ArcGIS® 10.1 Enterprise Deployment

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An Esri White Paper

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ArcGIS 10.1 Enterprise Deployment

Introduction

The ability to distribute software to a number of users or computers from a centralized location has become a requirement for many administrators. In addition, many companies would like to lock down a user's environment and remove the ability for a user to locally install or update existing software.

To solve these challenges, an administrator can use an enterprise deployment tool, such as Microsoft® Group Policy, System Management Server (SMS), or System Center Configuration Manager (SCCM), to manage the setups, allocating them to users or computers based on their needs. The software, of predetermined properties, is installed without the administrator physically visiting each machine. An administrator will also use an enterprise deployment tool to control a user's environment. These tools enable the administrator to prevent users from installing unauthorized software or removing files that an installed software application still requires.

ArcGIS® 10.1 setups are developed with Microsoft Windows® Installer technology, allowing ArcGIS software products and service packs to be deployed from a central server. With enterprise deployment of ArcGIS products, geographic information system (GIS) managers or system administrators can efficiently plan for and control installations and updates. For example, these maintenance activities can be scheduled when they have the least impact on users or the network. Installations can be targeted to specific groups of users or machines. ArcGIS product version updates throughout an organization can be synchronized. Software can be installed on computers for which users don't have administrative privileges.

ArcGIS 10.1 setups can be installed on many machines by deploying the .msi or Setup.exe file directly. Any enterprise deployment tool that supports installation using an .msi file can be used to deploy ArcGIS 10.1 setups. This paper documents the enterprise deployment of ArcGIS 10.1 setups using the Active Directory® Group Policy and SCCM. The examples consider enterprise deployment in a secure lockdown environment as well as by users with administrative control on their machines.

Enterprise Deployment Using Active Directory— Group Policy or SCCM

The following ArcGIS 10.1 setups are supported for standard Windows Installer deployment in both a lockdown environment (where the user installing does not have administrative privileges) and an environment where the user installing does have administrative privileges. **Note:** If installing in a lockdown environment, Group Policy must be set to Always install with elevated privileges for the Windows Installer.

■ ArcGIS 10.1 for Desktop

■ ArcGIS 10.1 for Desktop Language Packs

■ ArcGIS 10.1 License Manager

- ■ ArcGIS 10.1 Engine

- ■ ArcGIS 10.1 Engine Language Packs

- ■ ArcGIS 10.1 ArcReader™

- ■ ArcGIS 10.1 ArcReader Language Packs

- ■ ArcGIS 10.1 for Server

- ■ ArcGIS 10.1 for Server Language Packs

- ■ ArcGIS 10.1 Web Applications for the Microsoft .NET Framework

- ■ ArcGIS 10.1 Web Applications for the Microsoft .NET Framework Language Packs

- ■ ArcGIS 10.1 Web Application Development Framework (ADF™) Runtime for the Microsoft .NET Framework

- ■ ArcGIS 10.1 Web ADF Runtime for the Microsoft .NET Framework Language Packs

- ■ ArcGIS 10.1 Spatial Data Server for IIS

- ■ ArcGIS 10.1 Web Adaptor (IIS)

- ■ ArcGIS 10.1 Web Applications for the Java Platform

- ■ ArcGIS 10.1 Spatial Data Server for the Java Platform

- ■ ArcGIS 10.1 Web Adaptor (Java Platform)

- ■ ArcGIS for Windows Mobile 3.0

- ■ ArcGIS for Windows Mobile 3.0 Language Packs

- ■ ArcObjects™ SDK for cross platform C++

- ■ ArcObjects SDK for the Java Platform

- ■ ArcObjects SDK for the Microsoft .NET Framework

- ■ ArcGIS 10.1 for Desktop Tutorial Data

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Planning Software Deployment

Before you deploy software, go through the following checklist:

■ Download and extract setups.

■ System requirements: Client machines should meet system requirements of the setup.

■ Setup requirements: Install any setup dependencies or feature dependencies and remove any product conflicts. If the product has an installation guide, read that before deploying the setup.

■ Licensing: Decide on the software licensing model—single use or license server.

■ Deployment method: Decide on the deployment method—Group Policy or SCCM—and customize the setup if needed. Check the ArcGIS Resources to see if a service pack has been released for it. If yes, you can apply it to the administrative image before deployment.

Download and Extract Setups

■ Download and extract the setups from Esri's Customer Care portal.

■ Make sure you have write access to your download directory location, as well as your ArcGIS installation directory location, and that no one is accessing it.

■ Click the product's download link on Esri's Customer Care portal.

■ Recommended: Use Esri® Download Manager to manage your 10.1 downloads.

● The first panel of the extraction wizard will allow you to indicate the location on your computer to which you would like the installation files extracted. When satisfied, click OK.

● **Note:** If you choose to change the destination location when starting the .exe (either from the Launch option in Esri Download Manager or running the downloaded self-extracting .exe manually), be sure to choose a unique location to which you will move the files.

● You will be notified when the file extraction is complete. To install the software at a later time, uncheck the check box.

System Requirements

Every setup has system requirements that must be met before the setup can proceed with the installation. System requirements consist of supported operating systems and minimum hardware requirements.

■ Supported operating systems—Check the system requirements at the ArcGIS Resources to confirm that machines on which the software is going to be deployed have a supported operating system. The system requirements will list the minimum and maximum version of supported service packs, also. This will help in knowing what platform is supported. Some setups, like ArcGIS 10.1 for Desktop, can be installed on both 32-bit and 64-bit OSs, and some setups, like ArcGIS 10.1 for Server, can only be installed on a 64-bit OS.

■ Hardware requirements—Check the latest <u>hardware requirements</u> at the ArcGIS Resources. Setups do not have any built-in checks for hardware requirements. The hardware requirement section of the system requirements also has a link to an online utility (click Check your computer's ability to run ArcGIS) that analyzes the machine to confirm that it meets the minimum requirements. This can be run on a test client machine to confirm that it meets the hardware requirements.

Setup Requirements

Setups check for launch conditions, feature dependencies, and product conflicts.

■ Launch conditions—The following are dependencies that must be met for the setup to run:

● **Windows Installer 3.1 or higher:** Windows Installer version 3.1 or higher must be installed and running on your machine prior to the launch of any Esri setups. Launch instmsi3.exe, available in the folder containing setup.msi, to install Microsoft Windows Installer. The Windows installer service installs setups with elevated privileges. After installation, the application itself runs in user context. Some Esri programs need administrative privileges to launch.

● **Previous versions:** All ArcGIS products that are not of the same version must be uninstalled before installing ArcGIS 10.1 products.

● **System account:** The machine's system account must have full control of the system drive and the drive to which you will be installing.

● **MSXML 6.0:** Some setups require Microsoft XML Core Services (MSXML) 6.0. The msxml6.msi is located in the \Support\MSXML6\32-bit and 64-bit folders. If installing on a 32-bit operating system, use the 32-bit version, and if on the 64-bit operating system, use the 64-bit version. This .msi file can be run silently using standard Microsoft Installer (MSI) command line parameters; for example:

```
msiexec /i msxml6.msi /qb
```

If Setup.exe is used to start the installation, MSXML 6.0 is installed automatically.

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- **Microsoft .NET Framework 3.5 SP1:** Some setups, like ArcGIS 10.1 for Desktop, have a setup dependency on Microsoft .NET Framework 3.5 service pack 1 (SP1). If the setup does not find it, the following dialog box is displayed:
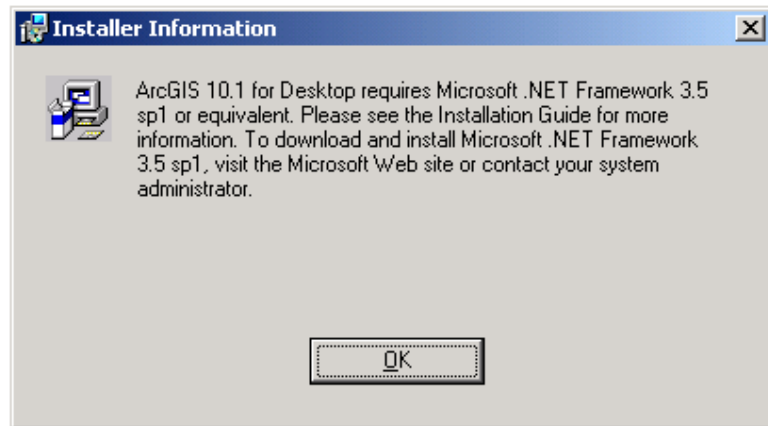
Note: This dialog box is not displayed if setup is being deployed completely silently.

■   Feature dependencies—Setups are made of features that are defined based on the functionality they provide. Feature dependencies do not prevent a setup from being installed, unlike setup dependencies. If a prerequisite for the feature is not found on the machine, that feature will not be available for installation on the Select Features dialog box.

Unavailable features can be added at a later time by installing the prerequisite and going to Add/Remove Programs > [Product] > Change > Modify. The feature that had been unavailable before should now be visible and marked with a red *X*. Select the feature for installation and follow the on-screen instructions until the installation process has been successfully completed. Uninstalling and reinstalling the software is not required.

For example, ArcGIS 10.1 ArcReader has a .NET Support feature with a dependency on Microsoft .NET Framework 3.5 SP1. If it is not found, the .NET Support feature does not show up on the Select Features dialog box. If ArcGIS 10.1 ArcReader has already been installed and you need to install the .NET Support feature, install Microsoft .NET Framework 3.5 SP1, then go to Add/Remove programs, click ArcGIS 10.1 ArcReader, then click the Uninstall/Change option. This launches the Application Maintenance dialog box. Select Modify and click Next to go to the Select Features dialog box. The .NET Support feature will now be available for installation.

This document lists all setup and feature dependencies for the products that are supported for software deployment. Refer to the individual installation guides for more detail.

■ Product conflicts—Many of the Esri setups require that any product from a previous version be uninstalled before setup can proceed with installation. Also, no setups mentioned in this document can be upgraded except for ArcGIS for Windows Mobile.

If the products listed below are installed on your machine and are a version previous to ArcGIS 10.1, they must be uninstalled before proceeding with the ArcGIS 10.1 setups. All ArcGIS products previous to version 10.1 must be uninstalled before installing any ArcGIS 10.1 product.

Esri strongly recommends that all sample and third-party extensions or plug-ins be uninstalled before installing a newer version of ArcGIS. Remove these from your computer before uninstalling ArcGIS products. Contact the distributor or manufacturer to confirm that they are supported with ArcGIS 10.1 products. If they are, you can install them again after installing ArcGIS 10.1 products.

- ArcGIS for Desktop

- ArcInfo® Workstation

- ArcReader

- ArcIMS®

- ArcIMS Web ADF for the Java Platform

- ArcIMS Web ADF for the .NET Framework

- ArcGIS Server for the Microsoft .NET Framework

- ArcGIS Server Web ADF Runtime for the Microsoft .NET Framework

- ArcGIS Engine Runtime

- ArcGIS Engine Developer Kits

- ArcGIS Desktop Developer Kits

- ArcGIS Image Server (including all clients)

- ArcGIS Mobile

- Python and Numerical Python (NumPy) (not required, but it is highly recommended that you remove these)

The setup will terminate and display a dialog box if conflicting versions of these products exist on your machine. If so, you must uninstall each of them, then run the setup again to proceed with your installation.

As long as all the installed products are version 10.1, they can coexist on your computer without conflict. For example, if ArcGIS 10.1 for Desktop is installed on a machine that has ArcGIS Desktop 10, the following dialog box is displayed:
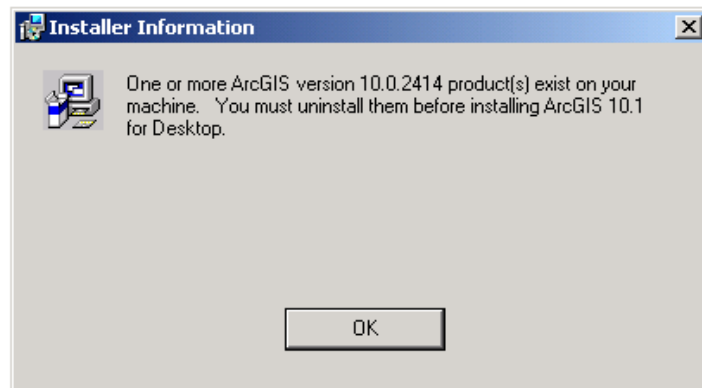
Note: This dialog box is not displayed if setup is being deployed completely silently.

Licensing   ArcGIS 10.1 for Desktop and ArcGIS 10.1 Engine can be authorized using a license manager. Those and all other products can be authorized using single use files. Following is a brief overview of licensing; for comprehensive licensing information, refer to the License Manager Reference Guide at the ArcGIS Resources.

■   Concurrent Use with License Server—A concurrent use license allows you to gain access to the software from any computer on the network on which the software is installed. A license server manager administers a pool of licenses to be shared. The number of concurrent licenses determines the number of users who can run the applications concurrently. If all licenses are being used, an additional user cannot run the application until one of the other users finishes using his or her license. When one user finishes using the license, another user can begin using it. **This configuration is available only for ArcGIS 10.1 for Desktop and ArcGIS 10.1 Engine.** After it is installed, ArcGIS 10.1 License Manager keeps track of the number of copies of the software that can be run simultaneously. A concurrent use license allows copies of ArcGIS 10.1 for Desktop and ArcGIS 10.1 Engine to be installed on numerous machines. The number of concurrent use seats in your license file determines the number of copies of each software product that can be run simultaneously.

You only need one ArcGIS license manager per network to manage all your concurrent use ArcGIS 10.x and 9.x software products. The license manager can be a Windows, Solaris, or Linux server and will manage Windows, Solaris, and Linux ArcGIS software products. For example, a Windows installation of ArcGIS 10.1 for Desktop can obtain a license from a Windows, Solaris, or Linux license manager.

After purchasing Esri concurrent use software products, you will receive an e-mail from Esri Customer Service containing the authorization information for your purchased products. You will need this information to authorize licenses on your license manager. You first need to run the license manager installer and use ArcGIS License Server Administrator to authorize licenses.

The deployment workflow follows:

1. Log in to customers.esri.com and generate a provisioning file (.prvs) for concurrent use. A provisioning file allows a license administrator to quickly authorize ArcGIS software on end-user machines. It has prepopulated information for what features you are authorized for.

2. Install ArcGIS 10.1 License Manager.

3. At the end of the installation, ArcGIS License Server Administrator appears. Select version 10.1 from the drop-down list and click Authorize now. This launches the Software Authorization wizard. Click I have received an authorization file from Esri and am now ready to finish the authorization process. Browse to the concurrent provisioning file that was created in step 1 and click Next. Click Authorize with Esri now using the Internet and continue with the authorization process. After this is done, you will have a license manager ready to serve concurrent use ArcGIS 10.1 for Desktop and ArcGIS 10.1 Engine licenses. At this stage, ArcGIS 10.1 License Manager has connected to the Esri Customer Care portal to download authorization information.

4. Install the ArcGIS software on client machines and configure the machines to ArcGIS 10.1 License Manager. To enable licensing during SCCM deployment, pass in the property ESRI_LICENSE_HOST= [your_license_server] to Setup.exe. For Group Policy deployments, create a transform and edit the ESRI_LICENSE_HOST property. You can also specify the software type using the properties SOFTWARE_CLASS and SEAT_PREFERENCE. See the Creating Transforms section of this document for more details. Client machines no longer need to connect to the Esri customer website to obtain authorization to use the software. You can look up how many licenses are being used in ArcGIS 10.1 License Manager.

■ Single Use with License Server-Esri Enterprise Authorization (EEA)—For organizations that have enterprise license agreements, a license server may be enabled as an enterprise activation server. This can be used to authorize and manage single use/enterprise activation (EA) licenses on an organization's own network without having to connect to Esri's activation server each time a license is modified (e.g., authorized, deauthorized, or repaired). The enterprise activation server is authorized one time by connecting to Esri through the standard authorization process. **This configuration is available only for ArcGIS 10.1 for Desktop and ArcGIS 10.1 Engine.** Some products will still require an authorization file for each installation. ArcGIS 10.1 for Desktop and ArcGIS 10.1 Engine can still be licensed as single use without a license manager. You can obtain an authorization file using the Software Authorization wizard that launches at the end of the installation instead of pointing your installation to ArcGIS 10.1 License Manager. If you have already obtained your authorization file, the Software Authorization wizard also configures your machine using your authorization file.

End-user machines are authorized using a provisioning file. A provisioning file allows a license administrator to quickly authorize the ArcGIS software on end-user machines.

The deployment workflow follows:

1. Log in to customers.esri.com and generate a provisioning file (.prvs) for enterprise use.

2. Install ArcGIS 10.1 License Manager.

3. At the end of the installation, ArcGIS License Server Administrator appears. Select version 10.1 from the drop-down list and click Authorize now. This launches the Software Authorization wizard. Click I have received an authorization file from Esri and am now ready to finish the authorization process. Browse to the concurrent provisioning file that was created in step 1 and click Next. Click Authorize with Esri now using the Internet and continue with the authorization process. After this is done, you will have a license manager ready to serve single use ArcGIS 10.1 for Desktop and ArcGIS 10.1 Engine licenses.

4. To authorize client machines against ArcGIS 10.1 License Manager, you will need to manually create a client provisioning file (.prvc) using the template below. Open a text editor such as Notepad and enter the following information based on the features you need to authorize. In the example below, ArcGIS for Desktop Advanced Single Use is being authorized along with all the main extensions and ArcGIS Workflow Manager. Use ArcGIS for Desktop Standard or ArcGIS for Desktop Basic instead of Desktop Advanced if you need to authorize other desktop single use products, along with the extensions you want to authorize on end-user machines. Use the authorization numbers (EEAxxxxxxxxx) in the .prvs file you downloaded in step 1. Extensions other than the main extensions can be filled out under the Other Extensions section:

```
// License Manager information
Actserver=<name of your in-house license manager>

// Features and authorization numbers
Desktop Advanced =EEA123456789
3D Analyst=EEA123456789
Spatial Analyst=EEA123456789
Network Analyst=EEA123456789
Publisher=EEA123456789
ArcScan=EEA123456789
Data Interoperability=EEA123456789
Geostatistical Analyst=EEA123456789
Tracking Analyst=EEA123456789
Schematics=EEA123456789
Maplex=EEA123456789

// Other Extensions
Workflow Manager=EEA123456789
```

The information entered in the provisioning file is used to populate the authorization dialog information in the Software Authorization wizard so you can save time when authorizing the ArcGIS software. The names of the core products and extensions in the provisioning file must match the names of the core products and extensions in the Software Authorization wizard.

Save this as a *.prvc file.

5. On the end-user machine, after installation of the ArcGIS software is complete, open a command prompt window. Change the path to C:\Program Files\Common Files\ArcGIS\bin. Run the following command to authorize the software silently:

```
softwareauthorization -S -LIF <path to the .prvc file>
```

Note: If this is run on a 64-bit machine, the path will be C:\Program Files (x86)\Common Files\ArcGIS\bin.

The client machine does not connect to the Esri Customer Care portal. It connects to ArcGIS 10.1 License Manager only once during the authorization process. It does not have to be connected to ArcGIS 10.1 License Manager to use the software. You can look up how many licenses are being used in ArcGIS 10.1 License Manager. For SCCM, add this command line as another program in the same package.

■ Single Use without License Server—A single use license generally restricts use of a software product to one user/machine. A single use license must be dedicated for each computer that has use rights for the software, data, or documentation. **This configuration is for all setups including ArcGIS 10.1 for Desktop and ArcGIS 10.1 Engine.**

The deployment workflow follows:

1. Log in to customers.esri.com and generate a provisioning file (.prvc) for single use. If authorizing ArcGIS 10.1 for Server, generate a provisioning file for ArcGIS 10.1 for Server. If, for example, you have 300 single use licenses for ArcGIS 10.1 for Server, you do not have to create 300 .prvc files. Just one .prvc file will have all the licensing information and can be used to authorize on client machines.

2. On the end-user machine, after installation of the ArcGIS software is complete, open a command prompt window. Change the path to C:\Program Files\Common Files\ArcGIS\bin. Run the following command to authorize the software silently:

```
softwareauthorization -S -LIF <path to the .prvc file>
```

The client machine connects to the Esri Customer Care portal during authorization. You can look up how many licenses are being used by logging on to the Customer Care website. For SCCM, add this command line as another program in the same package.

■ Authorizing Single Use in Group Policy/SCCM—To perform authorization of a single use product as a user without administrative privileges, follow these steps:

1. Copy a valid authorization file (.prvc) to a shared area on your server. The authorization file (.prvc) cannot be in a location with spaces.

2. Create a new SCCM package with a program that runs
    SoftwareAuthorization.exe using Run with administrative rights.
    SoftwareAuthorization.exe should be run from
    %CommonProgramFiles%\ArcGIS\bin with the following command line:

    ```
    %CommonProgramFiles%\ArcGIS\bin\SoftwareAuthorization.exe /LIF
    <Location of prvc> /s.
    ```

    The /s parameter is used to run the software authorization tool silently.

    When creating an SCCM package, include a .prvc file in the source. This is
    because when SCCM runs with administrative rights, it does it as the system
    account and not as a standard administrator account. The system account does
    not have rights to network shares, so the .prvc needs to be in the package source.

    For Group Policy, write a script that has the above command line.

3. In SCCM, create an advertisement for this program; it should be run after the
    main setup has been installed. For Group Policy, add it as a logon script to the
    computer.

Enterprise Deployment Using Active Directory and Group Policy

Introduction

Using Group Policy as an enterprise deployment tool requires an Active Directory
environment. The Active Directory environment consists of a domain controller with a
server operating system, like Windows Server 2003 or Windows Server 2008, to manage
the domain and desktop clients, like Windows XP Professional, Windows Vista, and
Windows 7. Group Policy includes a software installation extension that enables the
domain controller to manage setups that can be assigned to users or computers or can be
published to users. These setups must be created with Microsoft Windows Installer
technology. The deployment package can be customized using a transform (.mst) file.
The transform file can be used to specify the software seat, installation directory, and
license manager as required. Once a package is deployed, either assigned or published, it
is displayed in the Add/Remove Programs dialog box. An authorized user launches the
setup from Add New Programs. Packages can be set to Always install with elevated
privileges, enabling the Windows Installer to run as the local machine's system account.
For more information on Group Policy software deployment, see www.microsoft.com.

The domain controller should be used to uninstall ArcGIS. When the software is
deployed per user and many different users install it, using the Add/Remove Programs
dialog box to uninstall will remove all the files and registry keys for this product, but the
software shortcuts will remain on the machine for other users. This may confuse users
when their shortcuts fail to work because the files have been uninstalled. The
Add/Remove Programs dialog box for these users will also state that the product is still
installed on the machine. To avoid these issues, uninstall using the Group Policy's
Remove option. When the software is deployed per machine, the Control Panel's
Add/Remove Programs dialog box does not enable you to remove the software unless

you have administrative privileges; using Group Policy to manage the uninstall of the software will uninstall with elevated privileges for all users.

If deploying the software in a lockdown environment, you will need to modify Group Policy so that the Windows Installer is set to Always install with elevated privileges (both user and computer configuration).

Deploying software to client machines is a multistep process involving first creating the software distribution share followed by creating a Group Policy Object (GPO), editing the GPO, enforcing the GPO, and finally initiating software installation on the client machine.

Create Software Distribution Share

Before software can be deployed, it must be copied to a network share for easy access. It is recommended that an administrative installation be done first and that the network share be used to deploy to client machines. This method supports the Group Policy method of redeploying the setup package after a service pack has been applied.

You can perform an administrative installation on the server using the standard msiexec command line parameters:

```
msiexec /a <setup location>\setup.msi /qb TARGETDIR=<installation
directory>/10.1/<product name>
```

It is important to include the TARGETDIR property; otherwise, the installation directory will default to the drive with the emptiest disk space including mapped drives. If the /qb parameter is not included, the setup dialog will be launched, and that can be used to finish the administrative installation. Also, remember to include the version and product name in the TARGETDIR. This helps prevent overwriting the administrative image by mistake.

For service pack deployment, you will patch the administrative installation on the server, then redeploy the package to your clients. Do not delete this administrative installation; it is required for modifying installation features and additional service pack patching. See the Deploying Service Packs Using Group Policy section (page 19) for more information.

Some setups have files that are located in a directory structure that can potentially exceed the Windows 256-character limit. If the Windows character limit is exceeded, you will receive installation error 1335. There are two workarounds for this issue: you can either perform an administrative installation to a directory structure that does not exceed the above limits, or you can perform an administrative installation at the command line with the additional parameter of SHORTFILENAMES=TRUE.

```
msiexec /a <setup location>\setup.msi /qb TARGETDIR= <installation
directory>/10.1/<product name>SHORTFILENAMES=TRUE
```

After the administrative or shortfile administrative installation is done, share the folder and modify security permissions so that client machines can access the network share.

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Create New GPO

1. Start Group Policy Management Console (GPMC). GPMC consists of an MMC snap-in and a set of programmable interfaces for managing Group Policy. GPMC is included with Remote Server Administration Tools (RSAT). Installing RSAT does not automatically install GPMC. To install GPMC after you install RSAT, go to Server Manager and add it as a feature:

   Start > Run > gpmc.msc

2. Browse to your domain and your organizational unit (OU), then right-click and click Create a GPO in this domain, and Link it here.

   Organizational units are Active Directory containers into which you can place users, groups, computers, and other organizational units. An organizational unit is the smallest scope or unit to which you can assign Group Policy settings or delegate administrative authority.

3. Provide a value for the name. In this example, GPO has been named ArcGIS 10.1 for Desktop.

Edit GPO

1. Right-click ArcGIS 10.1 for Desktop GPO and click Edit. This launches Group Policy Management Editor.

   The Group Policy snap-in contains the following major branches:

   - **Computer Configuration:** Administrators can use Computer Configuration to set policies that are applied to a computer regardless of who logs on. Computer Configuration typically contains subitems for software settings, Windows settings, and administrative templates.

   - **User Configuration:** Administrators can use User Configuration to set policies that apply to users regardless of which computer they log on to. User Configuration typically contains subitems for software settings, Windows settings, and administrative templates.

2. Assign the application to Computer. It is not recommended that you assign an ArcGIS setup package to a user. Assigning an ArcGIS setup to a user will not successfully add a shortcut to your desktop, and the setup will not autoinstall by file extension activation.

   Go to ArcGIS 10.1 for Desktop > Computer Configuration > Policies > Software Settings > Software Installation. Then right-click and click New Package.

3. Browse to the folder that contains the .msi and select it. Always use a UNC patch to browse to the .msi file. This share should have security rights configured so that the client machines can also access it.

4. Choose the Advanced option and click OK. The Publish option is not available because you will assign to Computer.

5. After the GPO Properties dialog box appears, go to the Deployment tab and check the Uninstall this application when it falls out of the scope of management check box. This option is needed during uninstallation.

6. After the ArcGIS 10.1 for Desktop package shows up in the right pane (this takes a minute or two), close Group Policy Management Editor.

Enforce GPO

GPO will now show up in the OU folder. Right-click GPO and click Enforced.

Start Software Installation

Reboot the client machine to install the software. Software installation happens before any user is logged in. This is foreground policy processing. For software installation Group Policy, foreground processing must be running synchronously.

Synchronous processes can be described as a series of processes where one process must finish running before the next one begins. It can sometimes take two reboots for a package to be deployed. Confirm that the software has been installed by opening Add/Remove Programs.

On Windows Vista and higher operating systems, a generic "Please wait" message is displayed while the application is being installed. To change this, enable Verbose vs. normal status messages policy Group Policy and then link and enforce the GPO to the relevant OU. After that, the name of the application that is being deployed is shown during the installation process.

Customize Group Policy Installation

Group Policy software distribution can only deploy an .msi file. It cannot accept any command line parameters. The only way to customize the setup installation is to generate a Microsoft transform (.mst) file and link it to the .msi file while creating the software installation GPO.

An MST file can be used to install a setup with predefined properties. The MSI file and the MST file are then used to deploy the setup. The MST file customizations can include the installation location, license manager, installation type, features to install, software product type, and so forth.

Transforms for setup.msi can be created using Orca, a free tool available with the Microsoft Installer software developer kit (SDK). Install the latest version of Microsoft SDK and then launch C:\Program Files\Microsoft SDKs\Windows\v7.0A\Bin\Orca.Msi. The actual path will vary based on the version of the SDK. This will install Orca. Other tools are available that use a wizard to create transform files, for example, Wise for Windows Installer and Installshield Admin Studio.

You will need to use a transform file to set the installation directory to a location other than the default and to specify your software type.

See the following Esri Knowledge Base documents, located on the Esri support site, for more information on creating transform files for ArcGIS products:

■   For ArcGIS 10.1 for Desktop, see [KB26751](KB26751).

■   For ArcGIS 10.1 Engine, ArcGIS 10.1 ArcReader, and ArcGIS 10.1 for Server, see [KB28791](KB28791).

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Creating Transforms

To create transforms, open setup.msi in Orca. On the main toolbar, navigate to Transform > New Transform. Now start modifying tables to customize the setup.

■ Modify properties.

Many aspects of the installation can be modified by just changing values of properties in the property table. A complete list of what properties can be modified is included in the command line table of the products section of this document (pages 27 through 73). Following are some examples of how to modify properties:

1. Specify the software seat type for ArcGIS 10.1 for Desktop.

   In the Property table, change the value of SOFTWARE_CLASS to one of the following: Professional, Editor, or Viewer.

   ♦ Professional is for an Advanced seat (ArcInfo).
   ♦ Editor is for a Standard seat (ArcEditor™).
   ♦ Viewer is for a Basic seat (ArcView®).

2. Specify the seat preference for ArcGIS 10.1 for Desktop.

   In the Property table, change the value of SEAT_PREFERENCE to one of the following: Float or Fixed.

   ♦ Float is for concurrent use.
   ♦ Fixed is for single use.

3. Specify the license manager to use for ArcGIS 10.1 for Desktop.

   In the Property table, change the value of ESRI_LICENSE_HOST from Not_Set to @<the name of the ArcGIS 10.1 License Manager>, for example, @mylicenseserver.

4. Prevent the launch of Desktop Administrator after installation of ArcGIS 10.1 for Desktop.

   In the Property table, change the value of DESKTOP_CONFIG from FALSE to TRUE.

■ Change the features selected for installation.

   ● To add features, in the Feature table, select the features to install and change the level from level 4 to level 3. When installing a subfeature, the parent feature also needs to be installed. For example, for ArcGIS 10.1 for Desktop, to install the ArcGIS Spatial Analyst extension, the Extensions feature must be changed from level 4 to level 3.

   ● The features specified using a transform should replicate the selection of features in the Add/Remove dialog box. If you want to create a transform that adds an installation feature to an existing setup, that transform must include the features that are already installed on the machine and the feature you would like

to add. If you do not include the already installed features, they will be uninstalled while the added feature and its associated features are installed.

- To prevent features from being installed, in the Feature table, select the features and change the level from level 3 to level 4.

- Some setups install the Python feature, which is conditionally set to be installed in the MSI and requires an additional step. So that the Python feature is not installed, the feature table changes above must be made and the Python rows must be deleted from the condition table.

■ Change the default installation location.

- In the CustomAction table, locate the custom action GET_INST_LOC.

- The target column for this custom action is [INSTALLDIR]. Change this to the desired installation location, for example, C:\MyDesktop10.1.

- Changing INSTALLDIR instructions is specific to every product. See the Transform section of the product for more details.

Applying a Transform

1. Choose the Advanced option when creating a new package.

2. After the GPO properties dialog box appears, select the Modifications tab and add the transform file.

   Now, when the application is deployed, it will have all your customizations in it. Transforms can only be added to the GPO during the GPO creation process. It is not possible to add a transform to an existing software installation GPO.

Deploying Localized Setups Using Group Policy

Some Esri setups are available as localized setups, and some also come with language pack setups that localize the application. If the product being deployed has a localized setup available, you can deploy the localized version of the setup.

All localized setup data is stored in .mst files and embedded in the .msi. To deploy the localized setup, first check what languages are available for localized setup, extract the .mst files, and then apply them on the .msi while creating the GPO. You will need WISubStg.vbs and msidb.exe to do so. Both of these utilities are available as part of Windows Installer SDK, which can be downloaded from www.microsoft.com.

After the SDK is installed, these utilities will be in the following location (the actual path will vary based on the version of the SDK and operating system):

■ C:\Program Files\Microsoft SDKs\Windows\v7.0\Samples\sysmgmt\msi\scripts\WiSubStg.vbs

■ C:\Program Files\Microsoft SDKs\Windows\v7.0A\Bin\MsiDb.Exe

The deployment workflow is to create the localized setup GPO, create the language pack GPO, and then have the correct GPO link order.
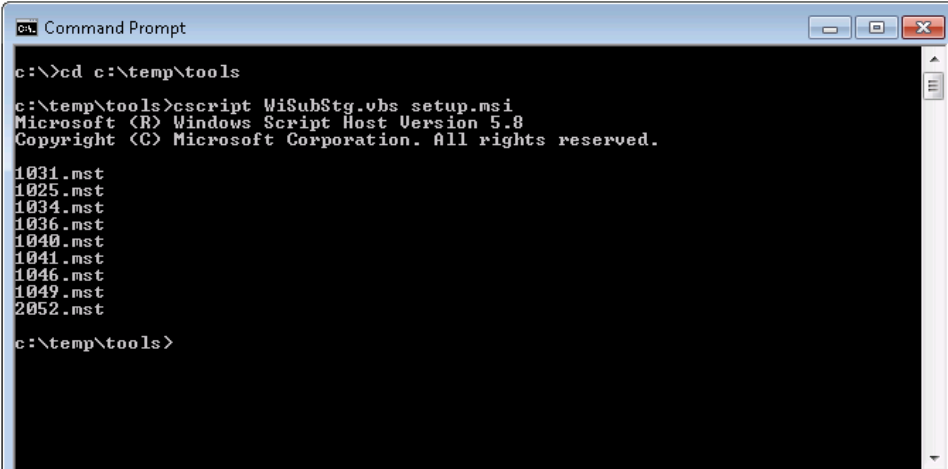
Create Localized
Setup GPO

When assigning to a computer, the application is installed silently, and no setup dialog boxes are displayed on the client machine. If you open the setup via Add/Remove Programs, the setup dialog boxes will be displayed in English. If you would like to have these dialog boxes shown in a localized GUI, you have to deploy the localized setup, which involves extracting the .mst file from the .msi file and then applying it during GPO creation. If you are going to uninstall the application by Group Policy, it is uninstalled silently, and users will not see the setup dialog boxes. So create the localized setup GPO only if you will need to modify the installation manually on a client machine by going to Add/Remove Programs.

■   Availability of transform files.

Use WISubStg.vbs to see what .mst files are embedded.

```
cscript WiSubStg.vbs [path to database][path to file][options]
```


For example, for ArcGIS 10.1 for Desktop, it shows that nine .mst files are embedded. The following table shows the language code for the .mst files:

Language	Language Code
Arabic	1025
Chinese_CN	2052
French	1036
German	1031
Italian	1040
Japanese	1041
Portuguese_BR	1046
Russian	1049
Spanish	1034

■ Extract transform files.

Use MsiDb to extract the .mst files. This tool is used to import and export database tables and streams, merge databases, and apply transforms.

```
MsiDb.Exe /d <Path to msi> /w <Language Code>.mst
```

In the following example, the German .mst is being extracted from setup.msi, by extracting 1031.mst into the folder containing MsiDb.Exe.
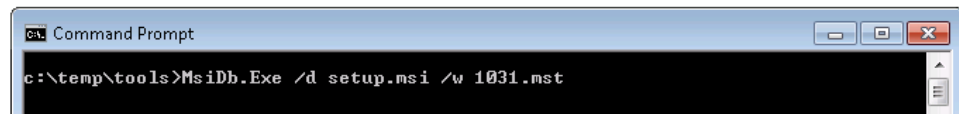
■ Create GPO.

Apply transform during the GPO creation process.

● Choose the Advanced option when creating a new package.

● After the GPO properties dialog box appears, select the Modifications tab and add the transform file. Now when the application is deployed, it will deploy as a localized setup. This can be confirmed by going to Add/Remove Programs and launching the uninstallation. Setup dialog boxes will have localized text.

Create Language Pack GPO

If the application has a language pack setup, create a GPO for that too. For example, ArcGIS 10.1 for Desktop has nine language pack setups. If you need localized German applications, choose the German language pack .msi while creating the language pack GPO.

While creating the GPO, go to the Deployment tab and click Advanced. Check the option Ignore language when deploying this package.

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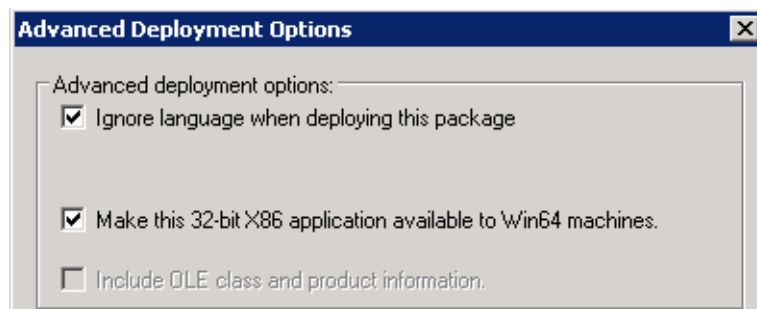
| GPO Link Order | Link this GPO to the same OU that has localized setup GPO. Now this OU has two GPOs, and they need to be ordered correctly. If a language pack GPO is installed before the localized setup GPO, it will fail, because language packs have a setup dependency on the ArcGIS 10.1 for Desktop setup. The GPO with the lowest link order is processed last. The correct link order will look like the following: |

After both these GPOs are processed on the client machine, you will have a localized setup and localized application.

Deploying Service Packs Using Group Policy

All ArcGIS 10.1 service packs are cumulative and contain fixes from all previous ArcGIS 10.1 service packs and patches. Almost all ArcGIS 10.1 service packs are available as individual Windows Installer Patch (.msp) files that upgrade an existing installation.

Only service packs of ArcGIS 10.1 for Server, ArcGIS 10.1 Web Adaptor (IIS), and ArcGIS 10.1 Web Adaptor (Java Platform) are available as complete .msi packages that can be used to upgrade existing installations or installed completely on their own. There is no need to install the 10.1 setup and then apply the service pack. It is also not necessary to uninstall the 10.1 setup before installing the service pack. The installation process will automatically upgrade from 10.1 to the 10.1 service pack versions. For Group Policy, they have to be deployed like a regular .msi installation.

An .msp file cannot be directly deployed as a package using Group Policy software deployment. To deploy an .msp file, follow these steps:

■ Apply the .msp file to the administrative installation using the following command line:

```
msiexec /a <location of ArcGIS administrative
installation>\setup.msi /p <location of ArcGIS service pack>\<patch
name>.msp
```

For example: msiexec /a c:\admins\10.1\desktop\setup.msi /p c:\admins\desktop\ArcGISDesktop10sp1.msp

The image below shows the setup dialog box that is displayed when you launch the command to apply a service pack to an administrative installation location. To do this silently, append a /qb switch to the command line.
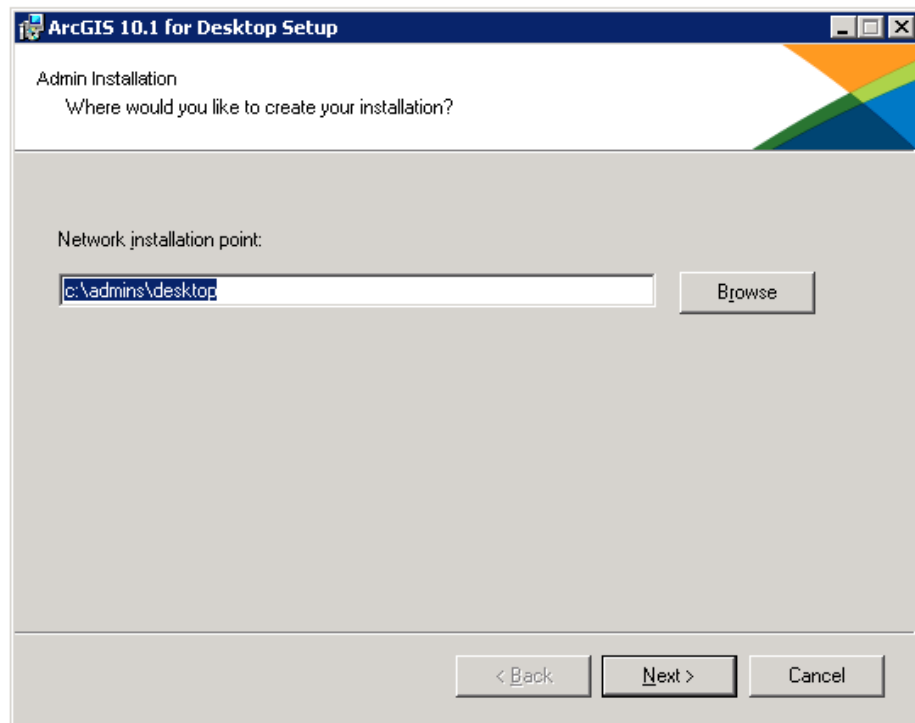
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Once the command is launched to apply the service pack to the administrative installation, the setup dialog box will prompt you for the network installation location. This installation location will be prepopulated with the location of your 10.1 administrative installation. Do not change this location; you want the files in this location to be updated with the service pack changes.

Once the setup is complete, the setup.msi will have been updated with the service pack changes. The date of the setup.msi will be updated to the current date. After the administrative image has been updated with the service pack, the service pack cannot be removed from the administrative image.

■   Redeploy the ArcGIS package.

1.   Select the package in the GPMC, right-click, and click Edit.

2.   In Group Policy Management Editor, select GPO > Computer Configuration > Policies > Software Settings > Software installation.

3.   Right-click the package and click All tasks > Redeploy application.

4.   Click Yes to the message, confirming that you want to redeploy the application.

■   Redeployment of the application occurs on the next logon or reboot, depending on how the application was deployed (user-based deployment or computer-based deployment). For more information on applying patches to an administrative installation, see Microsoft Knowledge Base Article 226936.

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Uninstalling Setups Deployed Using Group Policy

There are two ways to uninstall setups that were deployed using Group Policy:

■ For uninstalling on specific computers, remove the computer account from the OU and reboot the computer. The application will be uninstalled during the boot-up process.

■ If you want to uninstall an application from all computers to which GPO has been linked and enabled, follow the steps below:

1. Right-click GPO in GPMC > Edit.

2. In Group Policy Management Editor, go to Computer Configuration > Policies > Software Settings > Software installation.

3. In the right pane, select the application and right-click it. Click All Tasks > Remove.

4. Click Immediately uninstall the software from users and computers and click OK.

The next time the computer reboots, the product will be uninstalled.

Enterprise Deployment Using SMS/SCCM

Introduction

Using SMS or SCCM as an enterprise deployment tool enables software to be distributed to all Windows operating systems using the software distribution feature. Enterprise deployment with SMS or SCCM allows distribution of software to computers without having to physically visit the location of the computers. Instead, a package is created that contains the program. For ArcGIS 10.1, the .msi file is bundled with the msiexec command line parameters to create a package. The package is then distributed to collections, which are computers or groups of users. Once a package has been distributed, client machines are alerted, and the user can choose to install the package immediately or schedule a time for installation. Packages can be run with administrative rights even if the user who is logged on is not an administrator. Packages can also be set to run whether or not a user is logged on to the machine. For more information on SMS and SCCM, see www.microsoft.com.

Deploying software to client machines is a multistep process involving creating the software distribution share; creating a package, program, and advertisement; and, finally, initiating software installation on the client machine.

Create Software Distribution Share

Before software can be deployed, it must be copied to a network share for easy access. If you are starting at a point where there are service packs already available for the application that is being deployed, you have a choice to make: create an administrative image and apply a service pack on it and then deploy, or deploy the main setup and service pack separately.

■ Copy setup files to a network share.

1. Copy the entire contents of the extracted setup files folder to your server machine for deployment. You cannot copy just the .msi file to your server machine for deployment; other associated files are also required.

2. At the Create Program step, create different programs for the main setup and the service pack and deploy them in sequence.

Or:

■ Create an administrative image of the setup.

1. You can create an administrative installation on the server using the standard msiexec command line parameters:

```
msiexec /a <setup location>\setup.msi /qb TARGETDIR=
<installation directory>/10.1/<product name>
```

It is important to include the TARGETDIR property; otherwise, INSTALLDIR will default to the drive with the most empty space including mapped drives. If a /qb parameter is not included, the setup dialog box will be launched, and that can be used to finish the administrative installation.

Some setups have files that are located in a directory structure that would exceed the Windows 256-character limit. If the Windows character limit is exceeded, you will receive installation error 1335. There are two workarounds for this issue: perform either an administrative installation to a directory structure that does not exceed the above limits or an administrative installation at the command line with the additional parameter of SHORTFILENAMES=TRUE:

```
msiexec /a <setup location>\setup.msi /qb TARGETDIR=
<installation directory>/10.1/<product name>
SHORTFILENAMES=TRUE
```

2. Patch the administrative installation using the following:

```
msiexec /a <location of the admin installation>\setup.msi /p
<location of the .msp file>\<patch name>.msp.
```

Do not delete this administrative installation; it is required for modifying installation features and additional service pack patching.

3. At the Create Program step, create one program.

The first method is more efficient in terms of network usage. While applying service packs, only the bits for service pack are sent to the client machine.

Create Package	■ Start Configuration Manager Console.

■ Start the New Package wizard.

    1. Click System Center Configuration Manager > Site Database > Computer Management > Software Distribution > Packages, then right-click and click New Package.

    2. Go through all dialog boxes and fill in all required information. On the Data Source dialog box, check the This package contains source files check box and then browse to the folder that contains Setup.exe.

■ Use the Manage Distributions Points wizard.

    1. Right-click the package and click Manage Distribution Points.

    2. Go through all dialog boxes and fill in all required information. Select a distribution point.

Create Program

SCCM can deploy both setup.msi and Setup.exe, but to get the most out of SCCM, it is recommended that you deploy using Setup.exe. Setup.exe accepts standard Windows Installer command line parameters. See http://msdn2.microsoft.com/en-us/library /Aa367988.aspx for Windows Installer command line options.

There is no need to create transforms. Everything that you can do with the command line can be done in SCCM. Just pass in the same command line while creating the program in SCCM.

Access the New Program wizard by doing the following:

1. Go to the package and click Programs, then right-click and click New Program.

2. Go through all dialog boxes and fill in all required information. On the General dialog box for command line, you can type in the command line just the way you would for msiexec, except replace msiexec /I <Path to msi> with <Path to Setup.exe>.

For example:

■ Install silently with default features to the default installation directory:

```
Setup.exe /qb-!
```

The /qb-! switch has a basic UI with no modal dialog boxes and hides the Cancel button. Use /qn for a completely silent installation.

■ Install silently with all features to a nondefault installation directory:

```
Setup.exe /qb-! INSTALLDIR=C:\ArcGIS ADDLOCAL=ALL
```

■ Install silently with custom features to a nondefault installation directory:

```
Setup.exe /qb-! INSTALLDIR=C:\ArcGIS
ADDLOCAL=<feature1>,<feature2>,...
```

Create Advertisement

Access the New Advertisement wizard by doing the following:

1. Navigate to System Center Configuration Manager > Site Database > Computer Management > Software Distribution > Advertisement, then right-click and click New Advertisement.

2. Go through all dialog boxes and fill in all required information. On the General dialog box, select Package and the program in the package that you want to advertise. Choose the collection that you want to deploy to.

Start Software Installation

Depending on your configuration in the advertisement and the command line in the program, the software will start installation after the next logon or reboot or be scheduled to run at a certain time.

Deploying Localized Setups Using SCCM

Running Setup.exe provides a fully localized installation experience. Setup.exe is a bootstrapper executable that runs the main product localized setup.msi, then runs the language pack setup.msi as a secondary installation. For example, if you run Setup.exe for ArcGIS for Windows Mobile in Spanish, the mobile setup, as well as the Spanish Language Pack setup, will be installed. If additional language packs need to be installed, copy them to the Supplements folder prior to launching Setup.exe. All the language pack .msi files in the Supplements folder will be installed if the installation is launched using Setup.exe. There is no need to extract and deploy transform files.

Note: While the main product setup automatically installs the associated language pack, an Add/Remove item exists for both setups. The main product uninstallation process does not uninstall language packs. These will need to be manually uninstalled.

Uninstalling Setups Using SCCM

When the software is deployed, the Control Panel's Add/Remove Programs dialog box does not enable you to remove the software unless you have administrative privileges. Use SMS or SCCM to manage uninstallation of the software when uninstalling with elevated privileges for all users.

■ Uninstall silently using product code.

```
msiexec /x <{product code}> /qb
```

For example: To uninstall ArcGIS 10.1 for Desktop silently, use the following command line:

```
msiexec /x {6C8365F4-1102-4064-B696-68842D20B933} /qb
```

■ Any ArcGIS product can be uninstalled silently using the product code. Knowledge Base article 28709 is updated and available with the product codes for ArcGIS releases.

■ Create a new program within the same package and a new advertisement using the command line mentioned above.

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Deploying ArcGIS 10.1 Service Packs Using SMS or SCCM

All ArcGIS 10.1 service packs are cumulative and contain fixes from all previous ArcGIS 10.1 service packs and patches. Almost all ArcGIS 10.1 service packs are available as individual Windows Installer patch (.msp) files that upgrade an existing installation.

Only service packs of ArcGIS 10.1 for Server, ArcGIS 10.1 Web Adaptor (IIS), and ArcGIS 10.1 Web Adaptor (Java Platform) are available as complete .msi packages that can be used to upgrade existing installations or installed completely on their own. There is no need to install the 10.1 setup and then apply the service pack. It is also not necessary to uninstall the 10.1 setup before installing the service pack. The installation process will automatically upgrade from 10.1 to 10.1 service pack versions. For SCCM, they have to be deployed like a regular .msi installation. To deploy, create a new package, program, and advertisement for SCCM.

There are two methods of deploying .msp files using SMS or SCCM. Select one of these methods to deploy ArcGIS service packs:

■   Apply the service pack .msp file to an administrative installation and deploy the patched .msi file.

Or:

■   Deploy the service pack .msp file separately from the base product setup.msi.

To Apply the .msp File to an Administrative Installation and Deploy the Patched Windows Installer File

Applying the service pack to an administrative installation will update the setup.msi with service pack changes. The setup.msi can then be deployed. To apply the service pack to an administrative installation, do the following:

1.   Create an administrative installation. If an administrative installation does not already exist on your server, create one using the code below:

```
msiexec /a <location of setup.msi>\setup.msi
```

2.   Patch the administrative installation using msiexec /a <location of the administrative installation>\setup.msi /p <location of the .msp file>\<patch name>.msp.

For example: msiexec /a c:\admins\10.1\desktop\setup.msi /p c:\admins\desktop\ArcGISDesktop10sp1.msp

Once the command is launched to apply the service pack to the administrative installation, the setup dialog box will prompt you for the network installation location. This installation location will be prepopulated with the location of your ArcGIS 10.1 administrative installation. Do not change this location; you want the files in this location to be updated with the service pack changes.

Once the setup is complete, the setup.msi will have been updated with any service pack changes. The date of the setup.msi will be updated to the current date.

3.   Create an SMS or SCCM package using the patched .msi file and deploy it. The following command line parameter should be used: msiexec /a <location of the administrative installation>\setup.msi.

To Deploy the Service Pack .msp File Directly

The service pack .msp file can be directly deployed using SMS or SCCM. The setup for the ArcGIS product must have already been deployed and installed on the client machine.

1. Copy the .msp file to the server machine.

2. Create a package to deploy the .msp file. The following command line parameter should be used:

```
msiexec /p <location of .msp file>\<patch name>.msp REINSTALL=ALL
REINSTALLMODE=omus
```

REINSTALLMODE must always be equal to omus.

REINSTALL can be equal to ALL to reinstall all features already installed, or you can specify individual features (same feature names as ADDLOCAL).

3. Deploy the .msp package.

To Deploy ArcGIS Patches (.exe/.msp files)

ArcGIS patches (.exe /.msp files) are often available from the Esri Support site. These patches can be deployed directly using SMS or SCCM.

1. Download the required patch (.exe file) from the Esri support site.

2. Create a new package, program, and advertisement, specifying the .exe file to be run. The command line switch /s can be used to silently run the setup program.

Troubleshooting the Installation

■ If you receive an "Internal error, Install aborted" or "Corrupt Install" message when starting setup, ensure that the system TEMP variable is set to a valid folder where you have write access and space available.

■ If you receive an error message upon clicking Next on the final installation dialog box, verify that all your system variables are set to a valid value. An empty system variable will cause the installation to fail. To check your system variables, go to Start > Settings > Control Panel > System and choose the Environment tab.

■ Examine the Event Viewer.

Entries are logged in the Event Viewer when the Windows Installer results in an error or goes into repair. Examining the logs may offer insight into the solution.

1. Right-click My Computer.
2. Click Manage.
3. Expand the Event Viewer tree.
4. Click Application.
5. Search for MsiInstaller entries related to ArcGIS.

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■ Capture a log of the installation.

1. From the desktop, go to Start > Run.
2. Enter the command below, modifying the setup location as necessary:

```
msiexec.exe /i <path to setup>\setup.msi /qb /L*v
C:\Install.log
```

■ Capture a log of the uninstallation.

1. From the desktop, go to Start > Run.
2. Enter the command below, modifying the product code as necessary:

```
msiexec.exe /x <{product code}> /qb /L*v C:\Uninstall.log
```

ArcGIS 10.1 for Desktop

For comprehensive information on the installation of ArcGIS 10.1 for Desktop, refer to the installation guide at the ArcGIS Resources. For a list of supported operating systems and hardware requirements, refer to System Requirements at ArcGIS 10.1 System Requirements.

Setup Dependency

If the following products are not detected on the machine, setup will not proceed:

■ Microsoft .NET Framework Version 3.5 SP1

■ Microsoft Internet Explorer Version 6.0 or higher

■ Microsoft XML Core Services 6.0 (This is installed automatically if Setup.exe is used to launch the installation.)

Feature Dependency

There are no feature dependencies.

Properties

The following properties can be added to the msiexec command line:

Parameter	Value	Case Sensitive	Required	Description
ESRI_LICENSE_HOST	License Manager	No	Yes	Machine name of license manager
SOFTWARE_CLASS	Viewer	Yes	Yes	Installs ArcGIS 10.1 for Desktop as ArcView (Basic)
	Editor			Installs ArcGIS 10.1 for Desktop as ArcEditor (Standard)
	Professional			Installs ArcGIS 10.1 for Desktop as ArcInfo (Advanced)
SEAT_PREFERENCE	Fixed	Yes	Yes	Installs your ArcGIS software class as a single use seat

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Parameter	Value	Case Sensitive	Required	Description
	Float	Yes	Yes	Installs your ArcGIS software class as a concurrent use seat
INSTALLDIR	%System Drive%\Program Files\ArcGIS		No	ArcGIS 10.1 for Desktop installation location
INSTALLDIR1			No	Python installation location (If this feature is required and this value is not specified, the default location is C:\Python27.)
DESKTOP_CONFIG	TRUE	Yes	No	Setting this parameter to TRUE will prevent the ArcGIS Administrator wizard from being launched automatically at the end of the setup.
RENEWAL_CHECK	TRUE			Setting this to TRUE will enable users to use the license renewal option in ArcGIS Administrator to automatically update expiring licenses instead of browsing to new provisioning files.
BLOCKADDINS	#0	Yes	No	Load all add-ins regardless of whether they have digital signatures.
	#1	Yes	No	Only load and use add-ins that are digitally signed by a trusted certificate authority.
	#2	Yes	No	Only load and use add-ins that have been published by Esri.
	#3	Yes	No	Only load add-ins from the administrator folders and all add-ins published by Esri.
	#4	Yes	No	Do not load or execute add-ins in this application.
ENABLEEUEI	0	Yes	No (0 is default)	Do not enable participation in the Esri User Experience Improvement Program.
	1	Yes	No	Enable participation in the Esri User Experience Improvement Program.

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Features Available   The following features are available for installation. The setup can be modified to install specific features only by appending the ADDLOCAL parameter to the msiexec command line. If Python 2.7 and Numerical Python 1.6 are not detected, the ArcGIS 10.1 for Desktop setup will automatically install them.

Feature	Feature Parent	Title	Description
Applications		Applications	This is the ArcGIS 10.1 for Desktop software.
ArcCatalog	Applications	ArcCatalog	ArcCatalog™ is the application for managing your spatial data holdings, for managing your database designs, and for recording and viewing metadata.
ArcInfoStyles	Applications	Styles	Styles are an organized collection of elements that can be used to make your maps.
ArcInfoTemplates	Applications	Templates	Templates provide a quick way to create a new map. Templates can contain data, a custom interface, and a predefined layout that arranges map elements on a virtual page.
ArcMap	Applications	ArcMap	ArcMap™ is used for all mapping and editing tasks, as well as for map-based analysis.
ArcMap_Publishing_Extension	Extensions	Publisher	The ArcGIS Publisher extension converts standard ArcMap documents to a published map format that can be used by ArcReader.
ArcScan	Extensions	ArcScan	The ArcGIS ArcScan™ extension provides a set of tools for interactive and batch raster-to-vector conversion as well as tools for simple raster cleanup.
CivicAndBusiness	ArcInfoStyles	Civic and Business	These are the Civic and Business styles.
Ext_3D_Analyst	Extensions	3D Analyst	The ArcGIS 3D Analyst™ extension allows 3D visualization and analysis. 3D Analyst includes the specialized 3D viewing applications ArcScene™ and ArcGlobe™.

Feature	Feature Parent	Title	Description
Extensions		Extensions	These are the optional ArcGIS extensions that can be installed and used with any ArcGIS 10.1 for Desktop product.
GeoStatisticalAnalyst	Extensions	Geostatistical Analyst	The ArcGIS Geostatistical Analyst extension provides a set of tools for creating surfaces to visualize and analyze spatial phenomena and provide error estimation tools for prediction.
Military	ArcInfoStyles	Military	These are the Military styles.
NaturalResources	ArcInfoStyles	Natural Resources	This is the Natural Resources style.
NetworkAnalyst	Extensions	Network Analyst	The ArcGIS Network Analyst extension provides functions for transportation and logistical analysis on a network dataset.
Python	Applications	Python	This feature will install Python, which is required for some geoprocessing tools.
Schematics	Extensions	Schematics	The ArcGIS Schematics extension is an effective and innovative solution to automate schematic and geoschematic graphic presentations of Esri ArcGIS geodatabases.
SpatialAnalyst	Extensions	Spatial Analyst	The ArcGIS Spatial Analyst extension provides a broad range of powerful spatial modeling and analysis features that allow you to create, query, map, and analyze vector/raster data.
TemplateGeneral	ArcInfoTemplates	General	These are the general templates.
TemplateIndustry	ArcInfoTemplates	Industry	These are the industry templates.
TemplateUSA	ArcInfoTemplates	USA	This is the USA template and data.
TemplateWorld	ArcInfoTemplates	World	This is the world template and data.

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Feature	Feature Parent	Title	Description
TrackingAnalyst	Extensions	Tracking Analyst	The ArcGIS Tracking Analyst extension provides tools for real-time and historic data display and temporal analysis.

Python Requirement for Geoprocessing

ArcGIS 10.1 for Desktop geoprocessing tools require that Python 2.7 and NumPy 1.6 be installed. If the ArcGIS 10.1 for Desktop setup does not find either Python 2.7 or NumPy 1.6 installed on the target computer, they will be installed during a complete installation. You can choose a custom installation to unselect the Python feature and avoid installing it. Additionally, if the Python setup is executed during the ArcGIS 10.1 for Desktop installation, you will be provided with the opportunity to choose its installation location. The Python installation location should not include spaces.

Transforms **Changing INSTALLDIR**

1. In the CustomAction table, locate the custom action GET_INST_LOC.

2. The target column for this custom action is [INSTALLDIR]. Change this to the desired installation location, for example, C:\MyDesktop10.1\. The backslash must be included.

Uninstall To uninstall ArcGIS 10.1 for Desktop silently, use the following command line:

```
msiexec.exe /x {6C8365F4-1102-4064-B696-68842D20B933} /qb
```

Existing ArcGIS for Desktop Users

■ ArcGIS 9.x and 10 users must uninstall all previous ArcGIS products and any third-party extensions or tools from their machine before proceeding with the ArcGIS 10.1 for Desktop installation.

■ You are not required to uninstall ArcView GIS 3.x to install and run ArcGIS 10.1 for Desktop. ArcGIS 10.1 for Desktop defaults to a different folder and will not conflict with ArcView GIS 3.x in any way.

Additional Installation Components

The additional ArcGIS 10.1 for Desktop components, such as ArcGIS 10.1 Desktop Tutorial Data, ArcGIS 10.1 Data Interoperability for Desktop, ArcGIS VBA Compatibility, and ArcObjects SDK, can be installed separately if they are required.

At ArcGIS 10.1, the Visual Basic for Applications (VBA) runtime is installed by Setup.exe of the ArcGIS VBA Compatibility setup program. Previous to ArcGIS 10, the VBA runtime was installed by the ArcGIS for Desktop setup. To enable the VBA macro in the ArcGIS 10.1 for Desktop applications, you must complete the following steps:

1. Install ArcGIS 10.1 for Desktop.

2. Install the ArcGIS VBA Compatibility setup.

3. Obtain a license for VBA. For concurrent use products, you must obtain a license for VBA. For single use products, your authorization file contains the VBA feature.

If deploying the ArcGIS VBA Compatibility setup, the setups listed must be deployed in the following order:

1. Setup.msi—This is the ArcGIS VBA Compatibility setup program.

2. VBAOF11.msi—This is the Visual Basic for Applications Core setup program. This .msi file is located in the VBA folder.

3. VBAOF11I.msi—This is the Visual Basic for Applications Core English setup program. This .msi file is located in the VBA\1033 folder.

If Setup.exe is used to launch the ArcGIS VBA Compatibility setup, Visual Basic for Applications Core setup and Visual Basic for Applications Core English setup are installed automatically.

ArcGIS 10.1 for Desktop Language Packs

There are nine language packs available for ArcGIS 10.1 for Desktop—Arabic, Brazilian Portuguese, French, German, Italian, Japanese, Russian, Simplified Chinese, and Spanish. Use Setup.exe to accomplish a fully localized installation experience. Setup.exe is a bootstrapper executable that will run the main product setup.msi and then run the language pack .msi as a secondary installation. For example, if you run Setup.exe for ArcGIS 10.1 for Desktop in Spanish, both the desktop setup and Spanish Language Pack setup will be installed. Additional language packs must be installed separately.

While the ArcGIS 10.1 for Desktop setup automatically installs the language pack, an Add/Remove item will exist for both setups. The ArcGIS 10.1 for Desktop uninstallation process does not uninstall language packs, and they will need to be manually uninstalled using the Add/Remove Programs dialog box.

Setup Dependency   ArcGIS 10.1 for Desktop must be installed on the machine.

Feature Dependency   None

Command Line Parameters   None

Features Available   None

Uninstall   To uninstall ArcGIS 10.1 for Desktop Language Packs silently, use the following command line:

```
msiexec.exe /x <Product Code> /qb
```

Language Pack	Product Code
ArcGIS 10.1 for Desktop Arabic Language Pack	{5A5F51D4-02E0-4121-BB4D-C8815F78DF05}
ArcGIS 10.1 for Desktop Brazilian Portuguese Language Pack	{9006CE4B-C2A6-4988-BFFA-10220EF30735}
ArcGIS 10.1 for Desktop French Language Pack	{311DA2E4-3B6A-464F-8987-C4AAE6B9386D}
ArcGIS 10.1 for Desktop German Language Pack	{A761207A-1C66-40B4-A7FD-EF4A4BE530A5}

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Language Pack	Product Code
ArcGIS 10.1 for Desktop Italian Language Pack	{958028A4-352F-4689-A048-9A4009F585D6}
ArcGIS 10.1 for Desktop Japanese Language Pack	{96B69C6B-A945-4983-A5D3-92B0E14DBF8F}
ArcGIS 10.1 for Desktop Russian Language Pack	{3415F094-5ED8-4B1B-B901-FD3CAF6B3120}
ArcGIS 10.1 for Desktop Simplified Chinese Language Pack	{0EF95F56-858C-4E1B-A402-09721A944E24}
ArcGIS 10.1 for Desktop Spanish Language Pack	{676A699C-5EFD-458F-B226-81502992784F}

ArcGIS 10.1 for Desktop SP1 Background Geoprocessing (64 bit)

For a list of supported operating systems and hardware requirements, refer to the system requirements at ArcGIS 10.1 System Requirements. If Python 64 bit is already installed, the Python feature in the setup will be unavailable.

Setup Dependency

■ 64-bit operating system.
■ ArcGIS 10.1 for Desktop must be installed on the machine.

Feature Dependency

None

Command Line Parameters

None

Features Available

The following features are available for installation. The setup can be modified to install only specific features by appending the ADDLOCAL parameter to the msiexec command line.

Feature	Feature Parent	Title	Description
GP_Runtime		RequiredFeature	
Python	GP_Runtime	Python	

Transforms

Changing INSTALLDIR

ArcGIS 10.1 for Desktop SP1 Background Geoprocessing (64 bit) installs to the Install directory of ArcGIS 10.1 for Desktop. It is not possible to change this with transform.

Uninstall

To uninstall ArcGIS 10.1 for Desktop SP1 Background Geoprocessing (64 bit) silently, use the following command line:

```
msiexec.exe /x {D43E583A-A698-4227-8F83-3084172F12F0} /qb
```

ArcGIS 10.1 License Manager	For comprehensive information on the installation of ArcGIS 10.1 License Manager, refer to the reference guide at the ArcGIS Resources. For a list of supported operating systems and hardware requirements, refer to the system requirements at ArcGIS 10.1 System Requirements.
Setup Dependency	None
Feature Dependency	None
Command Line Parameters	The following property can be added to the msiexec command line:

Parameter	Default Value	Case Sensitive	Required	Description
INSTALLDIR	%System Drive%\Program Files\ArcGIS\License10.1	No	No	ArcGIS 10.1 License Manager installation location

Features Available	None
Transforms	**Changing INSTALLDIR**

1. In the CustomAction table, locate the custom action GET_INST_LOC.

2. The target column for this custom action is [INSTALLDIR]. Change this to the desired installation location, for example, C:\MyLicenseManager10.1\. The backslash must be included.

Uninstall	To uninstall ArcGIS 10.1 License Manager silently, use the following command line:

```
msiexec.exe /x {1DD1D1E9-FC96-4B17-BE0A-A5481F8B0D67} /qb
```

ArcGIS 10.1 ArcReader	For a list of supported operating systems and hardware requirements, refer to the system requirements at ArcGIS 10.1 System Requirements.
Setup Dependency	If the following products are not detected on the machine, setup will not proceed:

■ Microsoft Internet Explorer Version 6.0 or higher

■ Microsoft XML Core Services 6.0 (This is installed automatically if Setup.exe is used to launch the installation.)

Feature Dependency	The .NET Support feature requires Microsoft .NET 3.5 SP1. If Microsoft .NET SP1 is not found, the .NET Extension Support feature will not be available for installation.

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Command Line Parameters   The following properties can be added to the msiexec command line:

Parameter	Default Value	Case Sensitive	Required	Description
INSTALLDIR	%System Drive%\Program Files\ArcGIS\ArcReader10.1	No	No	ArcGIS 10.1 ArcReader installation location
ENABLEEUEI	0	Yes	No	Do not enable participation in the Esri User Experience Improvement Program. To enable participation in the Esri User Experience Improvement Program, change the value to 1.

Features Available   The following features are available for installation. The setup can be modified to install only specific features by appending the ADDLOCAL parameter to the msiexec command line.

Feature	Feature Parent	Title	Description
ArcReader		ArcReader	ArcReader is the application for viewing and printing maps published with the Publisher extension.
Documentation		Documentation	This is the ArcReader documentation.
DotNetRuntime	ArcReader	.NET Support	Select this feature to install the ArcGIS .NET primary interoperability assemblies into the global assembly cache. These are required to develop and use ArcGIS .NET customizations.
Tutorial		Tutorial	This is the ArcReader tutorial data.

Transforms   **Changing INSTALLDIR**

1. In the CustomAction table, locate the custom action ESRI_Get_INSTALLDIR.

2. The target column for this custom action is [INSTALLDIR]. Change this to the desired installation location, for example, C:\MyArcReader10.1.

Uninstall   To uninstall ArcGIS 10.1 ArcReader silently, use the following command line:

```
msiexec.exe /x {EDAB0E56-29C2-48BE-BBC7-B170A41D15CE} /qb
```

**ArcGIS 10.1
ArcReader
Language Packs**

There are nine language packs available for ArcGIS 10.1 ArcReader—Arabic, Brazilian Portuguese, French, German, Italian, Japanese, Russian, Simplified Chinese, and Spanish. Use Setup.exe to accomplish a fully localized installation experience. Setup.exe is a bootstrapper executable that will run the main product setup.msi and then run the language pack .msi as a secondary installation. For example, if you run Setup.exe for ArcGIS 10.1 ArcReader in Spanish, both the ArcGIS 10.1 ArcReader Spanish setup and ArcGIS 10.1 ArcReader Spanish Language Pack setup will be installed. Additional language packs must be installed separately.

While the ArcGIS 10.1 ArcReader setup automatically installs the language pack, an Add/Remove item will exist for both setups. The ArcGIS 10.1 ArcReader uninstallation process does not uninstall language packs, and they will need to be manually uninstalled using the Add/Remove Programs dialog box.

Setup Dependency   ArcGIS 10.1 ArcReader must be installed on the machine.

Feature Dependency   None

*Command Line
Parameters*   None

Features Available   None

Uninstall   To uninstall ArcGIS 10.1 ArcReader Language Packs silently, use the following command line:

```
msiexec.exe /x <Product Code> /qb
```

Language Pack	Product Code
ArcGIS 10.1 ArcReader Arabic Language Pack	{0307C932-92BF-4D4D-B092-A2BA30942EB2}
ArcGIS 10.1 ArcReader Brazilian Portuguese Language Pack	{94F723C3-C3F0-44FA-A2BB-F58BEC492749}
ArcGIS 10.1 ArcReader French Language Pack	{BB03BAD2-C900-4DE7-B465-1C27B2DE2C71}
ArcGIS 10.1 ArcReader German Language Pack	{704CC35B-4909-4A19-8535-2AF85491DACD}
ArcGIS 10.1 ArcReader Italian Language Pack	{64BA35E7-D6D4-48C4-8662-8F2BE307FADB}
ArcGIS 10.1 ArcReader Japanese Language Pack	{518D975B-52FE-45AC-B935-2D5B94B8B1F2}
ArcGIS 10.1 ArcReader Russian Language Pack	{67D12452-7B15-4F0F-960E-0B61F8C6DA69}
ArcGIS 10.1 ArcReader Simplified Chinese Language Pack	{FC97E374-F9FE-42EF-B5E6-A453E32EFF98}
ArcGIS 10.1 ArcReader Spanish Language Pack	{8061FF7A-2A27-4897-B3D5-A9122D8CB11A}

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ArcGIS 10.1 Engine

For a list of supported operating systems and hardware requirements, refer to the system requirements at ArcGIS 10.1 System Requirements.

Setup Dependency

If the following products are not detected on the machine, setup will not proceed:

■ Microsoft .NET 3.5 Service Pack 1

■ Microsoft Internet Explorer Version 6.0 or higher

■ Microsoft XML Core Services 6.0 (This is installed automatically if Setup.exe is used to launch the installation.)

Feature Dependency

None

Command Line Parameters

The following properties can be added to the msiexec command line:

Parameter	Default Value	Case Sensitive	Required	Description
INSTALLDIR	%System Drive%\Program Files\ArcGIS\Engine10.1	No	No	Default installation location
INSTALLDIR1	C:\Python27		No	Python installation location
RENEWAL_CHECK	TRUE			Setting this to TRUE will enable users to use the license renewal option in ArcGIS Administrator to automatically update expiring licenses instead of browsing to new provisioning files.

Features Available

The following features are available for installation. The setup can be modified to install only specific features by appending the ADDLOCAL parameter to the msiexec command line. If Python 2.7 and Numerical Python 1.6 are not detected, setup will automatically install them.

Feature	Feature Parent	Title	Description
ArcEngine		ArcGIS Engine	This installs the ArcGIS Engine components. These components support the creation of GIS and mapping applications.
Python	ArcEngine	Python	This feature will install Python, which is required for some geoprocessing tools.

Transforms	**Changing INSTALLDIR**

1. In the CustomAction table, locate the custom action ESRI_Get_INSTALLDIR.

2. The target column for this custom action is [INSTALLDIR]. Change this to the desired installation location, for example, C:\MyEngine10.1\. The backslash must be included.

Uninstall
To uninstall ArcGIS 10.1 Engine silently, use the following command line:

```
msiexec.exe /x {056B7D19-2454-45A8-81D5-501670AB1CA0} /qb
```

ArcGIS 10.1 Engine Language Packs
There are nine language packs available for ArcGIS 10.1 Engine—Arabic, Brazilian Portuguese, French, German, Italian, Japanese, Russian, Simplified Chinese, and Spanish. Use Setup.exe to accomplish a fully localized installation experience. Setup.exe is a bootstrapper executable that will run the main product setup.msi and then run the language pack .msi as a secondary installation. For example, if you run Setup.exe for ArcGIS 10.1 Engine in Spanish, both the ArcGIS 10.1 Engine Spanish setup and ArcGIS 10.1 Engine Spanish Language Pack setup will be installed. Additional language packs must be installed separately.

While the ArcGIS 10.1 Engine setup automatically installs the language pack, an Add/Remove item will exist for both setups. The ArcGIS 10.1 Engine uninstallation process does not uninstall language packs, and they will need to be manually uninstalled using the Add/Remove Programs dialog box.

Setup Dependency
ArcGIS 10.1 Engine must be installed on the machine.

Feature Dependency
None

Command Line Parameters
None

Features Available
None

Uninstall
To uninstall ArcGIS 10.1 Engine Language Packs silently, use the following command line:

```
msiexec.exe /x <Product Code> /qb
```

Language Pack	Product Code
ArcGIS 10.1 Engine Arabic Language Pack	{2646038E-C16D-4459-862E-152EA8DBAAA6}
ArcGIS 10.1 Engine Brazilian Portuguese Language Pack	{5FC0F611-6EDC-4105-A658-668A42B2A4EF}
ArcGIS 10.1 Engine French Language Pack	{3753DD7A-850E-416E-9960-C69554824A47}
ArcGIS 10.1 Engine German Language Pack	{0EFC76B1-EE9E-4958-B8E3-81C002DAC828}
ArcGIS 10.1 Engine Italian Language Pack	{4CF12617-7422-4BAC-B467-6639EAD34F7D}

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Language Pack	Product Code
ArcGIS 10.1 Engine Japanese Language Pack	{71681861-2098-473B-844C-EF29D6AF598B}
ArcGIS 10.1 Engine Russian Language Pack	{37B792E2-869E-487C-AC73-8A7BE46F7FD1}
ArcGIS 10.1 Engine Simplified Chinese Language Pack	{F2D59B5C-B0A2-4EF1-B256-E95A834F493A}
ArcGIS 10.1 Engine Spanish Language Pack	{BBCFDA0B-25A6-4B85-A6DD-10FBBF3CD5D2}

ArcGIS 10.1 Engine SP1 Background Geoprocessing (64 bit)

For a list of supported operating systems and hardware requirements, refer to the system requirements at ArcGIS 10.1 System Requirements. If Python 64 bit is already installed, the Python feature in the setup will be unavailable.

Setup Dependency

■ 64-bit operating system.
■ ArcGIS 10.1 Engine SP1 must be installed on the machine.

Feature Dependency

None

Command Line Parameters

None

Features Available

The following features are available for installation. The setup can be modified to install only specific features by appending the ADDLOCAL parameter to the msiexec command line.

Feature	Feature Parent	Title	Description
GP_Background		Background Geoprocessing (64 bit)	
Python	GP_Background	Python	

Transforms

Changing INSTALLDIR

ArcGIS 10.1 Engine SP1 Background Geoprocessing (64 bit) installs to the Install directory of ArcGIS 10.1 Engine SP1. It is not possible to change this with transform.

Uninstall

To uninstall ArcGIS 10.1 Engine SP1 Background Geoprocessing (64 bit) silently, use the following command line:

```
msiexec.exe /x {3956829D-98DD-4431-B6BF-345CD3FC8413} /qb
```

ArcGIS 10.1 for Server

For comprehensive information on the installation, refer to the installation guide at the ArcGIS Resources. For a list of supported operating systems and hardware requirements, refer to the system requirements at ArcGIS 10.1 System Requirements.

Setup Dependency   If the following products are not detected on the machine, setup.msi will not proceed:

■   64-bit operating system

■   [Microsoft XML Core Services 6.0](#) (This is installed automatically if Setup.exe is used to launch the installation.)

■   64-bit versions of Python 2.7 and Numerical Python 1.6 (If these are not detected, the ArcGIS 10.1 for Server setup will automatically install them.)

■   Machines with an underscore (_) in their names are not supported. The ArcGIS 10.1 for Server setup will not proceed if an underscore is detected in the machine name.

Feature Dependency   ■   .NET Extension Support

The .NET Extension Support feature requires Microsoft .NET 3.5 Service Pack 1. If Microsoft .NET SP1 is not found, the .NET Extension Support feature will not be available for installation.

Command Line Parameters   The following properties can be added to the msiexec command line:

Parameter	Default Value	Case Sensitive	Required	Description
INSTALLDIR	%System Drive%\Program Files\ArcGIS\Server	No	No	ArcGIS 10.1 for Server installation location
INSTALLDIR1	C:\Python27		No	Python installation location
USER_NAME	Local System account	Yes	No	Specify an existing domain or local account. If the specified local account does not exist, it will be created.
PASSWORD				Password for the account specified
ACCOUNT	UseConfigFile	Yes	Yes	There are no other valid values for this property.
EXPORTCONFIG		Yes	No	Exports the account information entered with the USER_NAME and PASSWORD command line parameters to an encrypted XML file

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Parameter	Default Value	Case Sensitive	Required	Description
CONFIGPATH		Yes	No	Full path and name of server configuration file. Used in conjunction with ACCOUNT=UseConfigFile, this property specifies the server configuration file for configuring the ArcGIS 10.1 for Server account. Used in conjunction with EXPORTCONFIG=Yes, this property specifies the name of the server configuration file and the location where it will be stored. The file name must end with .xml, and the specified folder must already exist.

ArcGIS 10.1 for Server Account

The ArcGIS 10.1 for Server account must be configured when ArcGIS 10.1 for Server is installed silently. For production systems, it's recommended that a preexisting account be designated that resides in your domain or Active Directory and follows your organization's security policy. If the ArcGIS 10.1 for Server account is not defined during a silent installation, or the credentials are not valid, the ArcGIS 10.1 for Server setup displays a warning message during installation. The message can be closed by clicking OK. Under these circumstances, the ArcGIS 10.1 for Server account is set to the Local System account.

When using an existing domain account, enter the following:

```
msiexec /I \\machinename\ArcGIS_Server\setup.msi /qb
USER_NAME=mydomain\mydomainaccount PASSWORD=my.password
```

When using a new or existing local account, enter the following:

```
msiexec /I \\machinename\ArcGIS_Server\setup.msi /qb
USER_NAME=myaccount PASSWORD=my.password
```

Server Configuration File

A server configuration file from previous installations or from other machines can be used to speed up the configuration process on other ArcGIS 10.1 for Server machines and reduce the chance of inadvertently typing a wrong name or password. While the account password is encrypted, be sure to store the configuration file in a secure location. A server configuration file can be imported by specifying both ACCOUNT and CONFIGPATH parameters. It can be exported by specifying both EXPORTCONFIG and CONFIGPATH parameters.

When importing ArcGIS 10.1 for Server account credentials using a server configuration file, enter the following:

```
msiexec /I \\machinename\ArcGIS_Server\setup.msi /qb
ACCOUNT=UseConfigFile CONFIGPATH=\\networkmachine
\serverconfigs\standardaccount.xml
```

When exporting ArcGIS 10.1 for Server account credentials to a server configuration file, enter the following:

```
msiexec /I \\machinename\ArcGIS_Server\setup.msi /qb EXPORTCONFIG=Yes
CONFIGPATH=\\networkmachine \serverconfigs\standardaccount.xml
```

Features Available   The following features are available for installation. The setup can be modified to install only specific features by appending the ADDLOCAL parameter to the msiexec command line. If Python 2.7 and Numerical Python 1.6 are not detected, the ArcGIS 10.1 for Server setup will automatically install them.

Feature	Feature Parent	Title	Description
DotNetSupport	GIS_Server	.NET Extension Support	The .NET Extension Support feature is for developers who want to extend ArcGIS 10.1 for Server with .NET server object extensions (SOEs). This feature is also required for deploying .NET SOEs.
GIS_Server		GIS Server	The GIS server hosts GIS services that are accessible through REST and SOAP. The GIS server includes a default web server; it is administered using Manager and browsed using Services Directory.

Upgrade/Service Packs   The ArcGIS 10.1 for Server service pack is released as a full .msi setup. With the service pack setup, users can upgrade an existing machine running ArcGIS 10.1 for Server to the latest service pack silently or install ArcGIS 10.1 for Server SP silently on its own. There is no need to install ArcGIS 10.1 for Server and then apply the service pack.

■   When upgrading to SP1 silently, users must specify the ArcGIS Server account used by the ArcGIS 10.1 for Server site. Typically, this is the account defined when installing 10.1 final. If the account has changed since 10.1 final was installed, for example, by using the Configure ArcGIS Server Account utility, the user name and password designated when modifying the account must be entered.

■   If the ArcGIS Server account is not specified or does not match the ArcGIS Server account used by the current site, the installation process will display a message indicating the credentials could not be validated. The installation will exit as a result.

■   In the examples below, the ArcGIS Server account used by the 10.1 site is myaccount.

To upgrade to the latest service pack using setup.exe, follow the step below:

1.   On the machine hosting ArcGIS 10.1 for Server, run the following command to apply the service pack. Setup.exe will apply the ArcGISServerUG.msp silently and then call setup.msi with the provided command line parameters.

```
<path to ArcGIS 10.1 Service Pack for Server setup download
folder>\setup.exe /qb USER_NAME=myaccount PASSWORD=mypassword
```

To upgrade to the latest service pack using setup.msi, follow the steps below:

1. On the machine hosting ArcGIS 10.1 for Server, run the following command to apply the service pack patch. This makes the machine ready to apply the setup.msi.

```
msiexec.exe /p <path to ArcGIS 10.1 Service Pack for Server setup
download folder>\Support\patch\ArcGISServerUG.msp /qb
```

2. Specify the ArcGIS Server account used by the ArcGIS 10.1 for Server site.

```
msiexec /i <path to ArcGIS 10.1 Service Pack for Server setup download
folder>\setup.msi /qb USER_NAME=myaccount PASSWORD=mypassword
```

Transforms   **Changing INSTALLDIR**

1. In the InstallExecuteSequence table, add a row. The values for the fields are the following:

> Action: ESRI_CHANGE_INST
> Condition: ESRI_ARCGISDIR="1" OR UPGRADE_THIS
> Sequence: 978

2. In the CustomAction table, add a row. The values for the fields are the following:

> Action: ESRI_CHANGE_INST
> Type: 35
> Source: INSTALLDIR
> Target: C:\MyServer10.1

Uninstall   To uninstall ArcGIS 10.1 for Server silently, use the following command line:

```
msiexec.exe /x {CCE5C609-EF54-49F3-A779-3D1BC82D95A4} /qb
```

The ArcGIS 10.1 for Server service pack is released as a full .msi setup, so the product code mentioned above changes with every service pack release. The product codes are available in the installation guide. It is also mentioned in the [Setup] section of the Setup.ini file.

ArcGIS 10.1 for Server Language Packs

There are nine language packs available for ArcGIS 10.1 for Server—Arabic, Brazilian Portuguese, French, German, Italian, Japanese, Russian, Simplified Chinese, and Spanish. Use Setup.exe to accomplish a fully localized installation experience. Setup.exe is a bootstrapper executable that will run the main product setup.msi and then run the language pack .msi as a secondary installation. For example, if you run Setup.exe for ArcGIS 10.1 for Server in Spanish, both the ArcGIS 10.1 for Server Spanish setup and ArcGIS 10.1 for Server Spanish Language Pack setup will be installed. Additional language packs must be installed separately.

While the ArcGIS 10.1 for Server setup automatically installs the language pack, an Add/Remove item will exist for both setups. The ArcGIS 10.1 for Server uninstallation process does not uninstall language packs, and they will need to be manually uninstalled using the Add/Remove Programs dialog box.

Setup Dependency	ArcGIS 10.1 for Server must be installed on the machine.
Feature Dependency	None
Command Line Parameters	None
Features Available	None
Uninstall	To uninstall ArcGIS 10.1 for Server Language Packs silently, use the following command line:

```
msiexec.exe /x <Product Code> /qb
```

Language Pack	Product Code
ArcGIS 10.1 for Server Arabic Language Pack	{A9E85C7B-64B6-4178-9412-6505582E7177}
ArcGIS 10.1 for Server Brazilian Portuguese Language Pack	{D9B2DF77-5E23-4C32-8B12-8DE6D936E908}
ArcGIS 10.1 for Server French Language Pack	{8787A30F-7AD3-498D-B3EA-B465D3886C6F}
ArcGIS 10.1 for Server German Language Pack	{DEC2DD28-D41A-4C58-AEF0-C97AA2C62B14}
ArcGIS 10.1 for Server Italian Language Pack	{D2EF2225-3AF0-4345-B46E-9783E01DD1D3}
ArcGIS 10.1 for Server Japanese Language Pack	{3C5844C2-EA07-4372-9A7A-52D5CD585C76}
ArcGIS 10.1 for Server Russian Language Pack	{21FE97F0-7F5B-4AFE-9B43-F9606FC80826}
ArcGIS 10.1 for Server Simplified Chinese Language Pack	{29A4EC50-2A66-4972-BB1A-946F444B4440}
ArcGIS 10.1 for Server Spanish Language Pack	{76754E10-215F-4EFA-B3E8-F37FC0EBEE45}

ArcGIS 10.1 Web Applications for the Microsoft .NET Framework

For comprehensive information on the installation of ArcGIS 10.1 Web Applications for the Microsoft .NET Framework, refer to the installation guide at the ArcGIS Resources. For a list of supported operating systems and hardware requirements, refer to the system requirements at ArcGIS 10.1 System Requirements.

Setup Dependency

If the following product is not detected on the machine, setup will not proceed:

■ Microsoft .NET 3.5 Service Pack 1

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Feature Dependency

■ Web Applications Manager

IIS must be installed and specific IIS components enabled. Supported versions are 6.0, 7.0, and 7.5. Specific IIS components must be installed when performing an installation on Windows Vista/Windows 7 and Windows Server 2008/Windows Server 2008 R2. If these components are not installed, the Web Applications Manager feature will not be available.

● **XP and Server 2003**

Go to Control Panel > Add or Remove Programs > Add/Remove Windows Components. Enable and install the IIS/Application Server component.

● **Windows Vista and Windows 7**

For installations on Windows Vista and Windows 7, the following IIS components must be installed:

Internet Information Services

♦ Web Management Tools

◊ IIS 6 Management Compatibility
– IIS Metabase and IIS 6 configuration compatibility

◊ IIS Management Console
◊ IIS Management Scripts and Tools
◊ IIS Management Service

♦ World Wide Web Services

◊ Application Development Features
– .NET Extensibility
– ASP.NET
– ISAPI Extensions
– ISAPI Filters

◊ Common HTTP Features
– Static Content

◊ Security
– Basic Authentication
– Request Filtering
– Windows Authentication

● **Windows Server 2008 and Windows Server 2008 R2**

For installations on Windows Server 2008 and Windows Server 2008 R2, the following IIS components must be installed:

Web Server (IIS)

♦ Web Server

◊ Common HTTP Features
− Static Content

◊ Application Development
− ASP.NET
− .NET Extensibility
− ISAPI Extensions
− ISAPI Filters

◊ Security
− Basic Authentication
− Windows Authentication
− Request Filtering

♦ Management Tools

◊ IIS Management Console
◊ IIS Management Scripts and Tools
◊ Management Service
◊ IIS 6 Management Compatibility
− IIS 6 Metabase Compatibility

■ Visual Studio 2010 Integration—This feature needs Visual Studio 2010 Professional, Premium, Ultimate, or Test Professional Edition to be installed on the machine.

■ Visual Web Developer Express—This feature needs Visual Web Developer 2010 Express Edition to be installed on the machine.

Command Line Parameters

The following properties can be added to the msiexec command line:

Parameter	Default Value	Case Sensitive	Required	Description
INSTALLDIR	%System Drive%\Program Files\ArcGIS\WebAdf	No	No	Default installation location
INSTANCE	ArcGIS	Yes	No	Name of ArcGIS Web Applications Manager instance. The instance name cannot contain spaces.

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Parameter	Default Value	Case Sensitive	Required	Description
WEBSITE_ID	1	Yes	No	Numeric value of website. This is used to determine the website where the ArcGIS Web Applications Manager instance will be created. The value for WEBSITE_ID is a number specific to each website on your server and assigned by IIS. The IDs for the websites on your server can be found in IIS Manager. The default website has a website ID of 1. By default, the WEBSITE_ID parameter is set to the default website (even if multiple websites exist).

Installing Multiple Instances

Multiple instances of ArcGIS 10.1 Web Applications for the Microsoft .NET Framework can be installed on the same machine. Use the Addinstance.exe utility available at [InstallDir]\bin, after installing ArcGIS 10.1 Web Applications for the Microsoft .NET Framework, to create new instances.

Features Available

The following features are available for installation. The setup can be modified to install only specific features by appending the ADDLOCAL parameter to the msiexec command line.

Feature	Feature Parent	Title	Description
Applications_Manager		Web Applications Manager	Web Applications Manager allows you to create web mapping applications.
ArcGIS_Web_API_Shortcuts		ArcGIS Applications and APIs Shortcuts	ArcGIS applications and API shortcuts provide access to the online resources and SDKs for building and developing applications that display and use GIS services.

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Feature	Feature Parent	Title	Description
Software_Developer_Kit	Web_Applications_Developer	Software Developer Kit	The components that assist a developer in creating applications with the Web Application Developer Framework
VS2010	VSINT2010	Visual Studio	This feature integrates web controls, templates, and developer help with Visual Studio.
VSINT2010	Software_Developer_Kit	Visual Studio 2010 Integration	This feature integrates web controls, templates, and developer help with supported Visual Studio 2010 Editions.
VWEB2010	VSINT2010	Visual Web Developer Express	This feature integrates web controls, a web mapping application template, and developer help with Visual Web Developer Express.
Web_Applications_Developer		Web Applications Developer Framework	The Web ADF facilitates the development of web applications. It includes web controls, templates, samples, and documentation.

Transforms   **Changing INSTALLDIR**

1. In the CustomAction table, locate the custom action ESRI_Get_INSTALLDIR.

2. The target column for this custom action is [INSTALLDIR]. Change this to the desired installation location, for example, C:\MyWebAppsNet10.1\. The backslash must be included.

Uninstall

To uninstall ArcGIS 10.1 Web Applications for the Microsoft .NET Framework silently, use the following command line:

```
msiexec.exe /x {9FB86290-E16D-47BF-8A98-906C32920941} /qb
```

To uninstall additional instances of ArcGIS 10.1 Web Applications for the Microsoft .NET Framework silently, replace the above product code with the product code of the instance to be uninstalled. Product codes for ArcGIS 10.1 Web Applications for the Microsoft .NET Framework instances are listed below. The product codes are listed in the same order as the instances installed on your system. For example, the first instance created is the first product code listed below:

```
{670D7AD8-DDA1-4BD6-AD80-A18FE40ACA78}
{67358CE7-6909-4C50-9868-A16CA2F87BC6}
{013D4FBB-A6C9-4921-84A9-A3691F8521D3}
{5FD7A35D-2FE1-480C-9804-1D98BEE0373C}
{E5BD174C-5ADB-48F3-8806-CC9E0C989316}
{AA396B23-1F8F-46FF-8A9F-045B1A49D14C}
{AD79F5A1-DAF7-45E2-8C3F-81B075508511}
{E1864888-A394-4ED6-A069-D585FD0F98CB}
{2FAD3524-9A6C-4D95-AC6E-62F024685209}
{C311AF4B-53AA-4020-868D-93366BBB5609}
```

ArcGIS 10.1 Web Applications for the Microsoft .NET Framework Language Packs

There are six language packs available for ArcGIS 10.1 Web Applications for the Microsoft .NET Framework—French, German, Japanese, Russian, Simplified Chinese, and Spanish. Use Setup.exe to accomplish a fully localized installation experience. Setup.exe is a bootstrapper executable that will run the main product setup.msi and then run the language pack .msi as a secondary installation. For example, if you run Setup.exe for ArcGIS 10.1 Web Applications for the Microsoft .NET Framework in Spanish, both the ArcGIS 10.1 Web Applications for the Microsoft .NET Framework Spanish setup and ArcGIS 10.1 Web Applications for the Microsoft .NET Framework Spanish Language Pack setup will be installed. Additional language packs must be installed separately.

While the ArcGIS 10.1 Web Applications for the Microsoft .NET Framework setup automatically installs the language pack, an Add/Remove item will exist for both setups. The ArcGIS 10.1 Web Applications for the Microsoft .NET Framework uninstallation process does not uninstall language packs, and they will need to be manually uninstalled using the Add/Remove Programs dialog box.

Setup Dependency

ArcGIS 10.1 Web Applications for the Microsoft .NET Framework must be installed on the machine.

Feature Dependency

None

Command Line Parameters

None

Features Available

None

Uninstall

To uninstall ArcGIS 10.1 Web Applications for the Microsoft .NET Framework Language Packs silently, use the following command line:

```
msiexec.exe /x <Product Code> /qb
```

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Language Pack	Product Code
ArcGIS 10.1 Web Applications for the Microsoft .NET Framework French Language Pack	{D2C1B0E0-9CB2-4ED6-AE9E-F8B561FA5850}
ArcGIS 10.1 Web Applications for the Microsoft .NET Framework German Language Pack	{AF4A97B2-EFD0-476E-B9A6-90F6A9B23CD2}
ArcGIS 10.1 Web Applications for the Microsoft .NET Framework Japanese Language Pack	{23ADEE7E-2907-4FDE-9CD1-D4FF13C9342D}
ArcGIS 10.1 Web Applications for the Microsoft .NET Framework Russian Language Pack	{5C7552F7-17E2-43B4-80EC-F4D434EB8751}
ArcGIS 10.1 Web Applications for the Microsoft .NET Framework Simplified Chinese Language Pack	{3356CE35-264E-4FD2-B6F1-B472DE713E37}
ArcGIS 10.1 Web Applications for the Microsoft .NET Framework Spanish Language Pack	{89291CB7-40F0-472C-923F-20EE4BEB5ADB}

ArcGIS 10.1 Web ADF Runtime for the Microsoft .NET Framework

For a list of supported operating systems and hardware requirements, refer to the system requirements at [ArcGIS 10.1 System Requirements](#).

Setup Dependency

If the following products are not detected on the machine, setup will not proceed:

■ Microsoft .NET Framework 3.5 Service Pack 1

■ IIS and specific IIS components enabled (Supported versions are 6.0, 7.0, and 7.5. Specific IIS components must be installed when performing an installation on Windows Vista/Windows 7 and Windows Server 2008/Windows Server 2008 R2. If these components are not installed, the Web Applications Manager feature will not be available.)

● **XP and Server 2003**

Go to Control Panel > Add or Remove Programs > Add/Remove Windows Components. Enable and install the IIS/Application Server component.

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- **Windows Vista and Windows 7**

  For installations on Windows Vista and Windows 7, the following IIS components must be installed:

  Internet Information Services

  ♦ Web Management Tools

  ◊ IIS 6 Management Compatibility
  − IIS Metabase and IIS 6 configuration compatibility

  ◊ IIS Management Console
  ◊ IIS Management Scripts and Tools
  ◊ IIS Management Service

  ♦ World Wide Web Services

  ◊ Application Development Features
  − .NET Extensibility
  − ASP.NET
  − ISAPI Extensions
  − ISAPI Filters

  ◊ Common HTTP Features
  − Static Content

  ◊ Security
  − Basic Authentication
  − Request Filtering
  − Windows Authentication

- **Windows Server 2008 and Windows Server 2008 R2**

  For installations on Windows Server 2008 and Windows Server 2008 R2, the following IIS components must be installed:

  Web Server (IIS)

  ♦ Web Server

  ◊ Common HTTP Features
  − Static Content

◊   Application Development
- ASP.NET
- .NET Extensibility
- ISAPI Extensions
- ISAPI Filters

◊   Security
- Basic Authentication
- Windows Authentication
- Request Filtering

♦   Management Tools

◊   IIS Management Console
◊   IIS Management Scripts and Tools
◊   Management Service
◊   IIS 6 Management Compatibility
- IIS 6 Metabase Compatibility

Feature Dependency   None

Command Line Parameters   The following properties can be added to the msiexec command line:

Parameter	Default Value	Case Sensitive	Required	Description
INSTALLDIR	%System Drive%\Program Files\ArcGIS\WebAdf	No	No	Default installation location
WEBSITE_ID	1	Yes	No	Numeric value of website. This is used to determine the website where the ArcGIS Web Applications Manager instance will be created. The value for WEBSITE_ID is a number specific to each website on your server and assigned by IIS. The IDs for the websites on your server can be found in IIS Manager. The default website has an ID of 1. By default, the WEBSITE_ID parameter is set to the default website (even if multiple websites exist).

Features Available   None

| *Transforms* | **Changing INSTALLDIR** |

1. In the CustomAction table, locate the custom action ESRI_Get_INSTALLDIR.

2. The target column for this custom action is [INSTALLDIR]. Change this to the desired installation location, for example, C:\MyWebADFRuntime10.1\. The backslash must be included.

Uninstall

To uninstall ArcGIS 10.1 Web ADF Runtime for the Microsoft .NET Framework silently, use the following command line:

```
msiexec.exe /x {D6D43686-570F-477E-BC62-62C3F9076273} /qb
```

ArcGIS 10.1 Web ADF Runtime for the Microsoft .NET Framework Language Packs

There are six language packs available for ArcGIS 10.1 Web ADF Runtime for the Microsoft .NET Framework—French, German, Japanese, Russian, Simplified Chinese, and Spanish. Use Setup.exe to accomplish a fully localized installation experience. Setup.exe is a bootstrapper executable that will run the main product setup.msi and then run the language pack .msi as a secondary installation. For example, if you run Setup.exe for ArcGIS 10.1 Web ADF Runtime for the Microsoft .NET Framework in Spanish, both the ArcGIS 10.1 Web ADF Runtime for the Microsoft .NET Framework Spanish setup and ArcGIS 10.1 Web ADF Runtime for the Microsoft .NET Framework Spanish Language Pack setup will be installed. Additional language packs must be installed separately.

While the ArcGIS 10.1 Web ADF Runtime for the Microsoft .NET Framework setup automatically installs the language pack, an Add/Remove item will exist for both setups. The ArcGIS 10.1 Web ADF Runtime for the Microsoft .NET Framework uninstallation process does not uninstall language packs, and they will need to be manually uninstalled using the Add/Remove Programs dialog box.

Setup Dependency

ArcGIS 10.1 Web ADF Runtime for the Microsoft .NET Framework must be installed on the machine.

Feature Dependency

None

Command Line Parameters

None

Features Available

None

Uninstall

To uninstall ArcGIS 10.1 Web ADF Runtime for the Microsoft .NET Framework Language Packs silently, use the following command line:

```
msiexec.exe /x <product code> /qb
```

Language Pack	Product Code
ArcGIS 10.1 Web ADF Runtime for the Microsoft .NET Framework French Language Pack	{AEC97720-5424-43C4-A685-D8156966E110}
ArcGIS 10.1 Web ADF Runtime for the Microsoft .NET Framework German Language Pack	{487D4BC3-53A9-4E04-AB88-48A74645EF41}
ArcGIS 10.1 Web ADF Runtime for the Microsoft .NET Framework Japanese Language Pack	{FAE4D9DF-A1E8-4C3A-8762-6F9B2E5D4ED0}
ArcGIS 10.1 Web ADF Runtime for the Microsoft .NET Framework Russian Language Pack	{74CE4C45-835F-4F6C-B0B5-8F46D343D6CC}
ArcGIS 10.1 Web ADF Runtime for the Microsoft .NET Framework Simplified Chinese Language Pack	{599D592D-BD7B-4465-8154-002AF5B6AED7}
ArcGIS 10.1 Web ADF Runtime for the Microsoft .NET Framework Spanish Language Pack	{9BFF9676-DD33-4A4C-AF9F-A80718F80747}

ArcGIS 10.1 Spatial Data Server for IIS

For comprehensive information on the installation of ArcGIS 10.1 Spatial Data Server for IIS, refer to the installation guide at the ArcGIS Resources. For a list of supported operating systems and hardware requirements, refer to the system requirements at ArcGIS 10.1 System Requirements.

Setup Dependency

If the following products are not detected on the machine, setup will not proceed:

■ 64-bit operating system

■ Microsoft .NET Framework 3.5 Service Pack 1

■ Microsoft SQL Server System CLR Types (64 bit) (This is installed automatically if Setup.exe is used to launch the installation. To install it using Group Policy or SCCM, use SQLSysClrTypes.msi, located in the \Support\MSSQLCLR\x64 folder.)

■ Microsoft Internet Information Services (IIS) 6.0 or higher and specific IIS components when performing an installation on Windows Vista/Windows 7 and Windows Server 2008/Windows Server 2008 R2

● **XP and Server 2003**

Go to Control Panel > Add or Remove Programs > Add/Remove Windows Components. Enable and install the IIS/Application Server component.

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● **Windows Vista and Windows 7**

For installations on Windows Vista and Windows 7, the following IIS components must be installed:

Internet Information Services

♦ Web Management Tools

◊ IIS 6 Management Compatibility
   − IIS Metabase and IIS 6 configuration compatibility

◊ IIS Management Console

♦ World Wide Web Services

◊ Application Development Features
   − .NET Extensibility
   − ASP.NET
   − ISAPI Extensions
   − ISAPI Filters

◊ Common HTTP Features
   − Default Document
   − Directory Browsing
   − HTTP Errors
   − Static Content

◊ Health and Diagnostics
   − HTTP Logging
   − Request Monitor

◊ Performance Features
   − Static Content Compression

◊ Security
   − Request Filtering

- **Windows Server 2008 and Windows Server 2008 R2**

    For installations on Windows Server 2008 and Windows Server 2008 R2, the following IIS components must be installed:

    Web Server (IIS)

    ♦ Web Server

        ◊ Common HTTP Features
            − Static Content
            − Default Document
            − Directory Browsing
            − HTTP Errors

        ◊ Application Development
            − ASP.NET
            − .NET Extensibility
            − ISAPI Extensions
            − ISAPI Filters

        ◊ Health and Diagnostics
            − HTTP Logging
            − Request Monitor

        ◊ Security
            − Request Filtering

        ◊ Performance
            − Static Content Compression

    ♦ Management Tools

        ◊ IIS Management Console
        ◊ IIS 6 Management Compatibility
            − IIS 6 Metabase Compatibility

Feature Dependency   None

Product Conflict   ArcGIS Spatial Data Server for IIS can be installed even if any other Esri product (except ArcGIS Spatial Data Server for IIS) from a previous version is installed on the client machine.

Command Line Parameters   The following properties can be added to the msiexec command line:

Parameter	Default Value	Case Sensitive	Required	Description
INSTALLDIR	%System Drive%\Program Files\ArcGIS\ SDS10.1\IIS	No	No	Installation location
WEBSITE_ID	1	Yes	No	Numeric value of website. This is used to determine the website where the ArcGIS Web Applications Manager instance will be created. The value for WEBSITE_ID is a number specific to each website on your server and assigned by IIS. The IDs for the websites on your server can be found in IIS Manager. The default website has an ID of 1. By default, the WEBSITE_ID parameter is set to the default website (even if multiple websites exist).
VDIRNAME	arcgis	Yes	No	Name of ArcGIS Spatial Data Server web application. The instance name cannot contain spaces or special characters.

For example:

```
<path to ArcGIS Spatial Data Server for IIS setup download>\Setup.exe
/qb InstallDir=C:\NewSDSDirectory VDIRNAME=SDS_External
WEBSITE_ID=4059640
```

Features Available   The following features are available for installation. The setup can be modified to install only specific features by appending the ADDLOCAL parameter to the msiexec command line.

Feature	Feature Parent	Title	Description
SpatialDataServer		Spatial Data Server	Spatial Data Server enables publishing and hosting of feature services, which give web clients access to Microsoft SQL Server databases through a REST API.
CrossDomainPolicyFiles	SpatialDataServer	Cross-domain Policy Files	Installs cross-domain policy files in the web server root location to enable access for Silverlight and Flex clients.

The CrossDomainPolicyFiles feature is not installed by default. To install the feature, you must add an additional parameter to your installation command line. The command line parameter ADDLOCAL=ALL below installs the CrossDomainPolicyFiles feature silently:

```
msiexec /i \\machinename\SDS\setup.msi /qb ADDLOCAL=ALL
INSTALLDIR=C:\NewSDSDir
```

Transforms   **Changing INSTALLDIR**

1. In the CustomAction table, locate the custom action GetInstallDir.

2. The target column for this custom action is [INSTALLDIR]. Change this to the desired installation location, for example, C:\MySDSIIS10.1\. The backslash must be included.

Uninstall

To uninstall ArcGIS 10.1 Spatial Data Server for IIS silently, use the following command line:

```
msiexec.exe /x {FC9E9F14-FCE2-42AD-A068-B6D8CDA65ED5} /qb
```

ArcGIS 10.1 Web Adaptor (IIS)

For comprehensive information on the installation of ArcGIS 10.1 Web Adaptor (IIS), refer to the installation guide at the ArcGIS Resources. For a list of supported operating systems and hardware requirements, refer to the system requirements at ArcGIS 10.1 System Requirements.

Setup Dependency

If the following products are not detected on the machine, setup will not proceed:

■   Microsoft .NET Framework 3.5 Service Pack 1

■   IIS and specific IIS components enabled (Supported versions are 6.0, 7.0, and 7.5.)

    ●   **XP and Server 2003**

        Go to Control Panel > Add or Remove Programs > Add/Remove Windows Components. Enable and install the IIS/Application Server component.

    ●   **Windows Vista and Windows 7**

        For installations on Windows Vista and Windows 7, the following IIS components must be installed:

        Internet Information Services

        ♦   Web Management Tools

            ◊   IIS 6 Management Compatibility
                −   IIS Metabase and IIS 6 configuration compatibility

            ◊   IIS Management Console
            ◊   IIS Management Scripts and Tools
            ◊   IIS Management Service

♦ World Wide Web Services

◊ Application Development Features
 − .NET Extensibility
 − ASP.NET
 − ISAPI Extensions
 − ISAPI Filters

◊ Common HTTP Features
 − Default Document
 − Static Content

◊ Security
 − Basic Authentication
 − Request Filtering
 − Windows Authentication

● **Windows Server 2008 and Windows Server 2008 R2**

For installations on Windows Server 2008 and Windows Server 2008 R2, the following IIS components must be installed:

Web Server (IIS)

♦ Web Server

◊ Common HTTP Features
 − Static Content

◊ Application Development
 − ASP.NET
 − .NET Extensibility
 − ISAPI Extensions
 − ISAPI Filters

◊ Security
 − Basic Authentication
 − Windows Authentication
 − Request Filtering

♦ Management Tools

◊ IIS Management Console
◊ IIS Management Scripts and Tools
◊ Management Service
◊ IIS 6 Management Compatibility
◊ IIS 6 Metabase Compatibility

Feature Dependency	None
Product Conflict	ArcGIS Web Adaptor (IIS) can be installed even if any other Esri product (except ArcGIS Web Adaptor [IIS]) from a previous version is installed on the client machine.
Command Line Parameters	The following properties can be added to the msiexec command line:

Parameter	Default Value	Case Sensitive	Required	Description
WEBSITE_ID	1	Yes	No	Numeric value of website. This is used to determine the website where the ArcGIS Web Applications Manager instance will be created. The value for WEBSITE_ID is a number specific to each website on your server and assigned by IIS. The IDs for the websites on your server can be found in IIS Manager. The default website has an ID of 1. By default, the WEBSITE_ID parameter is set to the default website (even if multiple websites exist).
VDIRNAME	arcgis	Yes	No	Name of ArcGIS Web Adaptor web application. The instance name cannot contain spaces.

To install ArcGIS Web Adaptor (IIS) silently, use the following:

```
<path to ArcGIS Web Adaptor (IIS) setup download>\Setup.exe /qb
VDIRNAME=arcgis_1 WEBSITE_ID=4059640
```

Installing Multiple Instances

Multiple instances of ArcGIS Web Adaptor (IIS) can be installed on the same machine at the same time. Each instance must have a unique website and instance name combination. The command line for Setup.exe and setup.msi is different.

For the setup.msi command line, first extract the .mst from setup.msi using MsiDb.Exe and use the following:

```
msiexec /I setup.msi /qb WEBSITE_ID=1 VDIRNAME=arcgis_1
MSINEWINSTANCE=1 TRANSFORMS=:InstanceID1.mst
```

INSTANCEID goes from 1 to 10 for all 10 transforms.

For the Setup.exe command line, use the following:

```
Setup.exe WEBSITE_ID=2 VDIRNAME=arcgis_1
```

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Features Available

The following features are available for installation. The setup can be modified to install only specific features by appending the ADDLOCAL parameter to the msiexec command line.

Feature	Feature Parent	Title	Description
CrossDomainPolicyFiles	WebAdaptor	Cross-domain Policy Files	Installs cross-domain policy files in the web server root location to enable access for Silverlight and Flex clients
WebAdaptor		Web Adaptor	Allows ArcGIS 10.1 for Server to integrate with your existing IIS web server

The CrossDomainPolicyFiles feature is not installed by default. To install the feature, you must add an additional parameter to your installation command line. The command line parameter ADDLOCAL=ALL below installs the CrossDomainPolicyFiles feature silently.

By default, Adobe® Flash and Microsoft® Silverlight web applications are not allowed to access web services that reside outside the domain where the application is hosted. Cross-domain policy files enable access to web services outside the application's domain. When the CrossDomainPolicyFiles feature is enabled, two cross-domain policy files will be installed in the IIS web server root folder: crossdomain.xml for Adobe Flash applications and clientaccesspolicy.xml for Microsoft Silverlight applications. These files will enable Adobe Flash and Microsoft Silverlight applications to access feature services hosted by ArcGIS 10.1 for Server.

For example:

```
<path to ArcGIS Web Adaptor (IIS) setup download>\Setup.exe /qb
ADDLOCAL=ALL VDIRNAME=arcgis_external WEBSITE_ID=4059640
```

Upgrade/Service Packs

The ArcGIS 10.1 Web Adaptor (IIS) service pack is released as a full .msi setup. With the service pack setup, users can upgrade an existing machine running ArcGIS 10.1 Web Adaptor (IIS) to the latest service pack silently or install ArcGIS 10.1 Web Adaptor (IIS) silently on its own. There is no need to install ArcGIS 10.1 Web Adaptor (IIS) and then apply the service pack.

If there are multiple Web Adaptors installed, the service pack will upgrade all of them, and the upgrade process will launch the configuration page for each Web Adaptor. Each Web Adaptor must be reregistered individually.

Transforms

Changing INSTALLDIR

ArcGIS 10.1 Web Adaptor (IIS) installs to the home directory of IIS. It is not possible to change this with transform.

Uninstall   To uninstall ArcGIS 10.1 Web Adaptor (IIS) silently, use the following command line:

```
msiexec.exe /x {11CCA428-4679-4D79-ADC0-A13F43290ACF} /qb
```

The ArcGIS 10.1 Web Adaptor (IIS) service pack is released as a full .msi setup, so the product code mentioned above changes with every service pack release. The product codes are available in the installation guide. It is also mentioned in the [Setup] section of the Setup.ini file.

To uninstall additional instances of ArcGIS Web Adaptor (IIS) silently, replace the above product code with the product code of the instance to be uninstalled. Product codes for ArcGIS Web Adaptor (IIS) instances are listed below. The product codes are listed in the same order as the instances installed on your system. For example, the first instance created is the first product code listed below:

```
{F2D4A6C5-E11F-4FEF-A240-5F2BA22F6418}
{DF32A6BA-A260-4BCD-B59A-4CEB4173B2D8}
{0CF52969-7F17-4F85-82FF-C658F3DC5F6E}
{8E4D5C3B-B54C-4CC5-9A5F-3EC0C6BF64F0}
{0329B7AD-D457-42F2-B97E-BBAE26D54329}
{38A627D7-01C7-4E3F-945D-3CD4CDF14BE5}
{635C3AE6-F3F1-434D-B1E7-B12CE91AD83F}
{39BE94C5-8146-4560-A54E-859979624ACF}
{1506767A-988E-44EB-A733-E5B8BFFBE81E}
{BFA02DB7-9E55-4179-88AC-D2C1B9802096}
```

The ArcGIS 10.1 Web Adaptor (IIS) service pack is released as a full .msi setup, so the product codes mentioned above change with every service pack release. The product codes are available in the installation guide. It is also mentioned in the [WATransform] section of the Setup.ini file.

ArcGIS 10.1 Web Applications for the Java Platform   For comprehensive information on the installation of ArcGIS 10.1 Web Applications for the Java Platform, refer to the [installation guide](#) at the ArcGIS Resources. For a list of supported operating systems and hardware requirements, refer to the system requirements at [ArcGIS 10.1 System Requirements](#).

Setup Dependency   None

Feature Dependency   None

Command Line Parameters   The following property can be added to the msiexec command line:

Parameter	Default Value	Case Sensitive	Required	Description
INSTALLDIR	%System Drive%\Program Files\ArcGIS\ WebADF	No	No	Installation location

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Features Available   The following features are available for installation. The setup can be modified to install only specific features by appending the ADDLOCAL parameter to the msiexec command line.

Feature	Feature Parent	Title	Description
ApplicationManager		Applications Manager	Applications Manager allows you to create web mapping applications.
WebADF		Web Applications Developer Framework	The Web ADF facilitates the development of web applications. It includes web controls, templates, samples, and documentation.
Web_API_Shortcuts		ArcGIS Applications and APIs Shortcuts	ArcGIS applications and API shortcuts provide access to the online resources and SDKs for building and developing applications that display and use GIS services.

Transforms   **Changing INSTALLDIR**

1. In the CustomAction table, locate the custom action SetServerSxsDirInstallDir.

2. The target column for this custom action is [INSTALLDIR]. Change this to the desired installation location, for example, C:\MyWebAppsJava10.1\. The backslash must be included.

Uninstall   To uninstall ArcGIS 10.1 Web Applications for the Java Platform silently, use the following command line:

```
msiexec.exe /x {A78F790F-08D8-4B62-BE0E-3078A975B11C} /qb
```

ArcGIS 10.1 Spatial Data Server for the Java Platform   For comprehensive information on the installation of ArcGIS 10.1 Spatial Data Server for the Java Platform, refer to the installation guide at the ArcGIS Resources. For a list of supported operating systems and hardware requirements, refer to the system requirements at ArcGIS 10.1 System Requirements.

Setup Dependency   The ArcGIS Spatial Data Server for the Java Platform setup will only proceed if the operating system is 64 bit.

Feature Dependency   None

Product Conflict   ArcGIS 10.1 Spatial Data Server for the Java Platform can be installed even if any other Esri product (except ArcGIS 10.1 Spatial Data Server for the Java Platform) from a previous version is installed on the client machine.

		The following property can be added to the msiexec command line:

Command Line Parameters

The following property can be added to the msiexec command line:

Parameter	Default Value	Case Sensitive	Required	Description
INSTALLDIR	%System Drive%\Program Files\ArcGIS\ SDS10.1\ java	No	No	Installation location

Features Available   None

Transforms

Changing INSTALLDIR

1.   In the CustomAction table, locate the custom action ESRI_SET_INSTALLDIR.

2.   The target column for this custom action is [INSTALLDIR]. Change this to the desired installation location, for example, C:\MySDSJava10.1\. The backslash must be included.

Uninstall

To uninstall ArcGIS 10.1 Spatial Data Server for the Java Platform silently, use the following command line:

```
msiexec.exe /x {FAA3411E-55F7-4B72-841A-9A54D301A6A5} /qb
```

ArcGIS 10.1 Web Adaptor (Java Platform)

For comprehensive information on the installation of ArcGIS 10.1 Web Adaptor (Java Platform), refer to the installation guide at the ArcGIS Resources. For a list of supported operating systems and hardware requirements, refer to the system requirements at ArcGIS 10.1 System Requirements.

Setup Dependency

The ArcGIS 10.1 Web Adaptor (Java Platform) setup will only proceed if the operating system is 64 bit.

Feature Dependency   None

Product Conflict

ArcGIS 10.1 Web Adaptor (Java Platform) can be installed even if any other Esri product (except ArcGIS 10.1 Web Adaptor [Java Platform]) from a previous version is installed on the client machine.

Command Line Parameters

The following property can be added to the msiexec command line:

Parameter	Default Value	Case Sensitive	Required	Description
INSTALLDIR	%System Drive%\Program Files\ArcGIS\ WebAdaptor10.1\java	No	No	Installation location

Features Available   None

Upgrade/Service Packs	The ArcGIS 10.1 Web Adaptor (Java Platform) service pack is released as a full .msi setup. With the service pack setup, users can upgrade an existing machine running ArcGIS 10.1 Web Adaptor (Java Platform) to the latest service pack silently or install ArcGIS 10.1 Web Adaptor (Java Platform) silently on its own. There is no need to install ArcGIS 10.1 Web Adaptor (Java Platform) and then apply the service pack.

Transforms

Changing INSTALLDIR

1. In the InstallExecuteSequence table, locate the action ESRI_SET_INSTALLDIR. The condition column for this action is ESRI_ARCGISDIR="1". Change this to ESRI_ARCGISDIR="1" OR ISACTIONPROP1.

2. In the CustomAction table, locate the custom action ESRI_SET_INSTALLDIR. The target column for this custom action is [INSTALLDIR]. Change this to the desired installation location, for example, C:\MyWebAdaptorJava10.1\. The backslash must be included.

Uninstall

To uninstall ArcGIS 10.1 Web Adaptor (Java Platform) silently, use the following command line:

```
msiexec.exe /x {02013567-A06D-4B27-9CDB-4777ED7473F3} /qb
```

The ArcGIS 10.1 Web Adaptor (Java Platform) service pack is released as a full .msi setup, so the product code mentioned above changes with every service pack release. The product codes are available in the installation guide. It is also mentioned in the [Setup] section of the Setup.ini file.

ArcGIS for Windows Mobile 3.0

For comprehensive information on the installation of ArcGIS for Windows Mobile 3.0, refer to the [installation guide](#) at the ArcGIS Resources. For a list of supported operating systems and hardware requirements, refer to the system requirements at [ArcGIS 10.1 System Requirements](#).

Setup Dependency

If the following product is not detected on the machine, setup will not proceed:

■ Microsoft .NET Framework 3.5 Service Pack 1

Feature Dependency

■ Geoprocessing Tool

This feature installs a mobile toolbox and set of geoprocessing tools used for creating mobile maps and synchronizing changes between the field and office. The Geoprocessing Tools feature requires one of the following listed products to be installed:

● ArcGIS 10.1 for Desktop
● ArcGIS 10 for Desktop
● ArcGIS 10.1 Engine
● ArcGIS Engine Runtime 10

If you install any of these products after ArcGIS for Windows Mobile has been installed, you will need to modify your ArcGIS for Windows Mobile installation. You can modify your installation by relaunching the ArcGIS for Windows Mobile

Setup.exe or by launching the setup again using the Control Panel's Add/Remove Programs. Select the Modify option to add the Geoprocessing Tools feature.

■ Geoprocessing Help

The Geoprocessing Tools feature makes mobile help information available in the ArcGIS 10.1 for Desktop help system. The Geoprocessing Help subfeature requires ArcGIS 10.1 for Desktop to be installed.

Command Line Parameters

The following property can be added to the msiexec command line:

Parameter	Default Value	Case Sensitive	Required	Description
INSTALLDIR	%System Drive%\Program Files\ArcGIS\ Mobile3.0	No	No	Installation location

Features Available

The following features are available for installation. The setup can be modified to install only specific features by appending the ADDLOCAL parameter to the msiexec command line.

Feature	Feature Parent	Title	Description
GP_Desktop101_Help	GP_Tools101	Geoprocessing Help	Makes mobile help information available in the ArcGIS 10.1 for Desktop help system
GP_Tools10		Geoprocessing Tools	A mobile toolbox including two geoprocessing tools for check-in and checkout of data
GP_Tools101		Geoprocessing Tools	A mobile toolbox including two geoprocessing tools for check-in and checkout of data
Project_Center		Mobile Project Center	A desktop application used to create and manage mobile projects for use with the Windows and Windows Mobile field applications
Tablet		Windows Application	A workflow-driven field application designed for field-ready laptops and tablets used to complete mobile projects
Windows_Mobile		Windows Mobile Application	Field application designed for Windows Mobile handheld devices

Transforms

Changing INSTALLDIR

1. In the CustomAction table, locate the custom action ESRI_Get_INSTALLDIR.

2. The target column for this custom action is [INSTALLDIR]. Change this to the desired installation location, for example, C:\MyMobile3\. The backslash must be included.

| *Uninstall* | To uninstall ArcGIS for Windows Mobile 3.0 silently, use the following command line: |

```
msiexec.exe /x {61D5B5ED-6D17-4E24-B059-D269E82AC2EA} /qb
```

ArcGIS for Windows Mobile 3.0 Language Packs

There are nine language packs available for ArcGIS for Windows Mobile 3.0—Arabic, Brazilian Portuguese, French, German, Italian, Japanese, Russian, Simplified Chinese, and Spanish. Use Setup.exe to accomplish a fully localized installation experience. Setup.exe is a bootstrapper executable that will run the main product setup.msi and then run the language pack .msi as a secondary installation. For example, if you run Setup.exe for ArcGIS for Windows Mobile 3.0 in Spanish, both the ArcGIS for Windows Mobile 3.0 Spanish setup and ArcGIS for Windows Mobile 3.0 Spanish Language Pack setup will be installed. Additional language packs must be installed separately.

While the ArcGIS for Windows Mobile 3.0 setup automatically installs the language pack, an Add/Remove item will exist for both setups. The ArcGIS for Windows Mobile 3.0 uninstallation process does not uninstall language packs, and they will need to be manually uninstalled using the Add/Remove Programs dialog box.

Setup Dependency ArcGIS for Windows Mobile 3.0 must be installed on the machine.

Feature Dependency None

Command Line Parameters None

Features Available None

Uninstall To uninstall ArcGIS for Windows Mobile 3.0 Language Packs silently, use the following command line:

```
msiexec.exe /x <Product Code> /qb
```

Language Pack	Product Code
ArcGIS for Windows Mobile 3.0 Arabic Language Pack	{4D6420C6-C1DC-4D46-A263-CB5E1DB0EAB0}
ArcGIS for Windows Mobile 3.0 Brazilian Portuguese Language Pack	{1C0924AB-6E1F-4EA4-9780-ADC5DE3DFD43}
ArcGIS for Windows Mobile 3.0 French Language Pack	{CB6E6F7C-6C1A-48D9-8DA3-1FF5046EAAC4}
ArcGIS for Windows Mobile 3.0 German Language Pack	{05F14862-8AB2-4F46-A4B3-E3539631EC09}
ArcGIS for Windows Mobile 3.0 Italian Language Pack	{997B9F55-8368-4471-8DF5-248A235FF75C}
ArcGIS for Windows Mobile 3.0 Japanese Language Pack	{1D27F443-C25F-4D4C-AB1E-CD21689374BC}
ArcGIS for Windows Mobile 3.0 Russian Language Pack	{733E55F2-26C1-4E28-AB32-656DDBCC22CF}
ArcGIS for Windows Mobile 3.0 Simplified Chinese Language Pack	{B01A2258-6BFA-49F7-AA0B-C0BDCBBB0ADB}
ArcGIS for Windows Mobile 3.0 Spanish Language Pack	{4444FE23-1503-43F1-9CD9-545064AE633F}

ArcObjects SDK for Cross Platform C++

For a list of supported operating systems and hardware requirements, refer to the system requirements at [ArcGIS 10.1 System Requirements](#).

Setup Dependency

If the following products are not detected on the machine, setup will not proceed:

- ArcGIS 10.1 Engine
- Visual Studio 2010 Professional, Premium, Ultimate, or Test Professional Edition

Feature Dependency

None

Command Line Parameters

The following property can be added to the msiexec command line:

Parameter	Default Value	Case Sensitive	Required	Description
INSTALLDIR	%System Drive%\Program Files\ArcGIS\DevelopKit10.1	No	No	Default installation location

Features Available

The following features are available for installation. The setup can be modified to install only specific features by appending the ADDLOCAL parameter to the msiexec command line.

Feature	Feature Parent	Title	Description
VisualStudio2010		VS2010 Help	VS2010 Help contains the Object Model Diagrams, API reference help, and other help topics for working with ArcObjects, packaged in the help format used by Visual Studio 2010.
Samples		Samples	Samples provide the source code described in the sample section of the developer help.

Transforms

Changing INSTALLDIR

1. In the CustomAction table, locate the custom action GetSDKDir.

2. The target column for this custom action is [INSTALLDIR]. Change this to the desired installation location, for example, C:\MySDKCPlus\. The backslash must be included.

Uninstall

To uninstall ArcObjects SDK for cross platform C++ silently, use the following command line:

```
msiexec.exe /x {7BF7B0D7-C59A-4892-9AD5-3C9D7E4DDD3C} /qb
```

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ArcObjects SDK for the Java Platform

For a list of supported operating systems and hardware requirements, refer to the system requirements at [ArcGIS 10.1 System Requirements](#).

Setup Dependency

One of the following must be installed:

- ArcGIS 10.1 for Desktop
- ArcGIS 10.1 Engine
- ArcGIS 10.1 for Server
- ArcGIS 10.1 Web Applications for the Java Platform

Feature Dependency

None

Command Line Parameters

The following property can be added to the msiexec command line:

Parameter	Default Value	Case Sensitive	Required	Description
INSTALLDIR	%System Drive%\Program Files\ArcGIS\DevelopKit10.1	No	No	Default installation location

Features Available

None

Transforms

Changing INSTALLDIR

1. In the CustomAction table, locate the custom action GetSDKDir.

2. The target column for this custom action is [INSTALLDIR]. Change this to the desired installation location, for example, C:\MySDKJava10.1\. The backslash must be included.

Uninstall

To uninstall ArcObjects SDK for the Java platform silently, use the following command line:

```
msiexec.exe /x {AB9E24AC-4C9D-4618-9D4E-59E108BC9C53} /qb
```

ArcObjects SDK for the Microsoft .NET Framework

For a list of supported operating systems and hardware requirements, refer to the system requirements at [ArcGIS 10.1 System Requirements](#).

Setup Dependency

If the following products are not detected on the machine, setup will not proceed:

■ One of the following:

- ArcGIS 10.1 for Desktop
- ArcGIS 10.1 Engine
- ArcGIS 10.1 for Server with the .NET Extension Support feature
- ArcGIS 10.1 Web Applications for the Microsoft .NET Framework

■ Visual Studio 2010 Professional, Premium, Ultimate, or Test Professional; Visual Basic Express; or Visual C# Express

Feature Dependency

■ VS2010 VB Express—This feature requires Visual Basic Express 2010.

■ VS2010 Professional, Premium, Ultimate, or Test Professional—This feature requires Visual Studio 2010 Professional, Premium, Ultimate, or Test Professional edition.

■ VS2010 C# Express—This feature requires Visual C# Express 2010.

Command Line Parameters

The following property can be added to the msiexec command line:

Parameter	Default Value	Case Sensitive	Required	Description
INSTALLDIR	%System Drive%\Program Files\ArcGIS\DevelopKit10.1	No	No	Default installation location

Features Available

The following features are available for installation. The setup can be modified to install only specific features by appending the ADDLOCAL parameter to the msiexec command line.

Feature	Feature Parent	Title	Description
Documentation		Documentation	How-to articles, API reference help, object model diagrams, and conceptual help topics about working with ArcObjects
Doc2010	Documentation	VS2010 Help	Contains the object model diagrams, API reference help, and other help topics for working with ArcObjects, packaged in the help format used by Visual Studio 2010

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Feature	Feature Parent	Title	Description
IDE_Integration		IDE Integration	A set of commands, wizards, and tools, along with ArcGIS project and item templates, that integrates into your Visual Studio environment
VB2010	IDE_Integration	VS2010 VB Express	Integrates ArcObjects commands, wizards, and templates into Visual Basic Express
VS2010	IDE_Integration	VS2010 Prof., Premium, Ultimate, or Test Prof.	Integrates ArcObjects commands, wizards, and templates into Visual Studio
VCS2010	IDE_Integration	VS2010 C# Express	Integrates ArcObjects commands, wizards, and templates into Visual C# Express
Samples		Samples	Provides the source code described in the sample section of the developer help
VCPP		VCPP	VCPP documentation and samples
VCPP2010	VCPP	VS2010 Help	VCPP documentation and samples for Visual Studio 2010

Transforms **Changing INSTALLDIR**

1. In the CustomAction table, locate the custom action GetSDKDir.

2. The target column for this custom action is [INSTALLDIR]. Change this to the desired installation location, for example, C:\MySDKNet10.1\. The backslash must be included.

Uninstall To uninstall ArcObjects SDK for the Microsoft .NET Framework silently, use the following command line:

```
msiexec.exe /x {343FFB66-C0D8-4DE2-BBFF-566787DFEDF8} /qb
```

ArcGIS 10.1 for Desktop Tutorial Data

Setup Dependency None

Feature Dependency None

Command Line Parameters The following property can be added to the msiexec command line:

Parameter	Default Value	Case Sensitive	Required	Description
INSTALLDIR	%System Drive%\arcgis	No	No	Installation location

Features Available   The following features are available for installation. The setup can be modified to install only specific features by appending the ADDLOCAL parameter to the msiexec command line.

Feature	Feature Parent	Title	Description
Applications		Applications	These are the tutorial data features for ArcGIS for Desktop applications.
ArcScan	Extensions	ArcScan	This is the ArcScan tutorial data.
BuildingAGeodatabase	Applications	Building a Geodatabase	This is the Building a Geodatabase tutorial data.
CAD	Extensions	CAD	This is the CAD tutorial data.
Data_Interoperability	Extensions	Data Interoperability	This is the Data Interoperability tutorial data.
Data_Reviewer	Extensions	Data Reviewer	This is the Data Reviewer tutorial data.
Database_Servers	Applications	Database Servers	This is the Database Servers tutorial data.
EditingWithArcGIS	Applications	Editing With ArcGIS	This is the Editing with ArcGIS tutorial data.
Extensions		Extensions	These are the tutorial data features for ArcGIS for Desktop extensions.
GP_Service_Example	Applications	GP Service Example	This is the GP Service Example tutorial data.
Geocoding_StreetMap	Applications	Geocoding	This is the Geocoding tutorial data.
GeostatisticalAnalyst	Extensions	Geostatistical Analyst	This is the Geostatistical Analyst tutorial data.
LinearReferencing	Applications	Linear Referencing	This is the Linear Referencing tutorial data.
Maplex	Applications	Maplex	This is the Maplex® tutorial data.
ModelBuilder	Applications	ModelBuilder	This is the ModelBuilder™ tutorial data.
NetCDF	Applications	NetCDF	This is the NetCDF tutorial data.
NetworkAnalyst	Extensions	Network Analyst	This is the Network Analyst tutorial data.
Parcel_Editing	Applications	Parcel Editing	This is the Parcel Editing tutorial data.
Raster	Applications	Raster	This is the Raster tutorial data.
Representations	Applications	Representations	This is the Representations tutorial data.
SQL_Example	Applications	SQL Example	This is the SQL Example tutorial data.
Schematics	Extensions	Schematics	This is the Schematics tutorial data.
SpatialAnalyst	Extensions	Spatial Analyst	This is the Spatial Analyst tutorial data.
TrackingAnalyst	Extensions	Tracking Analyst	This is the Tracking Analyst tutorial data.

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Transforms   **Changing INSTALLDIR**

1. In the CustomAction table, locate the custom action ESRI_Set_INSTALLDIR_Folder.

2. The target column for this custom action is [INSTALLDIR]. Change this to the desired installation location, for example, C:\MyTutorialData10.1.

Uninstall

To uninstall ArcGIS 10.1 for Desktop Tutorial Data silently, use the following command line:

```
msiexec.exe /x {41B76534-B3C2-4FCF-B171-5291A3561051} /qb
```

Summary

Successful enterprise deployment requires good planning and implementation of your system environment. To successfully deploy a Windows Installer package, you should have a solid, in-depth understanding of your chosen enterprise deployment tool. This technical paper does not attempt to introduce you to or educate you on the usage of SMS, SCCM, or Group Policy. For more information on Windows Installer, transform files, .msp files, SMS, SCCM, Group Policy, or Active Directory, see www.microsoft.com.

Esri inspires and enables people to positively impact their future through a deeper, geographic understanding of the changing world around them.

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