

ArcGIS® Data Appliance 7.1

Existing User
Quick Start Guide

Powered by Esri



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Overview

The purpose of the Quick Start Guide is to walk you quickly and easily through the update of ArcGIS® Data Appliance 7.1. This Quick Start Guide is for use with ArcGIS Server. The update consists of the following steps:

- Step 1** Unpack the Components
- Step 2** Delete ArcGIS Services
- Step 3** Shut Down Data Appliance
- Step 4** Remove Old/Install New Data Collections
- Step 5** Power On Data Appliance
- Step 6** Verify New Data Collections
- Step 7** Create Shares
- Step 8** Configure the Cache Directories
- Step 9** Publish Services
- Step 10** Use Services

Before Starting

ArcGIS Server 10.4.1 or later is required for ArcGIS Data Appliance 7.1. If you are planning to upgrade to a more recent version of ArcGIS Server, Esri recommends that you do so prior to installing your collections. For more information on what's supported, visit links.esri.com/data-appliance/7.1/system-requirements. Services for ArcGIS Data Appliance data collections installed on your ArcGIS Data Appliance server will be unavailable during the installation process. This update should take approximately two hours to complete.

Important: It is imperative that care and precautions be taken when handling the data collection hard drives. The hard drives are sensitive to shock as well as electrostatic discharge. Make sure precautions are taken to eliminate any built-up static. The use of a grounding strap is highly recommended while handling the hard drives.

1 Unpack the Components

ArcGIS Data Appliance is delivered in multiple boxes containing the data collection hard disk drives.

If you purchased . . .	You received . . .
ArcGIS Data Appliance World Basic	Collections A and B
ArcGIS Data Appliance World Standard	Collections B, C, and D
ArcGIS Data Appliance World Advanced	Collections B, C, and E
ArcGIS Data Appliance North America Standard	Collections B, F, and G
ArcGIS Data Appliance North America Advanced	Collections B, F, and H

For details on these collections, see [arcgis_data_appliance.pdf](#) on the *ArcGIS Data Appliance 7.1 Help Documentation DVD*.

For details on the hardware components, see arxys.com/company/support under Arxys Support Documentation, and select the Esri ArcGIS Products tab.

2 Delete ArcGIS Services

To update ArcGIS Data Appliance, ArcGIS services that utilize Data Appliance 7.0 must be deleted from ArcGIS Server before you disconnect the hard drives.

- A. Log in to ArcGIS Server using an ArcGIS Data Appliance data account with administrative privileges.
- B. Start ArcGIS Server Manager and log in using your account.
- C. Click **Services > Manage Services**.
- D. Check each service that is to be stopped.
- E. Locate each service in the Services module and click **Delete**. The service is deleted from your server.

Services		
Antarctic_Imagery	Terrain3D	World_Light_Gray_Reference
Arctic_Imagery	USA_Topo_Maps	World_Ocean_Base
Arctic_Ocean_Base	World_Boundaries_and_Places	World_Ocean_Reference
Arctic_Ocean_Reference	World_Boundaries_and_Places_Alternate	World_Physical_Map
Elevation	World_Dark_Gray_Base	World_Street_Map
ElevationSync	World_Dark_Gray_Reference	World_Topo_Map
Esri_Places_World	World_Hillshade	World_Transportation
NatGeo_World_Map	World_Imagery	
Terrain	World_Light_Gray_Base	

Note: After all the services are deleted, reboot the machine where ArcGIS Server is installed.

3 Shut Down Data Appliance

Although ArcGIS Data Appliance has hot-swappable hard drive bays, hot swapping an entire data collection is not supported.

- A. Log in to ArcGIS Data Appliance using the **Administrator** account.
- B. Place the pointer at the bottom right of the screen to open the Charm menu on the right, and click **Settings**.
- C. Click **Power**, select **Shut down**, choose a reason to shut down the computer, and click **Continue**.
- D. Allow ArcGIS Data Appliance to completely shut down.

4 Remove Old/Install New Data Collections

- A. Power off ArcGIS Data Appliance and remove **all** the existing data collection hard drives. Handle each drive with care and observe electrostatic discharge (ESD) best practices when handling the drives.
- B. Place the removed hard drives in a secure and static-free location. Do not leave any hard drive from the old data collection in ArcGIS Data Appliance.
- C. Install the new data collection hard drives into ArcGIS Data Appliance.

Note: ArcGIS Data Appliance 7.1 data is delivered on 8-terabyte drives.

- D. Each data collection hard drive is labeled according to the collection it belongs to, as well as the number of drives contained in each data collection. Install the data collections in alphabetical succession (i.e., Collection A, Collection B, Collection C, etc.). Install the hard drives for each collection sequentially (i.e., Disk 1 of 8, Disk 2 of 8, etc.). The installation process varies according to which data collections you purchased. Insert the drive tray into the chassis. Press the drive carrier handle closed until it clicks into place.
- E. Verify that all drives from each set are present. If you find that a drive is missing, **immediately stop the installation procedure and contact Arxys technical support**.
- F. Make sure all drives from the new data collections are installed in ArcGIS Data Appliance.

5 Power On Data Appliance

To turn on ArcGIS Data Appliance, press the power button located on the front of the computer equipment rack.

Note: The Microsoft Windows Storage Server operating system performs a number of system checks to verify the integrity of the file system. During this time, the hard drive activity LEDs on ArcGIS Data Appliance will blink. Please do not interrupt the system by powering it off or rebooting it.

6 Verify New Data Collections

Before utilizing the data collections, the health of the RAID arrays must be verified. ArcGIS Data Appliance ships with the MegaRAID Storage Manager utility preinstalled. This utility will be used to verify the status of the datasets for the MegaRAID 9361 system.

- A. Log in to ArcGIS Data Appliance as **Administrator**.
- B. From the desktop, locate the **MegaRAID Storage Manager** shortcut.
- C. Double-click **MegaRAID Storage Manager** to start the utility.
- D. MegaRAID Storage Manager presents a list of systems that can be managed.
- E. Locate ArcGIS Data Appliance in the list and click the IP address link.
- F. Type the ArcGIS Data Appliance Administrator user name and password and click **Login**.
- G. The MegaRAID Storage Manager Dashboard is displayed. Note the Status indicator.
- H. If the status for the collection is **Optimal** and green, the arrays are healthy and ready to use. If something other than **Optimal** is displayed, click the Logical tab and click the virtual drive. This displays the status of each RAID array (virtual drive).
 - 1. If the status is **Background Initialize**, the datasets are ready to use.
 - 2. If the status is **Critical** or **Offline**, **immediately stop and contact Arxys technical support**.
- I. Click **Log Off** to log out of the MegaRAID Storage Manager utility. Proceed to step 7.

7 Create Shares

ArcGIS Data Appliance must be configured to share the data collections.

- A. Log in to ArcGIS Data Appliance as **Administrator**.
- B. Start **Server Manager** and click **Select the Local Server > Tasks > Computer Management**.
- C. In the Computer Management application, click **Shared Folders** to expand the tree, and right-click the **Shares** folder. Select **New Share**.
- D. In the Create A Shared Folder Wizard, click **Next** to begin.
- E. For Folder path, click **Browse** and navigate to the hard drive with the data collection (usually drive E). Select the cache directory and click **OK**.
- F. Click **Next**.
- G. Each product option available at version 7.1 comes with more than one collection of drives. Each collection requires uniquely named shares for the cache and source documents folders. In the Name, Description, and Settings dialog box, type a share name and description. Use the following naming convention for your cache shares and source document shares according to the product option you purchased. For **Offline setting**, accept the default.

Collection	Folder	Share Name	Description
Collection A	\\CollectionA_v7.1\cache	CollectionA_cache	Collection A Cache
	\\CollectionA_v7.1\source_documents	CollectionA_source_documents	Collection A Source Documents
Collection B	\\CollectionB_v7.1\cache	CollectionB_cache	Collection B Cache
	\\CollectionB_v7.1\source_documents	CollectionB_source_documents	Collection B Source Documents
Collection C	\\CollectionC_v7.1\cache	CollectionC_cache	Collection C Cache
	\\CollectionC_v7.1\source_documents	CollectionC_source_documents	Collection C Source Documents
Collection D	\\CollectionD_v7.1\cache	CollectionD_cache	Collection D Cache
	\\CollectionD_v7.1\source_documents	CollectionD_source_documents	Collection D Source Documents
Collection E	\\CollectionE_v7.1\cache	CollectionE_cache	Collection E Cache
	\\CollectionE_v7.1\source_documents	CollectionE_source_documents	Collection E Source Documents
Collection F	\\CollectionF_v7.1\cache	CollectionF_cache	Collection F Cache
	\\CollectionF_v7.1\source_documents	CollectionF_source_documents	Collection F Source Documents
Collection G	\\CollectionG_v7.1\cache	CollectionG_cache	Collection G Cache
	\\CollectionG_v7.1\source_documents	CollectionG_source_documents	Collection G Source Documents
Collection H	\\CollectionH_v7.1\cache	CollectionH_cache	Collection H Cache
	\\CollectionH_v7.1\source_documents	CollectionH_source_documents	Collection H Source Documents

- H. Click **Next**.
- I. Select the **Customize Permissions** option and click **Custom**.
- J. In the Customize Permissions window, click **Add**.
- K. Add the following users and groups if needed: Administrator and arcgis.
- L. Make sure the permissions for the users and groups are set to Full Control.
- M. Repeat steps 7C through 7L for the source documents share.

8 Configure the Cache Directories

ArcGIS Server maintains a list of directories in which it can find map cache tiles. You need to explicitly add the Data Appliance cache directories to this list.

- A. Log in to ArcGIS Server using the ArcGIS Data Appliance 7.1 data account with administrative privileges.
- B. Start ArcGIS Server Manager and log in using your Primary Site Administrator account.
- C. Click the **Site** tab.
- D. From the **GIS Server** tab on the left, click **Directories**.
- E. Click the **Add Directory** button.
- F. Provide a name, for example, CollectionA_Cache. From the **Type** list, choose **Cache**.
- G. For **Location**, provide the **path** to the cache folder in step 7 on the ArcGIS Data Appliance collection you made when you created shares; for example, \\ARCGISDATAAPP\Collection<X>_cache. You do not need to specify **Description**, **Cleaning Mode**, or **Maximum File Age**.
- H. Click **Add** to add the directory.
- I. Repeat steps E through H for each collection you created a cache directory for when you created shares.

9 Publish Services

Important: If you are publishing the World_Imagery service for World Standard (on Collection D), World Advanced (on Collection E), North America Standard (on Collection G), or North America Advanced (on Collection H), you need to configure ArcGIS Server to use the source document directories before you publish the World_Imagery service. For more information, see [arcgis_data_appliance.pdf](#) on the *ArcGIS Data Appliance 7.1 Help Documentation DVD*.

The following instructions apply to map services. Information about other services can be found in the help file on the *ArcGIS Data Appliance 7.1 Help Documentation DVD* by opening [arcgis_data_appliance.pdf](#).

Using ArcGIS Server Manager, you can publish a service definition file (.sd) as a service. To publish a service definition using Server Manager, follow these steps for each map service that you want to create:

- A. Open ArcGIS Server Manager and sign in.
- B. Click **Services > Manage Services > Publish Service**.
- C. Browse to the Collection<X>_source_documents > service_definitions folder on the Data Appliance data collection; for example, \\ARCGISDATAAPP\Collection<X>_source_documents\service_definitions.
- D. Select the **service definition** you want to publish; for example, World_Imagery.sd. Click **Open**. See the Services Reference Guide for 7.1 after step 10 of this document for a list of the Data Appliance services.
- E. Click **Next**.
- F. By default, the service definition is published in the server folder specified in the service definition configuration. You must publish the service definition in this root folder.

Note: We recommend that all your service names match the names of the service definition file; you should not change a service name to a different name.

- G. If Build cache automatically when service starts is checked, uncheck it. Click **Next**.
- H. Optionally, choose to **enable** or **disable capabilities** for your service definition.
- I. Click **Publish** to publish the service definition as a service. The new map service appears in the list of available services.

The publishing process uses the first directory in the server's list of cache directories. You need to change it to the Data Appliance cache directory created previously.



- J. Click the **Stop** button to the right of the service name to stop the service.
- K. Click the **Edit** button to edit the service properties.
- L. Click **Caching** and change the **cache directory** setting to reference the Data Appliance collection.
- M. Click **Save** to save your changes, and click the **Start** button to restart the service.
- N. Repeat this process for any other map services you want to publish.

10 Use Services

For specific instructions on how to connect to and use the services, see the appropriate user guide for the ArcGIS application you are using.

Additional information can be found in the help file on the *ArcGIS Data Appliance 7.1 Help Documentation DVD* by opening [arcgis_data_appliance.pdf](#).

Services Reference Guide for 7.1

Map Services	World Elevation and Geoprocessing Services	Geocode Service
Antarctic_Imagery	Elevation ¹	Esri_Places_World ¹
Arctic_Imagery	ElevationSync ¹	
Arctic_Ocean_Base	Terrain ¹	
Arctic_Ocean_Reference	Terrain3D ¹	
NatGeo_World_Map		
USA_Topo_Maps ²		
World_Boundaries_and_Places		
World_Boundaries_and_Places_Alternate ²		
World_Dark_Gray_Base		
World_Dark_Gray_Reference		
World_Hillshade		
World_Hillshade_Dark ^{New}		
World_Imagery		
World_Light_Gray_Base		
World_Light_Gray_Reference		
World_Ocean_Base		
World_Ocean_Reference		
World_Physical_Map ²		
World_Street_Map		
World_Topo_Map		
World_Transportation		

¹Refer to the *ArcGIS Data Appliance 7.1 Help Documentation DVD* for more information on publishing these services.

²In Mature Support beginning at this release. No plans to retire.

Resources

Arxys provides several reference documents. These are available at [arxys.com/company/support/](#) under the Arxys Support Documentation on the Esri ArcGIS Products tab.

The *ArcGIS Data Appliance 7.1 Help Documentation DVD* is included in the box with your data collection drives. Refer to the help for additional details.

For an up-to-date online help system, system requirements, information on licensing, and more, visit [links.esri.com/data-appliance/7.1/tech-docs](#).

Support

Esri Support

For information regarding the configuration and setup of ArcGIS services and usage, visit [support.esri.com/en/contact-tech-support](#).

For the most current information about all ArcGIS products, visit the Documentation for ArcGIS website at [doc.arcgis.com](#).

Arxys Support

For information and support regarding the ArcGIS Data Appliance hardware, contact Arxys using the following options:

Phone: 800-257-1666
Email: support@arxys.com
Website: support.arxys.com
Hours: Monday–Friday, 8:00 a.m.–5:00 p.m. (Pacific time)

