

ArcGIS® Data Appliance 2022

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 2022. 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 10.7.1 or later is required for ArcGIS Data Appliance 2022. 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/2022/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 and *ArcGIS Data Appliance 2022 Reference Content* USB flash drive with help documentation and World Places Locator.

If you purchased . . .	You received . . .
ArcGIS Data Appliance World Basic	Collection 1 and Basic Legacy
ArcGIS Data Appliance World Standard	Collection 2 and World Legacy*
ArcGIS Data Appliance World Advanced	Collection 3 and World Legacy*
ArcGIS Data Appliance North America Standard	Collection 4 and North America Legacy*
ArcGIS Data Appliance North America Advanced	Collection 5 and North America Legacy*

* Esri Vector Basemaps and OSM Vector Basemaps ship separately on USB flash drives.

For details on these collections and how they are reorganized for this release, see [arcgis_data_appliance.pdf](#) on the *ArcGIS Data Appliance 2022 Reference Content* USB flash drive.

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

2 Delete ArcGIS Services

To update ArcGIS Data Appliance, ArcGIS services that utilize Data Appliance 7.2 must be deleted from ArcGIS Server **before you disconnect the hard drives**.

- A. Sign in to ArcGIS Server using an ArcGIS Data Appliance data account with administrative privileges.
- B. Start ArcGIS Server Manager and sign 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_Base
Arctic_Imagery	USA_Topo_Maps	World_Light_Gray_Reference
Arctic_Ocean_Base	World_Boundaries_and_Places	World_Ocean_Base
Arctic_Ocean_Reference	World_Boundaries_and_Places_Alternate	World_Ocean_Reference
Elevation	World_Dark_Gray_Base	World_Physical_Map
ElevationSync	World_Dark_Gray_Reference	World_Street_Map
Esri_Places_World	World_Hillshade	World_Topo_Map
NatGeo_World_Map	World_Hillshade_Dark	World_Transportation
Terrain	World_Imagery	

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. Sign 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.
- 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 succession (i.e., Collection 1, Basic Legacy, 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 system.

- A. Sign in to ArcGIS Data Appliance as an 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. Sign in to ArcGIS Data Appliance as an administrator.
- B. Right-click the **Start** menu and select **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. Select the cache directory (or the source_documents directory) to be shared and click **OK**.
- F. Click **Next**.
- G. Each product option comes with more than one collection of drives. Each collection requires uniquely named shares for the cache and source documents directories. When you enter the 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.

7 Create Shares (continued)

Collection	Directory	Share Name	Description
Collection 1	\\Collection1_v2022\cache	Collection1_cache	Collection 1 Cache
	\\Collection1_v2022\source_documents	Collection1_source_documents	Collection 1 Source Documents
Collection 2	\\Collection2_v2022\cache	Collection2_cache	Collection 2 Cache
	\\Collection2_v2022\source_documents	Collection2_source_documents	Collection 2 Source Documents
Collection 3	\\Collection3_v2022\cache	Collection3_cache	Collection 3 Cache
	\\Collection3_v2022\source_documents	Collection3_source_documents	Collection 3 Source Documents
Collection 4	\\Collection4_v2022\cache	Collection4_cache	Collection 4 Cache
	\\Collection4_v2022\source_documents	Collection4_source_documents	Collection 4 Source Documents
Collection 5	\\Collection5_v2022\cache	Collection5_cache	Collection 5 Cache
	\\Collection5_v2022\source_documents	Collection5_source_documents	Collection 5 Source Documents
Basic Legacy Collection	\\CollectionBL_v2022\cache	CollectionBL_cache	Basic Legacy Collection Cache
	\\CollectionBL_v2022\source_documents	CollectionBL_source_documents	Basic Legacy Collection Source Documents
World Legacy Collection	\\CollectionWL_v2022\cache	CollectionWL_cache	World Legacy Collection Cache
	\\CollectionWL_v2022\source_documents	CollectionWL_source_documents	World Legacy Collection Source Documents
North America Legacy Collection	\\CollectionNAL_v2022\cache	CollectionNAL_cache	North America Legacy Collection Cache
	\\CollectionNAL_v2022\source_documents	CollectionNAL_source_documents	North America Legacy Collection Source Documents

- Click **Next**.
- Select the **Customize Permissions** option and click **Custom**.
- In the Customize Permissions window, click **Add**.
- Add the following users and groups if needed: Administrator and arcgis.
- Make sure the permissions for the users and groups are set to **Full Control**.
- Repeat steps 7C through 7L to create cache and source_documents directories for each collection in your ArcGIS Data Appliance product option.

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.

- Sign in to ArcGIS Server using the ArcGIS Data Appliance data account with administrative privileges.
- Start ArcGIS Server Manager and sign in using your Primary Site Administrator account.
- Click the **Site** tab.
- From the **GIS Server** tab on the left, click **Directories**.
- Click the **Add Directory** button.
- Provide a **name**, for example, Collection1_cache. From the **Type** list, choose **Cache**.
- For **Location**, provide the **path** to the cache directory in step 7 on the ArcGIS Data Appliance collection you made when you created shares; for example, \\ARCGISDATAAPP\CollectionX_cache. You do not need to specify **Description**, **Cleaning Mode**, or **Maximum File Age**.
- Click **Add** to add the directory.
- 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 2), World Advanced (on Collection 3), North America Standard (on Collection 4), or North America Advanced (on Collection 5), 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 2022 Reference Content* USB flash drive.

The following instructions apply to map services. Information about other services can be found in the help file on the *ArcGIS Data Appliance 2022 Reference Content* USB flash drive 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:

- Open ArcGIS Server Manager and sign in.
- Click **Services > Manage Services > Publish Service**.
- Browse to the CollectionX_source_documents > service_definitions directory on the Data Appliance data collection; for example, \\ARCGISDATAAPP\CollectionX_source_documents\service_definitions.
- Select the **service definition** you want to publish; for example, World_Imagery.sd. Click **Open**. See the Services Reference Guide for 2022 after step 10 of this document for a list of the Data Appliance services.
- Click **Next**.
- 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.

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

9 Publish Services (continued)

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.

- Click the **Stop** button to the right of the service name to stop the service.
- Click the **Edit** button to edit the service properties.
- Click **Caching** and change the **cache directory** setting to reference the Data Appliance collection.
- Click **Save** to save your changes, and click the **Start** button to restart the service.
- 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 2022 Reference Content* USB flash drive by opening [arcgis_data_appliance.pdf](#).

Services Reference Guide for 2022

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

¹ Refer to the *ArcGIS Data Appliance 2022 Reference Content* USB flash drive for more information on publishing these services.

² Legacy Collections. Refer to *What's new in arcgis_data_appliance.pdf* on the *ArcGIS Data Appliance 2022 Reference Content* USB flash drive for more information.

Resources

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

The *ArcGIS Data Appliance 2022 Reference Content* USB flash drive 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/2022/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 Esri Documentation 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)

