter			
📄 Analysis_Workbench : Analysis Workbench			
🖹 SAL_Update_Wizard : SAI Update Wizard			
📄 ApE_Explorer : ApE Explorer			
- 🖹 XML_Enricher_Service : XML Enricher Serv	Files pane		
🗄 🖷 🖹 ApE_Server : ApE Server			
🖹 Viewer : Viewer			
🖹 Common : Common Features (Required by a			
📄 SDK : Scanner Plug-in SDK			
🔤 Icons			
Features and	•		
Components tree	Version Information	Version	
components tree	Language Code: 1033		
	Internalisante. Su	Information pa	ane
	ProductName: Desktop Inventory CompanyName: Peregrine Systems, In	с.	
	LegalCopyright: Copyright (C) 2004 Pe		
	ProductVersion: 8.0.0.3145 FileDescription: Scanner Generator		
	FileVersion: 8.0.0.3145		-
	UriginalFilename: Scanner Generator.E>	(e	
•	OriginalFilename: Scanner Generator.Ex	e	

The Features and Components Tree

The Features and Components tree displays a tree view of the features and (optionally) their child components.



This displays a tree structure of the features and (optionally) components contained in the installer. The following icons are used to differentiate between the three types of node:

- Feature Node
- Component Node
- Icon Icons are stored in different locations. They are extracted and placed into the Icon node.

Pop-up Menu

A pop-up menu item (**Import Files**) is displayed when you right-click on the selected Feature Node. This option allows you to import the files contained in the Feature Node into the version selected in the ApE Explorer.

The Files Pane

The Files pane lists the files contained in the Feature or Component currently selected in the Features and Components tree.

Filename	Size	Signature	ExeType
🧾 scanW32.exe	598167	9C95-7A95	Win 32 Exe
🧾 scanOs2.exe	646443	BD0F-F511	OS/2 32 Exe
🧾 scanDos.exe	431595	5350-ECB4	DOS Exe
🥶 scanhpx	3223199	2AC8-C765	Unknown
🥶 scaninx	2841665	F73C-887F	Unknown
🥶 scanaix	3556925	5DDF-37DC	Unknown
🥶 scanR32.exe	503074	7DEA-C94C	Win 32 Exe
🧾 scansp2	2287768	6325-D290	Unknown
📓 scanW16.exe	738747	38D3-A697	Win 16 Exe

The Files pane displays a list of the files belonging to the currently selected node.

If the node is a Feature and the **Show Component Node** toolbar option **Show** is deselected, the Feature will contain the files that belong to all of its (now invisible) Component nodes. You can find further information about the toolbar options on page 100.

Due to the legacy of MS DOS, the file name is stored in the MSI in two versions.

- The old-style MSDOS 8.3 format (with eight characters, a full stop, and then a three character extension)
- The more recent mixed-case long version.

Both of these names are displayed in the **Files** pane separated by a '|'. For example:

```
IMAGES~1.EXE ImageSlicer.exe
```

If the MSI Importer was unable to extract a file from the installer in order to scan it then that file's icon will have a red 'No Entry' Symbol superimposed on it to indicate this.

You can find more information about why the file could not be extracted in the **Messages** tab page.

Pop-up Menu

Two pop-up menu items (Find Files and Import Files) are displayed when you right-click on a file.

Find File

The ApE Explorer will search its database for other occurrences of the selected file. The ApE Explorer's **Search for Files** window is displayed.

Import Files

This option allows you to import selected files into the version selected in the ApE Explorer.

The Version Information Pane

The Version Information pane displays the version information from the currently selected file.

Version Informat	ion	<u> </u>
Language Code: 10	033	
InternalName:		
ProductName:	Desktop Inventory	
CompanyName:	Peregrine Systems, Inc.	
LegalCopyright:	Copyright (C) 2004 Peregrine Systems, Inc.	
ProductVersion:		
FileDescription:	Scanner Generator	
FileVersion:	8.0.0.3145	
OriginalFilename:	Scanner Generator.Exe	
-		-

The Version Information pane displays data that the MSI Importer has extracted from the file currently selected in the Files pane. If no information was extracted from the file, this pane will be blank.

The information in this pane is exactly the same as the version information that the Scanners extract from a file during a normal scan of a computer. It is commonly used to determine the original publisher of the file so that the file relationship to the application (main, associated or third party) can be determined.

Toolbar

There are two types of buttons available from the toolbar:

- Functional Buttons
- Option Buttons

Functional Buttons

There are two functional buttons in the MSI Importer toolbar:

Find File 🔊

Clicking the Find File button while a file is highlighted will cause the ApE Explorer to search its database for other occurrences of the selected file. The ApE Explorer's **Search for Files** window is displayed.

Name	Size	Signature	Publisher	Application
≝] xml enricher service.exe	5529484	92E 4-6657	Peregrine Systems	Peregrine Desktop Inventory

See *Searching For Files* on page 41 for further information on how to use the this dialog.

Add Selected Files to a Version 환

Clicking this button 🖻 imports the selected files into the version selected in the ApE Explorer.

It has the same effect as dragging the currently selected item from the **Features and Components** tree or the **Files** pane (whichever was last clicked) to the currently selected version node in the ApE Explorer. If no version node is selected in the ApE Explorer, this button will appear greyed out.

Note: When the mouse pointer passes over an icon, a tooltip appears indicating the command corresponding to the icon.

Option Buttons

Three option buttons are also available from the toolbar. All three of the option buttons are sticky buttons.

- If the option is selected the button appears depressed
- To de-select the option, click the button again and the button returns to

its normal state 🔯

Hide Features With no Files 🔤

Enabling this option causes the ApE Explorer to only show those Features that contain files. Features without files in an installer are typically containers for registry entries, short cuts and services, and as such are not used to teach to the ApE database. They therefore appear empty in the tree and can safely be ignored. This option makes them invisible.

- **Note:** When enabled, the MSI importer queries the information on all Features and Components before it displays the tree. This could take some time on larger installers.
- **Note:** The option to remove empty Features is carried out before the option to **Show only executable** files. This means that if a node has only non-executable files, it will still appear in the tree even though the **Show Only Executable Files** option has caused it to be empty.

Show Only Executable Files 🔯

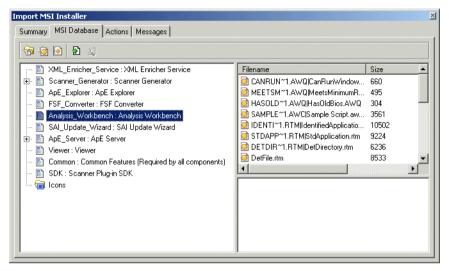
When this option is enabled only those files that were identified as executable are visible. Further, only the files displayed will be added to the ApE database during imports. This is the default setting, as non-executable files should not be added to the ApE database.

Show Component Nodes 🙆

When this option is enabled, the Features and Components tree will contain a node for every Component. This is a true reflection of how the MSI-based Installer is structured internally. That is, a Feature does not contain files directly when this option is applied. All of the Features contain Components, and those Components in turn contain the files. This is useful for determining the origin of a particular file.

Import Setup Package			×
Summary MSI Database Actions Messages			
🗟 🔯 💽 🔰			
ScannerGenerator ApE_Explorer: ApE Explorer ApE_Explorer ApE_Explorer ApE_Explorer ApE_Explorer ApE_Explorer AnalysisAvorkbench Aw_Queries Aw_SampleReports Aw_Scripts Aw_StateImages AnalysisWorkbench SAL_Update_Vizard : SAI Update Wizard ApE_Server: ApE Server MySQL	Filename DENTI~1.RTMIIdentifiedApplicatio STDAPP~1.RTMIStdApplication.rtm DETDIR~1.RTMIDetDirectory.rtm DETHAC~1.RTMIDetMachine.rtm DETAPP~1.RTMIDetApplication.rtm	Size 10502 9224 6236 8533 13354 9450	S ▲ 7 6 E F 7 4

When this option is disabled, the Component nodes are not shown. All of the files contained in the Component nodes are placed directly under the Feature node. While this is a less accurate view of the installer, it is more user-readable. You do not have to click on the hundreds of Component nodes to view the files a Feature would install.



In the example above, note how the files that were shown for each individual component now appear with those Components' parent feature.

Actions Tab Page

This page lists the actions that the MSI Installer invokes during the installation process. It is necessary to examine these actions in order to determine whether any of them will install files not contained in the MSI.

alled Executables			
Name	Internal	Command Line	Path
RunUserIDsSQL	Yes	-u root -e"\. [APE_SERV	bin
RunDisableRemoteSQL	Yes	-u root -e"\. [APE_SERV	bin
RunUserPrefsSQL	Yes	-u root -e"\. [APE_SERV	bin
RunApeltemsSQL	Yes	-u root -e"\. [APE_SERV	bin
RunApEServSQL	Yes	-u root -e"\. [APE_SERV	bin

Nested Installers

A nested installation action installs another Windows Installer package during a currently running installation. A nested installation action can only reinstall or remove an application that has been installed by the current application's installation package.

Called Executables

This page shows any actions that may install some other executable files.

DLL Calls

This page shows any dll calls that may have been made.

Invoked Scripts

This page shows any scripts that may have been invoked

MSI Reading Log Tab Page

The **MSI Reading Log** tab page is used to view the log. It displays messages generated by the MSI Importer when reading the MSI-based Installer.

LogTime	Log Message	
2004/05/24 11:05:55	File scan of SAI Editor.exe done.	
2004/05/24 11:05:55	File scan of Sai Editor.chm done.	
2004/05/24 11:05:55	File scan of SAI Editor.exe.manifest done.	

An Example of Teaching an MSI Based Installer to the ApE Database

In This Section...

- Step 1 Importing the MSI Installer Package on page 106
- Step 2 Teaching Files to a Version of the Software on page 111
- Step 3 Examining Warnings and Messages on page 115

Step 1 Importing the MSI Installer Package

- 1 In ApE Explorer, select Tools Import MSI Installer package.
- **2** From the **Open** dialog navigate to and select the MSI file to use. The file will have an extension of **.msi** or **.exe**.

In this example we have used **Peregrine Desktop Inventory 8.0.0 msi**. This is the msi file supplied for the installation of this product.

Open						? ×
Look jn:	🗀 Installer		•	G 🦻 🖻	 •	
	Peregrine Desl	ktop Inventory 8.0.0.m	nsi			
My Recent Documents						
Desktop						
My Documents						
My Computer						
6						
	J	Peregrine Desktop In		ui 💌		pen
My Network Places	File <u>n</u> ame:	Feregrine Desktop In	ivenitoly 8.0.0.1			
	Files of type:	Installer Packages (*	.exe, *.msi)	•	Ca	ancel

3 Click on the MSI Database tab to examine the contents of the msi file.

Import M5I Installer Summary MSI Database Actions MSI Read	fina Loa Ì				×
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1				
□-□□ MSI Installer □-□□ Scanner_Generator: Scanner Ge □-□□ Scanner_Generator: Scanner Ge □-□□ SG_Samples □-□ SG_Samples □ PSFDeta □ IDDKind □ MSPs □ PS_Converter: FSF Converter □ FSF_Converter: FSF Converter □ SA_Lupdate_Wizadt: SAI Update □ SA_Lupdate_Xizadt: SAI Update	Filename scanW32.exe canU32.exe scanD32.exe can232.exe scanB32.exe scanS2.exe scanW16.exe		Size 598167 646443 431595 503074 738747	Signature 9C95-7A95 BD0F-F511 5350-EC84 7DEA-C94C 38D3-A697	Exe Wir OS DO Wir Wir
Honor Service : XML_Enricher_Service : XML Enr ApE_Server : ApE Server Viewer Soft : Scanner Plug-in SDK Gromon : Common Features (Rec Soft : Scanner Plug-in SDK Gromon Icons	LegalCopyright: ProductVersion: FileDescription: FileVersion:	Peregrine Systems, In Copyrigh (C) 2004 Pe 3.0.0.3145 niventory Scanner 3.0.0.3145 Win32 Scanner,Exe			-

In this example, there are several features. Features are displayed in the following way and are indicated by the [□] icon.
 Unique Name Key: Display name

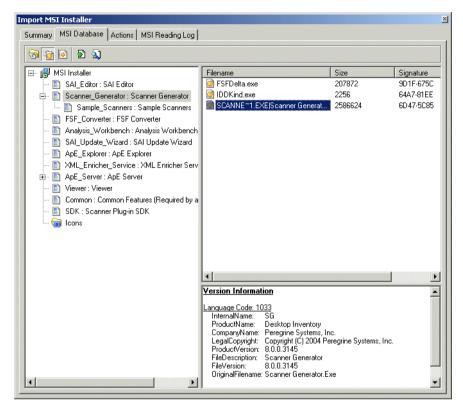
If we look at the Scanner Generator Feature entry we can see that the Unique Name Key is **Scanner Generator**, while the display name has no underscore.

Looking through the MSI structure, try to look for the components of the application that can be installed separately and therefore should be taught as individual applications. For example Client/Server parts (see the example below) or some shared applications that are also packaged in the installer, for example MSDE or DAO components.

1 🔁 🖸 🖻 🔟				
- E Client : Client	Filename	Size	Signature	ExeType
💌 🛅 Server: Server	😟 moxnl3.dl	1101312	F1D3-0E69	Win 32 Exe
lcons	😟 maxni3t.dl	44032	271F-7AC8	Win 32 Exe
-	😟 moxni3a.dl	25088	F1A9-42C9	Win 32 Exe
	NLBWIZ~1.EXE[NLBWizard.exe	19384	C448-1B44	Win 32 Exe
	NLBUNI~1.EXE/NLBUninst.exe	12416	22EA-7CAF	Win 32 Exe
	OEMSetup.exe	8336	2204-F988	Win 32 Exe
	SETCLB~1.EXE SetCLBIdentity.exe	28416	040A-2DC0	Win 32 Exe
	AC.exe	220288	4DA9-010C	Win 32 Exe
	Acădmin exe	424112	A507-7968	Win 32 Exe
	AcAdminp.dll	8592	A7FC-8430	Win 32 Exe
	ACCLUS ~ 1.EXElaccluster.exe	351344	23A8-00A0	Win 32 Exe
	Account.exe	24288	D6FD-3C34	Win 32 Exe
	AcCPIErm.DLL	95744	7A9C-F472	Win 32 Exe
	AcDSNEnm.DLL	83808	50F2-5B6D	Win 32 Exe
	🗟 acermsg.dl	54240	10D4-4769	Win 32 Exe
	AcFiErm.DLL	85952	12F3-17AC	Win 32 Exe
	AdlSEnm.DLL	91200	F462-DF1D	Win 32 Exe
	ACNAME ~1.EXEJacnameres.exe	72800	8EC7-9F12	Win 32 Exe
	ACPROD ~1.DLLIAcProductinfo.dl	45792	5CD1-12FE	Win 32 Exe
	AcRegEnm.DLL	84928	1854-3948	Win 32 Exe
	🙆 AcResObj.DLL	81488	23A7-E17C	Win 32 Exe
	🥶 acseccig.exe	159536	66BD-CA5C	Win 32 Exe
	🥺 acsnamep.dl	6544	6C5F-BAF9	Win 32 Exe
	🥺 acstepl.exe	191008	DBC3-B349	Win 32 Exe
	acsteset.exe	15312	3FCB-4B3F	Win 32 Exe
	🧕 aesistap.dl	6528	09DC-18A6	Win 32 Exe
	🧕 acsistas.exe	32496	E9F1-FA18	Win 32 Exe

This example displays the contents of the Microsoft Applications Center 2000 installer. The same installer contains both Server and Client components of the application.

5 Click on the Show Only Executable Files button 2 on the toolbar and make sure that all other toolbar buttons have been deselected. Now you will see only executable files.



- 6 Check the Company Name and see if it is the same as the Manufacturer entry in the Summary tab page.
- 7 You can do this by clicking on the executable file name in the Files pane and looking at the Version Information displayed in the pane below. In this case the Company Name is the same as the Manufacturer entry in the Summary tab page.

Property ProductCode UpgradeCode Manufacturer Name Version PackageCode ProductCode UpgradeCode Manufacturer	(469B6277-B523-43) Peregrine Systems, li Peregrine Desktop Ir 8.0.0 (3F985D01-089E-41) (7282B352-840C-41)	wentory 8.0.0 18-9CC6-88337F7686EB} 8C:A1F9-078759C06CF6} 04-9110-599BB6333711}	
Name	Directory	Component D Go	n to
ANALYS~1 Analysis Workbench	Desktop Inventory 8.0	AnalysisWorkbench	
🗄 🛛 APEEXP~1 ApE Explorer	Desktop Inventory 8.0	ApE_Explorer	
☐ ISFCON~1 FSF Converter Wizard Image: SFCON~1 FSF Converter Wizard	Desktop Inventory 8.0	FSFConverter	
	Desktop Inventory 8.0	SAI_Update	
SCANNE~1 Scanner Generator	Desktop Inventory 8.0	ScannerGenerator	
Scanner_Generator : Scanner Generator Viewer	Desktop Inventory 8.0	Viewer.exe	
PDIV73~1.0REIPDI v7.3.0 Release Notes	Documentation	User Guide	
SAIEDI~1ISAI Editor	Heln	SAL Editor exe	
sssages This installer calls 5 programs - click <u>here</u> for details. This installer contains an install string. Click <u>here</u> to impor	t it into the currently selected t	version.	

8 However, had it not been the same, you would then add the file as a third party file. An example is shown below:

Summary MSI Database Actions MSI Reading Log				
			1	
MSI Installer SAI_Editor : SAI Editor SAI_Editor : SAI Editor SaI_Editor : SAI Editor Scanner_Generator : Scanner Generator FSF_Converter : FSF Converter Analysis_Workbench : Analysis Workbench SAI_Update_Wizard : SAI Update Wizard ApE_Explorer : ApE Explorer ApE_Server : ApE Server ApE_Server : ApE Server Sobk : Scanner Plug in SDK Icons	Filename Ihupd.exe Isuuc20.dll PG011052.DLL Pg011cfg.dll PG011W16.DLL PG011W32.DLL PG011W32.DLL PG011W32.DLL PG012052.DLL PG012052.DLL PG012052.DLL PG012052.DLL PG012052.DLL PG012052.DLL PG012V32.DLL XMLVAL~1.EXEVMLValidate.exe XERCES~1.DLL xerces-c_1_6_0.dll	Size 725896 348160 8224768 17463 382976 9216 18124 24576 2800 2708 7680 77824 1597440	Signature EF27-7282 85E0-6F10 F527-1FCB E174-3959 07F3-42D9 C84C-8A0D 8084-97FA E40A-C6D2 56F7-4FDE BA80-83E1 8840-5E90 B40E-82B0 08D6-CBA5	
1	Yersion Information Language Code: 0 Comments: http://oss.software.ib ProductName: International Compon CompanyName: IBM Corporation and LegalCopyright: Copyright (C) 2001, Ir Copporation and others. All Rights Rese ProductYersion: 2, 0, 0, 0 FileDestreption: IBM ICU Common DL PrivateBuild: FileVersion: 2, 0, 0, 0	ents for Unicode others nternational Busines rved.	s Machines	

Here we can see that the **Company Name** is IBM Corporation. Hence it is not a file created by Peregrine Systems, Inc. We will need to add this file as a Third Party file in the Peregrine Systems Inc., Desktop Discovery 8.0.0 entry of the ApE Database.

Step 2 Teaching Files to a Version of the Software

To teach files to a version of the software:

- 1 In the ApE Explorer, navigate to the Manufacturer (Peregrine Systems, Inc.).
- 2 Examine the Version entry in the Summary tab page of the MSI Importer.
- **3** Create a new version in the ApE Database if necessary. In this example, we will create an **8** version in the **Peregrine Desktop Inventory** release label.
- 4 Select the release 8 folder you just created and click the 🖹 icon. A Version **Properties** dialog is displayed. Fill in the details and leave the **Install string** blank because it gets imported later.

ieneral			
· 2	New Version		
Publisher:	Peregrine Systems		
Application:	Peregrine Desktop Invento	ry	
Release Label:	8		
<u>N</u> ame:	New Version		
Description:			
Install string:			
Operating System:	<generic></generic>		-
Language:	<neutral></neutral>		-
		к	Cance

- 5 Click OK. The entry now appears in the ApE Explorer.
- 6 Go back to the **Summary** tab of the MSI Importer.

Note: Ensure that the version you created in step 3 on page 111 is highlighted in the ApE Explorer.

Property ProductCode UpgradeCode		BC-A1F9-D78759C06CF6	}
Manufacturer	Peregrine Systems, I	nc.	
Name	Peregrine Desktop Ir	nventory 8.0.0	
Version PackageCode	8.0.0 (25995D.01.0995.41	1B-9CC6-B8337F7686EB	۱
ProductCode		BC-A1F9-D78759C06CF6	
UpgradeCode	{469B6277-B523-43	04-9110-599BB6333711}	
Manufacturer	Peregrine Systems, I	nc.	
ortouts -			
	Directory	[C	Di Golo
Name	Directory Desktop Inventory 8.0	Component AnalysisWorkbench	Di Goto
	Desktop Inventory 8.0	Ape Explorer	_
Image: SFCON~1 FSF Converter Wizard Image: Image: SFF Converter : FSF Converter	Desktop Inventory 8.0	FSFConverter	
SAIUPD~1ISAI Update Wizard	Desktop Inventory 8.0	SAI Update	
SCANNE~1 Scanner Generator	Desktop Inventory 8.0	ScannerGenerator	
Scanner_Generator : Scanner Generator	b controp in trontoly c.c	o dan hora on braker	
+ I Viewer	Desktop Inventory 8.0	Viewer.exe	
PDIV73~1.0REIPDI v7.3.0 Release Notes	Documentation	User_Guide	
The SAIEDI~1ISALE ditor	Heln ,	SAL Editor exe	<u>-</u>
		•	
ssages			
his installer calls 5 programs - click here for details.			

7 Click the Import... link at the bottom of the tab page.

The Version Properties dialog is displayed and the entry is added to the Install String field automatically.

2	Desktop Inventory 8.0.0	
Publisher:	Peregrine Systems	
Application:	Peregrine Desktop Inventory	
Release Label:	8	
<u>N</u> ame:	Desktop Inventory 8.0.0	
Description:		
Install string:	Peregrine Desktop Inventory 8.0.0	
Operating System	: <generic></generic>	•
Language:	English	•

- 8 Click the OK button.
- 9 Now go back to the MSI Database tab page of the MSI Installer.
- **10** Either:
 - a Drag the whole feature onto the version node in ApE Explorer or drag individual files onto the version node. You can select multiple files by using the Shift Key while clicking on the files.
 - **b** Right-click on the Feature/Component and choose **Import Files** from the pop-up menu to add files from that Feature/Component.
 - c Right-click on the selected files in the Files pane and choose Import Files from the pop-up menu.
 - **Note:** It is necessary to expand the tree in the ApE Explorer to expose the version node that you want to add the files to.

If you drag a Component node on to a Version, the files in that node will be imported. If you drag a Feature node onto a version, the files in that Feature and all of that feature's descendants will be imported.

iddkind.exe Associated scanner.generator.exe Associated scanw32.exe Associated scanos2.exe Associated scandos.exe Associated scan/32.exe Associated	ilename Istdelta exe	Relationship To Application
scanner generator.exe Associated scanw32.exe Associated scanos2.exe Associated scandos.exe Associated scandos.exe Associated	- rendentarente	Associated
scanw32.exe Associated scanos2.exe Associated scandos.exe Associated scandos.exe Associated		
A scanos2.exe Associated A scandos.exe Associated A scan/32.exe Associated	scanner generator.exe	
A scandos.exe Associated A scan/32.exe Associated	🖣 scanw32.exe	Associated
A scanr32.exe Associated	scanos2.exe	Associated
	🖣 scandos.exe	Associated
scanw16.exe Associated	🖣 scanr32.exe	Associated
	scanw16.exe	Associated

The Files' relationship to Application dialog is displayed.

This allows you to select the relationship for each file. There are three ways to change the file's relationship.

- Click the icon to the left of the file to cycle through the relationships.
- With the file highlighted, press the space bar on your keyboard to cycle through the relationships.
- Right-click on a file to use a popup menu to change the relationship.

Note: Main files are generally pointed to by a shortcut. Any files pointed to by shortcuts will be marked as 'Main'. Double check that these files should really be given the 'Main' rating.

🔪 fsfdelta.exe	Associated
🔪 iddkind.exe	Associated
scanner generator.exe	Main
scanw32.exe	Associated
scanos2.exe	Associated
scandos.exe	Associated
scanr32.exe	Associated
scanw16.exe	Associated

11 To continue the import click **OK**. The files are imported into the ApE Database.

Step 3 Examining Warnings and Messages

1 Examine the warnings and messages by clicking on the links in the bottom pane of the **Summary** tab page.

2 You will be automatically directed to the appropriate place in the Actions tab page. You will need to examine the entries associated with the action warnings and decide whether they are files that need to be taught to the application and what relationship they have with the application.

Nested Installer tab

A nested installation is where another MSI resides inside the MSI. You will need to decide several things:

- Is it another separate application with a licence relationship for example?
- Do the files need teaching to the same application as associated files?
 For example, Live updates would be associated files. An installer for a Live Update component would have added its files taught as 'Associated'.

Called Executables

You will have to examine whether the called executable is going to install some other executable files. For example, look at the command-line column - if it says **install.exe** or **setup.exe** this would indicate that an executable file is being installed. You could get clues from the Name of the Action. A Called Executable Actions could be for example,

Install <name of the executable>.

In the following example, the **Called Exectuables** are not installing other files, they are merely sending commands to run sql scripts.

Nested Installers Called Executables DLL Calls Invoked Scripts			
Name	Internal	Command Line	Path
RunApEServSQL	Yes	-u root -e"\. [APE_SERVER]apeserv.sql"	bin
RunUserIDsSQL	Yes	-u root -e''\. [APE_SERVER]userids.sql''	bin
RunDisableRemoteSQL	Yes	-u root -e"\. [APE_SERVER]disableremote.sql"	bin
RunUserPrefsSQL	Yes	-u root -e"\. [APE_SERVER]userprefs.sql"	bin

DLL Calls

This tab lists all Dll calls made.

Invoked scripts

This tab shows any scripts that would be invoked.

3 Once you have examined the files, return to the MSI Database tab page.

The MSI Scanner Command Line Utility

In This Section...

- Overview of the MSI Scanner on page 117
- Starting the MSI Scanner on page 117
- Opening the MSI Scanner Output File in the MSI Importer on page 118
- MSI Scanner Error Level Codes on page 118

Overview of the MSI Scanner

For situations where the installation media is not accessible, the MSI Scanner can be used. This is a command line utility that takes as input an MSI file. This is then analyzed. The result of the analysis is an XML file containing a summary of the MSI.

In a large enterprise it may not be feasible to have remote offices send their software install media to central locations to be added to the corporation's ApE database. In this case, the MSI Scanner may be of some use.

The MSI Scanner is a command line utility used to scan an MSI based installer, extract all required file information and write an XML file describing the installer and its contents. This XML file can then be sent to the central office where the person maintaining the ApE database can load it into the ApE Explorer exactly as if it was the original MSI based Installer.

Starting the MSI Scanner

Important: The MSI Scanner (msiscanner.exe) is not generated by the Scanner Generator. It is supplied with the software in the following location by default: C:\Program Files\Peregrine\Desktop Inventory\8.0.0\ApE Explorer

To start the MSI Scanner:

From the command prompt, type the following: msiscanner<setup_packge><output_file>

Where:

- setup_package> is the path and filename of the MSI-based installer.
- <output_file> is the path and filename of the output XML file. Note that if the specified filename does not end in .xml, the MSI Scanner will append a .xml extension to it. The ApE Explorer does not recognize the output file from the MSI Scanner unless it has an .xml extension.

Opening the MSI Scanner Output File in the MSI Importer

The output from the MSI Scanner is usable in the MSI Importer so that you can browse the MSI and teach from using on the XML file.

To open the MSI Scanner output file:

1 In the ApE Explorer, select the **Import MSI Installer** option from the **Tools** menu.

The File Open dialog box is displayed.

- 2 In the Files of Type dropdown box, select the MSI Scanner output file.
- **3** Navigate to the file to be opened.
- 4 Click OK

The file is opened in the same way as any MSI-based installer. You can import files from it in the same way as described on page 106.

MSI Scanner Error Level Codes

The MSI Scanner produces error level codes which can be used to handle situations if the Scanner terminates without producing a scan file.

These error codes can, for example, be used in a batch file so that specified actions can be carried out in the event that particular error codes are returned.

These can be used to control re-scan activities when a scan has not completed successfully.

Error Level	Description
6	Unexpected error
5	Unable to open the output file
4	Insufficient space available in the Temp directory.

Error Level	Description
3	Unable to open input MSI
2	Unrecognized package
1	Incorrect parameters
0	Success

The MSI Scanner Deposit Program

This section provides information about how to send information from the MSI Scanner output to Peregrine Systems so it can be added to the Master Database.

In This Section...

- The Scanner Deposit Program Overview on page 120
- Naming Convention on page 121
- Using the Scanner to Produce the XML File on page 121
- Examples of Running the MSI Scanner on page 121
- Sending the File to Peregrine Systems Librarians on page 122
- Summary on page 123

The Scanner Deposit Program Overview

The MSI Scanner is a command line utility that helps Librarians to add applications to the Library.

By the using the MSI Scanner, a remote office can easily send information about a given application to a central location as long as the application was built on the Windows installer. This information can then be added to the Library.

The MSI Scanner can also be used to send application information to Peregrine System's own Librarians. These Librarians maintain the Master database.

Peregrine Systems subscribes to many publishers to obtain application software from them. These subscription services are used to build the Peregrine Win32 and UNIX Libraries.

In some cases, when an application cannot be obtained, customers are asked to send the software media for the application. If this is not possible the MSI Scanner can be used provided the application is built on the Microsoft standard.

The MSI Scanner is executed from the command line and produces an XML base file.

Naming Convention

The application must have been packaged using the Microsoft Standard. Microsoft DameWare is used as an example here. The following naming convention should be used:

<PublisherName>-<ApplicationName>-<Version>.xml

Example:

Microsoft-Dameware-3.51.xml

This ensures the Peregrine Librarian can identify the application quickly before adding it to the Library.

Using the Scanner to Produce the XML File

The MSI Scanner is located in the following default path:

C:\Program Files\Peregrine\Desktop Inventory\<pdi version>\Ape Explorer

If Desktop Inventory was installed to a different path, search for the **MSIScanner.exe** file.

The MSI Scanner syntax is very simple to launch and can be run in a DOS window.

The MSI package file can be located in a different directory to the MSI Scanner but the user running the MSI must have access rights to the file.

Examples of Running the MSI Scanner

MSI File Located in the Same Directory as the MSI Scanner: msiscanner dntuw.msi Microsoft-Dameware-3.51.xml

MSI File Located in a Different Directory to the MSI Scanner:

msiscanner e:\dameware\dntuw.msi mircosoft-dameware-3.51.xml

MSI File Located on a Network Share:

msiscanner \\<Machinename>\dameware\dntuw.msi mircosoft-dameware-3.51.xml In some cases the source path for the MSI file may contain spaces or be named using the long file naming convention. If this is the case it may be necessary to put quotations around the source information.

Syntax for Running the MSI Scanner with Source Information Formatted Using the Long File Name Convention:

Msiscanner "e:\DameWare Installer.MSI" mircosoft-dameware-3.51.xml

Sending the File to Peregrine Systems Librarians

To send a file to the Peregrine Librarians:

1 Create your account using the form on the Peregrine Systems Customer Support Web page.

http://support.peregrine.com/support/nnPRGN/index.cfm?fa=login You will need to know your company account number.

An account on the Support FTP Server will be automatically created for you. After your account has been created, you will have access to the FTP Server where you will be able to send the XML file.

2 Using the account you created, log into the Peregrine FTP Server using an FTP Client or DOS Window.

Note: This is a Unix System and the creation of all directories is case sensitive.

3 After you have logged in to the FTP Server, create a directory called xmlfile. mkdir xmlfile

Note: The directory naming must be exactly as written above. Unix is case sensitive.

- 4 Change to the directory that was just created. cd xmlfile
- **5** Type the following commands.

bin

prompt

hash

6 Now you are ready to upload the XML file you created with the MSI Scanner. mput mircosoft-dameware-3.51.xml After the file has been placed into the xmlfile directory, a process is launched which monitors the directories created in customer accounts. The Peregrine Librarian is notified when an XML file appears and will add this file to the Peregrine Master Library.

Summary

By sending an application to the Peregrine Librarians in this manner you are achieving three things:

- You are improving the application recognition level within your company's software environment.
- You are helping to keep the Peregrine Master Library up to date.
- You are providing application information to Peregrine without sending the original media.

After the file has been added to the Library, it can be found in the next quarterly release of the Master.sai.

