



THE COMPLETE VIEWER FOR MS® PROJECT

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## Deployment White Paper

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# Chapter 1: DEPLOYMENT OPTIONS

Seavus Project Viewer provides a wide variety of deployment options:

- **Single User** installation is a stand alone, web downloadable configuration to cover a small group of Users in a tightly defined geographic area.
- **Concurrent User** installation is a specialized deployment involving a single installation on a single network location (on a designated application server) and a special License Server for Seavus Project Viewer licensing.
- **Single Company Key** installation for a blend of physical deployment (MSI) and thin- client multiple server based (Citrix) deployment to cover an entire country.

## SINGLE USER INSTALLATION

The Single User Installation is the default and most common way of installing Seavus Project Viewer. This installation can either be downloaded from the internet after purchasing a Single User License or found on the boxed set CD of Seavus Project Viewer.

The single installation is bound to the computer where the application is installed and all users of that particular machine have access to it.

### Benefits:

- Simple and easy for a single user, a small workgroup, or even small to medium companies with non-restrictive software installation policies.
- Simple to maintain for less than 100 installations.

### Disadvantages:

- Complex deployment and upgrade for more than 100 installations.

- The activation process becomes cumbersome to maintain if more than 100 licenses are required.
- The auto update features of the application are lost in IT environments with high restrictions for downloading software over the internet (through company firewalls).

## CONCURRENT USER INSTALLATION

The Concurrent User Installation is a special kind of setup available on request by customers who wish to streamline their application ownership costs and maintain easy of deployment.

In this installation, the application is installed using a custom installer that installs the application on a network accessible server, activates the installation and installs a **License Server** that will maintain the concurrent usage policy.

End-users access the application from a network location (published from the application server where Seavus Project Viewer is installed in Concurrent User mode). Since the application cannot find a license key on the local machine it tries to locate the **License Server** through a network discovery protocol (assumes that the network traffic is not obstructed by a local or domain firewall). After successfully contacting the **License Server**, it requests authorization for running, which depends on the number of currently available concurrent licenses.

### Benefits:

- Low maintenance costs.
- Single point for installation and upgrade.

### Disadvantages:

- Cannot be used outside the network or by roaming users with portable computers.

## SINGLE COMPANY KEY INSTALLATION

The Single Company Key deployment is the most versatile and configurable way of deploying Seavus Project Viewer in an Enterprise with more than 100 licenses.

This installation consists of a single custom-made installation package or MSI which has a customized build of the Seavus Project Viewer that does not require activation.

The enterprise IT department can deploy the application in a variety of ways supported by the MSI framework or by using advanced enterprise deployment tools from Microsoft, Wise, Novell, Citrix or others. In essence, this installation allows the IT department to deploy the application to a network location for a single point of installation, to use advanced tools for a non-attended – push installation to thousands of workstations, or to manage versions of the application in a structured and secure way.

### **Benefits:**

- Low maintenance costs.
- High configurability.
- Greatest freedom for system administrators.

### **Disadvantages:**

- Requires advanced knowledge of deployment servers and tools.

# Chapter 2: ENTERPRISE DEPLOYMENT

## MICROSOFT WINDOWS INSTALLER

Microsoft Windows® Installer is a base service of the Microsoft Windows operating system that enables you to manage the state of software applications. The managed state of an application includes installation, modification, upgrade, or removal. Windows Installer provides you with consistent and reliable methods to customize installations, update and upgrade applications, and resolve configuration problems. It can also manage shared resources, enforce consistent file version rules, and diagnose and repair applications at runtime.

Prior to Windows Installer, software applications used various setup technologies, each of which contained unique installation rules for each application. At times, the applications did the wrong things at setup time. For instance, an earlier version of a particular file might be installed over a newer version of that same file. Some setup technologies made it difficult to maintain accurate reference counts on shared components for the many applications installed on a computer. As a result, installing or removing certain applications might break other applications.

Using Windows Installer, the operating system implements all of the proper installation rules. To adhere to those rules and to avoid the problems described in the preceding paragraph, an application needs only to describe itself in a Windows Installer package. Windows Installer then performs the installation tasks for each application, which can help you prevent or minimize common installation problems.

- Adding, Upgrading or Deleting an Application Can Damage Other Installed Applications

- Providing consistent and reliable version rules
- Providing system-wide management of shared resources
- A Failed Attempt to Change the State of an Application Can Destabilize the System
- Restoring the pre-installation state of a computer
- Customizing the Setup for Applications Can Be Complicated
- Providing a standardized command-line interface
- Providing a standard way of customizing applications
- Distributing Software to Low-Rights Users Can Be Difficult
- Installing software that has elevated privileges controlled by the administrator
- Accidentally Deleting a File Could Require That You Reinstall the Application
- On-demand installation

Windows Installer is an engine that can be used to manage the state of an application. The state of an application includes installation, modification, upgrade, or removal.

Windows Installer is not a software distribution technology. Software-distribution technologies use Windows Installer to install and manage software applications. Currently, most software distribution technologies rely on Windows Installer's command-line capabilities to install and manage Windows Installer-based applications. The Group Policy-based software deployment component of Windows 2003 Server provides enhanced benefits to administrators by using the advanced functionality in Windows Installer.

The Windows Installer technology is made up of three elements that work together: the Windows Installer client, the Windows Installer service, and the Windows Installer package (an .msi file.)

## WINDOWS INSTALLER CLIENT

The Windows Installer client is any application that calls Windows Installer to perform a task. Some common clients include the following:

- The Windows-based shell.
- Add or Remove Programs in Control Panel of Windows XP Professional and Windows 2000 Professional.

- Windows Installer-enabled applications, such as Office 2000.
- Software distribution technologies, such as Systems Management Server (SMS) and the software installation component of Group Policy included with Windows 2003 Server and Windows 2000 Server.

The Windows Installer client is responsible for user interactions such as displaying the Setup user interface during an installation. For example, the Windows Installer client uses the Windows Installer service to change the computer state by copying files and writing registry changes. Earlier approaches required each application vendor to deliver a unique program for each installation state change for every application.

## WINDOWS INSTALLER SERVICE

The Windows Installer service uses information in a Windows Installer package file to manage all phases of installing a program-- add, change, upgrade, and remove. The Windows Installer service performs all installation-related tasks as needed by copying files onto the hard disk, making registry modifications, creating shortcuts on the desktop, and displaying dialog boxes to capture user installation preferences.

The Windows Installer service is part of the Windows XP Professional, Windows 2000

Professional, and Windows Me operating systems and is available for the Windows 95, Windows 98, and Windows NT 4.0 operating systems.

## WINDOWS INSTALLER PACKAGE (MSI)

Each Windows Installer package (.msi) file contains a database that stores all the instructions for the Windows Installer service and data required to manage the state of a program, such as adding, changing, or removing it from a computer. For example, an

.msi file of an application can contain instructions for installing the application when a prior version of the application is already installed. The .msi file could also contain

instructions for installing the software on a computer where that application has never been present.

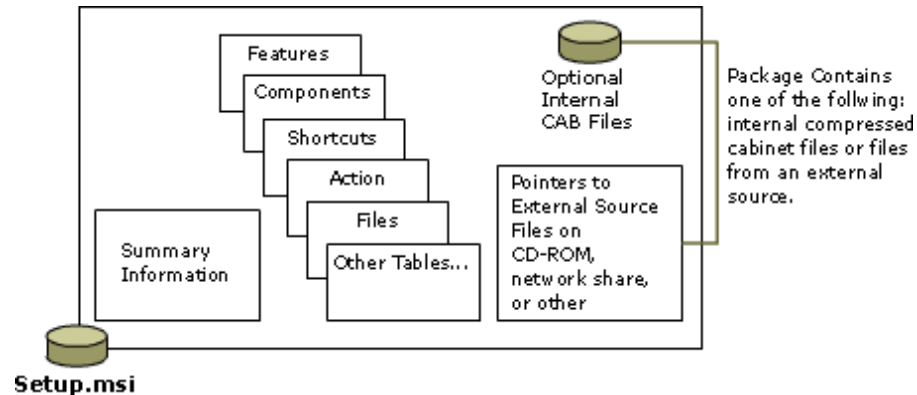


Figure 1: Contents of a Windows Installer package

## ENTERPRISE SOFTWARE DISTRIBUTION TECHNOLOGIES

Any software-distribution technology that can pass a command line to a system can also take advantage of the Windows Installer technology.

## GROUP POLICY-BASED SOFTWARE DEPLOYMENT

A Group Policy-based software deployment component is built into the Windows Server 2003 and Windows 2000 Server operating systems, and it enables a set of powerful features designed to increase availability and reduce the overall cost of supporting users of Windows operating systems. By using the Group Policy-based software deployment component, software administrators can centrally install and manage software applications throughout an organization. This management system allows you to deploy, upgrade, patch, and remove software applications for groups of users and computers instead of managing each desktop separately. It gives users reliable access to the applications that

they need to perform their jobs from any computer they use on the network. Windows Installer is a core component of the Group Policy-based software deployment technology.

Use the Group Policy-based software deployment component of Windows 2003 and Windows 2000 to deploy and manage software in organizations, from small to medium in size, if the following conditions exist:

- You have deployed Active Directory.
- You have a solid base of Windows 2000 Professional or later client computers.
- You have determined that Group Policy provides the management features your organization requires.

For more information about the Group Policy-based software deployment component, see "Deploying and Managing Software Using Group Policy" in the Distributed Services Guide, and "Deploying a Managed Software Environment" in the Deployment Guide, both guides are components of the Windows 2003 Server Resource Kit.

## SYSTEMS MANAGEMENT SERVER (SMS) SOFTWARE DISTRIBUTION

If your organization is from medium to large in size and you require more advanced features for managing software, consider using Systems Management Server (SMS). The advanced capabilities of SMS include inventory-based targeting, status reporting, server- and client-side scheduling, multiple site facilities, complex targeting, centralized hardware and software inventory, remote diagnostic tools, software metering, Windows XP and enhanced software deployment features. SMS also includes support for Windows 95, Windows 98, Windows NT version 4.0, Windows 2000, and Windows XP clients. Additionally, SMS does not require Active Directory.

### **Benefits:**

- Verify that target computers meet setup requirements using the hardware and software inventory capability.
- Inventory hardware and software throughout your organization.
- Discreetly manage deployment to software-distribution shares, scheduling distributions so as to not degrade network performance to below acceptable levels.

- Evaluate software distributions (dynamically) to target users and computers based on a set of rules you define.
- Schedule software installations to keep network bandwidth use at desired levels.
- Use the software metering capability to track software usage by users, groups, workstations, time, or license quota, and to control the use of applications on servers and workstations.
- Use the diagnostic and troubleshooting tools to track and repair performance problems on specific computers or throughout your network.

## NOVELL ZENWORKS

Novell® ZENworks® allows companies to manage the entire lifecycle of desktops, laptops, servers and handheld devices. Through Policy-Driven Automation, ZENworks decreases administrative burdens and increases enterprise-wide business efficiency. It simplifies the management and delivery of resources throughout diverse enterprises and changing work environments by providing support for Windows, Linux and NetWare®.

ZENworks Desktop Management reduces the total cost of ownership of desktops and laptops, letting administrators automatically and transparently configure, update and troubleshoot workstations from wherever they are—inside or outside the firewall—without having to visit each device. In addition, they can use policies to generate work environments with content and applications tailored to the personal needs of each user or group of users.

Using Policy-Driven Automation, administrators can enforce a standard configuration and simultaneously update the configurations and software on thousands of desktops and laptops—all from a single location. ZENworks even provides personality migration so personal settings and application settings for each desktop can be fully restored to minimize disruption. With detailed inventory reports from PCs to handheld devices, across multiple operating systems, ZENworks helps companies enforce standard configurations, prepare for upgrades, determine device locations and meet corporate asset reporting requirements.

Novell® ZENworks® Desktop Management is the complete desktop management solution that allows companies to manage workstations and laptops at work or on the road. ZENworks Desktop Management uses policy-driven automation to decrease administrative burdens and increase enterprise wide business efficiency.

**Benefits:**

- Maintains and enforces your policies to dynamically manage the delivery of resources to users, applications and other resources based on their unique identities
- Automates patch vulnerability assessment and deployment to defend your network with tighter security controls, robust status reports, and system security across your Microsoft Windows and Novell NetWare environments
- Powerful, easy-to-use enterprise migration tools that allow you to customize and automate the migration of application and personal settings, applications and data files
- Automate software packaging, customization and quality assurance
- Application self-healing to improve service levels and reduce help desk costs
- Remote management—including file transfer and real-time diagnostics—to reduce the costs of dispatching technicians: this capability is provided across multiple operating systems—it is not just specific to one operating system
- Comprehensive desktop hardware and software inventory for troubleshooting and auditing desktops

## WISE PACKAGE STUDIO

Wise pioneered the concept of software packaging and years of experience show in dozens of technically advanced, industry-leading features only found in Wise Package Studio. With Wise Package Studio, you can easily migrate applications to Windows Installer (.MSI) and much more through exclusive quality assurance tools, project and data management, repackaging, customization, validation, and distribution system integration.

## NOVADIGM RADIA

For enterprise IT managers and service providers who need to ensure availability of desktop applications, the Radia Management Suite is a highly scalable, policy-based software and configuration management solution that enables administrators to efficiently and reliably inventory, deploy and maintain software and content across heterogeneous desktop platforms from a Web-based console.

### **Benefits:**

- Collect hardware and software inventory across multiple platforms
- Prepare an application package and conduct impact analysis prior to distribution
- Target individual desktops, workgroups or entire populations of desktops for deployment and maintenance of software and content according to policies
- Provision and manage operating systems, applications and content on distributed desktop computers from any location
- Integrate Radia's automated change and configuration management of software and content with help desks and other system management tools
- Leverage a common infrastructure for management of software and content on virtually any device, any platform, and any network for all enterprise users
- Scale to meet enterprise needs

## CITRIX

Manage applications from a central location and access them from anywhere.

Citrix® MetaFrame® Presentation Server is the easiest way to manage enterprise applications from a central location and access them from anywhere. The foundation of the MetaFrame Access Suite, Citrix MetaFrame Presentation Server is the world's most widely deployed presentation server for centrally managing heterogeneous applications and delivering their functionality as a service to workers, wherever they may be.

MetaFrame Presentation Server is certified to run on Microsoft® Windows® 2000

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Server and Windows Server™ 2003, and supports virtually any custom or commercially packaged Windows or Web application. MetaFrame Presentation Server provides an exceptional foundation to build highly scalable, flexible, secure, manageable access solutions that reduce computing costs and increase the utility of any information system.

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