



# What's new in ArcGIS



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# What's new in ArcMap

ArcMap 10.7 introduces new features and capabilities in mapping, geocoding, and the ArcGIS Network Analyst extension. 10.7 also includes changes in database and geodatabase support. These new and altered features are described in the following sections.

## Geoprocessing

The following new and improved functionality is available in geoprocessing tools in ArcMap 10.7:

### 3D Analyst

#### *New environment*

- A new analysis environment setting, the [Cell Size Projection Method](#), is available for the majority of tools in the Raster [Interpolation](#), [Math](#), [Reclass](#), and [Surface](#) toolsets. This setting determines how the output raster cell size will be calculated when datasets are projected during analysis. The default method, **Convert units**, is equivalent to the method used in previous releases. Two additional methods, **Preserve resolution** and **Center of extent**, are now available.

#### *Raster Surface toolset*

- The Contour tool has improved performance for most polygon and polyline output.

### Conversion toolbox

#### *New environment*

- A new analysis environment setting, the [Cell Size Projection Method](#), is available for a number of tools in the From Raster and To Raster toolsets. This setting determines how the output raster cell size will be calculated when datasets are projected during analysis. The default method, **Convert units**, is equivalent to the method used in previous releases. Two additional methods, **Preserve resolution** and **Center of extent**, are now available. In the From Raster toolset, the tools are [Raster to ASCII](#) and [Raster To Float](#). In the To Raster toolset, the tools are [Feature To Raster](#), [Multipatch to Raster](#), [Point to Raster](#), [Polyline to Raster](#), and [Polygon to Raster](#).

### Multidimension toolbox

- The [Make NetCDF Raster Layer](#) and [Make OPeNDAP Raster Layer](#) tools have a new parameter, **Cell Registration** that controls how the cells are registered with respect to the XY coordinates.
- The Make NetCDF Table View tool now has null in the output table view to represent `missing_value` or `_FillValue` attributes of a variable in a netCDF file.

## Spatial Analyst

### *New environment*

A new analysis environment setting, [Cell Size Projection Method](#), is available for a number of Spatial Analyst tools. This setting determines how the output raster cell size will be calculated when datasets are projected during analysis. The default method, **Convert units**, is equivalent to the method used in previous releases. Two additional methods, **Preserve resolution** and **Center of extent**, are now available. Check the list of supported environments for a particular tool to determine if it is available.

### *Distance toolset*

- The Parallel Processing Factor environment is not supported for the Euclidian distance tools.

### *Extraction toolset*

- The [Extract Multi Values to Points](#), [Extract Values to Points](#), and [Sample](#) tools have been re-engineered for better performance. The interpolation methods have also been improved for these tools.
- Image services of multidimensional data are now supported in the Sample tool.

### *Hydrology toolset*

- The [Flow Distance](#) tool has a new parameter **Statistics type** that determines the statistics type used to compute flow distance over multiple flow paths.

### *Neighborhood toolset*

- The [Focal Statistics](#) tool now supports the Parallel Processing Factor environment. The tool uses multiple processors when calculating statistics of the output raster for improved performance.

### *Segmentation and Classification toolset*

- The Deep Learning Model to ECD tool has been deprecated at this release.

### *Surface toolset*

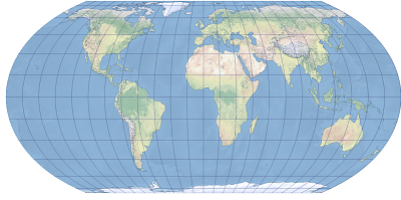
- The Contour tool has improved performance for most polygon and polyline output.

## Mapping

Two new map projections are available in ArcMap 10.7.

- Equal Earth

The Equal Earth projection is an equal-area pseudocylindrical projection for world maps jointly developed by Tom Patterson (US National Park Service, ret.), Bernhard Jenny (Monash University), and Bojan Šavrič (Esri).

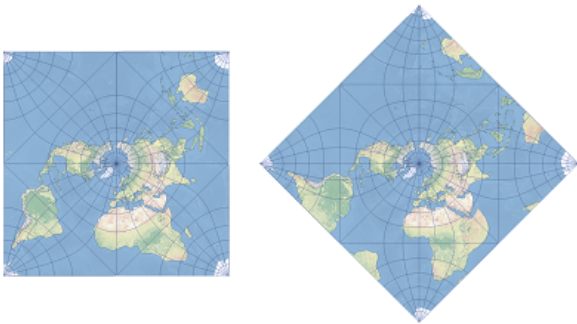


Equal Earth projection

The Equal Earth map projection is inspired by the Robinson projection with the difference that it retains the relative size of areas. It was created to provide an alternative to the Gall-Peters projection. Continents in the Equal Earth map projection have a pleasing appearance, shaped similarly to how they appear on a globe. The projection is appropriate for mapping global phenomena or for any other thematic world map that requires areas at their true relative sizes. Read the research paper: [The Equal Earth map projection](#).

- Peirce quincuncial

The Peirce quincuncial map projection depicts the world in a square. It was developed by Charles Sanders Peirce in 1879. In his original design, the projection is centered at the North Pole and displays the equator as a rotated square within the map. The projection is conformal except at the four bends of the equator. The ArcMap implementation of this projection maintains its conformal property on ellipsoids such as WGS 1984.



The Peirce projection shown in square and diamond orientation

There are two orientations to choose from, square and diamond. Set the **Option** parameter to 0 for square or to 1 for diamond orientation.

**⚠ Caution:** To publish feature, map, or image services from maps that use these projections, the lowest release ArcGIS Server site you can publish to is 10.7.

## Data

The following functionality changes have been made in data management in ArcMap 10.7:

### Databases and geodatabases

- ArcGIS 10.7 supports Oracle 18c.
- You can no longer create user-schema geodatabases in Oracle. You can continue to use and upgrade existing user-schema geodatabases at this release, but you should begin [moving your data to stand-alone geodatabases](#).
- The use of Altibase databases with ArcGIS has been deprecated.

- You cannot create a geodatabase in Microsoft SQL Server 2012 or upgrade an existing geodatabase if it resides in a SQL Server 2012 database. Upgrade SQL Server to a supported release before you upgrade your geodatabase.

## Extensions

### Network Analyst

- The '+' and '-' operators are added to the [Function evaluator](#). These operators can be used when setting up a function evaluator on a network dataset.

# What's new in ArcGIS Enterprise 10.7


## Documentation

We've updated our installed documentation to make the complete ArcGIS Enterprise help available from each software component. The new documentation is equivalent to the product you'll find on our [website](#) - including the ability to search across all components - from an installed directory behind your organization's firewall.

Each of our primary software components (ArcGIS Server, Portal for ArcGIS, ArcGIS Data Store, & ArcGIS Enterprise Builder) have been updated to include the new documentation format.

## ArcGIS Enterprise Builder

You can now specify custom Web Adaptor names for your hosting server and ArcGIS Enterprise portal while configuring new deployments with ArcGIS Enterprise Builder. See [ArcGIS Enterprise Builder installation steps](#) for more information.

 **Note:** When performing upgrades with ArcGIS Enterprise Builder you will not have the ability to change existing Web Adaptor names.

## ArcGIS Server

Find out [What's new in ArcGIS Server](#) and ArcGIS Server licensing roles.

## ArcGIS Enterprise portal

Many new features and enhancements are available for mapping, analytics, and sharing workflows. For a detailed list, see [What's new in the Enterprise portal](#).

## ArcGIS Data Store

Find out [What's new in ArcGIS Data Store](#).

## ArcGIS REST API

Find out what's new for developers in [the ArcGIS REST API Services Directory](#) and in [ArcGIS Server administration](#).

## System requirements

ArcGIS Enterprise is now supported on Windows Server 2019 (64 bit) operating systems for Standard and Datacenter editions.

For additional details relevant to individual ArcGIS Enterprise components, see [System requirements topics](#).

# What's new in ArcGIS Server 10.7

## Server administration

### Architecture

ArcGIS Server 10.7 introduces shared instances, a configuration in which some or all of the services published to your site use a pool of service processes (ArcSOC.exe processes) rather than having their own reserved instances. This conserves memory usage on your server machines by reducing the number of processes running when there is no need for them, and does so without detracting from service performance. To learn more, see [Shared instances](#).

### Security

ArcGIS Server 10.7 includes several fixes and enhancements that improve the security of the software. It's recommended that you [upgrade to 10.7](#) to help protect your ArcGIS Server infrastructure.

ArcGIS Server now sends a no-sniff web header with all web traffic by default. This header prevents the user's web browser from "sniffing" the content-type of requests away from the content-type declared by ArcGIS Server. This is a defense against cross-site scripting (XSS) attacks. There is an option to [disable the no-sniff header](#), which should be used with caution.

### Monitoring

A new page, **Jobs**, is available in ArcGIS Server Manager under the **Site** tab. On this page, you can query for current jobs for any of your site's published services, view information about each job, and intervene to cancel or delete jobs.

All requests made to ArcGIS Server services, such as to draw a map or locate an address, are now assigned a unique **Request ID**. This ID is included in all logs involving the request. Queries to the server logs can be filtered for a specific Request ID, allowing you to view a comprehensive timeline of how the request was processed. Doing so can aid your monitoring, troubleshooting, and server optimization efforts.

## New in ArcGIS Server licensing roles at 10.7

Many updates have been made across the ArcGIS Enterprise platform at 10.7:

### ArcGIS GeoAnalytics Server

New tools and enhancements are available in the ArcGIS Enterprise portal. See [What's new in the portal](#) for details.

ArcGIS GeoAnalytics Server can now support [writing results to big data file shares](#).

### New in other ArcGIS Enterprise components

See the following topics to find out what's new in Portal for ArcGIS, ArcGIS Data Store, and the ArcGIS REST API Services Directory:

[What's new in Portal for ArcGIS](#)

[What's new in ArcGIS Data Store](#)

[What's new in the ArcGIS REST API Services Directory](#)



# What's new in the ArcGIS Enterprise 10.7 portal

## Organization administration

### User types

[User types](#) replace member levels as a more flexible way to license capabilities and apps in ArcGIS Enterprise. User types allow organizations to allocate identity, privileges, and apps to better align with the needs of members.

### Language and region

- Hungarian and Catalan languages are now supported in the portal.
- Traditional Chinese is no longer available in the help.
- In English and Spanish, you can now change the way [numbers and dates](#) are displayed in the portal.

### Webhooks

[Webhooks](#) send out HTTP requests to indicate that a specified event has occurred within your portal. A webhook can be triggered by events associated with items, groups, and users.

### Administrative contacts

You can now provide [contact details for administrators](#) of your portal, which will be visible to all non administrator users on the **Organization** page.

## User experience

The 10.7 portal contains many interface enhancements to help you work with and administer your portal.

- The [organization page](#) has been redesigned to help you administer your organization and find information. A new **Overview** tab highlights key information about the organization, such as licenses available and the number and types of members. From the **Members** tab, you can [filter members](#) by role and level, and [disable and enable membership](#) for multiple members at once.
- The portal is more responsive when you access it on smaller screens.
- ArcGIS Living Atlas of the World content is better segregated from interfaces and searches specific to your portal organization. This makes it easier to find the content created by members of your organization without having to sift through all the Living Atlas content. The following table indicates interfaces that no longer include Living Atlas and the ones where you can find Living Atlas content:

No longer includes Living Atlas content	Use instead
<b>My Organization</b> tab on the Content page	<b>Living Atlas</b> tab on the Content page
The Gallery	<b>Living Atlas</b> tab on the Content page
When searching <b>My Organization</b> in Map Viewer ( <b>Add &gt; Search for Layers &gt; My Organization</b> option)	Use <b>Add &gt; Search for Layers &gt; Living Atlas</b> or use <b>Add &gt; Browse Living Atlas Layers</b>

When searching **My Organization** in Scene Viewer (**Add layers > My Organization** option)

Use **Add layers > Living Atlas**

## Data management

- To make it easier for feature layer owners to view and manage fields in the layer's attribute table and related tables, a new [Fields view](#) is available on the layer's item page. You can filter fields by data type, sort the fields list, change the order in which the fields are listed, in the **Fields** view, and explore details for specific fields. Layer owners and organization administrators can also [add or delete fields](#) from hosted feature layers, [define lists or value ranges](#) for the fields, rename fields, and [configure a field display name](#) when viewing the layer from the Fields view page.
- You can guide editors to the correct values when they edit attributes in hosted feature layers by [defining a list of possible values](#). Editors choose the correct value from the list when they add a new feature or update the attribute, which helps avoid typos and incorrect values. For numeric attributes, you can [define a valid range of values](#). If an editor enters a value outside the range, the portal notifies them that the value is outside the supported range.
- The feature layer template gallery now includes templates that allow you to [build empty hosted feature layers](#) and define the layer schema to meet your specifications rather than using a predefined schema. These new templates are in the **Build a layer** category in the template gallery. Choose a template to create a point, line, or polygon layer, and [add fields](#), [define lists or value ranges](#) for the fields, and configure [feature types and templates](#).
- ArcGIS Enterprise has improved how files are uploaded through your browser, significantly decreasing the time it takes to add or update files in your organization. Additionally, the 1 GB file upload size limit has been removed. You can now upload files up to 200 GB in size to **My Content** through a web browser.
- When you define what features are included in a hosted feature layer view, you can [limit the view to include the features present in a specific area of interest](#).
- You can [enable synchronization](#) on hosted feature layer views, allowing you to include the views in web maps you take offline and include them in a data collaboration.
- You can now [rename the layers](#) in your hosted feature layers and hosted feature layer views.
- To save time, you can [rebuild only the parts of a hosted scene layer's cache](#) that changed as a result of edits made to the associated feature layer.
- Military Grid Reference System (MGRS) and United States National Grid (USNG) are now supported coordinate reference systems for publishing comma-separated values (CSV) files as [hosted feature layers](#).

## ArcGIS Data Store

The following new and updated ArcGIS Data Store functionality is available in ArcGIS Enterprise 10.7:

- When you upgrade a highly available relational or tile cache data store to ArcGIS Data Store 10.7, you can [complete the configuration portion of the upgrade on either the primary or standby machine](#). Prior to 10.7, you had to complete the upgrade from the primary machine.
- Improvements have been made to the [configurebackuplocation](#) utility to allow you to change the name of a backup location, change the credentials for Amazon S3 backup locations, change the password for accounts used for Azure Blob backup locations, and change the default backup location for relational data stores, even when the existing location is inaccessible.

On a daily basis, the relational ArcGIS Data Store analyzes common queries that clients send to hosted feature layers and optimizes the execution of these queries to improve hosted feature layer performance.

## Changes in database support

The following are changes in support for the databases you register with ArcGIS Server sites:

- ArcGIS 10.7 supports Oracle 18c.
- You can no longer create user-schema geodatabases in Oracle. You can continue to use and upgrade existing user-schema geodatabases at this release, but you should begin [moving your data to stand-alone geodatabases](#).
- You cannot create a geodatabase in Microsoft SQL Server 2012 or upgrade an existing geodatabase if it resides in a SQL Server 2012 database. Upgrade SQL Server to a supported release before you upgrade your geodatabase.
- The use of Altibase databases with ArcGIS has been deprecated.

## Mapping and visualization

- Map Viewer has two new smart mapping styles that allow you to visualize relationships between numeric attributes in your data. These [relationship styles](#) apply a combination of two distinct color ramps to the attribute data, allowing you to see where the attributes may be related. For example, you can see where obesity rates and diabetes rates are both high, and whether rates of physical inactivity are consistent with the pattern.
- Map authors supporting offline field work can now [create map areas](#) from web maps. Using map areas makes it easier to take maps offline. Map areas can be used in Collector for ArcGIS and ArcGIS Runtime SDK custom apps.

## ArcGIS Living Atlas of the World content

The process of [searching for and adding Living Atlas layers to maps and scenes](#) has been simplified and improved. New filters are available to help you find the right content in Map Viewer and Scene Viewer, as well as on the [Living Atlas tab of the Content page](#). For example, you can use the following categories and status filters when searching Living Atlas content:

- Categories—The Trending category contains two subcategories—New and noteworthy and Current events. To find Living Atlas content that was added for the 10.7 release, use the New and noteworthy category. Content that represents live data feeds, such as weather and disaster events, can be found using the Current events category.
- Status—Use the authoritative status filter to find Living Atlas content that Esri recommends. To identify Living Atlas items that have entered [mature support](#), filter for items in the deprecated status. Once you identify deprecated content, you can start replacing the content in your maps and apps before the content is retired.

In addition to [separating Living Atlas content from your organization's content](#), other changes that help you find the content you need include the addition of new badges on Living Atlas items. These include a Living Atlas badge and badges let you know if the content is authoritative, deprecated, subscriber, or premium content when applicable.

A Living Atlas boundary layer file is now available for Estonia (EST). You can download this file from [My Esri](#) and publish it to your portal to make these layers available to your portal members. Updates are also available on My Esri for 30 of the existing country boundary layers.


## 3D GIS

- Add feature layers with hundreds of thousands of points while maintaining high performance in Scene Viewer. The features are dynamically loaded and displayed as you navigate your scene. Also, point scene layers display significantly more points and allow for much faster interaction.
- Create stunning city scenes with [edge rendering](#). Now you can choose solid edges to accentuate your building outlines or sketch edges to give your buildings a more hand-drawn look. You can also customize the size and color of the building edges for aesthetic purposes.
- Visualize and explore both global and local scenes underground. The new [ground transparency slider](#) allows you to see through the ground surface and reveal underground features such as seismic measurements or utilities infrastructure. You can also [navigate underground](#) in global scenes to better visualize and interact with the subsurface data. Furthermore, you can set a ground color when you [configure ground](#) and expose the color in your scene with the Basemap tool.
- Embed your scene with a custom [background color](#) that matches your site or blog style. When you choose a background color the sky and stars in your scene are removed and you can invent your own cartographic style.
- Discover all these new features on the go with your modern phones and tablets now [supported in Scene Viewer](#).
- You can now navigate scenes with gamepad and 3D mouse devices in Scene Viewer. Use these tools to intuitively view and explore features, such as buildings and 3D models, underground assets, or interior rooms and corridors.
- Find features in scenes more easily by [searching](#) for layer attributes, such as names or IDs. You can now configure layers in scenes to allow viewers to search for and zoom to specific features in a layer. For example, you can enter the name of a hotel conference room, and Scene Viewer navigates to the room, highlights it, and displays a pop-up about the space.
- You can now add hundreds of thousands of lines and polygons into Scene Viewer. Display and visualize large datasets such as streets, rivers, parcels, and country borders. This new line and polygon enhancement, combined with the support for large point datasets, now removes the feature count limit for adding layers in Scene Viewer.
- Display tens of thousands of points with 3D symbols such as realistic trees. With the new automatic level of detail, you can now display 3D models from the Esri-provided gallery while maintaining strong performance.
- Apply a [filter](#) to your feature or scene layers. You can now choose an attribute and select the features that appear in your scene. This new feature is available in the Layer Properties option for all geometry types, including point cloud layers.
- The new [building scene layer](#) allows you to explore BIM building data in Scene Viewer. Building scene layers published from ArcGIS Pro 2.3 allow you to display and hide exterior and interior structures such as roofs, walls, doors, and mechanical systems.
- [Slice](#) your scene content with a new interactive tool in Scene Viewer. You can reveal hidden data in building interiors or underground, zoom in, and dynamically interact with the measure tools.
- [Upload images](#) to use as icons with your point layers. You can now customize your scene with symbols in addition to the Scene Viewer gallery.
- The new redesigned UI for searching and [adding layers](#) in Scene Viewer allows you to filter and sort results; and search within Living Atlas, groups, or favorites.


## Sharing and collaboration

The following features are new in distributed collaboration:

- You can [share Insights Workbooks, Pages, and Models with a collaboration](#). Shared Pages and Workbooks provide participants outside of your organization with a read-only copy of your complete analysis and results. Sharing your Insights Models will provide collaboration participants with your workflow, providing them the opportunity to rerun your analysis with their own data.
- [Feature layer views can be shared as copies](#). When shared as a copy, only the data represented in the view will be shared with collaboration participants, with any edits or updates to the source layer will be synchronized based on the established sync interval.

 **Note:** Hosted feature layer views must be sync-enabled to be shared as a copy.

- Administrators or collaboration groups owners are now able to save credentials for map and feature services shared as references to a collaboration within ArcGIS Enterprise. Choosing to save credentials will provide any user with access to the item the ability to view the service without needing to authenticate for a second time. If credentials are not saved, the service will still be accessible; however, the user accessing the item will need to enter credentials from the originating portal to gain access to the item.
- Portal administrators now have the ability to [pause and resume schedule syncs for workspace collaborations](#). A scheduled synchronization can be easily halted for planned events, such as system maintenance and QA activities, by choosing to **Pause Sync**. During this time, no scheduled synchronization will take place, and will only be restarted when **Resume Sync** has been selected.

 **Note:** The Sync Status Report will reflect the status of scheduled syncs by either showing the next scheduled sync time or by showing "Paused" if the administrator has chosen to temporarily pause the service.

## Analysis

Several new tools are available for standard and GeoAnalytics feature analysis and raster analysis.

### Standard feature analysis

The following new and updated tools are available in the ArcGIS Enterprise portal:

- [Find Nearest](#), [Create Drive Time Areas](#), [Plan Routes](#), [Connect Origins to Destinations](#), and [Choose Best Facilities](#) now include an option to apply point, line, and area barriers on streets. Examples of possible barriers include fallen trees, traffic accidents, parade routes, and floods.
- [Custom web tools](#) published from ArcGIS Pro can now create results as hosted feature layers. Custom web tools now also support the `Field` parameter type.
- The **Browse Layers** window has been updated to improve the experience of browsing to and adding analysis layer from within the tool dialog pane. You can access the window by choosing **Browse Layers** from the drop down menu of compatible tool parameters.

### GeoAnalytics

The following new tools are available in the ArcGIS Enterprise portal:

- [Clip Layer](#) extracts input features from within specified polygons of interest.

- [Dissolve Boundaries](#) finds polygons that intersect or have the same field values and merges them together to form a single polygon.
- [Enrich From Multi-Variable Grid](#) joins attributes from a multi-variable grid layer to a point layer.
- [Forest-Based Classification and Regression](#) creates models and generates predictions using an adaptation of Leo Breiman's random forest algorithm, which is a supervised machine learning method.
- [Generalized Linear Regression](#) generate predictions and models a dependent variable in terms of its relationship to a set of explanatory variables.
- [Merge Layers](#) copies all features from two layers to a single output layer.

Enhancements have been made to the following existing tools and capabilities:

- [Find Point Clusters](#) can apply the HDBSCAN algorithm.
- Support has been added for [writing results to big data file shares](#).

## Raster analysis

Raster analysis in ArcGIS Image Server features the following two new tools exposed in Map Viewer through the Enterprise portal:

- **Classify Pixels Using Deep Learning**—Runs a trained deep learning model on an input raster to produce a classified raster, with each valid pixel having a class label assigned.
- **Detect Objects Using Deep Learning**—Runs a trained deep learning model on an input raster to produce a feature class containing the objects it finds. The features can be bounding boxes or polygons around the objects found, or points at the centers of the objects.

## Apps

The following are new for apps in the portal.

### Web AppBuilder for ArcGIS

The following widgets and themes were added or improved. For more information, see the [Web AppBuilder for ArcGIS section of the help](#).

#### *Themes*

A [Pocket theme](#) has been added for apps embedded in web sites, story maps, or other locations with surrounding context, where only one widget is supported in a panel positioned on the left or the right.

## Widgets

- A new widget—[Cost Analysis](#)—is available that allows you to sketch a proposed design and get an estimated cost of the project. When you use the [Filter widget](#), you can now select multiple values for a field in a single expression, display features that match any of the filters in the app, group filters by layer, add a blank value to the predefined values list, and uncheck all the selections at once in a multiple-value list.
- With the [Query widget](#), you can hide or customize filter labels for query criteria and spatial filters, and you can type a value and press [Enter](#) to apply the query. When you use the [Query widget](#), you can rename the resultant layer and keep the spatial filter shape drawn on the map after execution.
- The [Time Slider widget](#) allows you to set relative time span and intervals to animate live data such as showing the weather for the past five days in two-hour intervals.
- When you use the [Search widget](#) to perform geocoding or feature search on point, line, and polygon layers, the widget honors the zoom-scale parameter in the resulting search extent. This widget also allows you to type coordinates with UTM or specified by a WKID in the search box to locate a place on the map and has an option to pan to the search result without zooming.
- When using the [Swipe widget](#), you can swipe multiple layers at a time using the swipe mode option.
- The [Legend widget](#) includes a new option to display the symbology of the basemap layers.
- A new option in the [Layer List widget](#) allows grouped layers to expand when the widget is opened. Another new option allows you to include basemap layers in the list. You can also find layers in the list by typing a keyword.
- With the [Daylight \(3D\) widget](#), you can choose a specific date to reflect the sun's position at different times.
- The [Draw widget](#) displays the measurement label for a point in degrees or degree-minute-second format. You can also now use this widget to change the font size and font color to display the measurements.
- The [Measurement widget](#) allows you to snap to the measured features for accuracy.
- The [Measurement \(3D\) widget](#) supports measuring the area and perimeter of a polygon.
- The [Attribute Table widget](#) allows you to configure a default sort field.
- With the [Coordinate widget](#), you can change the display label for a configured coordinate system and set a default coordinate system.
- With the [Infographic widget](#), you can add line and area markers as guidelines to view the charts in the bar, line, column, and area templates; add titles for x and y axis; change the background color of the gauge bar; and set dynamic maximum and minimum values, which are dependent on statistic data configured in Extra Data source, for the gauge templates.
- When using the [Related Table Charts widget](#), you have the option to use line charts. You can use a line chart with one or many data series.
- The [Parcel Drafter widget](#) allows you to save your last used traverse settings, and delete parcels using the Delete tool. When using the traverse pane, you can move it to the start and rotation position.
- The [Edit widget](#) now allows you to edit many-to-many related records and control the capability to add or delete features. This widget also has a new option to honor the editable layer setting defined in the web map.
- The [Smart Editor widget](#) enables you to move a point feature to coordinates or a GPS location that you provide.



- The [Geoprocessing widget](#) allows you to select a table from the map as an input of GPRecordSet and to check the option to hide the **Others** symbol from the legend as an output.
- The [Directions widget](#) allows you to save the route as a hosted layer in your portal.
- The [Print widget](#) allows you to define the output spatial reference on the **Advanced** tab for the printout.

## Configurable app templates


The following new configurable app templates are available:

- [Compare](#)—Present a side-by-side or stacked view of two maps, two scenes, or a map and a scene that allows the app user to explore the differences and similarities in the data in each.
- [Image Mask](#)—Create an app that allows users to identify differences between two imagery layers.
- [Image Visit](#)—You can bookmark locations within a map that displays imagery to lead the app user through a predefined tour of the map.
- [Imagery Viewer](#)—Apps created using this template allow users to compare two imagery layers using a swipe tool. This is useful for comparing changes over time.
- [Map Styler](#)—The Map Styler template allows you to customize the app presentation and provides basic tools for app users to explore a web map. This template replaces the Map Tools and Simple Map Viewer templates.
- [Media Map](#)—The template is designed to create apps that present web maps in a small space, such as within a news article or presentation on the web.
- [Scene Styler](#)—The Scene Styler template allows you to customize the app presentation and provides basic tools for app users to explore a web scene.
- [Scene with Inset Map](#)—Display a 2D inset map with a 3D scene to help app users orient themselves within the scene.

The following app templates have been retired and are no longer available for creating new apps. Use the suggested replacement app template instead.

Retired app template	Replacement app template
Compare Analysis	<a href="#">Compare</a>
Compare Scenes	<a href="#">Compare</a>
Maps and Apps Gallery	<a href="#">Minimal Gallery</a>
Map Carousel	<a href="#">Minimal Gallery</a> Though not a group app, you can use the <a href="#">Story Map Series</a> template to show a collection of web maps as well.
Map Tools	<a href="#">Map Styler</a>
Simple Map Viewer	<a href="#">Map Styler</a>



 **Tip:** Esri does not maintain code on retired templates, and retired templates are no longer available from Map Viewer or the **Content** page. However, you can download the source code and API for retired templates, and host them on your own web server. Instructions are included in readme files included with the download file.

## Geocoding

There is a new API in ArcGIS Server 10.7 called Geocode File, which allows users to geocode large files of data and returns back the geocoded results in an output file. Possible inputs to this API are zipped comma separated values (CSV) files, Microsoft Excel (.xls) files, and file geodatabases with address information. The API outputs a zipped CSV file, .xls file, or a geodatabase table with the geocoded results (location information) appended to the input file. Developers can write code against this API to perform large-scale batch geocoding in their ArcGIS Enterprise portal organization.

For more information about how to set up large scale batch geocoding, see: [Configure Portal to Geocode Addresses](#).

For more information about the Geocode File API, see [Geocode File](#).

## Important Information

### Legacy Operations Dashboard view items

The legacy Operations Dashboard product was moved to a retired state on January 1st, 2019. In ArcGIS Enterprise 10.7, you will no longer be able to create or edit Operation View items. Existing Operation View items will be marked as deprecated in your portal. These will remain as read-only items to support the re-creation of these items using the new Operations Dashboard web app before the next major release, when old Operation View items will no longer be accessible.

Going forward, the new and improved [Operations Dashboard](#) app built into ArcGIS Enterprise will provide comprehensive and insightful views of your data.

### Portalpy Removal

Portalpy is no longer included in the ArcGIS Enterprise 10.7 setup. All Portalpy functionality is provided by the ArcGIS API for Python which has been included for a number of releases. For legacy automation scripts, it is possible to [download Portalpy](#).

## What's new in ArcGIS Data Store 10.7

The following new and updated ArcGIS Data Store functionality is available in ArcGIS Enterprise 10.7:

- When you upgrade a highly available relational or tile cache data store to ArcGIS Data Store 10.7, you can [complete the configuration portion of the upgrade on either the primary or standby machine](#). Prior to 10.7, you had to complete the upgrade from the primary machine.
- Improvements have been made to the [configurebackuplocation](#) utility to allow you to change the name of a backup location, change the credentials for Amazon S3 backup locations, change the password for accounts used for Azure Blob backup locations, and change the default backup location for relational data stores, even when the existing location is inaccessible.

On a daily basis, the relational ArcGIS Data Store analyzes common queries that clients send to hosted feature layers and optimizes the execution of these queries to improve hosted feature layer performance.