



ArcGIS 9.x Hot Topics and Frequently Asked Questions

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Introduction

The ArcGIS 9.0 release introduces a tremendous amount of new functionality and also some changes to existing functionality. In an effort to improve the understanding of ArcGIS 9 and ease the transition process, ESRI has extensively documented numerous topics and subject areas.

The intent of this document is twofold:

1. To provide you a list of current hot topics or issues with the ArcGIS 9 release
2. To quickly and briefly answer some of the more frequently asked questions about ArcGIS 9, while at the same time, directing you to specific documents to learn more.

This document will be updated periodically as more questions are asked or new documentation becomes available.

To begin with, here are some broad resources that you may find useful in your GIS experience.

The ESRI Support Center Knowledge Base

<http://support.esri.com/index.cfm?fa=knowledgeBase.gateway>

ESRI's Knowledge Base lets you find the information you need by searching ESRI's database of known bugs, "how-to" documents, white papers, system requirements, and common error messages for all of our software.

***NOTE:** You can filter for specific versions of Technical Articles by clicking the "product category" section and checking the desired version boxes on the right side of the page.*

Product Documentation

<http://support.esri.com/index.cfm?fa=knowledgebase.documentation.gateway>

ESRI has made available a large amount of the software documentation, including access to the ArcGIS suite of books and the online help systems for some of our software. View printed documentation in on-screen formats, FAQs, and object models.

The ArcGIS Discussion Forums

<http://support.esri.com/index.cfm?fa=forums.gateway>

ESRI hosts a number of forums for the community of GIS professionals to browse through and post focused questions or actively help others.

The Project Center

<http://support.esri.com/index.cfm?fa=projectCenter.gateway>

The Project Center provides a framework for planning, designing, implementing and maintaining a successful GIS. Provided is a Project Framework detailing both the phases of an Enterprise GIS project life cycle and their associated activities.

The Learning Guide

<http://www.esri.com/training/learning-guide-jj04.pdf>

ESRI's Virtual Campus provides a number of instructor-led and web-based training courses and this document is an excellent resource in finding what courses may be right for you given your level of GIS experience.

Hot Topics

The following section provides an overview of some of the known issues you may encounter when migrating to ArcGIS 9.0 and their resolutions. This is not an exhaustive list.

***NOTE:** Much of the following text contains hyperlinks. The full URLs to all of the sites have been provided at the end of this document.*

If you encounter any issues with ArcGIS 9, please contact Technical Support. Technical Support can be reached in the U.S. at:

Phone: 909-793-3774
Fax: 909-792-0960
Email: support@esri.com
Hours: 6am to 5pm (Pacific Time) Monday through Friday

You can also request support from the Online Support Center:
Click on "[Report a technical problem or a bug](#)" in the left column (*Login Required*).

International users, please contact your [local ESRI distributor](#).

Planned Releases

For the past several years ESRI has aggressively pushed the features and architecture of our products. While our software quality teams have worked hard, we recognize we can do better. We understand and have heard our users' interest in a focus on quality. Following the ArcGIS 9.0 release, we have instituted a focus on improving product quality through hot fixes and service pack releases. Following is a planned release calendar for ArcGIS over the next few months.

Service Pack 3 for ArcGIS 9.0 *(March, 2005)*

ArcGIS 9.0 Service Pack 3 was released on March 17, 2005. It includes Service Packs for ArcGIS Desktop, ArcGIS Server, ArcGIS Engine Developer Kit and Runtime, ArcIMS, ArcReader, and more.

<http://support.esri.com/index.cfm?fa=downloads.patchesServicePacks.gateway>

ArcGIS 9.1 *(Quarter Two, 2005)*

Previously referred to as [ArcGIS 9.0.2](#), ArcGIS 9.1 is scheduled for release in the latter portion of second quarter 2005. This release will include the Network Analyst extension, "Save As..." previous version capability, and much more.

Windows XP Service Pack 2 Certification *(Forthcoming)*

ESRI is currently working on the certification of our ArcGIS 9 products (ArcView, ArcEditor, ArcInfo, ArcIMS, and ArcGIS Server) products under Windows XP SP2. For the most current information on that process visit:

<http://support.esri.com/index.cfm?fa=knowledgebase.systemRequirements.gateway>.

For a information on ArcGIS 9.0 and Windows XP Service Pack 2:

<http://support.esri.com/index.cfm?fa=knowledgebase.techArticles.articleShow&d=28647>

Service Pack Downloads

Service Pack 3 for ArcGIS 9.0 supersedes Service Packs 1 and 2 and contains all fixes available in those Service Packs. You do not need to install Service Packs 1 or 2 prior to installing Service Pack 3.

ArcGIS Desktop 9.0 Service Pack 3

This Service Pack contains all of the fixes addressed in ArcGIS 9.0 Service Packs 1 and 2 as well as additional performance improvements and maintenance fixes. A complete list of the resolved bugs and the Service Pack itself can be found on the Online Support Center at:

<http://support.esri.com/index.cfm?fa=downloads.patchesServicePacks.viewPatch&PID=43&MetaID=980>

ArcIMS 9.0 Service Pack 3

This Service Pack contains all of the fixes from ArcIMS 9.0 Service Packs 1 and 2 as well as additional performance improvements and maintenance fixes. A complete list of the resolved bugs and the Service Pack itself can be found on the Online Support Center at:

<http://support.esri.com/index.cfm?fa=downloads.patchesServicePacks.viewPatch&PID=16&MetaID=979>

ArcSDE 9.0 Service Pack 3

This Service Pack contains all of the fixes from ArcSDE 9.0 Service Packs 1 and 2 as well as additional performance improvements and maintenance fixes. A complete list of the resolved bugs and the Service Pack itself can be found on the Online Support Center at:

<http://support.esri.com/index.cfm?fa=downloads.patchesServicePacks.viewPatch&PID=19&MetaID=978>

ArcGIS Server 9.0 Service Pack 3

This Service Pack contains all of the fixes addressed in ArcGIS 9.0 Service Packs 1 and 2 as well as additional performance improvements and maintenance fixes. A complete list of the resolved bugs and the Service Pack itself can be found on the Online Support Center at:

<http://support.esri.com/index.cfm?fa=downloads.patchesServicePacks.viewPatch&PID=43&MetaID=980>

ArcGIS Engine 9.0 Service Pack 3

This Service Pack contains all of the fixes addressed in ArcGIS 9.0 Service Packs 1 and 2 as well as additional performance improvements and maintenance fixes. A complete list of the resolved bugs and the Service Pack itself can be found on the Online Support Center at:

<http://support.esri.com/index.cfm?fa=downloads.patchesServicePacks.viewPatch&PID=43&MetaID=980>

Installation and Registration

Installer error 1904: Failed to Register... on a machine with an AMD Athlon 64 or Athlon FX processor with Windows XP Service Pack 2 AoIinitializer.dll

When installing ArcGIS 9.0, the following error may occur:

```
Error 1904. Module C:\Program Files\ArcGIS\Bin\AfuiCust.dll failed to register.
```

HRESULT -2147023898. Contact your support personnel.

This error is followed by several more failures to register DLLs, OCXs, etc. The install fails with an 'error 1722' or 'error 1721: there is a problem with this windows installer package.' The install may proceed to roll back.

Cause: As of XP SP2, Microsoft has enabled Data Execution Prevention (DEP); a feature that is included in the Athlon 64 processor series and is also slated to be included in future Intel processors. Data execution prevention (DEP) is a set of hardware and software technologies that perform additional checks on memory to help protect against malicious code exploits.

Solution: ESRI Knowledge Base Article [28065](#) details how to resolve this issue.

Installer error 1904: Failed to Register RDO.dll

When installing ArcGIS Desktop 9.0, the following error may occur:

```
Error 1904: the file C:\Program Files\Common
Files\ESRI\Raster\Bin\ntx86\rdo.dll failed to register.
HRESULT: contact your support personnel.
```

The user is presented with an option to retry, abort, or ignore the error.

Cause: An entry or entries in the Registry are pointing to a previous version's installation directory. This may be related to having Leica products (LPS, Image Analyst) installed.

Solution: ESRI Knowledge Base Article [26817](#) provides the information on how to resolve this problem

Installer error 1904: Failed to Register AoInitializer.dll

When installing ArcGIS 9.0, the following error may occur:

```
Error 1904: Module C:\Program Files\ArcGIS\Bin\AoInitializer.dll failed
to register
HRESULT -2147221164. Contact your support personnel.
```

This error is followed by several more failures to register DLLs, OCXs, etc. The install fails with an 'error 1722' or 'error 1721: there is a problem with this windows installer package.' The install proceeds to roll back.

Cause: ATL.dll, a file that should be installed and registered by Internet Explorer 6.0, is not registered.

Solution: ESRI Knowledge Base Article [26816](#) details how to register the atl.dll

I cannot locate my ArcView registration number to continue the registration process.

The registration wizard instructs user to use the registration number located on a card in the box. However, there is no card with registration numbers in the product box.

Cause: For existing 8.x users, the registration number was either e-mailed to a contact of record at the customer site or was added to the shipper box and not the product box.

Solution: If you cannot locate your registration number, contact customer service at service@esri.com or through the customer service website (<http://service.esri.com>). Please include your customer name, your customer number and the product(s) and extension(s) for which you need a registration number.

Printing

Maps saved 'same as printer' in 8.3 do not open correctly in 9.0

Users who have map documents saved with the Page Setup option 'Same as Printer' turned on may experience problems when opening these documents in ArcMap 9.0. These problems may include the page setting switching from the printer saved with the map document to the default printer on the user's workstation and even scaling the entire map to that default printer's default page size if the 'Scale map elements...' was turned on when the map document was saved.

Cause: This is a bug (CQ00242131) in the final version of ArcGIS 9.0 (build 535).

Solution: This bug has been repaired and the fix has been included in ArcGIS 9.0 Service Packs 1 and 2. A patch is also available from the Online Support Center at: <http://support.esri.com/index.cfm?fa=downloads.patchesServicePacks.viewPatch&PID=43&MetaID=826>

Print and page dialog opens slowly or ArcMap crashes when using printer drivers on a Novell print server

When network printers are available, the Print and Page Setup dialog and print dialog open slowly or ArcMap crashes. When those network printers are removed from the system or only local drivers are available, ArcMap behaves normally.

Cause: This is a bug (CQ00242230) in the final version of ArcGIS 9.0 (build 535).

Solution: This bug has been repaired and the fix has been included in ArcGIS 9.0 Service Packs 1 and 2. A patch is also available from the Online Support Center at: <http://support.esri.com/index.cfm?fa=downloads.patchesServicePacks.viewPatch&PID=17&MetaID=837>

Saving

Saving MXDs to network locations causes "Windows delayed write failed" errors

Users on Windows 2000 and XP are encountering intermittent problems saving MXDs to a network location. The error message is:

```
Windows delayed write failed!  
Windows was unable to save all of the data for the file <name>.  
The data has been lost.  
This error may be caused by a failure of your computer or your  
network connection.  
Please try to save your file elsewhere.
```

Cause: This is a known issue resulting from a Microsoft Windows issue.

Solution: There are multiple workarounds to this problem including installing a Microsoft hot fix. These workarounds are detailed in ESRI Knowledge Base article [26842](#) (*Login Required*).

Projection

Data frame containing ArcIMS layers have problems with projections

In certain cases, changing the projection of a data frame containing an ArcIMS Service results in the features of the ArcIMS Service becoming lost.

Cause: This is a bug (CQ00242188) in the final version of ArcGIS 9.0 (build 535).

Solution: This bug has been repaired and the fix has been included in ArcGIS 9.0 Service Packs 1 and 2. A patch is also available from the Online Support Center at: <http://support.esri.com/index.cfm?fa=downloads.patchesServicePacks.viewPatch&PID=17&MetaID=825>

Geoprocessing

Visit <http://support.esri.com>, where a new section has been added exclusively for [Geoprocessing](#).

Why was the Geoprocessing Wizard in ArcGIS 8.3 removed at 9.0?

The Geoprocessing Wizard is no longer available in ArcGIS 9.0.

NOTE: The tools that were available in the wizard are still available in our new Geoprocessing framework.

Cause: The wizard was removed because geoprocessing has changed at ArcGIS 9.0. ArcGIS 9.0 introduces a large collection of geoprocessing tools that may be used in a variety of ways within any application. Tools may be used to create geoprocessing workflows using ModelBuilder and/or the scripting environment of your choice. Enhanced dialogs, as well as a next generation command-line interface may be used for executing tools. The ArcGIS 8.x Geoprocessing Wizard presented five operations for map-based analysis. ArcGIS 9.0 ships hundreds of tools, including the capabilities of the five operations found in the 8.x wizard. Map-based analysis using dialogs and the command line, as well as workflow automation using models and scripts are now possible with all tools. Geoprocessing at ArcGIS 9.0 is the same for ArcView, ArcEditor, and ArcInfo; only the number and capabilities of tools are different.

The new geoprocessing tools within the ArcGIS 9.0 framework are more flexible and more powerful to use than the tools that were presented in the ArcGIS 8.x Geoprocessing Wizard. While this change will require you to alter how you work with ArcGIS, the benefits of the new tools and framework will quickly be evident.

Getting more information: The ArcGIS Help system has detailed information regarding this change. Please review the following topic:

- What's new in ArcGIS Desktop 9.0
 - What's new in ArcMap: other changes in version 9.0
 - What's new in ArcMap: Geoprocessing.

Why have the Merge capabilities of the ArcGIS 8.x Geoprocessing Wizard been removed?

I used Merge in the ArcGIS 8.x Geoprocessing Wizard but now, I cannot find the Merge function in the new Geoprocessing framework.

Cause: The capabilities of the Merge option in the Geoprocessing Wizard in ArcGIS 8.3 have been replaced by a combination of several tools within the new Geoprocessing framework. Merge used to combine a number of inputs into a new feature class and it allowed the user to map fields from the inputs to the output. In ArcGIS 9.0, the Append tool is now used to merge data together. Append will not create a new output dataset, as it is intended for loading data into an existing dataset only. It is, however, the only tool that will update a dataset as all others create new data.

The new workflow for merging datasets, in ArcGIS 9.0, is to first create a new feature class using the Create Feature Class tool. This tool has options for taking input feature classes that will define the schema and extent of the new output feature class. Layers should then be used to alter field names in the input feature classes so fields from various inputs can be matched. Alternatively, the Make Feature Layer tool may be used to create a layer and set new field names or remove fields.

Breaking down the various components of appending data together makes an operation more understandable within the ModelBuilder and/or scripting environments. ESRI determined that a geoprocessing tool that creates and appends data as well as matches/alters fields could be too confusing in the new environment. Allowing people to use the tools previously described within a model or script is seen as the best way of working. Models and scripts may be modified to then fit other data management workflows and documenting the process will be easier.

Getting more information: Please review the Append functionality in the ArcGIS Help System:

- Geoprocessing (including ArcToolBox)
 - Data Management Toolbox
 - General Toolset
 - Using the tools
 - Append

ArcGIS Developer Kit

Nonmodal form change

After upgrading to ArcGIS 9, the nonmodal forms in my VB6 dll application will not display in ArcMap.

Cause: At ArcGIS 9.x, Visual Basic for Applications (VBA) is not automatically initialized when ArcGIS applications startup. This is a change from 8.3.

Solution: Information on this change and how to use modeless Visual Basic dialogs in ArcGIS 9.0 can be found on the ArcGIS Developer Online site <http://arcgisdeveloperonline.esri.com>. Please review the document [Using Modeless Visual Basic dialogs in ArcGIS](#).

NOTE: As described in the document above, VBA can be force loaded on startup with the use of Registry keys. In the final version of ArcGIS 9.0 (build 535), there was a bug in which the force loading for ArcCatalog did not work (CQ00241441). A resolution for this bug was made available with ArcGIS Desktop Service Pack 1 and 2.

General

Backwards compatibility of MXDs from 9.0 to 8.3

Once an MXD has been saved in ArcGIS 9.0 it cannot be reopened in any previous version of ArcGIS. Attempting to open an ArcGIS 9.0 MXD in ArcGIS 8.3 or a prior version will cause the following error:

```
"The document could not be loaded. It may reference an extension that is not currently installed on your system. This may possibly be one of the following:
```

```
Maplex  
Mx Document  
Tracking Analyst  
Mx Document Version Info"
```

Cause: This is a known limit.

Solution: ESRI is investigating the ability to provide a 'Save As <previous version>' function for ArcGIS. Unfortunately, this functionality cannot be easily added and will likely become available with the release of ArcGIS 9.1, previously referred to as [ArcGIS 9.0.2](#).

FAQs

The following section provides a number of Frequently Asked Questions for ArcGIS 9, answers to those questions, and in many instances, sources of additional information on the topic. For additional information on the ArcGIS Desktop product line, see:

<http://www.esri.com/library/brochures/pdfs/arcgisdesktopsheet.pdf>

ArcGIS General

What is new in ArcGIS 9.0?

ArcGIS 9.0 extends the current platform with major new capabilities in the areas of geoprocessing, 3D visualization, and developer options, in addition to other major developments in the areas of usability, reliability, and interoperability. For more information on what is new in ArcGIS 9.0, see [What's New in ArcGIS Desktop 9.0 \(Login Required\)](#).

What is ArcGIS?

ArcGIS 9.0 is an integrated collection of GIS software products that includes ArcGIS Desktop (ArcInfo, ArcEditor, and ArcView) and their extensions, ArcInfo Workstation, ArcIMS, ArcSDE, ArcGIS Server, and ArcGIS Engine Developer Kit and Runtime. It provides a scaleable framework for implementing GIS for a single user or many users on desktops, in servers, over the web, and in the field. For more information, visit <http://support.esri.com/index.cfm?fa=knowledgebase.documentation.viewDoc&PID=43&MetalD=698> (Login Required)

Will 8.x versions of the software continue to be supported by ESRI?

Yes, ESRI will continue to maintain existing Knowledge Base articles for previous versions of the software. To learn more about other means of support are available for your specific version, visit the [Product Life Cycle](#) page.

What happened to all my books?

In response to the need to make documentation more accessible to all users of ArcGIS, it was decided that providing the books in PDF format was the most efficient delivery mechanism. Only a limited number of books were shipped with the 9.0 release. The ArcGIS 9.0 install kit includes the ESRI Software Documentation Library CD. This CD allows for the installation of PDFs for all the documentation that accompanies ArcGIS. These documents are also located in the [Product Documentation](#) section of the ESRI Support site.

Will any ArcGIS 9.0 Desktop software distribute work among multiple processors?

No. With the exception of ArcGlobe 9.0, ArcGIS 9.0 Desktop continues to be a single threaded application. Tasks will make use of only one processor.

Is ArcGIS 9 Desktop supported on 64-bit processors?

ArcGIS 9 Desktop is not supported on 64-bit processors.

Installation

Where do I start?

Start with the product install guides, found in the Documentation directory on each ArcGIS 9 product CD. You should find a product specific Install HTML file, which is the Install Guide for that product. Open the product specific file to find the Getting Started section.

I have multiple products I would like to update to ArcGIS 9.0, do I need to install in a particular order?

It depends on the products you have. Client software such as ArcGIS Desktop 9.0 will work with ArcSDE 8.3, but ArcSDE 9.0 will not work with ArcGIS Desktop 8.3. For more information on what product versions work together, visit the [Product Compatibility Matrix](#).

Can all of ArcInfo 9.0, including Workstation, be installed in C:\Program Files?

Only ArcInfo Desktop can be installed in the default installation directory C:\Program Files. ArcInfo Workstation must be installed in a directory path with no spaces, hence it defaults to C:\arcgis.

Where can I find general System Requirements for ArcGIS 9?

On the ESRI Support Center you can find the [System Requirements](#) page which contains the systems requirements for all ArcGIS products.

Can I install multiple ArcGIS 9.0 products (e.g. ArcGIS Desktop, ArcSDE, ArcIMS, etc.) on the same machine?

Yes, all ArcGIS 9.0 applications are built with the same core framework, allowing for multiple applications to be installed on the same machine. However, only one ArcGIS Desktop product (ArcInfo, ArcEditor, ArcView) can be active on the machine at any one time.

Can ArcGIS 9.0 and ArcGIS 8.x be installed on the same machine?

No, different versions of ArcGIS Desktop cannot be installed on the same machine. If you have ArcGIS 8.x on the machine you plan to use for ArcGIS 9.0, you will need to uninstall ArcGIS 8.x first.

Can ArcGIS 9.0 and ArcView 3.x be installed on the same machine?

Yes, these versions of the software can be run on the same machine.

Licensing

Has licensing changed with ArcGIS 9.0?

Yes, there have been a number of changes to the ArcGIS License Manager as well as the licensing scheme used by products such as ArcIMS and ArcSDE. For more information see the [ArcGIS 9 Product Licensing Guide](#) or ESRI Knowledge Base Article [25921](#).

Can I use my ArcGIS 8.x License Manager to run ArcGIS 9.x applications?

No, ArcGIS 9.x requires that you install the ArcGIS 9 License Manager. For more information see the [ArcGIS 9 Product Licensing Guide](#) or ESRI Knowledge Base Article [25922](#).

Does the ArcGIS 9 License Manager require a new license file (keycodes)?

Yes, ArcGIS 9.x and its new license manager require a compatible license file. To obtain the new license file, visit <http://service.esri.com>. For more information, see the [ArcGIS 9 Product Licensing Guide](#).

Can I install the license manager from ArcGIS 8.x and ArcGIS 9.x on the same machine?

Yes, both versions of the license manager can be installed on one machine. For more information see the [ArcGIS 9 Product Licensing Guide](#) or ESRI Knowledge Base Article [25923](#).

Do I need different hardware keys for the two versions of the license manager?

No, if you are going to administer both versions of the license manager from one machine then you can use the same hardware key. For more information see the [ArcGIS 9 Product Licensing Guide](#).

Can I use my 8.x UNK number to register my ArcGIS 9.x Single Use products?

No, ArcView and ArcEditor Single Use 9.x require a version 9 UNK registration number, as do the extensions. To obtain new numbers, visit <http://service.esri.com>. For more information, see the [ArcGIS 9 Product Licensing Guide](#).

Where can I find my ArcGIS 9.x UNK or ECP registration number?

A registration number will either be included in your shipping box along side the product box or it will be emailed to you separately. If you are unable to locate the number, visit <http://service.esri.com>. For more information, see the [ArcGIS 9 Product Licensing Guide](#).

MXD Formats

If I uninstall 8.x to install ArcGIS 9.0, will I loose my map files?

No. As long as you use the Control Panels Add/Remove Programs to uninstall, your map projects will not be lost.

Can I edit and save an MXD in ArcGIS 9.0 that was created in ArcGIS 8.x?

Yes, but you cannot reopen the MXD in 8.x.

Can I reopen an MXD in 8.3 that has been edited and saved in ArcGIS 9.0?

No. Once the MXD has been saved in ArcGIS 9.0 it cannot be reopened in a previous version. With the release of ArcGIS 9.1, previously referred to as [ArcGIS 9.0.2](#), ESRI will be including the 'Save As <previous version>' functionality in ArcGIS. Projects created in ArcGIS 9.1 will be automatically compatible with ArcGIS 9.0 and the end user will also have the ability to Save As version 8.3.

Can I open projects created in ArcGIS ArcMap 9.0 in ArcMap 8.x?

No, ArcGIS Desktop is not backward compatible. Projects created in ArcGIS 9.0 will not open in an 8.x version of the software.

Does ArcMap 9.0 have a "Save As 8.x" feature?

No, projects created in 9.0 will not open in an 8.x version of the software. With the release of ArcGIS 9.1, previously referred to as [ArcGIS 9.0.2](#), ESRI will be including the 'Save As <previous version>' functionality in ArcGIS. Projects created in ArcGIS 9.1 will be automatically compatible with ArcGIS 9.0 and the end user will also have the ability to Save As version 8.3.

Data Types

What types of files can be transferred between ArcGIS 9.0 and ArcGIS 8.3?

Most data used in ArcGIS including shapefiles, images, CAD files, and Geodatabases can be used in both ArcGIS 9.0 and ArcGIS 8.3. Geodatabases created in 9.0 or updated to 9.0 are not transferable from 9.0 back to 8.3 because of new features added in the 9.0 release. However ArcGIS 9.0 can use 8.3 Geodatabases.

Data Type	Created In?	Can be			
		Viewed in		Edited in	
		8.3	9.0	8.3	9.0
Shapefiles	9.0	Yes	Yes	Yes	Yes
	8.3	Yes	Yes	Yes	Yes
Coverage	9.0	Yes	Yes	No*	No*
	8.3	Yes	Yes	No*	No*
MXD	9.0	No	Yes	No	Yes
	8.3	Yes	Yes	Yes	Yes
Geodatabase	9.0	No	Yes	No	Yes
	8.3	Yes	Yes	Yes	Yes**

*A Coverage can only be edited in ArcInfo Workstation

**With the exception of annotation and other Geodatabase features that have significantly changed at 9. For information on those changes, see the Geodatabase section in [What's New in ArcGIS Desktop 9.0 \(Login Required\)](#).

Geoprocessing

Can a model be run as a scheduled task?

Models cannot be run as scheduled tasks, however, you can export your model to a script which can be executed at a specified time. For more information, visit the "Creating Models and adding Scripts" help topic in the ArcGIS Desktop Help.

Can the models run on the server side?

None of the geoprocessing tools can be run in a server environment.

Can you customize ModelBuilder?

No, ModelBuilder cannot be customized.

How can I create and distribute a Geoprocessing model without giving away the intellectual property within the model?

Once the model has been created with the Model Builder, you can export it to a Python script. After verifying the Python script works correctly, compile it. The resulting .pyc file is binary and can be used as a script in a scripting tool.

Geodatabase

Will a Geodatabase created in ArcGIS 8.x work in ArcGIS 9.0?

Yes, but Geodatabases built prior to ArcGIS 9.0 do not support some of the new and improved functions of ArcGIS 9.0, such as Geodatabase rasters and improved annotation. For more information, visit the [Product Compatibility Matrix](#).

Can ArcGIS 8.x open a Geodatabase created in ArcGIS 9.0?

No, changes to the Geodatabase prevent backward compatibility. The following error will occur in both ArcCatalog and ArcMap if you try to open a 9.0 Geodatabase in 8.x:

Failed to connect to database. This release of the GeoDatabase is either invalid or out of date. [Unknown GeoDatabase release.]

For more information, visit the [Product Compatibility Matrix](#).

Can I edit a Geodatabase stored in ArcSDE 8.x from an ArcGIS 9.0 Desktop client?

Yes, but Geodatabases built prior to ArcGIS 9.0 do not support some of the new and improved functionality of ArcGIS 9.0, such as Geodatabase rasters and improved annotation. For more information, visit the [Product Compatibility Matrix](#).

Labeling and Annotation

Can we edit (change color or size) multiple pieces of annotation?

Yes, use the new "Edit Annotation" tool to select multiple pieces of annotation and make the appropriate changes. For more information, see the "About editing your Geodatabase in ArcMap" topic in the ArcGIS Desktop Help.

What is the difference between creating masking or just creating halos for labels?

A halo covers everything underneath it. Using masking allows you to have the mask polygon cover up only particular layers beneath it, but not others. For more information, see the "Working with variable-depth masking" topic in the ArcGIS Desktop Help.

ArcObjects

How do I migrate from ArcObjects 8.x to 9.0?

[ArcGIS Developer Online](http://arcgisdeveloperonline.esri.com/ArcGISDeveloper/ArcGISDevHelp/TechnicalDocuments/Migrating/Migratingfrom83to90.htm) provides a document regarding migration from 8.x to 9.0: <http://arcgisdeveloperonline.esri.com/ArcGISDeveloper/ArcGISDevHelp/TechnicalDocuments/Migrating/Migratingfrom83to90.htm>

Where can I find information on the new export classes?

The Output Library Overview on [ArcGIS Developer Online](http://arcgisdeveloperonline.esri.com/ArcGISDeveloper/ComponentHelp/esriOutput/Output_overview.htm) provides additional information about the new export classes:

http://arcgisdeveloperonline.esri.com/ArcGISDeveloper/ComponentHelp/esriOutput/Output_overview.htm

What happened to the Exploring ArcObjects books?

The Exploring ArcObjects books have been migrated to the [ArcGIS Developer Online](http://arcgisdeveloperonline.esri.com) Library Reference. ArcGIS Developer Online is the new developer web site for 9.0 and contains the latest information, downloads, and samples for developing with 9.0. You will also find the completed Extending ArcObjects book on this site. ArcObjects Online is still available for support of ArcGIS 8.3.

Export

When I view or print an exported map on another machine, why are the marker symbols not appearing correctly?

ArcMap 9 now supports true font embedding, which includes character marker symbols. Mark the "Embed Fonts" checkbox to ensure that map viewers without the ESRI marker fonts installed will be able to display your map's character markers correctly.

Why are PDF, EPS, and AI export files created in ArcMap 9.0 larger than they were in version 8.3?

The Output Image Quality slider control in ArcMap 9.0 is set to a default of "Best". In prior versions of ArcMap, this control was set to a default of "Normal", which resulted in automatic down-sampling of the map's raster layers on export. Decrease the setting to create a smaller export file.

Extensions

What extensions are available for ArcGIS 9?

ArcGIS 9 continues to integrate existing extensions such as 3D Analyst, Spatial Analyst, and ArcPress, as well as adding new extensions such as Maplex and Data Interoperability. For more information, visit

<http://www.esri.com/software/arcgis/about/whats-new.html>

Can I use my 8.x UNK number to register my ArcGIS 9.x Single Use extensions?

No, ArcView/ArcEditor Single Use 9.x extensions require a version 9 UNK registration number. To obtain new numbers, visit <http://service.esri.com>.

What extensions will work with ArcGIS 9.0?

ArcGIS Desktop and ArcInfo Workstation core extensions are delivered with the ArcGIS Desktop and ArcInfo Workstation software and must be the same version as the software itself. For example, Spatial Analyst version 8.3 will work with ArcGIS version 8.3 but not with ArcGIS version 9.0.

Core Desktop Extensions

- 3D Analyst
- Spatial Analyst
- Arc Scan
- Data Interoperability
- Publisher
- TIFFLZW
- ArcPress
- Survey Analyst
- Tracking Analyst
- Geostatistical Analyst
- StreetMap
- Maplex

Core Workstation Extensions

- Cogo
- TIN*
- GRID*
- Network
- ArcStorm
- ArcStormEnable

*License features also used for 3D Analyst (TIN) and Spatial Analyst (GRID)

ArcGIS non-core extensions are not delivered with the core ArcGIS Desktop or ArcInfo Workstation software, but rather in separate packages or downloads.

ArcGIS Non-Core

		Supported By		
Extensions		9.0	8.3	
Business Analyst	8.3	No	Yes	
Business Analyst for ArcGIS 9	8.3	Yes	No	
DMTI Canadian Data	8.3	No	Yes	
ESRI BIS USA Data	8.3	No	Yes	
AGS USA Data	8.3	No	Yes	
ArcGIS Schematics	2.3	Yes	Yes	
ArcGIS Schematics SDK	2.3	Yes	Yes	
Military Analyst	1.0	Yes*	Yes	
ArcWeb Services	1.1	Yes	Yes	
PLTS Foundation Tools	9.0	Yes	No	
PLTS MPS & MPS Atlas	9.0	Yes	No	
PLTS GIS Data ReViewer	9.0	Yes	No	
PLTS Defense Solution	9.0	Yes	No	
PLTS Nautical Solution	9.0	Yes	No	
PLTS Aeronautical Solution	9.0	Yes	No	
PLTS Mapping Agency Solution	9.0	Yes	No	
PLTS	3.1	No	Yes	
JTX	2.0	No	Yes	

*Requires additional configuration – ESRI Knowledge Base Article [26938](#)

Third party extensions are extensions created, sold, and supported by third-party business partners.

Third Party Extensions

		Supported By		
Extensions	9.0	8.3	Vendor	
Topo	No	Yes	National Geographic	
ArcFM	No	Yes	Miner & Miner	
Image Analysis	No	Yes	Leica Geosystems	
Stereo Analyst	No	Yes	Leica Geosystems	

Search for more information on [ESRI Business Partners](#)

ArcSDE

Where can I find general System Requirements for ArcSDE 9?

On the [ESRI Support Center](#) you can find the [System Requirements](#) page which contains the systems requirements for ArcSDE.

Can I use ArcGIS 9.0 Desktop software with an ArcSDE 8.x database?

Yes. For more information see the [Product Compatibility Matrix](#).

Can I use ArcSDE 9.0 with 8.x ArcGIS Desktop clients?

No. For more information see the [Product Compatibility Matrix](#).

ArcIMS

Where can I find general System Requirements for ArcIMS 9?

On the [ESRI Support Center](#) you can find the [System Requirements](#) page which contains the systems requirements for ArcIMS.

Do I need an additional license to use ArcMap Server for ArcIMS 9.x?

No, ArcIMS ArcMap Server 9.x is authorized for use when you complete the registration process for ArcIMS. For more information, see the [ArcGIS 9 Product Licensing Guide](#).

Do I need to uninstall ArcIMS 4.x1 before installing 9.x?

Yes, the previous version of ArcIMS will need to be uninstalled. For more information, see the [System Requirements](#) page.

Can I install ArcIMS 9.0 on a machine running ArcGIS Desktop 9.0?

Yes, both can be installed on the same machine.

Can I install ArcMap Server 9.0 on the same machine as ArcGIS at 9.0?

Yes, both can be installed on the same machine.

Can I install ArcMap Server 9.x on a machine running ArcGIS Desktop 8.x?

No, ArcGIS Desktop must also be version 9.0.

Can I use my existing web sites and AXL files created with earlier versions with 9.0?

Yes, all *.axl files and websites from 4.0 and 4.0.1 can be used without modification. Check the installation documentation topic "Upgrading to 9.0" for further details. The installation documentation (install.htm) can be found on your ArcIMS Installation CD.

Can I upgrade to ArcIMS 9.0 and still use ArcSDE 8.x?

It depends. ArcIMS 9.0 Metadata Server requires ArcSDE 9.0 with DB2, SQL Server, and Oracle. Other virtual servers are compatible with all versions of ArcSDE 8.1 or higher. For more information see the [Product Compatibility Matrix](#).

What versions of WMS connector are supported with ArcIMS 9.0?

The ArcIMS 9.0 WMS Connector works with WMS clients and requests as per the negotiation rules of the WMS 1.1.1 specification, though it is also backward-compatible with the 1.1.0 and 1.0.0 specifications. You can find more details in ArcIMS Help under the Advanced Topics chapter in the section entitled "Enabling ArcIMS for WMS".

Is the ArcMap Server extension available on all UNIX platforms?

No, at 9.0 ArcMap Server is only available on Solaris. For other UNIX platforms you can still configure ArcMap Server by distributing the configuration using a Windows machine. For more information see ESRI Knowledge Base Article [22701](#). ArcIMS 9.0.1 will add support for ArcMap server on Intel – Linux platforms.

How do I register ArcIMS 9.x and extensions on UNIX?

Use keymanager, which is a command line registration utility available for ArcIMS on UNIX and Linux platforms. For more information see ESRI Knowledge Base Article [25925](#).

What software versions are necessary to create MXDs and PMFs for ArcMap Server 9.0?

Windows:

- ArcGIS 8.2 or higher for MXDs
- ArcGIS 8.3 or higher for PMFs

Solaris:

- If ArcSDE data (only) is used:
 - ArcGIS 8.2 or higher for MXDs
 - ArcGIS 8.3 or higher for PMFs
- If file based data is used:
 - ArcGIS 9.0 for both MXDs and PMFs

For more information, see the ArcIMS [System Requirements](#) for your particular configuration.

ArcGlobe

Can ArcGlobe use multiple processors to increase performance?

Yes, ArcGlobe is a mutli-thread application that can take advantage of multiple processors.

ArcReader & Publisher

How do I obtain cross platform support for ArcReader at ArcGIS 9?

Currently the only way to get UNIX ArcReader is in the ArcGIS Media Kit. The ArcGIS Media Kit comes with ArcInfo; it does not come with the ArcEditor or ArcView Single Use packaging.

If I create a stand-alone application using the ArcReader control, will the end user need any software on their machine (e.g. ArcGIS, ArcReader, etc)?

To use an ArcReader control application, you will need to have ArcReader installed, and it is important to keep the version number in mind. ArcReader control applications will not work with ArcReader 8.3. For more information, see the [Developing with ArcGIS Controls](#) article in the ArcGIS Developer Online Help.

Complete URLs

ESRI

<http://www.esri.com>

ESRI Support

<http://support.esri.com>

ESRI Customer Service

<http://service.esri.com>

ArcGIS 9 Product Licensing Guide

<http://support.esri.com/index.cfm?fa=knowledgebase.documentation.viewDoc&PID=43&MetalID=693>.

ArcGIS 9.0.2

<http://support.esri.com/index.cfm?fa=knowledgebase.documentation.viewDoc&PID=43&MetalID=917>

ArcGIS Developer Online

<http://arcgisdeveloperonline.esri.com/ArcGISDeveloper/default.asp>

Developing with ArcGIS Controls

<http://arcgisdeveloperonline.esri.com/ArcGISDeveloper/default.asp>

ESRI Business Partners

<http://gis.esri.com/partners/partners-user/index.cfm>

ESRI Knowledge Base Article 22701

<http://support.esri.com/index.cfm?fa=knowledgebase.techArticles.articleShow&d=22701>

ESRI Knowledge Base Article 25921

<http://support.esri.com/index.cfm?fa=knowledgebase.techArticles.articleShow&d=25921>

ESRI Knowledge Base Article 25922

<http://support.esri.com/index.cfm?fa=knowledgebase.techArticles.articleShow&d=25922>

ESRI Knowledge Base Article 25925

<http://support.esri.com/index.cfm?fa=knowledgebase.techarticles.articleShow&d=25925>

ESRI Knowledge Base Article 26816

<http://support.esri.com/index.cfm?fa=knowledgebase.techArticles.articleShow&d=26816>

ESRI Knowledge Base Article 26817

<http://support.esri.com/index.cfm?fa=knowledgebase.techArticles.articleShow&d=26817>

ESRI Knowledge Base Article 26842

<http://support.esri.com/index.cfm?fa=knowledgebase.techArticles.articleShow&d=26842>

ESRI Knowledge Base Article 26938

<http://support.esri.com/index.cfm?fa=knowledgebase.techArticles.articleShow&d=26938>

ESRI Knowledge Base Article 28065

<http://support.esri.com/index.cfm?fa=knowledgebase.techarticles.articleShow&d=28065>

ESRI Local Distributors

<http://gis.esri.com/intldist/contactint.cfm>

Geoprocessing

<http://support.esri.com/index.cfm?fa=downloads.geoprocessing.gateway>

Leica Geosystems (Image Analysis)

http://www.gis.leica-geosystems.com/products/image_analysis_for_arcgis/default.asp

Leica Geosystems (Stereo Analysis)

<http://gis.leica-geosystems.com/Products/StereoAnalystforArcGIS/default.asp>

Miner & Miner (ArcFM)

<http://www.miner.com/products/index.shtml>

National Geographic (TOPO)

<http://maps.nationalgeographic.com/topo/extension.cfm>

Product Compatibility Matrix

<http://support.esri.com/index.cfm?fa=knowledgebase.systemRequirements.compatibility>

Product Documentation

<http://support.esri.com/index.cfm?fa=knowledgebase.documentation.gateway>

Product Life Cycle

<http://support.esri.com/index.cfm?fa=knowledgebase.productLifeCycles.gateway>

Report a technical problem or a bug

<http://support.esri.com/index.cfm?fa=homepage.bugSubmit.gateway>

Systems Requirements

<http://support.esri.com/index.cfm?fa=knowledgebase.systemRequirements.gateway>

Using Modeless Visual Basic dialogs in ArcGIS

<http://arcgisdeveloperonline.esri.com/ArcGISDeveloper/default.asp?URL=/arcgisdeveloper/arcgisdevhelp/technicaldocuments/modelessvdialogs.htm>

What's new in ArcGIS Desktop 9.0?

<http://support.esri.com/index.cfm?fa=knowledgebase.documentation.viewDoc&PID=43&MetaID=725>

What's new with ArcGIS 9?

<http://www.esri.com/software/arcgis/about/whats-new.html#extensions>