

# Getting Started

## **Citrix® Installation Manager™ for MetaFrame XPe**

Information in this document is subject to change without notice. Companies, names, and data used in examples herein are fictitious unless otherwise noted. No part of this document may be reproduced or transmitted in any form or by any means, electronic or mechanical, for any purpose, without the express written permission of Citrix Systems, Inc.

Copyright © 2001 Citrix Systems, Inc. All rights reserved.

Citrix, ICA (Independent Computing Architecture), Independent Management Architecture (IMA), Citrix Installation Manager, Program Neighborhood, MetaFrame, MetaFrame XP, and NFuse are registered trademarks or trademarks of Citrix Systems, Inc. in the U.S.A. and other countries.

Microsoft, MS, MS-DOS, Windows, Windows NT, and Windows 2000 Servers are registered trademarks or trademarks of Microsoft Corporation in the U.S.A. and other countries.

All other trade names referred to are the Servicemark, Trademark, or Registered Trademark of the respective manufacturers.

# Contents

|                                                                     |          |
|---------------------------------------------------------------------|----------|
| <b>Chapter 1 Welcome</b>                                            | <b>5</b> |
| Overview                                                            | 5        |
| Installation Manager Documentation                                  | 6        |
| Using PDF Documentation                                             | 6        |
| Documentation Conventions                                           | 7        |
| Citrix on the World Wide Web                                        | 7        |
| Reader Comments                                                     | 8        |
| <b>Chapter 2 Introduction to Citrix Installation Manager</b>        | <b>9</b> |
| Overview                                                            | 9        |
| What Is Citrix Installation Manager?                                | 10       |
| Server Farms                                                        | 10       |
| Domains with Terminal Services                                      | 10       |
| How Does Citrix Installation Manager Work?                          | 11       |
| How Does Installation Manager Enhance<br>MetaFrame XP or Windows?   | 16       |
| Easy Package Installation                                           | 16       |
| Citrix Application Publishing Enhancements                          | 16       |
| How Does Installation Manager Perform in an Enterprise Environment? | 17       |
| Installation Manager Benefits                                       | 17       |
| Requirements                                                        | 18       |
| Citrix Server Requirements                                          | 18       |
| Citrix Farm Requirements                                            | 18       |
| File Server Requirements                                            | 18       |
| System Software Requirements                                        | 19       |
| Installation Manager Requirements                                   | 19       |
| Packager Requirements                                               | 20       |
| Installer Service Requirements                                      | 20       |
| Citrix Management Console Requirements                              | 20       |
| General Tasks for Installing and Setting Up<br>Installation Manager | 21       |

|                                                                                                 |           |
|-------------------------------------------------------------------------------------------------|-----------|
| <b>Chapter 3 Installing Citrix Installation Manager</b>                                         | <b>23</b> |
| Overview                                                                                        | 23        |
| Before You Begin                                                                                | 23        |
| Determining Which Servers Require Application Installation                                      | 24        |
| Installing Installation Manager                                                                 | 25        |
| Starting the Installation                                                                       | 25        |
| Installing Installation Manager                                                                 | 25        |
| Migrating Data from Installation Management Services 1.0                                        | 27        |
| Migrating Data from Installation Management Services 1.0 to Citrix Installation Manager         | 27        |
| Migrating Installation Management Services 1.0b Deployed Packages to a MetaFrame XP Server Farm | 28        |
| Using Citrix Management Console                                                                 | 28        |
| Starting Citrix Management Console                                                              | 29        |
| Views in Citrix Management Console                                                              | 29        |
| Granting Access to Citrix Administrators                                                        | 30        |
| Uninstalling Installation Manager                                                               | 30        |
| <b>Chapter 4 Setting Up the Packaging Environment</b>                                           | <b>33</b> |
| Overview                                                                                        | 33        |
| How Packager Works                                                                              | 34        |
| Projects and Packages                                                                           | 34        |
| The ADF                                                                                         | 35        |
| Packaging Environment Requirements                                                              | 35        |
| Using Packager                                                                                  | 36        |
| Restoring Packager to its Original State                                                        | 38        |
| <b>Chapter 5 Installation Manager Tutorial</b>                                                  | <b>39</b> |
| Overview                                                                                        | 39        |
| Ways to Install Packages                                                                        | 39        |
| Creating ADF Packages to Install Legacy (Non-MSI) Applications                                  | 40        |
| Creating ADF Packages to Include Other Files                                                    | 41        |
| Creating ADF Packages to Install (Non-MSI) Applications that Include a Silent Install Option    | 42        |
| Adding ADF or MSI Packages to the Installation Manager Database Using Citrix Management Console | 42        |
| <b>Index</b>                                                                                    | <b>45</b> |

# Welcome



## Overview

Welcome to Citrix Installation Manager for MetaFrame XPe (Installation Manager), the application deployment product that lets you easily install multiple application *packages* on the servers in your MetaFrame XP server farm from a central location.

The Installation Manager plug-in allows administrators to add and install packages to target MetaFrame XP servers and perform the following functions using Citrix Management Console:

- Retrieve an Application Deployment File (ADF) or Microsoft Installer (MSI) package from a network sharepoint
- Add the package to the Installation Manager database
- Schedule the package installation

The Citrix Packager utility allows you to create ADF packages which can include:

- Legacy or custom applications
- Compatibility scripts
- Other files such as service packs, software upgrades, patches, and so on

This chapter describes the documentation provided with Installation Manager and related Citrix products.

This chapter includes the following topics:

- Installation Manager documentation
- Citrix on the World Wide Web
- Reader comments

**Important** Please be sure to read the `Installation_Manager_Readme.txt` file in the root directory of the Installation Manager CD-ROM. This file contains important information that includes last-minute documentation updates and corrections.

Citrix provides a variety of information resources online, including a complete product documentation library, documentation updates, and technical articles on the Citrix Web site at <http://www.citrix.com>.

---

## Installation Manager Documentation

The MetaFrame XPe package includes electronic documentation and online application help for Installation Manager.

On a MetaFrame XP server or on a Packager machine, documentation is installed in a Documentation folder. You can display the contents of this folder by choosing **Programs > Citrix > Documentation** from the **Start** menu.

- This manual, *Citrix Installation Manager Getting Started*, provides conceptual information and some procedures for system administrators who install and uninstall Installation Manager, create packages, add and install packages to target servers, and migrate data to Installation Manager. To get the most out of this manual, review the table of contents to familiarize yourself with the topics included in this book. This manual is available in Adobe PDF format in the root directory of the Installation Manager CD-ROM.
- The `Installation_Manager_Readme.txt` file contains last minute updates, corrections to the documentation, and a list of known problems. This file is in the root directory of the Installation Manager CD-ROM.
- Online help is available for the Installation Manager plug-in and the Packager utility and can be accessed from the Help menu of your Citrix Management Console or Packager main window. Refer to the online help for specific tasks.

## Using PDF Documentation

To use the documentation that is provided in PDF files, you need to have the Adobe Acrobat Reader program. The Reader program lets you view, search, and print the documentation files.

If you need to obtain the Reader program, you can download it for free from Adobe System's Web site (<http://www.adobe.com>). The self-extracting file includes installation instructions.

## Documentation Conventions

Citrix documentation uses the following typographic conventions for menus, commands, keyboard keys, and items in the program interface:

| Convention      | Meaning                                                                                                                                                                                                         |
|-----------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Boldface</b> | Commands, names of interface items such as text boxes and option buttons, and user input.                                                                                                                       |
| <i>Italics</i>  | Placeholders for information or parameters that you provide. For example, <i>filename</i> in a procedure means you type the actual name of a file. Italics also are used for new terms and the titles of books. |
| UPPERCASE       | Keyboard keys, such as CTRL for the Control key and F2 for the function key that is labeled F2.                                                                                                                 |
| Monospace       | Text displayed at a command prompt or in a text file.                                                                                                                                                           |
| %SystemRoot%    | The Windows system directory, which can be WTSRV, WINNT, WINDOWS, or other name specified when Windows is installed.                                                                                            |
| { braces }      | A series of items, one of which is required in command statements. For example, { <b>yes</b>   <b>no</b> } means you must type <b>yes</b> or <b>no</b> . Do not type the braces themselves.                     |
| [ brackets ]    | Optional items in command statements. For example, [/ping] means that you can type <b>/ping</b> with the command. Do not type the brackets themselves.                                                          |
| (vertical bar)  | A separator between items in braces or brackets in command statements. For example, { <b>/hold</b>   <b>/release</b>   <b>/delete</b> } means you type <b>/hold</b> or <b>/release</b> or <b>/delete</b> .      |
| ... (ellipsis)  | You can repeat the previous item or items in command statements. For example, <b>/route:devicename</b> [,...] means you can type additional <i>devicenames</i> separated by commas.                             |
| ►               | Step-by-step procedural instructions                                                                                                                                                                            |

## Citrix on the World Wide Web

The Citrix Web site, at <http://www.citrix.com>, offers a variety of information and services for Citrix customers and users. From the Citrix home page, you can access Citrix online Technical Support Services and other information designed to assist MetaFrame XP administrators, including the following:

- Citrix Documentation Library containing the latest documentation for all Citrix products (at <http://www.citrix.com/support>; select Product Documentation)
- Downloadable Citrix ICA Clients (at <http://www.citrix.com/download>)
- Program information on Citrix Preferred Support Services options
- An FTP server containing the latest service packs, hotfixes, utilities, and product literature for download
- An online Solution Knowledgebase containing an extensive collection of application notes, technical articles, troubleshooting tips, and white papers
- Interactive online Solution Forums for discussion of technical issues with other users
- Frequently Asked Questions pages with answers to common technical and troubleshooting questions
- Information about programs and courseware for Citrix training and certifications
- Contact information for Citrix headquarters, including worldwide, European, Asia Pacific and Japan headquarters
- The Citrix Developer Network (CDN) at <http://www.citrix.com/cdn>. This new, open enrollment membership program provides access to developer tool kits, technical information, and test programs, for software and hardware vendors, system integrators, ICA licensees, and corporate IT developers who incorporate Citrix server-based computing solutions into their products.

## Reader Comments

We strive to provide accurate, clear, complete, and usable documentation for Citrix products. If you have any comments, corrections, or suggestions for improving our documentation, we want to hear from you.

You can send e-mail to the documentation authors at [documentation@citrix.com](mailto:documentation@citrix.com). Please include the product name and version number, and the title of the document in your message.

# Introduction to Citrix Installation Manager



## Overview

Imagine the administrative burden of installing Microsoft Office 2000 on 200 servers by sitting in front of each machine and installing each piece of the software manually. The thought of performing this task seems daunting; it could take weeks to complete the task only to find that you have to begin the cycle again by upgrading these machines with the latest service packs or software patches. Installing these components can become an endless and time-consuming task.

From one server, Installation Manager allows you to install an application package, such as Microsoft Office 2000, on all the servers in a domain or in a server farm. Installation Manager can be used whenever applications, files, service packs, and software patches need to be installed on one or more servers in the network.

This chapter introduces you to Installation Manager and lists the requirements of the product.

This chapter includes the following topics:

- What Installation Manager is and how it works
- Compatibility with MetaFrame XP and Windows
- The product's features, benefits, and requirements
- High-level tasks for installing and setting up Installation Manager

# What Is Citrix Installation Manager?

Installation Manager is an application installation product that significantly reduces the burden of installing applications and other software components to Windows 2000 or Windows NT 4.0 servers in MetaFrame XP server farms.

System administrators responsible for keeping desktops up and running know the overhead involved in installing new applications and keeping their users up-to-date with the latest application upgrades.

By employing server-based computing in a Windows 2000 Server or Windows NT 4.0 server environment, administrators can install applications on the desktop in a way that guarantees user access to the latest applications and software upgrades, while reducing administrative effort, reducing cost, and centralizing administrative control.

## Server Farms

Citrix server farms provide you with a flexible and robust way of running applications on ICA Clients. Users want the latest version of an application to be available to them when they need it.

With the continued emergence of Citrix server-based computing as an enterprise solution, Citrix server installations have grown rapidly. Application installations in a medium-to-large server farm can be as challenging as they once were at each desktop. The Citrix server in a server farm is one of many desktops an administrator must manage. To make a new or updated application available to a client user base connecting to a farm of 50 servers, the administrator must perform 50 installations. As farms increase in size and spread out over diverse, WAN-connected geographical locations, the cost and effort of administration increases as well.

## Domains with Terminal Services

As server domains increase in size and number, so does the complexity and duration of application installs on the servers in those domains. Administrators do not have time to install individual applications, application upgrades, and program patches continuously on large and diverse numbers of servers and workstations in each domain.

## How Does Citrix Installation Manager Work?

Installation Manager brings administrators single-point control for installing applications. Using Installation Manager, administrators can simultaneously install an application package on all servers in a server farm or on the network from a single server, either attended or unattended, regardless of their physical location, network connection type, or individual hardware setup. Installation Manager returns to the administrator simplified, centralized control over application installations.

When an administrator publishes an application that has been scheduled for installation to target servers, each server that has been configured to run the application in the farm downloads and installs the application. Deleting a published application that was installed using Installation Manager results in the application being uninstalled from each server that has been configured to run it.

### About Packages

Installation Manager install applications, service packs, upgrades, application suites, or other files by installing packages. A package can contain variations of these software components.

Installation Manager supports two types of packages: *Application Deployment File (ADF)* and *Microsoft Installer (MSI)*.

You can create an ADF package using the Packager utility in Installation Manager, but an MSI package is usually created by the software manufacturer.

ADF packages can include a new application, an upgrade to an existing application already installed on your servers, or miscellaneous other files that need to be installed.

MSI packages usually include application suites, such as Microsoft Office 2000. If you've purchased Microsoft Office 2000 and installed it from the CD-ROM onto your Windows machine, you've installed an MSI package.

### What Installation Manager Provides

Installation Manager provides these basic operations.

1. Packaging an application installation (creating an ADF package) using the Packager utility. This includes copying the package files to a network sharepoint for easy retrieval. Microsoft Installer (MSI) packages can be installed also.
2. Adding an ADF or MSI package and its contents to the Installation Manager database using Packager or the console.

3. Scheduling the installation of an ADF or MSI package using the console.
4. Viewing the status of installed *jobs* (scheduled packages) in the console.

Installation Manager includes the following software components that perform these packaging and installation operations:

- **Citrix Installation Manager Plug-in**

This plug-in for Citrix Management Console is an administration tool based on *Independent Management Architecture (IMA)* developed by Citrix that adds an existing ADF or MSI package to the Installation Manager database and schedules the package for installation on Citrix servers in the server farm either locally or remotely.

This console plug-in maintains a database of packages located on the network, and allows the administrator to schedule installation jobs, view job status, view packages, and change package properties.

You must install Citrix Management Console before you install this plug-in.

- **Citrix Installer Service**

If the console is already installed on your server, the Citrix Installation Manager plug-in installs in the console; otherwise, the plug-in will not install.

The Installer service and the Installation Manager subsystem are included in this component.

The Citrix Installation Manager subsystem provides the logic for managing packages and scheduling installations to target servers.

The Installer service runs on each target server managed by Installation Manager that executes scheduled requests from the console to install applications transparently. The Installer service is a background process that waits for instructions from Installation Manager before processing packages.

If the console is installed on this server, the Installation Manager plug-in prompts the Installer service to install a package. The Installer service interprets an ADF or MSI file in the package and attempts to install the software on the target server.

- **Citrix Packager**

The Packager utility runs on Windows 2000 Server or Windows NT Server 4.0 machines and is the tool administrators use to create ADF packages only for installation to target servers.

Packager is a utility that monitors application installation routines: the changes that an application's installation makes on the packaging server. It records the changes as installation commands in a script and packages all application files for distribution to target servers.

The ADF script file plus ADF support files complete the ADF package.

Installation Manager installs MSI packages, but these package types must be created by another source, as Packager cannot create them.

Installation Manager provides these features:

- **Application Publishing enhancements for MetaFrame XP**

Installation Manager includes enhancements to Published Applications in MetaFrame XP. These enhancements give the application publishing feature of the console the ability to push application installations to servers or to uninstall applications.

- **View package information**

The console allows administrators to view the contents of an ADF or MSI package and to schedule the job easily. The main view of the console displays important information about that package.

- **Install an application on multiple servers from a single location**

Installation Manager removes the leg work from off-the-shelf or customized application installations. From the console, an administrator can install the applications contained in an ADF or MSI package to any or all servers in a server farm or in *server groups*. ICA Client machines behave the same to an application installed remotely using Installation Manager as if the application were installed locally.

- **Install applications remotely without rewriting the installation program**

Installation Manager includes its own application installation monitoring utility that lets you replicate any application installation without modifying the application's install program. The Packager utility frees administrators from relying on application vendors to package their applications in a way that is compatible with Installation Manager.

- **Tight integration with existing and familiar Citrix technologies**

MetaFrame XP application publishing leverages Installation Manager to install or remove packaged applications on the servers in your server farm.

- **Application service packs, patches, and upgrades**

Installation Manager can install software patches, services packs, or upgrades to an existing application or replace the application if necessary.

- **Install MSI packages**

Administrators can install or remove MSI packages using the console.

- **Scheduling**

Administrators can schedule packaged installations to servers in server farms using the console.

## The Packager

The first step in installing non-MSI packaged applications (ADF packages) is determining the changes that application installation effects have on a server. This is done using Packager: a utility that records and monitors application setup routines by executing the complete application setup.

In general, the Packager installation setup program:

- Adds, modifies, and deletes registry keys
- Adds and modifies initialization (.ini) files
- Creates desktop shortcuts and program groups
- Copies other program files such as executables and Dynamic Link Libraries (dlls) to servers during application installation

Packager records all such activity so that Installation Manager can reproduce an application installation by performing the same activities on target servers. *Recording* an installation routine is called *packaging* an application, which involves executing an application's setup program while running Packager in the background to record the events of the application's installation.

When you package an application, Packager creates an *installation script* plus copies of the application files to be installed. The installation script is a text file that provides instructions for the Installer service when installing an application on your servers. In the installation script for an application, Packager records all installation activities using a script language that servers can interpret and execute to reproduce the installation.

## Citrix Management Console

The management interface for administrative control of MetaFrame XP server farms is an extensible Java-based tool, Citrix Management Console, which operates in the framework of IMA. The console communicates with MetaFrame XP servers and server farms through the Citrix IMA protocol over TCP/IP.

The console and IMA allow management of MetaFrame XP servers and server farms from any location. Administrators with proper credentials can run the console on any connected Windows NT or Windows 2000 workstation.

When you install the console, the Installation Manager Setup program also installs the files necessary for IMA protocol communication on any supported workstation or server.

The console lets you set up network rights plus add, install, and schedule ADF and MSI packages for installation to your servers among many other server farm tasks.

## The Installer Service

The Installer service runs in the background and executes the installation scripts of your ADF or MSI package. The Installer service performs all installation actions without administrator or ICA Client user intervention. This service installs as a component with the Installation Manager subsystem and the Installation Manager console plug-in.

## About Independent Management Architecture

Installation Manager incorporates the advanced Citrix server communications and management foundation, Independent Management Architecture (IMA). The integration of Installation Manager software with IMA is central to the enhanced management and scheduling functionality of MetaFrame XP and Installation Manager and the scalability of Citrix's server-based computing solutions.

IMA is a unified, enterprise-wide platform for installation, management, maintenance, support, and security for your organization's server-based computing and application hosting services. It is both an architectural model and a protocol for server-to-server communications. IMA is constructed on a collection of core subsystems that define and control execution of Citrix products.

IMA enables Installation Manager servers to be arbitrarily grouped into server farms that do not depend on the physical locations of the servers. IMA allows an Installation Manager server to be in a single server farm even if the servers are on different network subnets.

IMA provides a wide range of enterprise management and scalability features and options:

- Central administration of MetaFrame XP, Installation Manager, and other Citrix servers
- Centralized data store for all Citrix configuration data
- Centralized license management and pooling without license gateways
- ICA Client discovery of published applications without UDP broadcasts
- Logging of shadowed sessions
- Simple Network Management Protocol (SNMP) support
- Auditing of administration activity

# How Does Installation Manager Enhance MetaFrame XP or Windows?

## Easy Package Installation

Installation Manager complements MetaFrame XP or Windows software by allowing administrators to create ADF packages and install ADF or MSI packages easily, adding an important component to the enterprise solution.

Installation Manager can even package and install MetaFrame XP on your target servers.

## Citrix Application Publishing Enhancements

The MetaFrame XP Application Publishing feature leverages Installation Manager to install applications automatically to any server in the server farm before publishing applications.

---

**Note** Application Publishing requires MetaFrame XP servers to be installed. Administer application publishing using Published Applications for MetaFrame XP.

---

Published Application Manager (on Windows 2000 servers) or Published Applications (on Windows NT servers) is the central point of Installation Manager's application administration. Published Applications or Published Application Manager lets you create connection objects, called *published applications*, that point to specific applications on servers.

When an ICA Client user connects to a published application, the software initiates an ICA session containing the application specified by the administrator during application publishing. To the ICA Client user, a published application appears to be running locally. The user doesn't need to know the name or address of the Citrix server executing the application.

When ICA Client users attempt to connect to a load balanced published application, Load Manager directs the requests to the least busy server configured to run the published application.

See the *MetaFrame XP Application Server for Windows Administrator's Guide* for more information about the ICA Client software.

# How Does Installation Manager Perform in an Enterprise Environment?

Installation Manager runs smoothly in large network environments no matter how many servers require specific applications to be installed on them. Installation Manager can install packages to many servers in a mixed environment of Windows NT Server 4.0, Windows 2000 Server, and MetaFrame XP. Installation Manager saves the administrator hours of installation time by installing customized packages from one machine to large numbers of target servers in the farm.

## Installation Manager Benefits

The benefits of Installation Manager are:

- A significant amount of time is saved installing applications on servers
- Package management is easy using the console
- Centralized application installation and management
- Installs packages across domains
- New applications can be scheduled at any time for installation when server farm usage is low
- Reboots can be automated after applications install
- All users run the same version of an application, which resolves compatibility problems
- UNICODE compatibility for internationalization
- Application compatibility scripts can be added to any ADF package
- *Transform* files can be added to any MSI package
- Damaged applications can be repaired quickly on all servers affected
- Simplified MetaFrame XP application publishing
- ADF packages built with Installation Management Services 1.0 can be migrated to Installation Manager
- Pre-built ADF and MSI packages can be added to Installation Manager
- ADF packages are fully customizable
- Unpublishing an application does not uninstall the package in which the application resides

# Requirements

To run Installation Manager, your network must contain:

- **A file server.** This machine functions as storage for ADF and MSI packages.
- **A MetaFrame XP server.** This server must have Citrix Management Console installed for package management.
- **IMA servers in a server farm.** These target machines receive installed applications through the Installer service.
- **Packager machine.** This is the machine you use to package applications to an ADF package.

## Citrix Server Requirements

An MetaFrame XP and Installation Manager server requires:

**Windows 2000 Server or Windows NT Server 4.0.** Installation Manager installs on Windows NT Server 4.0, Terminal Server Edition or Windows 2000 Server with Terminal Services. These Windows servers provide the ability to host multiple simultaneous client sessions on these Microsoft platforms.

## Citrix Farm Requirements

Installation Manager in server farms requires:

- Installation Manager enabled on every server that you want to include for published application and package installation or uninstallation.
- Administrator rights. You must be a MetaFrame or domain administrator to run Installation Manager.
- The same protocol stack (such as TCP/IP or IPX) on each server in the server farm.

## File Server Requirements

Your network must have a file server. This machine must:

- Have adequate free disk space to hold all the packaged applications and other software components (such as service packs or upgrades) you plan to install using Installation Manager. The disk space required for each application is almost the same as the manufacturer's recommended space requirement for performing an application installation. For example, an application that requires 40MB of space for a local installation requires just over 40MB of free space on the file server.

- Support Universal Naming Convention (UNC) sharepoints.
- Be accessible to all servers using Installation Manager to install applications. The user who publishes applications for Installation Manager installations must have Write access to this file server.

## System Software Requirements

You can install Installation Manager on MetaFrame XP servers with the following Microsoft operating systems:

- **Windows NT Server 4.0, Terminal Server Edition with Service Pack 5 or later.** Microsoft recommends a Pentium or better processor, 32MB RAM, and a hard disk with at least 128MB of free space.
- **Windows 2000 Server with Terminal Services.** Microsoft recommends a 133MHz or faster Pentium-compatible processor, 256MB RAM, and a 2GB hard disk with at least 1GB of free space.

We recommend that you install Installation Manager using the following server configuration on the Windows servers previously mentioned:

- **Packaging.** To create ADF packages, the Citrix Packager component must be installed on a separate Windows 2000 or Windows NT 4.0 server dedicated to packaging only. We recommend that you install Packager on a MetaFrame XP server.
- **Managing packages.** Install the Citrix Installation Manager Plug-in or Citrix Installer service component on any MetaFrame XP server that you want to use to add and schedule installations of your packages using the console.
- **Target servers.** To install applications to the target servers on your network, these servers must have MetaFrame XP plus the Citrix Installer service component installed.

We recommend that you use Citrix Load Manager to load balance your servers and applications across all of the MetaFrame XP and Installation Manager servers in your farm. In that way, ICA Clients are less likely to be connected to a Citrix server that is approaching its capacity.

## Installation Manager Requirements

The requirements for Installation Manager depend on the components you are installing.

## Packager Requirements

The Packager software requires over 8MB (in addition to the Windows operating system requirements). When packaging an application, you must run Packager in an environment that closely approximates the environment of the servers to which you are installing the application.

To package an application for installation to a mixed server farm using combinations of Windows NT Server or Windows 2000 Server with MetaFrame XP, you must either have a separate packager partition for each operating system or use multiple computers for packaging applications.

For detailed information on packaging environment requirements, see Chapter 4, “Setting Up the Packaging Environment” on page 33.

## Installer Service Requirements

The Citrix Installer service software requires 32KB (in addition to the Windows operating system requirements).

## Citrix Management Console Requirements

The console requires the following:

- Minimum 25MB disk space for installation of the console and Java Run-Time Environment
- 64MB RAM for running the console (in addition to RAM required for the operating system and other applications)
- Pentium-class processor

To install packages in the console, do the following:

- Set up the Windows NT domain account as the Installation Manager administrator account. You can do this by right-clicking on the **Citrix Installation Manager** object in the console tree and clicking **Properties**.
- If you install *unattended* programs on the console, such as MetaFrame XP, and the program requires local administrator privileges, the Installation Manager network account must have those same privileges. Setup programs generally do not require the user to have administrator privileges.

To set up those privileges, use the following options in Windows:

- **Windows 2000 Server.** From the **Start** menu, click **Programs > Administrative Tools > Computer Management**.
- **Windows NT Server 4.0.** From the **Start** menu, click **Programs > Administrative Tools > User Manager for Domains**.

See your Installation Manager online Help for more information on setting up a network sharepoint user account.

## General Tasks for Installing and Setting Up Installation Manager

Setting up your environment for application installation includes these general tasks:

- Install MetaFrame XP and the console before you install Installation Manager.
- Install the Citrix Installer service. See Chapter 3, “Installing Citrix Installation Manager” on page 23.
- If you want to create ADF packages, set up the packaging machine for building ADF packages and install the Citrix Packager. If you create ADF packages from an installation recording, this machine must be a *clean* machine. A clean machine does not contain any applications that the target servers do not have, because the recording process does not add any files to the ADF package that were already on the machine before the recording process began.

For example, if a file that is required by an application that you want to package, such as Mfc42.dll, is on the clean machine before packaging begins, Mfc42.dll is not added to the package. Everything works if Mfc42.dll is on the target servers before the package is installed. If not, the application will not run after it is installed.

See Chapter 4, “Setting Up the Packaging Environment” on page 33 for more information.

- Install the Citrix Installer service on target servers that receive the installed application packages. See Chapter 3, “Installing Citrix Installation Manager” on page 23 for more information.



# Installing Citrix Installation Manager



## Overview

This chapter explains how to install and set up Installation Manager.

You can install all of the Installation Manager components on one server, though you may be building ADF packages on a separate server. In this case, it is not necessary to install Packager on more than one server in the server farm.

This chapter includes the following topics:

- A few items to consider before you begin
- Installing Installation Manager components on various servers in your MetaFrame XP environment
- Migrating data from Installation Management Services 1.0 and 1.0x to Installation Manager
- Using Installation Manager in the console
- Uninstalling Installation Manager

## Before You Begin

The following items require some thought as you prepare for installation.

- We recommend that you install MetaFrame XP and activate your MetaFrame XP license before you install Installation Manager unless you are upgrading from MetaFrame 1.8 and Installation Management Services 1.0 (see “Migrating Installation Management Services 1.0b Deployed Packages to a MetaFrame XP Server Farm” on page 28).
- Determine which servers require a component of Installation Manager. See “Determining Which Servers Require Application Installation” on page 24.

- (Optional.) Determine which server you will be using to create ADF packages.
- (Optional.) Determine if you will be managing packages on any remote servers.

## Determining Which Servers Require Application Installation

Any server that is used by Terminal Services to connect to ICA Clients can benefit from Installation Manager.

The following components can be installed on various servers:

- **Citrix Installation Manager Plug-in.** Each server that you want to use for package scheduling and installation to target servers requires this component (which installs in your existing console). See “Using Citrix Management Console” on page 28 in this chapter or Chapter 5, “Installation Manager Tutorial” on page 39 for more information.

Install this component on servers where you just want to use the console to add, schedule, and install your packages to target servers, but you don’t need the Installation Manager subsystem or the Installer service.

- **Citrix Installer Service.** Each server that you want to use to schedule and install packages to target servers uses this component. The Installation Manager subsystem and Installer service are installed with this component. Install this component on servers where you not only want to schedule and install packages, but also on the target servers where the Installer service is used.

---

**Note** Before you install the Installation Manager Subsystem component, read about the Installer service in Chapter 2, “Introduction to Citrix Installation Manager” on page 9.

---

- **Citrix Packager.** Each Windows 2000 or Windows NT 4.0 server that you want to use to build ADF packages requires this utility. See Chapter 4, “Setting Up the Packaging Environment” on page 33 for more information. Install this component on machines that you use strictly for creating ADF packages.

Your Installation Manager product CD contains all of these components. Go to each server and install the component.

For example, you have eight servers in your farm. You can install the Citrix Packager component on a Packager machine, Citrix Installation Manager Plug-in component on another MetaFrame XP server for package scheduling and installations, and Citrix Installer service and Installation Management subsystem on the six remaining target MetaFrame XP servers.

## Installing Installation Manager

This section explains how to install Installation Manager from CD-ROM. You can also install Installation Manager from the network.

### Starting the Installation

The following procedures explain how to install Installation Manager from the Installation Manager CD-ROM.

➤ **To begin installing Installation Manager**

1. Exit all applications.
2. Insert the Installation Manager CD-ROM into the CD drive.
  - If your CD drive supports Autorun, the Installation Manager splash screen appears.
  - If the splash screen does not appear or if you are installing from a network sharepoint, from the **Start** menu, click **Run** and type **d:\autoroot.exe**, where **d** is the letter of your CD drive or network sharepoint.
3. Click **Installation Manager Setup**.

When Installation Manager Setup begins, a few information pages and dialog boxes ask you to select options and configure Installation Manager. Click the appropriate button to continue after you complete each screen. If you want to return to a previous page to make changes, click **Back**. If you click **Cancel**, the Installation Manager Setup program ends without completing the Installation Manager installation.

### Installing Installation Manager

This installation can install all of the components of Installation Manager (Citrix Installation Manager Plug-in, Citrix Installer Services, and Citrix Packager) on the same machine. See Chapter 1, “Welcome” on page 5 and “Installing the Installation Manager Components” on page 26 for information about each of these components.

➤ **To run a custom installation**

1. Insert the Citrix Installation Manager CD into the CD-ROM drive on a MetaFrame XP server.
2. At the **Choose Setup Language** screen, choose the language you want to install and click **OK**.

---

**Note** The **Choose Language Setup** screen is not included in the English-Only version of Installation Manager.

---

3. Read the **Welcome** screen and click **Next**.
4. At the **Select Components** screen, install the components you want on your machine. The components you choose will take a few minutes to install.
5. At the **Setup Complete** screen, click **Finish**.
6. Restart the console. The Citrix Installation Manager object appears in the console tree view.

## Installing the Installation Manager Components

Install the components you want and click **Next**.

- **Citrix Installation Manager Plug-in.** Citrix Management Console is a centralized management utility you use to administer your server farm. This plug-in installs and runs in an existing console.

The console is a Java application and requires a Java Runtime Environment (JRE) to execute. If your system does not have a JRE, Installation Manager Setup installs one. If your system has a JRE but it is not the one recommended for the console, Installation Manager Setup installs the recommended JRE. Installation Manager Setup does not replace or affect any previously installed JRE.

You can install the console on either of the recommended Windows servers. When installed, the console allows you to administer your server farm from that computer.

You can install this component without the Citrix Installer Service or Citrix Packager components. At least one server in the server farm must have the console plug-in installed or you will not be able manage Installation Manager packages in the server farm.

- **Citrix Installer Service.** This component must be installed on every server that receives ADF and MSI package installations. The Citrix Installation Manager Plug-in and Citrix Packager components do not have to be installed on the same machines as the Citrix Installer Service component.
- **Citrix Packager.** Packager does not require the Citrix Installation Manager Plug-in or the Citrix Installer Service component to build ADF packages.

# Migrating Data from Installation Management Services 1.0

This section discusses migrating from Installation Management Services 1.0 and Installation Management Services 1.0b.

## Migrating Data from Installation Management Services 1.0 to Citrix Installation Manager

Migrating your software and data from Installation Management Services 1.0 is automatic. First, you upgrade to MetaFrame XP from MetaFrame 1.8. Then you insert your Installation Manager product CD into the CD-ROM drive on a MetaFrame XP server. If Installation Manager detects Installation Management Services 1.0, Installation Manager automatically removes it and adds Installation Manager.

The process migrates the published application settings from the registry to Installation Manager and uninstalls Installation Management Services 1.0.

---

**Important** If you've published applications using Installation Management Services 1.0 or 1.0x and you want to keep those published applications, see "Migrating Installation Management Services 1.0b Deployed Packages to a MetaFrame XP Server Farm" on page 28 for some important instructions you must follow prior to installing MetaFrame XP.

---

Here are some guidelines to follow for Installation Management Services 1.0 and Installation Manager compatibility:

- Packages you create in Installation Management Services 1.0 *will* be recognized by Installation Manager.
- Packages you create in Installation Manager *will not* be recognized by Installation Management Services 1.0.
- Applications that were installed using Installation Management Services 1.0 *cannot* be uninstalled using Installation Manager.
- Applications published in Installation Management Services 1.0 or 1.0b *will* be available in Installation Manager if you use the IM\_APP\_UPGRD utility (see "Migrating Installation Management Services 1.0b Deployed Packages to a MetaFrame XP Server Farm" on page 28).
- Installation Management Services 1.0 and Installation Manager can exist on separate servers in the farm, but they are administered differently.

## Migrating Installation Management Services 1.0b Deployed Packages to a MetaFrame XP Server Farm

Applications published using Installation Management Services 1.0x *will not* run in a MetaFrame XP environment without modification.

Installation Management Services 1.0b uses a player that is not supported on MetaFrame XP. For this reason, before you install MetaFrame XPe, you must run the Installation Management Services 1.0 application migration utility called IM\_APP\_UPGRD. This utility removes the need to use the player utility on applications published in Installation Management Services 1.0b and lets them run error-free in a MetaFrame XP server farm.

---

**Important** If you do not run this utility prior to installing MetaFrame XP, you must unpublish and republish your applications.

---

The migration utility, `im_app_upgrd.exe`, is located in `Support\debug\i386` on your *Application Packaging and Delivery* CD-ROM with MetaFrame XPe or on the Web in the Software Updates section at <http://www.citrix.com/support/>.

Install MetaFrame XP, Installation Manager, and IM\_APP\_UPGRD in the following order:

1. Run the IM\_APP\_UPGRD migration utility
2. Install and license MetaFrame XPe
3. Install Installation Manager

## Using Citrix Management Console

Citrix Management Console is the console you use to manage ADF or MSI packages for installation to target servers. Authenticated administrators can use the console to:

- Grant access to domain administrators
- Configure network share user accounts
- Add ADF or MSI packages to the Installation Manager database
- Schedule or modify ADF or MSI package scheduling for installation to target servers
- Install ADF or MSI packages to target servers
- Monitor installation status
- Uninstall ADF or MSI packages installed on servers

## Starting Citrix Management Console

➤ **To use the console**

1. From the **Start** menu, choose **Programs > Citrix > Citrix Management Console**.
2. When the console starts, a dialog box asks you to log in to the server. Enter the server name, user account name, password, and domain. Click **OK**.

➤ **To view online help in the console**

From the **Help** menu, click **Contents and Index** or press **F1**.

## Views in Citrix Management Console

When connected to a server farm, the console displays a window with two main parts (called *panes*).

- The left *tree* pane displays a hierarchical list of the components and objects in the server farm.
- The right pane displays information about the object selected in the left pane.

Several common terms are used in the documentation to refer to the items you see in the console window. The list of items in the left pane are parts of the tree structure. The screens of listed information that appear in the right pane are called *tabs*.

### Using the Tree Pane

The tree structure in the left pane of the console is similar to other hierarchical lists that you see in Windows, such as the tree in the left pane of the Windows Explorer window.

**Selecting objects.** When you select an object, the object appears highlighted in the tree. To select another object, click the object or use the arrow keys to move the highlight. To select multiple objects, press CTRL and click each object.

**Navigating around the console.** Objects in the tree can contain other objects. A plus sign (+) next to an object indicates that the object contains other objects; the list can be expanded to display the objects it contains.

- To expand the list, click the plus sign or press the RIGHT ARROW key when the object is selected.
- To collapse the list to hide the objects on lower levels of the hierarchy, click the minus sign (-) next to an object or press the LEFT ARROW key when the object is selected.

## Using Tabs

When an object in the left pane contains more information or options than can fit in the right pane, the options display on the tabs. The name of the tab appears at the top of each tab. One tab at a time displays in the right pane. To use a different tab, click the tab name.

Information about performing specific tasks in the console is provided in the online help.

## Granting Access to Citrix Administrators

You control the management of server farms by controlling access to the console. The console uses standard Windows user authentication. By default, all users who are included in the server's local Administrators group can log on to the server and use the console to manage package installations to server farms.

To give administrators authorization to use the console to manage target servers, add their user accounts to the Administrators local group. By default, members of the global Domain Administrators group are included in the local Administrators group on each server, so your domain administrators have access to the servers in the domain. You can change the users who have access by changing user and group accounts.

For more information about user accounts and groups, refer to your Windows documentation or online help.

## Uninstalling Installation Manager

If you need to reinstall Installation Manager for some reason, it is a good idea to uninstall the existing software *before reinstalling it*.

---

**Important** Before uninstalling Installation Manager, make sure you log off any currently connected ICA Clients and exit all programs executing on the Windows server.

---

➤ **To uninstall Installation Manager**

1. From the **Start** menu, click **Settings**.
2. Click **Control Panel**.
3. Double-click **Add/Remove Programs**.
4. Click **Change/Remove** or **Add/Remove** on the program to uninstall.
5. Remove Citrix Installation Manager and Citrix Packager as needed. The components on the selected machine must be uninstalled separately.

- On Windows NT Server 4.0, Terminal Server Edition, select **Citrix Installation Manager**. Click **Add/Remove** and click **OK**. Select **Citrix Packager** (as applicable). Click **Add/Remove** and click **OK**.
- On Windows 2000 Server with Terminal Services, click **Change or Remove Programs**. Select **Citrix Installation Manager** and click **Change/Remove**. Click **Yes**. Select **Citrix Packager** (as applicable). Click **Change/Remove**. Click **Remove** (as applicable) and click **OK**.

6. Follow the prompts to uninstall Installation Manager.

---

**Note** If you uninstall Installation Manager from a server that has MetaFrame installed on it, and Installation Manager is still being run on another server in the farm, the Installation Manager folder in the console still appears even though it is empty.

---

If you plan to reinstall Installation Manager on the same machine, restart your machine first to clean out any dlls left over from the previous installation of Installation Manager.



# Setting Up the Packaging Environment



## Overview

This chapter describes how to set up an environment in which you can run Packager and accurately capture an application installation for reproduction on your *target servers* by creating ADF packages.

See Chapter 3, “Installing Citrix Installation Manager” on page 23 for information about how to install the Packager component of Installation Manager.

This chapter includes the following topics:

- How Packager works
- Packager requirements
- How to create ADF packages using Packager
- How to return the Packager machine to its original state

Application installation that you ordinarily perform when installing applications without the aid of a utility such as Installation Manager is dependent on two major factors: the type of operating system on which you install the application and the *freshness* of that operating system. A single application performs disparate setup routines depending on the operating system under which the application is installed. For example, an application installation on a Windows NT Server 4.0 writes a different set of keys in the registry than does an application installation on a Windows 2000 Server machine.

Installation routines for different applications often repeat the same steps too, including writing and deleting common registry keys, modifying common initialization files (ini), and placing shared dll files in common directories.

For example, if you install one application that copies a dll to a system directory and then later you install a second application that also copies the same dll to the same system directory, the second application recognizes that the dll already exists and may not attempt to replace it (depending on a version check of the dll).

To accurately *record* an application installation for reproduction on your target servers, you must package the application in an environment that runs the same operating system as your target servers.

---

**Important** The Packager operating system must be a fresh installation with no changes made to it by any other applications. Packaging on a fresh operating system ensures that the recorded installation portion of Packager performs all of its possible configuration actions. You can then reproduce that installation on servers with varying configurations and previously installed applications, and be assured that all necessary installation steps occur in the correct order.

---

This chapter describes what Packager is, how to set up a clean environment in which to run Packager to package applications, and how to restore the packaging environment to its original, clean condition after recording and packaging an application.

## How Packager Works

Packager is an application that monitors application installation routines. Packager monitors an application installation's changes on the packaging server, records the changes as installation commands in a script, and packages all application files for distribution to target servers.

## Projects and Packages

Packager creates a *project* to which you assign a name. The project can include the recording of an application install by installing an application and collecting information about the environment, resources, and components needed by the application, then analyzing the information and storing it in a recorder log file. Packager uses the log file to create an ADF file and to copy the installed application files to a package folder.

This collection of files: files you add to the project, the ADF, and ADF support files, completes the ADF installation package. When the package has been created in the project, the package can be added to the console and installed to the target servers. The project stays in Packager and can be modified any time.

## The ADF

An ADF is a text file created by the Packager software that contains information about the environment, resources, and files required to install and run an application on a server. The file is named after the target application with the extension .wfs (for example, Winword.wfs). The Installer service uses the ADF to recreate the installation to the target server.

### ADF Parameters

The ADF parameters can:

- Install an application without using the product CD
- Repair a damaged application
- Remove or uninstall an application
- Describe the application and its requirements
- Inform the Installer service how to access the application files

You can modify the ADF file to customize the information within the file. See the Packager online help for advanced information about ADF creation, format, and syntax.

### ADF Limitation

The ADF file has a limitation: a recording of an ADF can't always detect the intent of the install program when registry keys have changed. Because of this, to take advantage of the full intent of the application developer's logic, such as reference counts to dlls, we recommend that you use the **Add Unattended Program** option in Packager if the setup program has a silent install option.

See the online help in Packager for information on the ADF or an Unattended Program.

## Packaging Environment Requirements

The machine used as the packaging environment must include the following three components:

- A partition on the hard drive dedicated only to packaging applications. In general, the partition must be at least 500MB and will not contain any files or data other than those required by Installation Manager.
- A Windows operating system installed on the partition. This operating system must be a fresh installation of Windows 2000 Server or Windows NT Server 4.0.

Install the Windows software on the partition if you want to package applications for distribution on MetaFrame XP servers.

---

**Important** This installation cannot be an existing installation of Windows NT or Windows 2000. Use this installation exclusively for the purpose of packaging applications and not for any other work-related tasks.

---

To set up the packaging environment, install a licensed copy of Windows NT Server 4.0 or Windows 2000 Server on your packaging machine.

- The Packager software installed in the same partition. This software is included in the Installation Manager product CD-ROM. See Chapter 3, “Installing Citrix Installation Manager” on page 23 for more information.

---

**Important** To use Installation Manager in a mixed server environment that contains MetaFrame servers and a combination of Windows operating systems, package each of your applications separately for the correct target platform. A packaging environment for a mixed Windows and MetaFrame XP server farm must include each software product and operating system installed on a separate partition. If you cannot create this type of environment on a single machine, two machines must be used—one for each packaging environment. See “Installation Manager Requirements” on page 19 for more information.

---

- Some privileges must be set up in Windows so that packages can be added to target servers successfully. See your Windows documentation for information on how to set up these rights.

Before you create and build packages in Packager, follow these steps:

1. Create a Windows NT network sharepoint where you will be posting your packages.
2. Create a Windows NT domain account that has a minimum of Read and Write access privileges to the network sharepoint.

---

**Note** If you record an installation that requires administrator rights, you will need those rights before you begin the packaging process.

---

## Using Packager

For most packages, you will:

- Create a new project
- Record the application setup
- Add other necessary components to the project
- Build the package
- Copy the package to a network sharepoint

➤ **To use Packager**

1. From the **Start** menu, choose **Programs > Citrix > Citrix Installation Manager > Citrix Packager**.
2. To create a new project, from the **File** menu, choose **New Project**. To open an existing project, from the **File** menu, choose **Open Project**.
3. To use the wizards, from the **File** menu, click **Project Wizards**. These wizards guide you through a complete package creation.
4. To view the online Help, from the **Help** menu, choose **Contents**.

When active, Packager displays a window with two main parts (called *panes*).

- The left pane displays a list of the possible objects in the project.
- The right pane displays detailed information in columns about the object selected in the left pane. When components of Packager are added to the project, the details appear in this pane. You can change some of the objects, but not all of them. See the Packager online help for detailed information on how to use Packager.

The list of items in the left pane are parts of the *tree* structure.

## Using the Tree Pane

The tree structure in the left pane of Packager is similar to other hierarchical lists that you see in Windows, such as the tree in the left pane of the Windows Explorer.

**Selecting objects.** When you select an object, the object appears highlighted in the tree. To select another object, click the object or use the arrow keys to move the highlight up or down.

**Navigating around Packager.** Objects in the tree can contain other objects. A plus sign (+) next to an object indicates that the object contains other objects; the list can be expanded to display the objects it contains.

- To expand the list, click the plus sign or press the RIGHT ARROW key when the object is selected.
- To collapse the list to hide the objects on lower levels of the hierarchy, click the minus sign (-) next to an object or press the LEFT ARROW key when the object is selected.

## Using Tabs

When a process in the creation of an ADF package has completed, the **Analyze**, **Build**, and **Post** tabs at the bottom of the Packager screen display output messages. For example, during or after the *build* phase of the package (when you are building the package), output messages appear. Click the **Build** tab, then click and drag the horizontal bar up to expand the viewing area for the messages.

## Using the Menus

You can perform most of the tasks required to package applications from the menu bar.

- **File.** This menu contains options to run the Project wizard, create a new project, and open or save a project.

---

**Tip** We recommend that you use the Project wizard to create your first project.

---

- **Edit.** This menu contains options to delete a package or to view its properties.
- **Project.** This menu contains options to add the components of your project: run the recording of an application setup, add a *compatibility script*, an *unattended program* for silent installs, or other files. You can build the package also using this menu.
- **View.** This menu contains options to display the toolbar, the status bar, package output, or refresh the screen.
- **Tools.** This menu contains options to automatically add the package to the Installation Manager database, specify where to build the package, and to roll back a packaged process after completion.
- **Help.** This menu contains options to launch the online help system, plus general information about Packager.

## Using the Toolbar

You can use the toolbar to perform most tasks that appear in the menu bar.

# Restoring Packager to its Original State

Use Packager to restore your operating system to its original state before you created a project and ADF package. Perform this task every time you create a new project, package your application, and copy the package to a sharepoint on the network.

- **To roll back your operating system to a clean state**
  1. Launch Packager.
  2. Open the project you want to roll back.
  3. From the **Tools** menu, choose **Rollback**.

# Installation Manager Tutorial



## Overview

This chapter provides an overview of how to package an application and other files for installation to target servers using Installation Manager.

Refer to Packager and Citrix Management Console online help for detailed information about how to perform specific tasks.

This chapter includes the following topics:

- Package applications
- Add packages to the Installation Manager database
- Install packages

## Ways to Install Packages

The general steps required to install existing ADF and MSI packages includes:

- Starting the console
- Setting up an administrator account in the console
- Setting up a user account to the network sharepoints and copying a package to the network sharepoint
- Creating an ADF package if needed or using an existing ADF or MSI package to install on target servers
- Setting up file sharing and adding the ADF or MSI package to the Installation Manager database

- Scheduling a job to install the package on the target server
- Viewing the results to determine if the installation was successful

The general steps required to create an ADF package, add it to Installation Manager, and schedule it for installation to target servers includes:

- Making sure the Packager machine is clean
- Starting Packager
- Creating a new project in Packager
- Recording the application setup, as needed
- Building an ADF package and copying the package to a sharepoint on the network
- Rolling back the Packager machine to its original state before the package was created
- Setting up a user account in the console with Read writes to copy the package to a sharepoint on the network
- Adding the new package to the Installation Manager database using Packager or the console
- Scheduling a job to install the package on the target server
- Viewing the results to determine if the installation was successful

## Creating ADF Packages to Install Legacy (Non-MSI) Applications

This method creates legacy application packages you can install unattended.

You can add several components to your ADF package.

- **Add Recording.** Record an application's install.
- **Add Unattended Program.** Install legacy applications directly by launching silent or unattended installs (such as service packs).
- **Add Files.** Add one or more files to a package.
- **Add Compatibility Script.** Merge application compatibility scripts.

The following procedure gives you a basic understanding of how to create various packages.

---

**Important** Make sure you use a clean Packager machine before recording your installation.

---

➤ **To create installation packages for legacy applications**

1. Launch Packager.
2. Create the project. From the **File** menu, choose **New Project** to create a new project for your package. Enter the project name and location.
3. (Optional.) Record the application's installation. From the **Project** menu, choose **Add Recording**. Browse to the application you want to use to record and add to the package.
4. Choose the package location. From the **Tools** menu, choose **Build Options**. Browse to the location at which you want to copy the package.
5. Build the package. From the **Project** menu, click **Build Project**.

---

**Tip** You can click **Add packages to the Installation Manager database** to copy this package to a network sharepoint. Make sure that sharepoint has the proper rights.

---

6. View the output. From the **View** menu, choose **Output** to view the history of the build at the bottom of the Packager window.

## Creating ADF Packages to Include Other Files

This procedure allows you to add specific files for updates to legacy applications. An installation script is not needed here.

➤ **To create installation packages using one or more files**

1. Launch Packager.
2. Create the project. From the **File** menu, choose **New Project** to create a new project for your package.
3. Add the files. From the **Project** menu, choose **Add Files**. Add the files you want to include in the package.
4. Choose the package location. From the **Tools** menu, choose **Build Options**. Browse to the location at which you want to copy the package.

---

**Tip** You can click **Add packages to the Installation Manager database** to copy this package to a network sharepoint.

---

5. Build the package. From the **Project** menu, click **Build Project**.
6. From the **View** menu, choose **Output** to view the history.

## Creating ADF Packages to Install (Non-MSI) Applications that Include a Silent Install Option

This method allows you to install applications using the vendor defaults (a silent install). Use this method when your input is not required and the installation of this package can be performed without any administrative assistance.

➤ **To create installation packages using the defaults**

1. Launch Packager.
2. Create the project. From the **File** menu, choose **New Project** to create a new project for your package.
3. Add the unattended program. From the **Project** menu, choose **Add Unattended Program**.
4. Choose the package location. From the **Tools** menu, choose **Build Options**. Browse to the location at which you want to copy the file.

---

**Tip** You can click **Add packages to the Installation Manager database** to copy this package to a network sharepoint.

---

5. Build the package. From the **Project** menu, click **Build Project**.
  6. From the **View** menu, choose **Output** to view the history.
- The left pane displays the project name and all data that you added to this project.

## Adding ADF or MSI Packages to the Installation Manager Database Using Citrix Management Console

This method allows you to schedule and install an existing ADF package to a Citrix server using the console.

---

**Note** Make sure proper administrative rights are set up for your domain, the user account is set up for the person who will be adding and installing the package to the target servers, and that file sharing is allowed for the package you add to the console.

---

➤ **To add the package**

1. On the desktop, double-click to open **Citrix Management Console**.
2. Log in to the server farm.
3. At the tree view, right-click **Citrix Installation Manager**.

4. Provide a user account with rights to read the ADF package on the network. Choose **Properties** and click **Edit**. Add the domain name, user name, and password.
5. Add the package. From the Installation Manager tree view, click to expand **Packages**.
6. Right-click on the package and choose **Add Package**.
  - In the **File** field, enter the pathname of the package you want to add or browse to locate the file. Look for a package with the .wfs extension or the ADF Installer Package type.
  - In the **Name** field, enter a unique name for the package.
  - Click **OK**.
7. (Optional.) Click **Applications** to view the applications in the package.
8. Install the package. Right-click on the package and select **Install Package**, or you can choose **Actions > Citrix Installation Manager > Install Package**.
9. Schedule the install. Specify the date and time to install the package.
10. Select a server on which to install the package and click **Add**.
11. Click **Next**.
12. Click **Finish**.
13. View the results. Click **Citrix Installation Manager** in the tree and click the **Jobs** tab to view the package.



# Index

## Symbols

.wfs file 35

## A

Add Unattended Program option 42  
ADF limitations 35  
ADF packages 17  
    adding files to 41  
ADF parameters 35  
ADF, and Packager 35  
Application Deployment File 34, 40  
Application Publishing 13  
applications, adding packages using the defaults 42

## B

benefits of Installation Manager 13

## C

Citrix Documentation Library 8  
Citrix farm requirements 18  
Citrix ICA Clients  
    downloading 8  
Citrix Management Console 24  
    adding ADF packages 42  
    features of 28  
    managing 12  
    starting 28  
    using 29  
    what it is 14  
Citrix Packager, what it is 34  
Citrix server requirements 18  
Citrix web site 7  
components of Installation Manager 24  
conventions, documentation 7  
creating a simple ADF package 41

## D

documentation  
    conventions 7  
documentation, using PDF 6

domain account, Windows NT 36

## F

features of Installation Manager 13  
file server requirements 18  
files, adding to a package 41  
Frequently Asked Questions 8

## G

granting access to Installation Manager 30

## I

ICA Client 16  
IMA 14  
Independent Management Architecture 14  
Installation Management Services 1.0 17  
Installation Manager  
    and MetaFrame 16  
    components of 13  
    documentation 6  
    features of 13  
    granting access to 30  
    how it works 11  
    installing 23  
    migrating to 27  
    overview of 9  
    requirements 18  
    tasks for installing 21  
    using in server domains 10  
    using server farms 10  
    welcome 5  
    what is it? 10  
Installation Manager components 26  
Installation Manager database 42  
Installation Manager Subsystem 24  
installation script 14  
installation script, definition of 14  
Installation\_Manager\_Readme.txt file 6  
Installer service  
    about 12, 15  
    introduction to 15  
    what it does 15

installing an application without user intervention 42  
installing packages, general steps 39

## M

menus, in Packager 38  
MetaFrame  
    and Application Publishing 16  
    and Installation Manager 16  
migrating from Installation Management Services 1.0 17, 27

## P

package components 40  
package, definition of 14  
Packager  
    about 14, 24  
    introduction to 14  
    objects of 14  
    restoring the OS after packaging 38  
    using 37  
Packager utility, what it is 12  
packages, adding ADF 42  
packages, creating for legacy applications 40  
packaging  
    overview of 33  
    partition requirements 35  
    setting up 33

## R

Reader comments 8  
recording an installation 40  
requirements 18  
    Citrix server 19  
    file server 18  
    general 18  
    Installation Manager 19  
    Packager 20  
    packaging 35  
    software 19  
    system software 19  
restoring the Packager operating system 38  
rights, assigning to administrators 30  
rolling back Packager 40

## S

server requirements 24  
sharepoint, copying files to 11

sharepoint, setting up 21  
silent install 42  
software requirements 19  
Solution Knowledgebase 8  
system software requirements 19

## T

tabs  
    Packager 37  
        using in Citrix Management Console 30  
toolbar, in Packager 38  
tree pane, in Packager 37

## U

UNC, requirements 19  
uninstalling Installation Manager 30  
using Citrix Management Console 29  
using Packager 37

## V

viewing Citrix Management Console 29

## W

Welcome 5  
Welcome, to Installation Manager 5  
what you need to know about Installation Manager 21  
Windows NT sharepoint 36