ArcGIS® 9

Installation Guide: ArcSDE® Developer Kit

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Introduction

This installation guide includes information on the ArcSDE® Developer Kit installation options.

The ArcSDE media contains various Developer Kit installations. From this DVD/CD you can install:

- C API Developer Kit—This installation is for those users building custom applications from the C API. The Developer Kit libraries for your selected platform, as well as the ArcSDE Developer Help, will be installed. Along with the C libraries, direct connect drivers for Microsoft® SQL Server™,Oracle®, DB2® and Informix® will be installed. You don't need these direct connect drivers if you are using one of ESRI's client applications (ArcGIS™ Desktop, ArcInfo™ Workstation, ArcView®, MapObjects®, ArcSDE CAD Client, or ArcIMS®). Only developers building custom applications from the C API would require this installation.
- Java™ API Developer Kit—This installation is for those users building custom applications with the Java API. Jar files, direct connect drivers, and the ArcSDE Developer Help will be installed.

The ArcSDE Developer Kit media contains several files and folders:

- install_developer_kit.htm—The file you are reading now; contains instructions for installation and setup on Windows® and UNIX® systems.
- windows—This folder contains setup.exe for the ArcSDE 9.2 Developer Kit installation options, including C API Developer Kit and Java API Developer Kit.
- Solaris, solaris64, hp, hp64, ibm, ibm64, tru64, and red_hat_linux—Folders containing ArcSDE Developer Kit for UNIX systems
- documentation_sdk—Folder containing the ArcSDE Developer Help and the command references documentation for administration commands. The documentation is not installed with the UNIX setup program. If you are installing on UNIX and you want the documentation, you must copy it manually from these folders to disk. The Windows setup program will install the documentation.

The ArcSDE setup program for Windows will install the Microsoft Windows Installer if required before continuing with the selected ArcSDE Developer Kit install.

Windows installations

System requirements

For the latest in supported system environments, see http://support.esri.com, and navigate to Software > ArcSDE > System Requirements

Your computer is required to meet these minimum system requirements to install the ArcSDE Developer Kit.

IMPORTANT: All ArcGIS clients must be upgraded to ArcGIS 9.2 before upgrading to ArcSDE 9.2.

Minimum system requirements

Operating system

- Microsoft Windows 2000® service pack 3 or later
- Microsoft Windows Server 2003®

(Hereafter collectively known as Microsoft Windows)

Higher releases may, and usually do, work. Lower versions of releases are not supported. **Note:** For any given operating system, if the DBMS is not supported on that version of the operating system, ArcSDE is not supported either.

The ArcSDE Developer Help on Windows requires Internet Explorer 6.0 or later.

Recommended Compilers

A C compiler is only required when using the C-API Developer Kit.

Microsoft Visual C++ 7.1

This compiler has been tested and is recommended. Other ANSI standard-compilers may work but they have not been tested, and we do not guarantee their success. Non-ANSI compilers are not supported, and we strongly advise against their use for ArcSDE applications.

Additional installation requirements:

CAPI Developer Kit installation option

For the latest in supported database environments and versions, see http://support.esri.com, and navigate to ArcSDE > System Requirements.

These are the same database environments required by the ArcSDE application servers for Oracle, Microsoft SQL Server, DB2, and Informix.

After installation of ArcSDE, the postinstallation setup must be completed.

JAVA API Developer Kit installation option

Java Environment

The Java API requires a minimum of J2SE SDK v.1.4.0 for all platforms. The Java API Direct Connect is supported through a JNI implementation and, therefore, is platform dependent.

ArcSDE authorization

The direct connect drivers require an authorization file. See https://service.esri.com for information on ArcGIS authorization files.

Installation overview

The media contains various Developer Kit installations. From this media you can install:

- C API Developer Kit—This installation is for those users building custom applications from the C API. The Developer Kit libraries for your selected platform, as well as the ArcSDE Developer Help, will be installed. Along with the C libraries, direct connect drivers for SQL Server and Oracle will be installed. You don't need these direct connect drivers if you are using one of ESRI's client applications (ArcGIS Desktop, ArcInfo Workstation, ArcView, MapObjects, CAD Client, or ArcIMS). Only developers building custom applications from the C API would require this installation.
- Java API Developer Kit—This installation is for those users building custom applications with the Java API. Jar files as well as the ArcSDE Developer Help will be installed. Java API Direct Connect is supported through JNI implementation, and additional direct connect drivers will be installed for this purpose.

The installation requires system administrator privileges.

To start the setup program:

Insert the ArcSDE media into the appropriate drive, browse to the setup.exe in the windows folder, and follow the installation instructions on the screen. For detailed installation instructions, see the topic Installing ArcSDE on your computer.

Previous versions of ArcSDE:

The ArcSDE 9.2 Developer Kit installation will prompt you to uninstall any previous version of ArcSDE Developer Kit prior to installing version 9.2.

Installing ArcSDE on your computer

Follow the "How to prepare to install ArcSDE" and "How to install ArcSDE" steps below to install ArcSDE on your computer.

IMPORTANT: All ArcGIS clients must be upgraded to ArcGIS 9.2, before upgrading to ArcSDE 9.2.

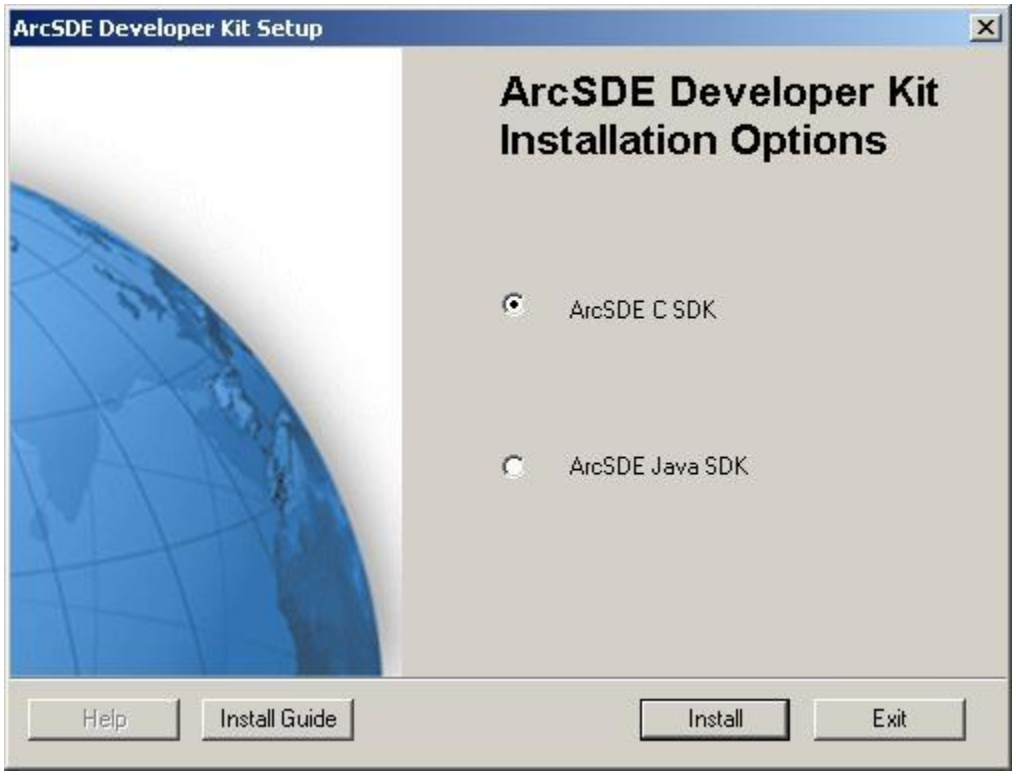
How to prepare to install ArcSDE

1. Log in as a user with administrative privileges.
2. Ensure that a TEMP variable is set where you have write access and space available.
3. Close all applications on your computer.
4. Insert the ArcSDE Developer Kit media and follow the directions on How to install ArcSDE.

How to install ArcSDE

1. Navigate to the windows folder on the ArcSDE Developer Kit media and launch setup.exe to begin the installation.
2. Select the ArcSDE Developer Kit installation option of your choice to install the ArcSDE software on your computer.
3. During the installation, you will be asked to read the license agreement and accept it, or exit if you don't agree with the terms. The license agreement dialog contains a link to view the license agreement in another language.
4. To complete the installation, follow the directions in the installation wizard.

Select the ArcSDE Developer Kit installation option of your choice to install the ArcSDE software on your computer.



For more information on these installation options, see the Introduction topic. Make sure you also read the relevant system requirements for your installation choice.

Once you select an ArcSDE Developer Kit installation option, click Install and follow the directions on the screen.

Note: To establish a direct connection to an ArcSDE Server, the server must be set up to allow direct connections. Direct connect information for each database is in the ArcGIS Server help topics "Properties of direct connection to an ArcSDE geodatabase" and "Setting up clients for a direct connection". These help topics are also available from http://webhelp.esri.com/arcgisdesktop/9.2/index.cfm.

Accessing ArcSDE documentation

The full set of ArcSDE documentation is available in the ArcGIS Server help sections Geodatabases and ArcSDE/Administering ArcSDE geodatabases. The help topics in this section are also available from http://webhelp.esri.com/arcgisdesktop/9.2/index.cfm.

Uninstalling ArcSDE

From the Start button, click Settings, then Control Panel. Double-click the Add/Remove Programs Icon. Select ArcGIS ArcSDE <Developer Kit installation option> Developer Kit from the program list, and click the Remove button.

Note: You must have system administrator privileges on the machine to uninstall programs.

Unix and Linux installations

System requirements

For the latest in supported system environments, see http://support.esri.com, and navigate to Software > ArcSDE > System Requirements

The ArcSDE Developer Kit installs are for C and Java API Developer Kit only.

Your computer is required to meet these system requirements to install ArcSDE C and Java API Developer Kit.

IMPORTANT: All ArcGIS clients must be upgraded to ArcGIS 9.2, before upgrading to ArcSDE 9.2.

Minimum system requirements

For C API Developer Kit:

PLATFORM	OPERATING SYSTEM	SUPPORTED APPLICATION TYPES	COMPILER
Sun®	SunOS 5.9 (Solaris 9)	32 & 64 Bit	Sun Studio 8 C and C++ 5.5 2003/03/12
HP®	HP-UX B.11.11	32 & 64 Bit	HP® ANSI C++ B3910B A.03.31
IBM®	AIX® Rev. 5.2	32 & 64 Bit	IBM VisualAge C and C++ version 6.0.0.5
HP® TRU64™	HP Tru64 UNIX V5.1B	NA	Compaq C++ V6.2-024 for Compaq Tru64 UNIX V5.1B (Rev. 2650)
Red Hat Linux	Red Hat Linux 4.0 AS/ES	NA	gcc version 3.2.3 20030502 (Red Hat Linux 3.2.3-24)

For Java API Developer Kit:

PLATFORM	OPERATING SYSTEM	SUPPORTED APPLICATION TYPES
Sun®	SunOS 5.9 (Solaris 9)	32 & 64 Bit
HP®	HP-UX® B.11.11	32 & 64 Bit
IBM®	AIX® Rev. 5.2	32 & 64 Bit
HP® TRU64™	HP® Tru64™ UNIX v5.1B	NA
Red Hat Linux	Red Hat Linux 4.0 AS/ES	NA

Note that the Red Hat Developer Kit support is only for machines with Intel processors.

Java environment

The Java API requires a minimum of J2SE SDK v.1.4.0 for all platforms. Java API Direct Connect is supported through a JNI implementation and, therefore, is platform dependent.

Higher releases may, and usually do, work. Lower versions of releases are not supported.

Note: For any given operating system, if the DBMS is not supported on that version of the operating system, ArcSDE is not supported either.

Recommended Compilers

A C compiler is only required when using the C-API Developer Kit.

The compilers listed above have been tested and are recommended. Other ANSI standard-compliant compilers may work but they have not been tested, and we do not guarantee their success. Non-ANSI compilers are not supported, and we strongly advise against their use for ArcSDE applications.

Fortran Run-Time Environment

For HP TRU64 platform, the ArcSDE administration commands sdelayer and sdedbtune require the Fortran Run-Time Environment. For **HP TRU64**, the following additional steps are required to load mandatory OS subsets (/usr/shlib/libfor.so):

1. Mount Tru64 UNIX Associated Products CD: mount -dr /<dev> /cdrom
2. Load subset from /cdrom using the 'setld -l' command

IBM file sets required

The following file sets (or higher) are required for IBM

xlC.aix50.rte 6.0.0.0

xlC.msg.en_US.rte 6.0.0.0

xlC.rte 6.0.0.0

Files sets may be downloaded from the following link: http://www-1.ibm.com/support/docview.wss?rs=32&context=SSEP5D&uid=swg24005921&loc=en_US&cs=utf-8&lang=en+en

Additional installation requirements:

CAPI Developer Kit installation option

For the latest in supported database environments and versions, see http://support.esri.com, and navigate to ArcSDE > System Requirements.

These are the same database environments required by the ArcSDE application servers for Oracle, Microsoft SQL Server, DB2, and Informix.

ArcSDE authorization

The direct connect drivers require an authorization file. See https://service.esri.com for information on ArcGIS authorization files.

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Installing ArcSDE Developer Kit

This installation process installs both the C and Java Developer Kit.

Place the ArcSDE Developer Kit media into the appropriate drive and mount that drive.

Make sure the system account that installs the ArcSDE software has write permissions to the installation directory.

The 'install' command has four options. The usage for the install command is:

```
Usage: install  <-help | -load | -remove | -verify >
```

Type install -help to read more about the installation procedure.

To start the ArcSDE software installation, change directories into the appropriate platform directory and enter the install command at the operating system prompt:

```
% ./install -load
```

This will start the command-driven dialog for the ArcSDE software installation procedure. Default selections are noted in brackets,[ ]. To obtain a list of options or online help, type '?' at any prompt. You can quit the installation procedure at any time by typing 'quit' or 'q'. To return to a previous question, type the caret, '^'.

Before continuing with the installation, you will be asked to read the license agreement and accept it or exit if you don't agree with the terms. The default is set to 'no' and you have to type 'yes' to proceed with the installation. The license agreement can be viewed in a different language at http://www.esri.com/licenseagreement/. Please read the license agreement file appropriate for your locale.

```
ESRI is willing to license the software to you only if you accept and
agree to the enclosed license agreement. If
you have read and agree with the terms in the enclosed license
agreement type 'yes' to continue the installation
process, if not press <return> or type 'no' to exit installation
process. [no]
```

Uninstalling ArcSDE on Unix

Uninstalling an existing version of ArcSDE Developer Kit consists of:

- Using the following operating system command to remove the software:

  rm -r $SDEHOME

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