



ArcGIS GeoEvent Server 12.1 (Windows) Installation Guide



Table of Contents

Introduction

Welcome to the ArcGIS GeoEvent Server (Windows) installation guide 4
Get ArcGIS GeoEvent Server up and running 5

Verify system requirements

ArcGIS GeoEvent Server system requirements 7
Obtaining an authorization file 9

Adjust firewall

Ports used by ArcGIS GeoEvent Server 11

Install

Install ArcGIS GeoEvent Server 13
Silently install ArcGIS GeoEvent Server 14
Mark the self-signed GeoEvent Server certificate as trusted by Internet Explorer 16
Sign in to GeoEvent Manager 18
Replace the GeoEvent Server self-signed certificate 19
GeoEvent Server authentication 20

Uninstall

Uninstall ArcGIS GeoEvent Server 22
Uninstall GeoEvent Server silently 23

Upgrade

ArcGIS GeoEvent Server upgrades 25
Frequently asked questions 26

Reference

Questions, feedback, and information 28
Copyright Information 29

Introduction

Welcome to the ArcGIS GeoEvent Server (Windows) installation guide

ArcGIS GeoEvent Server enables real-time event-based data streams to be integrated as data sources in your enterprise GIS. Event data can be filtered, processed, and sent to multiple destinations, allowing you to connect with virtually any type of streaming data and automatically alert personnel when specified conditions occur, all in real-time.

Use this guide to install and configure ArcGIS GeoEvent Server:

- [Steps to get ArcGIS GeoEvent Server up and running](#)
- [Upgrading ArcGIS GeoEvent Server to the latest version](#)

[Questions, feedback, and information](#)

[Copyright information](#)

Get ArcGIS GeoEvent Server up and running

Below are the primary steps required to get ArcGIS GeoEvent Server up and running.

 **Note:**

If you are upgrading from an earlier version to ArcGIS GeoEvent Server 12.1, follow the steps in the [Upgrade GeoEvent Server](#) topic.

1. Verify that your site meets the [system requirements](#).
2. Modify your firewall to allow communication on the [ports used by GeoEvent Server](#).
3. [Install ArcGIS GeoEvent Server](#).
4. [Log in to GeoEvent Manager](#).
5. Learn about [user roles in GeoEvent Manager](#).
6. [Get started with GeoEvent Server](#).

Verify system requirements

ArcGIS GeoEvent Server system requirements

The system, hardware, and software requirements to run ArcGIS GeoEvent Server, as well as supported browsers, are described below.

Operating system requirements

ArcGIS GeoEvent Server has the same operating system requirements as the ArcGIS Server software component in ArcGIS Enterprise.

[Learn more about ArcGIS Server 12.1 system requirements](#)

Hardware requirements

The ingestion and analysis of real-time data is machine resource intensive. However, allocation and consumption of resources is highly variable depending on the configuration. The recommendations below are guidelines that should be carefully reviewed to ensure a successful deployment of ArcGIS GeoEvent Server.

- The production systems must have at least 16 GB of the latest generation of RAM (such as DDR4) to optimize event record throughput and processing. Use cases that could require additional RAM include the following:
 - Using a large volume of geofences
 - Using highly complex geofences (polygons with thousands of vertices)
 - Monitoring for continuous incidents
- ArcGIS GeoEvent Server should be deployed on machines with at least four physical cores and eight logical or virtual processors. Production systems require eight physical cores to achieve adequate performance.
- A higher network bandwidth connection (such as 1 GB or 10 GB) that supports higher input or output operations per second (IOPS) is recommended so that you reduce latency when receiving and sending event data.

Many production systems may require additional CPU cores and/or RAM.

GeoEvent Server requires a minimum disk space identical to and in addition to the 10 GB recommended by ArcGIS Server. Additional disk space for each configured input and/or output is required as discussed below. The amount of disk space required varies depending on the number of input and output connectors being used.

An instance of GeoEvent Server configured with a single input or output (including stream services) creates a single Kafka topic in the ArcGIS GeoEvent Gateway, and the following apply:

- Each topic has, by default, three partitions.
- Each topic partition, by default, can grow to 400 MB.
- Each input or output, therefore, would require a maximum of 1.2 GB of disk space.

The additional disk space for each input and output is necessary to account for the on-disk event queues used by the ArcGIS GeoEvent Gateway.

[Learn more about deploying GeoEvent Server on virtualized hardware](#)

[Learn more about ArcGIS Server licensing roles](#)

[Learn more about ArcGIS Enterprise Builder system requirements](#)

[Learn more about Kafka on-disk storage](#)

[Learn more about ZooKeeper on-disk storage](#)

[Learn more about hanging the location of Kafka and ZooKeeper data files](#)

Software requirements

ArcGIS Server must be installed and configured on the machine before installing ArcGIS GeoEvent Server.

Supported web browsers

GeoEvent Server requires one of the following web browsers to be installed:

- Google Chrome version 142 and later
- Microsoft Edge version 142 and later
- Mozilla Firefox version 146 and later
- Mozilla Firefox version 140 (ESR)
- Safari version 18 and later

Obtaining an authorization file

Each machine with an installation of ArcGIS GeoEvent Server requires an authorization file. There are several ways to register GeoEvent Server. You can visit [My Esri](#) to obtain an authorization file (by email, fax, phone, or mail) before proceeding with the installation. You can also register GeoEvent Server using the ArcGIS Server **Software Authorization Wizard** window, which appears after the setup installation completes (this is the recommended method).

Registration requires registration numbers similar in format to ABC123456789. Visit [My Esri](#) for more information.

Adjust firewall

Ports used by ArcGIS GeoEvent Server

ArcGIS GeoEvent Server uses specific ports to communicate with machines on the internet and intranet. The ports that you may need to open on your firewall are described below.

HTTP port 6180

GeoEvent Server communicates through port 6180. You must ensure that your firewall allows HTTP communication through this port. This port is used by GeoEvent Server REST endpoints.

HTTPS port 6143

When HTTPS is enabled, GeoEvent Server uses port 6143 by default. This port is used by GeoEvent Manager and GeoEvent Server administrator REST endpoints.

Ports 4181, 4182, and 4190

Ports 4181, 4182, and 4190 need to be opened to support the GeoEvent Server Gateway for the ZooKeeper service.

Ports 9191, 9192, 9193, and 9194

Ports 9191, 9192, 9193, and 9194 need to be opened to support the GeoEvent Server Gateway for the Kafka service.

Ports 9220 and 9320

The [spatiotemporal big data store](#), available with ArcGIS Data Store, communicates through ports 9220 (HTTP) and 9320 (TCP). If you are writing data to the spatiotemporal big data store using GeoEvent Server, you will need to open these ports.

Internally used ports (5565, 5575)

Port 5565 is the default port used by the [Receive Text from a TCP Socket Input Connector](#). This port will need to be opened if you are using this connector with the default port setting.

Port 5575 is the default port used by the [Push Text to an External TCP Socket Output Connector](#). This port will need to be opened if you are using this connector with the default port setting.

Install

Install ArcGIS GeoEvent Server

Complete the following steps to install ArcGIS GeoEvent Server:

1. [Obtain an authorization file](#) for the machine on which you are installing GeoEvent Server.
2. Verify that your site meets the [system requirements](#).
3. Modify your firewall to allow communication on the [ports used by GeoEvent Server](#).
4. Sign in as a user with administrative privileges.
5. Browse to the downloaded folder containing the GeoEvent Server setup, or insert the GeoEvent Server media into the appropriate drive to automatically launch the setup program.
The GeoEvent Server setup program should launch automatically after the download has completed. If the GeoEvent Server setup program does not launch automatically, browse to the location of the downloaded setup files and double-click **Setup.exe**.
6. Review the license agreement and accept it, or exit if you do not agree with the terms.
7. To complete the installation, follow the directions on the screen.

Proceed to [Mark the self-signed GeoEvent Server certificate as trusted by Internet Explorer](#), an optional workflow.

Silently install ArcGIS GeoEvent Server

You can install ArcGIS GeoEvent Server without a user interface by running the setup using Windows Installer command line parameters. Silently installing GeoEvent Server requires you to manually authorize the software. The steps below guide you through authorizing GeoEvent Server and installing silently.

Installation prerequisites include the following:

- [Obtain an authorization file](#) for the machine on which you are installing GeoEvent Server.
- Modify your firewall to allow communication on the [ports used by GeoEvent Server](#).
- Verify that your site meets the [system requirements](#).
- Log in as a user with administrative privileges.

1. Open a command prompt.
2. To authorize GeoEvent Server silently, run the following command, editing the command line where necessary to reflect the authorization file location and authorization method:

```
<ArcGIS Server install directory>\tools\SoftwareAuthorization\
SoftwareAuthorization.exe /S /Ver <ARCGIS_VERSION_NUMBER> /LIF <path to .prvc
authorization file>authorizationfile.prvc
```

3. Run one of the following commands depending on how you are installing:

- Install with an ArcGIS Server account password.

Provide a PASSWORD property to specify the password:

```
<path to ArcGIS GeoEvent Server setup>\setup.exe /qb PASSWORD=<arcgis server
account password>
```

For example:

```
\\machinename\ArcGIS_GeoEvent_Server\setup.exe /qb
PASSWORD=my.arcgis.server.password
```

Note:

The silent installation will fail if the password is incorrect or not provided. However, if ArcGIS Server is running on a system service account (for example, Local System), you do not have to provide a password.

Note:

When upgrading from a 10.x version to GeoEvent Server 12.1, your existing GeoEvent Server site configuration is not automatically upgraded during the installation. You need to manually import your configuration file after successful completion of the upgrade. To acknowledge that you understand this change as part of the silent installation, you must specify `userbackupconfig=yes` following `Setup.exe`. For more information about exporting and importing a site configuration file, see [Back up and restore your GeoEvent Server site configuration](#).

- Install using a configuration file created by an ArcGIS Server setup.

Provide a CONFIGPATH property to specify the server configuration file that will be used to configure the ArcGIS Server account. Server configuration files are created by exporting a server configuration file when installing ArcGIS Server (earlier installations or from other machines):

```
<path to ArcGIS GeoEvent Server setup>\setup.exe /qb CONFIGPATH=<full path and name of the server configuration file>
```

For example:

```
c:\GeoEvent\setup.exe /qb CONFIGPATH=c:\Server_Config.xml
```

 **Note:**

If both the configuration file and password are provided, the setup uses the password from the configuration file (and ignore the provided password).

Proceed to [Mark the self-signed GeoEvent Server certificate as trusted by Internet Explorer](#), an optional workflow.

Mark the self-signed GeoEvent Server certificate as trusted by Internet Explorer

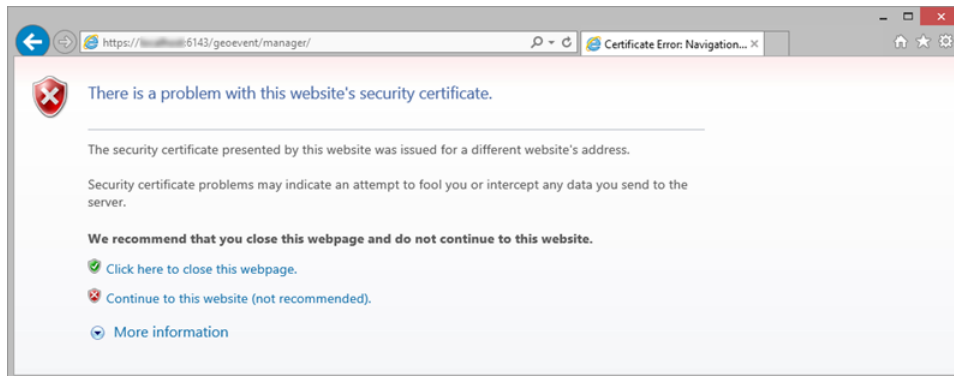
ArcGIS GeoEvent Server uses HTTPS to encrypt all administrator transactions. Every HTTPS server must be configured with a certificate for HTTPS clients to connect. During startup, GeoEvent Server creates a self-signed certificate to use for its HTTPS connections if one is not configured. This means the first time you access ArcGIS GeoEvent Manager, you may have to import the self-signed certificate into your store of trusted certificates.

If you do not change the certificate configured with GeoEvent Server, your browser warns you about a problem with the website's security certificate. This happens because the GeoEvent Server certificate is not marked as trusted by your browser.

Complete the following steps to connect to the GeoEvent Server protected endpoints:

1. Using Microsoft Edge on a Windows machine, open ArcGIS GeoEvent Manager by browsing to <https://gisserver.domain.com:6143/geoevent/manager/>. Alternatively, you can open GeoEvent Manager from the operating system shortcut installed with GeoEvent Server.

The following security certificate error message appears:



2. Click the **Continue to this website (not recommended)** link.
The sign-in page for GeoEvent Manager appears.
3. Click the certificate error and click the **View Certificates** link in the **Untrusted Certificate** window.
The **Certificate** window appears.
4. Click **Install Certificate**.
The **Certificate Import Wizard** appears.
5. Click **Next**.
6. Choose the **Place all certificates in the following store** option and click **Browse**.
The **Select Certificate Store** dialog box appears.
7. Choose **Trusted Root Certificate Authorities** and click **OK**.
8. Click **Next**.
9. Click **Finish**.
A **Security Warning** message appears, confirming the import was successful.
10. Click **Yes**.
A **Certificate Import Wizard** message appears and confirms the import was successful.

11. Click **OK** twice and close Internet Explorer.
12. Using Internet Explorer, open GeoEvent Manager again and confirm that no warnings or certificate errors display.

Proceed to [Log in to GeoEvent Manager](#).

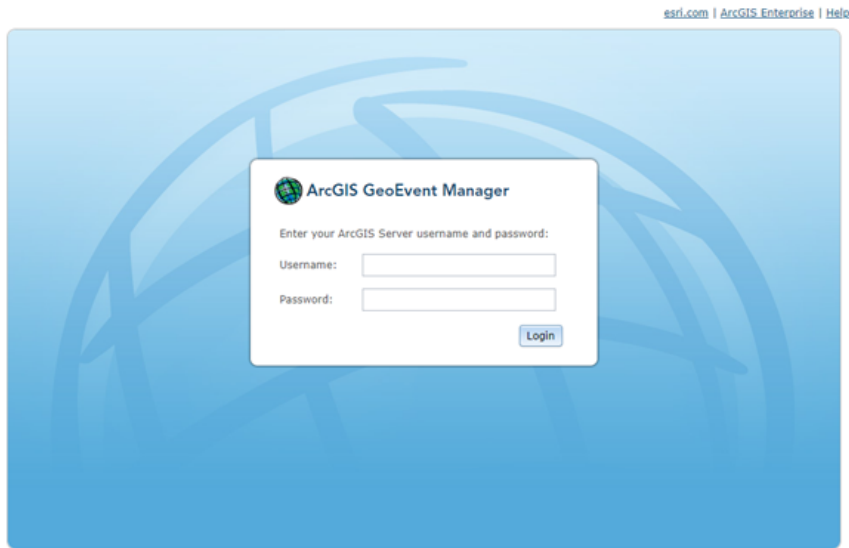
Sign in to GeoEvent Manager

ArcGIS GeoEvent Manager is the primary application for configuring ArcGIS GeoEvent Server.

The steps below walk you through signing in to GeoEvent Manager.

1. In a browser, open GeoEvent Manager by browsing to `https://gisserver.domain.com:6143/geoevent/manager/`. Alternatively, you can open GeoEvent Manager from the operating system shortcut installed with GeoEvent Server.

The following page appears:



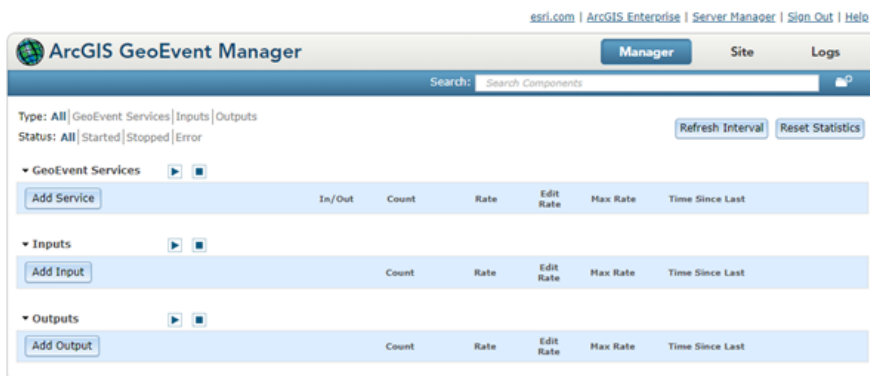
2. Enter your ArcGIS Server username and password and click **Login**.



Note:

Administrators and publishers can sign in to GeoEvent Manager using their appropriate credentials.

GeoEvent Manager opens the **Manager** page, where you can access and monitor all your configured elements.



Replace the GeoEvent Server self-signed certificate

Some organizations may have their own certificate authority (CA) or have purchased a certificate from a commercial CA to avoid having multiple users go through the process of trusting a self-signed certificate.

The following optional steps guide you through replacing the GeoEvent Server self-signed certificate:

1. Follow the appropriate steps outlined in [Configure ArcGIS Server with an existing CA-signed certificate](#).
2. Restart the ArcGIS GeoEvent Server Windows service using the Windows Services console.
3. In Internet Explorer, open **ArcGIS GeoEvent Manager** and confirm that GeoEvent Server presents the correct certificate.

GeoEvent Server authentication

Authentication is the process of verifying the identity of a user. In ArcGIS Server, this can be done by using either ArcGIS token-based authentication or web-tier authentication. ArcGIS GeoEvent Server inherits authentication from ArcGIS Server.

For more information about ArcGIS Server authentication, see [Web-tier authentication](#) and [About ArcGIS tokens](#).

Uninstall

Uninstall ArcGIS GeoEvent Server

The steps below guide you through uninstalling ArcGIS GeoEvent Server. It is recommended that you create a backup of your GeoEvent Server site configuration prior to uninstalling. For details, see [Backup and restore your GeoEvent Server site configuration](#).

 **Note:**

Before uninstalling ArcGIS Server, close all nonessential applications.

1. Browse to **Start > Control Panel** and click **Programs and Features**.
2. Select ArcGIS GeoEvent Server from the **Programs** list.
3. Click **Remove** to uninstall GeoEvent Server from the machine.

To uninstall a ArcGIS GeoEvent Server language pack, follow the steps above, but instead of selecting ArcGIS GeoEvent Server, select the installed ArcGIS GeoEvent Server language pack. If multiple ArcGIS GeoEvent Server language packs are installed, each language pack must be uninstalled separately.

Uninstall GeoEvent Server silently

You can silently uninstall ArcGIS GeoEvent Server by running the **msiexec.exe** command. It is recommended that you [create a backup of your GeoEvent Server configuration](#) before uninstalling.

To uninstall ArcGIS GeoEvent Server 12.1, complete the following steps:

1. Open a command prompt.
2. Run the following command from the command line:

```
msiexec /x {C57000DE-175A-4305-B948-94B53A6E3B86} /qb
```

ArcGIS GeoEvent Server is uninstalled.

Upgrade

ArcGIS GeoEvent Server upgrades

ArcGIS GeoEvent Server 12.1 is provided as a setup program and is run through the Setup.exe utility file.

Prepare to upgrade GeoEvent Server

The GeoEvent Server setup program detects and upgrades an existing installation of GeoEvent Server on the target system.

Note:

Do not uninstall an existing version of ArcGIS GeoEvent Server before installing the new version. Instead, run the GeoEvent Server setup program to upgrade your existing GeoEvent Server configuration to the new version.

Before upgrading to a new version of GeoEvent Server, it is recommended that you export your GeoEvent Server configuration using ArcGIS GeoEvent Manager and back up any installed or added components. The components are added to the <ArcGIS Server installation directory>\GeoEvent\deploy folder.

Note:

When upgrading from a 10.x version to GeoEvent Server 12.1, your existing GeoEvent Server site configuration is not automatically upgraded during the installation. You must manually import the configuration file after successful completion of the upgrade. An additional step has been added to the installation wizard for you to acknowledge this change.

[Learn more about backing up and restoring a GeoEvent Server site configuration](#)

Before upgrading to a new version of ArcGIS Server and ArcGIS GeoEvent Server, it is recommended that you stop the ArcGIS GeoEvent Server and ArcGIS GeoEvent Gateway Windows services and set their **Startup type** property to **Manual**. This ensures that GeoEvent Server is compatible by avoiding mismatched software releases on the same machine. These services should remain stopped during the upgrade. Once the upgrade of ArcGIS Server and GeoEvent Server has completed successfully, set the ArcGIS GeoEvent Server and ArcGIS GeoEvent Gateway Windows services **Startup type** property back to **Automatic** (the default).

For any custom components you have developed, including connectors and processors, you may need to modify the code, release numbers, and configurations, and rebuild with the appropriate version of the GeoEvent Server software development kit (SDK).

[Learn more about custom components \(connectors or processors\)](#)

GeoEvent Server upgrade process

To upgrade GeoEvent Server, upgrade ArcGIS Server first; then upgrade GeoEvent Server using the Setup.exe file for each product. To upgrade GeoEvent Server silently, refer to the [Silently install ArcGIS GeoEvent Server](#) topic.

[Learn more about common software upgrade questions](#)

Frequently asked questions

Listed below are frequently asked questions about the upgrade of GeoEvent Server.

- [Do I need to uninstall a previous version of GeoEvent Server before installing the new version?](#)
- [Do I need to back up anything before installing the new version of GeoEvent Server?](#)
- [If I upgrade to a new version of ArcGIS Server, do I need to upgrade GeoEvent Server?](#)
- [If I have custom components \(connectors or processors\) deployed, do I need to recompile them using the latest GeoEvent Server SDK when upgrading?](#)

Do I need to uninstall a previous version of GeoEvent Server before installing the new version?

No. If you have an existing version of GeoEvent Server installed, the setup automatically upgrades it to the new version without any additional configuration.

Do I need to back up anything before installing the new version of GeoEvent Server?

Yes. It is recommended that you back up your GeoEvent Server configuration and any added components.

To back up your GeoEvent Server site configuration, use GeoEvent Manager to export the configuration as a configuration file.

[Learn more about backing up and restoring a GeoEvent Server site configuration](#)

Note:

When upgrading from a 10.x version to GeoEvent Server 12.1, your existing GeoEvent Server site configuration is not automatically upgraded during the installation. You must manually import the configuration file after successful completion of the upgrade.

To back up any added components, back up the content from the <ArcGIS Server installation directory>\GeoEvent\deploy folder.

If I upgrade to a new version of ArcGIS Server, do I need to upgrade GeoEvent Server?

Yes. The release of GeoEvent Server must match ArcGIS Server. You cannot run mismatched releases of the software on the same machine.

If I have custom components (connectors or processors) deployed, do I need to recompile them using the latest GeoEvent Server SDK when upgrading?

Maybe. With any GeoEvent Server release, there may be updates to backend libraries and dependencies that require custom components (connectors and processors) developed and deployed in a previous release of GeoEvent Server to be recompiled using the GeoEvent Server SDK being installed. Before deploying a custom component built from a previous release's SDK to a production environment, ensure that it works as expected.

If a custom component deploys correctly, no further action is needed. If the custom component does not deploy correctly, recompile it using the release of the GeoEvent Server SDK being installed.

Reference

Questions, feedback, and information

There are a number of options for you to provide feedback or obtain further information.

My Esri

[My Esri](#) is a website where you can interact with Esri to find answers to questions, post feedback, and obtain information. The website also contains frequently asked questions, how-to instructions, software downloads, troubleshooting tips, and so on. Sign in to the website with your Esri account. Alternatively, you can contact [Customer Service](#) or [your local distributor](#).

Web help

Visit the [ArcGIS Pro](#), [ArcGIS Enterprise](#), [Esri Documentation](#) and [Esri Developer](#) websites for up-to-date information about ArcGIS software and services. These resources can help you increase your understanding of GIS technology.

Installation help

Downloads include the `Insta11.htm` help file. You can find what you need by searching the table of contents or finding the number of times a term appears in a section.

Copyright Information

Copyright © 1995-2026 Esri. All rights reserved. Published in the United States of America.

The information contained in this document is subject to change without notice.

You may have received Products or Services that include Graph Editor Toolkit, Copyright © 1992-1999 Tom Sawyer Software, Berkeley, California, All Rights Reserved, and Tom Sawyer Visualization, Ver. 8.0 Copyright © 1992-2009 Tom Sawyer Software, Berkeley, California, All Rights Reserved.

Portions of this computer program are Copyright © 1995-2016 Celartem, Inc., dba Extensis. All rights reserved. As of October 10, 2025, the LizardTech line of business is owned by GeoWGS84 Geospatial Solutions Corp.

This application supports the ECW data format and ECWP compression protocols. Portions of this computer program are copyright © 2007-2015 Intergraph Corporation. All rights reserved. Creating compressed files using ECW technology is protected by one or more of U.S. Patent No. 6,201,897, No. 6,442,298, and No. 6,633,688.

PANTONE® Colors displayed in the software application or in the user documentation may not match PANTONE-identified standards. Consult current PANTONE Color Publications for accurate color. PANTONE® and other Pantone trademarks are the property of Pantone LLC. © Pantone LLC, 2022. Pantone is the copyright owner of color data and/or software which are licensed to Esri to distribute for use only in combination with the ArcGIS family of Products. PANTONE Color Data and/or Software shall not be copied onto another disk or into memory unless as part of the execution of the ArcGIS family of Products.

This product includes software developed by the JDOM Project.

Note:

The jdom.org site has gone offline as of July 22, 2024. An alternative site may be <https://github.com/hunterhacker/jdom#introduction-to-the-jdom-project>.

This product includes software developed by the Indiana University Extreme! Lab (<https://www.extreme.indiana.edu>).

Note:

As of August 2024, the website now states: "This site has been deprecated. You can access an archive of this site at <https://web.archive.org/web/20210225153105/https://www.extreme.indiana.edu/>".

ArcGIS consists of many programs and services—some of which may have been developed using Altova® XMLSpy® and includes libraries owned by Altova GmbH, Copyright © 2007-2023 Altova GmbH (www.altova.com).

Portions of this software may use (XML) schemas, Copyright © 2011 DCMI, the Dublin Core™ Metadata Initiative (<https://dublincore.org>). These are licensed under the Creative Commons 4.0 Attribution license <https://creativecommons.org/licenses/by/4.0>.

Third-Party OSS-FOSS Acknowledgement Documents

Esri's use of open source software libraries is disclosed in the Third-Party OSS-FOSS Acknowledgement Documents found at the link below.

Open Source Acknowledgements (<https://links.esri.com/open-source-acknowledgments>)

ArcGIS Notebooks makes use of The FreeType Project, following The FreeType Project License (<https://gitlab.freedesktop.org/freetype/freetype/-/blob/master/docs/FTL.TXT>).

EXPORT NOTICE

Use of these Materials is subject to U.S. export control laws and regulations, including the U.S. Department of Commerce Export Administration Regulations (EAR). Diversion of these Materials contrary to U.S. law is prohibited.

US GOVERNMENT CUSTOMER

The Products are commercial items, developed at private expense, provided to Customer under this Master Agreement. If Customer is a US government entity or US government contractor, Esri licenses or provides subscriptions to Customer in accordance with this Master Agreement under FAR Subparts 12.211/12.212 or DFARS Subpart 227.7202. Esri Data and Online Services are licensed or subscribed under the same DFARS Subpart 227.7202 policy as commercial computer software for acquisitions made under DFARS. Products are subject to restrictions, and this Master Agreement strictly governs Customer's use, modification, performance, reproduction, release, display, or disclosure of Products. Agreement provisions that are inconsistent with federal law regulation will not apply. A US government Customer may transfer Software to any of its facilities to which it transfers the computer(s) on which it has installed such Software. If any court, arbitrator, or board holds that a US government Customer has greater rights to any portion of the Products under applicable public procurement law, such rights will extend only to the portions affected.

Esri Trademarks

Esri Products or Services referenced in this work are trademarks, service marks, or registered marks of Esri in the United States, the European Community, or certain other jurisdictions. To learn more about Esri marks, go to the Esri Product Naming Guide (<https://links.esri.com/product-naming-guide>).

Licensed Trademarks

Other companies and products or services mentioned herein may be trademarks, service marks, or registered marks of their respective mark owners.

The Kubernetes ship's wheel logo is a registered trademark of the Linux Foundation.

Trademark Images

Logos of licensed trademarks include the following:

