What's new in AppStudio

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What's new in AppStudio

Features have been progressively added to AppStudio. The specific features added at each stage of the release are described below.

Beta features are also available before being finalized. These features have incomplete functionality and are subject to change before becoming part of an official release. For a list of features currently in beta, see Sneak peek.

Version 5.5

📒 **Note:**
ArcGIS AppStudio will be retired in February 2025. AppStudio 5.5 is a long-term support release focusing exclusively on bug fixes and minor updates. For more information see the Product Life Cycle document. Current developers of AppStudio apps should consider migrating their apps to one of the ArcGIS Maps SDKs. It is strongly recommended that developers starting new app projects use one of the ArcGIS Maps SDKs. For more information, see the AppStudio 5.5 and beyond blog post.

Changes and new features in ArcGIS AppStudio include the following:

- ArcGIS Runtime has been updated to 100.15.1.
- Cloud Make now supports XCode 14 for iOS and macOS builds, to meet April 2023 App Store requirements.
- AppStudio AppRun is now installed in place of AppStudio Player when running apps on iOS simulators and Android emulators.
- Apps automatically run when launched on an iOS simulator.
- Bugs were fixed regarding text misalignment, truncation, and character sets, when AppStudio is used in languages other than English.
- Bugs were fixed in which an error occurs when attempting to sign-in and retrieve an AppStudio Developer Edition licence.
- A bug was fixed in which the table of properties failed to appear for apps not created from templates.
- For apps targeting Android 13 or above, notification runtime permissions are now supported.
- On iOS, bitcode is no longer built into executables created with cloud or local Make.
- On Android, a bug was fixed in which app link URL scheme parameters did not work on some devices.
- On Android 12, a bug was fixed in which apps using indoor positioning would crash.
- For improved security, Windows executables are now signed with a SHA256 algorithm.
- On Windows, a bug was fixed in which the bin folder and contents are not deleted on uninstall of AppStudio.
- On macOS Ventura, a bug was fixed in which Qt Creator would not open.

Changes and new features in AppStudio AppFramework include the following:

- A bug was fixed in which the `stayAwake` property of the `Platform` component, failed to stop a device going to sleep whilst recording audio.
- For improved security `ZipFileInfo`, `ZipReader`, and `ZipWriter` components have been updated to use zlib 1.2.13 library.

- The `network.proxy` property of the `AppFramework` component can now be refreshed when system proxy changes on the device, without needing to restart the app.

- Newest iOS device names have been added to the `systemInformation` property of the `AppFramework` component.

- On iOS, a bug was fixed in which forward proxy settings were being incorrectly ignored when using the `NetworkRequest` component.

- On macOS, a bug was fixed that caused apps to crash when using the `Battery` component.

Changes and new features in AppStudio Player include the following:

- ArcGIS Runtime has been updated to 100.15.1.

Version 5.4 November Update

Changes and new features in the AppStudio templates include the following:
- For Sidebar, improved workflow when creating features or editing the geometry of an existing feature.

- For Sidebar, field groups and contingent attribute values are supported.

- For Attachment Viewer, the limitation of 100 features per feature layer has been removed. All features that display in the online app will display in the AppStudio app.

- For Map Viewer, new features can be created and the geometry of an existing feature can now be edited.

Version 5.4 August Update

Changes and new features in ArcGIS AppStudio include the following:
- IWA sign-in dialog box improved to ensure it appears in front of other desktop windows.

- Fixed a bug in which IWA sign in only worked at the time of adding a new portal.

- Fixed a bug in the Advanced Configuration tool that incorrectly displayed an error message when trying to choose kits on macOS and Ubuntu.

- Fixed bugs regarding text misalignment, truncation, or orientation, when AppStudio is used in languages other than English.

- On iOS, fixed a bug in which apps wouldn't launch automatically when running on a simulator.

Changes and new features in AppStudio AppFramework include the following:
- Added activity (whether a user is stationary, walking, running, or driving) recognition support for iOS and Android.

- Fixed a bug in which the EXIF orientation value was always stored as 1, regardless of the orientation of the camera when taking the photo.

- Fixed a bug in which forward proxy settings were being incorrectly ignored.

- Fixed a bug in which video preview was not displayed when using either the CameraDialog or Qt Video component to capture a video.

- On iOS, fixed a bug in which the AppFramework systemInfomation property was not returning full device model information.

- On Windows, fixed a bug when multiple position sources are present in an app, where only the position source that was started first, provides position updates.

Changes and new features in AppStudio Player include the following:
- On iOS, fixed a bug when opening Player from an app link, where it would not run automatically if it was already downloaded onto the device.

- On iOS, fixed a bug on the Diagnostics page where device model was not returning all available information.

Version 5.4

Changes and new features in ArcGIS AppStudio include the following:
- ArcGIS Runtime has been updated to 100.14.

- Added UI to Settings for assigning an ArcGIS API key.

- Authentication handling has been improved to retrieve a new token from the app when a token expires.

- Zlib library used for handling `.zip` files has been updated to 1.2.12 to resolve a security issue reported in CVE-2018-25032.

- The default value of the high-DPI scale factor rounding policy has been changed to PassThrough, which preserves historical behavior from earlier Qt versions. For more information, see Set high-DPI scale factor rounding policy.

- The new **Overview** sample demonstrates how to add a relocatable overview map to your app.

- The new **Arcade expression** sample demonstrates how to display Arcade expressions in map labels or app pop-ups.

- AppStudio now uses Qt Quick Controls 2 instead of the deprecated Qt Quick Controls 1.

- Right to left language display improvements.

- Fixed a bug on Windows that caused apps to hang when device location was disabled.

- The default target Android version is now Android 12, to match requirements coming to Google Play in August 2022. For more information, see Meet Google Play's target API level requirement.

- For Android, improvements have been made to adhere to Android 12 behavior changes. For more information, see Behavior changes: Apps targeting Android 12.

- Added support for Android 12 approximate location permission.

- Added support for Android 12 bluetooth permission.

- For Android, unredacted EXIF metadata can now be retrieved from photos. For more information, see Media location permission.

- Fixed a bug on Android that caused location permission requests to appear too late.

Changes and new features in AppStudio Player include the following:
- ArcGIS Runtime has been updated to 100.14.

- Apps that use an ArcGIS API key are now supported.

- Fixed a bug on Windows that caused the app to hang when device location was disabled.

- Fixed a bug on Android that caused location permission requests to appear too late.

Changes and new features in the AppStudio templates include the following:
- One new template has been added. The Sidebar template provides a native app experience for a set of tools and options that appear in a side panel next to the map.

- For Map Viewer, the table of contents has been updated to display layers, sublayers, and symbology.

- For Map Viewer, the legend is supported for Image Services.

- For Map Viewer, improved feature selection graphics, right to left language text and check box alignment, and button text display.

- For Attachment Viewer, sort field and sort order settings for each layer in the Instant Apps configuration is now honored.

- For Attachment Viewer, scroll horizontally between previous and next features in the pop-up.

- For Zone Lookup, offline maps are now supported.

- For Zone Lookup, improved display of long content and distinct values in drop-down lists.

- For Nearby, both user-defined and predefined filters are supported.

- For Nearby, search using polylines or polygons.

- For Quick Report, improved right to left language handling.

Version 5.3 April Update

Changes and new features in ArcGIS AppStudio include the following:
- Fixed a bug on Android 6 that caused armv7 apps to crash on startup.

- ArcGIS Runtime has been updated to 100.13.1.

Changes and new features in AppStudio Player include the following:
- Fixed a bug on Android 6 that caused AppStudio Player armv7 to crash on startup.

- ArcGIS Runtime has been updated to 100.13.1.

Version 5.3

Changes and new features in ArcGIS AppStudio include the following:

- ArcGIS Runtime has been updated to 100.13.

- Bulgarian language support has been added.

- Cloud Make now supports XCode 13 for iOS and macOS builds, to meet April 2022 App Store requirements.

- Added support for ArcGIS Runtime `IndoorsLocationDataSource` functionality.

- The new **Split View** sample demonstrates how to use the split views to display dynamically resizable components.

- The new **Time Extent With Slider** sample demonstrates how to apply a specified time extent to visualize temporal data.

- The AppFramework SQL plugin can now handle arguments outside of the 32-bit signed integer range.

- The AppFramework Platform plugin can now return the correct battery level and charging source across different platforms.

- On Android, the AppFramework Positioning plugin will now display the permission dialog box after the `PositionSource` component is instantiated.

- On Android 6 and 7, adaptive icons are now supported.

Changes and new features in AppStudio Player include the following:

- ArcGIS Runtime has been updated to 100.13.

- Bulgarian language support has been added.

Changes and new features in the AppStudio templates include the following:

- For Zone Lookup, support has been added for drawing a zone to perform a spatial query on a user-defined area.

- For Zone Lookup, predefined and user-input filters are now supported.

- For Zone Lookup, users can now scroll through features in a result pop-up.

- For Zone Lookup, various search and query improvements have been made.

- For Attachment Viewer, offline maps are now supported.

- For Map Viewer, an elevation profile tool has been added.

- Status bar support has been added for Zone Lookup, Nearby, and Attachment Viewer.

Version 5.2

⚠️ **Caution:**

Windows 8.1 is no longer supported by ArcGIS AppStudio or AppStudio Player. Apps made using AppStudio 5.2 or later will no longer function in Windows 8.1 devices.

Changes and new features in ArcGIS AppStudio include the following:

- ArcGIS Runtime has been updated to 100.12.

- Qt has been updated to 5.15.6.

- Qt Creator has been updated to 5.0.2.

- New `restart` method in the `AppFramework` component allows an app to be restarted automatically.

- New `uuid` methods in the `AppFramework` component provides more functionality for working with UUID and GUIDs.

- New `contains` method in the `SecureStorage` component to check whether a key is present in secure storage.

- The `ImageObject` component now supports loading of images from a hosted source using an HTTP or HTTPS URL, allowing apps to download images and store them locally.

- The `ImageObject` component now has an `autoTransform` property to ensure JPEG images automatically apply image transformation metadata such as orientation.

- Added support for the ArcGIS Runtime AR (Augmented Reality) toolkit.

- On Android, the Positioning plug-in has been improved to provide more information about the location.

- Apps can now interface with the Windows 10 sharing API.

- Cloud make improved to support iOS 15 when using an enterprise certificate to sign an app.

- Adaptive icons are now supported for Android apps.

- New sample added, **Location Driven Geotriggers**.

- On Android, the GNSS Discover sample switches to use the classic provider when mock locations are detected. This ensures GNSS metadata that is available via Android Extras (such as PDOP, VDOP, HDOP, accuracy mode, and MSL) will be displayed.

- On Android, the GNSS Discover sample displays a satellite sky plot and NMEA log on the location status page when using the integrated location provider.

Changes and new features in AppStudio Player include the following:

- ArcGIS Runtime has been updated to 100.12.

- A **System Defaults** option has been added in the language settings, to allow Player and all apps running inside it to use the system default locale.

Changes and new features for the Nearby app template include the following:

- A selected polyline feature will now display elevation profile.

- Users can now download and view offline map areas.

- **Get Directions** functionality now provides support for Google Maps and Apple Maps.

- Support has been added for showing feature attachments, such as images, videos, and audio.

- The instant app properties **Limit results by layer specified** and **Limit layers for directions** are now supported.

- Users can now perform spatial searches using the map extent if this has been configured in the source instant app.

- Enhanced search UI and queries to support feature search.

- Right-to-left languages such as Arabic and Hebrew are now supported.

- Improved handling of thousand and decimal separators, and non English text, in the UI.

Changes and new features for the Zone Lookup app template include the following:

- Support has been added for showing feature attachments, such as images, videos, and audio.

- The instant app property **Limit results by layer specified** is now supported.

- Enhanced search UI and queries to support feature search.

- Right-to-left languages such as Arabic and Hebrew are now supported.

- Improved handling of thousand and decimal separators, and non English text, in the UI.

Changes and new features in the Attachment Viewer template include the following:

- Supports editing feature attributes.

- Enhanced search UI and queries to support feature search.

Changes and new features for the Map Viewer app template include the following:

- Support has been added to show basemaps for a configured basemaps group.

- Supports a status bar.

- Right-to-left languages such as Arabic and Hebrew are now supported.

- Improved handling of thousand and decimal separators, and non English text, in the UI.

Version 5.1

Changes and new features in ArcGIS AppStudio include the following:

- ArcGIS Runtime has been updated to 100.11.
- Minimum supported operating system versions have been updated. For more information, see System requirements.
- Support has been added for launching desktop apps in a minimized mode.
- Support has been added for reading data streams from Bluetooth devices without line breaks.
- Support has been added for monitoring battery levels, charging state, and power source.
- The `SensorPort` component has been removed from the AppFramework Sensors plugin.
- The `FileFolder` component now contains methods to move files into the device's trash or recycling bin.
- In the `NetworkRequest` component, an HTTP DELETE request can now support a request body.
- The default target Android version is now Android 11, to match requirements coming to Google Play in August 2021. For more information, see Meet Google Play's target API level requirement.
- On Android, various behavioral changes have been applied to adhere to Android 11 behavior changes. For more information, see Behaviour changes for apps targeting Android 11.
- On Windows, stability has been improved for the `isOnline` property in the `Networking` component.

Deprecations and removals include the following:

- This version of ArcGIS AppStudio is the last that will support Windows 8.1.
- The AppFramework component `NetworkConfiguration` has been deprecated and will be removed from a future release.

Changes and new features in AppStudio Player include the following:

- ArcGIS Runtime has been updated to 100.11.
- Minimum supported operating system versions have been updated. For more information, see System requirements.

Changes and new features in the AppStudio templates include the following:

- Two new templates have been added. The Zone Lookup template provides a native app to find a zone or district in a specified location, and the Nearby template provides an app to discover locations on a map near to a location, including filters to narrow your search by distance or category.
- All templates have been updated to use ArcGIS Runtime 100.11.
- The Map Viewer template now supports spatial queries and searches using buffer radius, map extent, or shape.
- The Map Viewer template now supports filtering features by category.
- Improved IWA authentication experience on the 3D Scene Viewer app.
- Fixed a bug in the Map Viewer and 3D Scene Viewer templates that prevented the user from loading secured layers from secured web apps or scenes.
- Fixed a bug that prevented the user from being able to open an image in the **Identify** panel.

- Fixed a bug in Map Viewer that caused downloaded offline basemaps to not include vector basemaps.

Version 5.0

Changes and new features in ArcGIS AppStudio include the following:

- ArcGIS Runtime has been updated to 100.10.

- Qt has been updated to version 5.15.2.

- Upgraded Xcode to 12.

- Slovak is now a supported language.

- Minimum supported operating system versions have been updated. For more information, see System requirements.

- Development tools required for local Make have been updated. For more information, see Install development tools through local Make.

- Support has been added for building your app as an Android App Bundle.

- A number of sample apps have been updated to fix bugs caused by updates to the ArcGIS Runtime, Qt, and Android file paths.

- Connection to Bluetooth LE devices from Windows no longer requires Bluetooth pairing.

- Improved stability of network requests when switching from Wi-Fi to 4G.

- Improvement to `StorageInfo` component to signal when removable storage device has been removed or inserted.

- The AppFramework `Battery` component has been finalized.

Deprecations and removals include the following:

- The AppFramework Promises and Controls plug-ins have been removed.

- The `checkCompatibility` method of the `AppFramework` component has been removed.

- The AppFramework components `AppPackage`, `AppInfoList`, `AppPlayer`, `AppPlayerSettings`, `ItemPackage` have been deprecated and will be removed from a future release.

Changes and new features in AppStudio Player include the following:

- All templates have been updated to use ArcGIS Runtime 100.10 and Qt 5.15.2.

- Slovak is now a supported language.

- More detailed information has been added to error message reports.

- Connection to Bluetooth LE devices from Windows no longer requires Bluetooth pairing.

- Improved stability when switching from Wi-Fi to 4G.

Changes and new features in the AppStudio templates include the following:

- All templates have been updated to use ArcGIS Runtime 100.10 and Qt 5.15.2.

- The Map Viewer template now supports attachments. Attachments can also be edited.

- The Map Viewer template now supports editing related records.

- The Map Viewer template now shows which user last edited the feature layer and at what time.

- The Map Viewer template now supports signing in to ArcGIS Enterprise using Integrated Windows Authentication (IWA) or Public Key Infrastructure (PKI).
- 3D Scene Viewer now includes a Daylight tool, used to simulate the position of the sun.
- 3D Scene Viewer had a bug fixed on non-Windows platforms that prevented users from downloading MSPK files from an IWA authenticated portal.
- Fixed a bug that caused missing icons in the Quick Report template when using Android emulators or virtual devices.

Version 4.4

Changes and new features in ArcGIS AppStudio include the following:

- AppStudio apps on Windows can now install a newer version without first uninstalling an older version.
- It's now possible for a user to sign in to AppStudio with one organizational account to get an AppStudio Developer Edition license, and then sign into another organization to create and share apps.
- The AppFramework `FileFolder` component now parses CSV files using the internet standard RFC 4180.
- The AppFramework `SQL` component now uses the internet standard RFC 4180 for improved virtual table handling of CSV files.
- You can use the new AppFramework `BrightnessContrastFilter` component to adjust the brightness and contrast for video.
- System warnings can now be detected for low memory.
- Support added for new background location permission introduced in Android 11.
- The Management AppFramework plug-in has been updated to provide support for AppConfig and Enterprise Mobile Management (EMM) on Windows through the use of Windows Registry subkeys and values.
- Improvements to translations, text alignment and better RTL support.

Changes and new features in AppStudio Player include the following:

- Improved readability for Player error messages.
- You can open web maps in a Map Viewer template running in AppStudio Player
- You can open web scenes in a 3D Scene Viewer template running in AppStudio Player.

Changes and new features in the AppStudio templates include the following:

- A new template has been added. The Attachment Viewer template provides an experience to view locations, feature information, and media attachments in a native app based on Attachment Viewer web apps.
- In the Map Viewer template, support has been added for editing feature attributes and attachments.
- In the Map Viewer template, support has been added for pop-ups with embedded video.
- In the Quick Report template, a bug was fixed that caused the payload URL to an Integromat webhook to be an invalid format.
- In the Map Tour template, audio issues were fixed on Android 10.

Version 4.3

Changes and new features in ArcGIS AppStudio include the following:

- ArcGIS Runtime has been updated to version 100.8.

- Qt Installer Framework has been updated to version 3.2.2.

- AppStudio now supports unattended installation on Windows, macOS, and Ubuntu.

- Various changes have been made to adhere to the Google Play requirements updated August 2020. For more information, see the AppStudio and Android 10 Scoped Storage Changes blog post.

- The app properties on the **Properties** tab of the **Settings** tool can now be localized.

- The default Android target SDK is now 29.

- On iOS, `appinfo.json` now supports a property to add `TSAppUsesNonExemptEncryption` to the property list.

- On iPad, split screen functionality is now disabled if the app doesn't support both portrait and landscape.

- Various bug fixes.

Changes and new features in the AppStudio AppFramework include the following:

- A new `Battery` component for monitoring battery levels, power modes, and the current power source has been added.

- A new `VersionNumber` component for tracking the current app version number has been added.

- A new `SystemTheme` component for accessing operating system theme characteristics has been added.

- The `File`, `FileInfo`, `ExifInfo`, and `EmailComposer` components, as well as the `Clipboard` component's share functionality, now all support content URIs.

- The `EmailComposer` component has been enhanced with a new error handling pattern.

  📋 **Note:**
  Apps that previously used the `EmailComposer onComposeError` signal will have to be rebuilt using the new `onErrorChanged` signal. Without this change, the app will fail to launch.

- The `DocumentDialog` component now uses the native device file picker on mobile devices. It also now allows you to select folders and multiple files.

- The `CameraDialog` component now supports custom file locations, as well as saving assets to the camera roll.

- You can now open files in other apps using the `AppFramework` component's new `openUrlExternally` method.

- The `AppFramework` component's `isAppInstalled` method now supports a string list with added support for Windows and macOS.

- The `BarcodeReader` component can now read white bars on a black background.

- The performance of the `BarcodeReader` component has been improved.

- The `StorageInfo` component now supports removable storage.

- The `StandardPaths` component can now provide the AppStudio home location.

- The `SecureStorage` component has a new `connectedToBackend` property, used to indicate if the component is supported by an operating system.

- Bug fixes and improvements have been made to the `Permission` singleton to support Bluetooth on iOS and new Android 10 storage requirements.

- The `BluetoothLECharacteristics` component now supports writing binary data.

- On Android, the `BiometricAuthenticaton` component now supports both fingerprint and facial identification.

- On Android, the `SecureStorage` component now has improved encryption ciphers.

💡 **Tip:**

Various changes have been made to AppStudio Player and all AppStudio templates to adhere to the Google Play requirements updated August 2020. For more information, see the AppStudio and Android 10 Scoped Storage Changes blog post.

Changes and new features in AppStudio Player include the following:

- You can now share and remove apps from groups on the **Share** page.

- Apps can now be shared through app links.

- The player can now store and switch between multiple available profiles, including changing the organization theme.

- The player now changes theme automatically based on the theme of the device.

- An app's **Details** page can now be accessed from the side load page.

- Support for signing in to ArcGIS Enterprise with PKI authentication has been added.

- The `portalUrl` and `portalName` properties can now be used when deploying with mobile device management (MDM).

Changes and new features to the Map Viewer template include the following:

- Offline routing is now supported in mobile map packages (MMPKs).

- Support has been added for searching for attributes in layer fields in MMPKs.

- A new **Sketch** tool has been added that allows you to capture a screen image and sketch on it before sending.

- Support for signing in to ArcGIS Enterprise with PKI authentication has been added.

- Support has been added for custom pop-ups, including a custom attribute display and Arcade expressions.

- The **Map** query now uses ArcGIS Runtime.

- Panels and map areas are now displayed in split screen.

Changes and new features to the Quick Report template include the following:

- Support has been added for copying and pasting values from existing reports into new reports.

- A new **Summary** page has been added, allowing you to review and edit a report before sending it.

- Quick Report now changes the theme automatically based on the theme of the device.

Changes and new features to the 3D Scene Viewer template include the following:

- Support has been added for identifying features for the map image layer, feature layers, and feature collection layers.

- You can now view attachments.

- Support for signing in to ArcGIS Enterprise with PKI authentication has been added.

- Support has been added for custom pop-ups, including a custom attribute display and Arcade expressions.

- Panels and scene areas are now displayed in split screen.

Version 4.2

Note:

This version of AppStudio no longer supports Windows 7, due to Microsoft ending extended support for Windows 7 on January 14, 2020. For more information, see Microsoft's support article on the end of Windows 7 support.

Changes and new features in ArcGIS AppStudio include the following:

- ArcGIS Runtime has been updated to version 100.7.

- QML Quick Controls have been updated for all sample apps.

- A number of AppFramework beta features, including support for Bluetooth Low Energy (LE), haptic feedback, and email composition, have been finalized.

- The AppFramework now supports loading and parsing NMEA files.

- iOS apps now support LaunchScreen storyboards.

- Split screen functionality is now enabled for apps running on iPad.

- App Transport Security is now enabled by default on iOS and macOS apps.

- Improved bar code scanning performance.

- New samples are available, including **Find Features Utility Network**, **Create, Edit and Save KML**, and **Print Location**.

- Various bug fixes.

Changes and new features in AppStudio Player include the following:

- A **Developer Mode** switch has been added to the **App Settings** page to enable the use of various debugging and app development tools. For more information, see developer tools.

- Downloaded apps now play when tapping the app's card. The app information can now be opened through the icon in the lower right corner of the card.

- Apps running in Player can now access login information from Player, such as token, user name, and passwords.

- On Windows 64-bit devices, fixed a bug that caused Player to run slowly.

Changes and new features in the AppStudio templates include the following:

- Map Viewer now includes support for offline map areas.

- Quick Report now supports feature layers with restricted editing.

- The Quick Report **Gallery** and **Draft** pages now honor the app's font size.

- Various bug fixes and localization improvements.

Version 4.1

Changes and new features in ArcGIS AppStudio include the following:

- Qt has been updated to version 5.13.1.

- The minimum supported Android version has been updated from 4.4 to 5.0.

- Support has been added for Qt 3D core QML types.

- Default locale can now be set by command line parameter while running apps built using AppStudio.

- **OK** and **Cancel** buttons are now translated in message, font, and color dialog boxes.

- The **Quit** button is now translated in installer.

- On macOS in Hebrew, `.p12` certificate files can now be selected.

- When uploading an app for the first time, the author will no longer be listed as undefined.

- On macOS, connectivity to USB and Bluetooth GNSS receivers has been improved.

- Signing in with IWA to an ArcGIS Enterprise organization now displays user name and profile picture when successful.

- Cookies created by NetworkRequest can now be overwritten by subsequent network requests.

- Apps no longer crash when using GNSS receivers emitting high frequency sentences.

- On Windows, the AppStudio Advanced Configuration tool is no longer incorrectly bundled with built apps.

- The AppFramework Networking component has new functionality to support Public Key Infrastructure (PKI) authentication.

- A new `fileUrl` property has been added to the DocumentDialog AppFramework component.

- AppFramework components have been updated to accommodate storage location changes in Android Q.

- New samples are available, including Coordinate Convertor, GNSS Discover, and DocumentDialog.

Changes and new features in AppStudio Player include the following:

- A new option on the **Settings** page has been added to update all locally stored apps automatically when opening Player.

- Locally saved AppStudio apps now appear in Player running on virtual devices on the desktop.

- Player on iOS Simulator now runs faster.

- A second launch of an app in Player that has a configured GNSS receiver will now reconnect automatically.

- Right-to-left language support has been improved.

- Fixed bugs related to iOS 13 including: frozen image gallery, Japanese keyboard not functioning, nonrendered emojis and corrupted characters in Japanese, Korean, and Chinese.

- The Player desktop installer is now translated.

- Buttons, cards, placeholder text, and whitespace changes have been made to improve navigation and usability.

- The Player enterprise template now includes a property to show only native apps from a provided group. This functionality is not available in the standard version of Player.

Changes and new features to the Map Tour template include the following:

- The template will now show system permission settings when location permission is denied.
- Fixed a bug preventing images from appearing in web maps created from a feature service created from ArcGIS Survey123.

Changes and new features to the Map Viewer template include the following:

- Related records are now supported.
- Improvements have been made to offline MMPK feature search.
- The content of the map's legend and layer content will now change dynamically based on scale dependencies.
- Location and storage permission requests are now made when first requested by the app.
- Numerical field legend content is no longer reversed.
- The **Content** tab no longer shows duplicate layers.

Changes and new features to the Quick Report template include the following:

- More file types can now be selected as report attachments.
- Attachment selection now provides the option to take a photo directly with the device's camera.
- Qt UI controls have been updated.
- The user experience with location, camera, and microphone permissions has been improved.
- Webhooks can now be configured to trigger when reports are successfully submitted.
- Range values are now honored.
- Required text fields now behave as expected.
- Image capture on iOS has been improved.

Changes and new features to the 3D Scene Viewer template include the following:

- Local MSPKs can now be updated in the app.
- Localization has been improved.

Version 4.0

📄 **Note:**
This version of AppStudio no longer supports apps for Android x86. In addition, it will also be the last version of AppStudio to support Android 4.4.

As well as feature updates, this update brings an overhaul to the ArcGIS AppStudio product platform and licensing options. These changes are as follows:

- The AppStudio website is being deprecated.
- The ArcGIS AppStudio Basic license level has been renamed to ArcGIS AppStudio. The ArcGIS AppStudio Standard license level has been renamed ArcGIS AppStudio Developer Edition.
- ArcGIS AppStudio Desktop Edition has been renamed to ArcGIS AppStudio. It's also now available to both license levels.

- Both license levels are now able to create apps based on samples or templates, and upload them to their ArcGIS organization. Previously this required a full AppStudio Standard license.

- Cloud Make is now only available for ArcGIS AppStudio Developer Edition users.

For more information on these license options, see ArcGIS AppStudio license options.

Changes and new features in ArcGIS AppStudio include the following:

- Qt has been updated to version 5.12.3.

- ArcGIS Runtime has been updated to version 100.6.

- The bundled Qt Creator has been updated to version 4.9.2. This includes access to enhanced debugging tools.

- ArcGIS QuickCapture is now available as an enterprise template app.

- AppStudio now has the option to use Visual Studio Code as a coding environment instead of Qt Creator. For more information, see AppStudio extension for Visual Studio Code.

- The AppFramework now includes functionality for changing languages while the app is running.

- The AppFramework Clipboard component has been enhanced with support for viewing and downloading PDF files, images, video, and audio.

- New sample apps are now available.

Changes and new features in AppStudio Player include the following:

- A setting is now available to change the language in Player.

- A new setting is available to clear all locally stored apps.

- The Enterprise Player template now includes a **Web Apps** page to support viewing web apps such as story maps and Operations Dashboard. This page is not available in the standard version of Player.

- Various bug fixes.

Changes and new features for the AppStudio templates include the following:

- A new template app has been added. The 3D Scene Viewer app allows users to view online 3D web scenes or offline mobile scene packages (MSPKs).

- Improvements have been made to the Map Viewer template's ability to search for features in MMPKs.

- Various bug fixes have been made in all templates.

Version 3.3

Changes and new features in ArcGIS AppStudio include the following:

- Qt has been updated to version 5.12.1.

- ArcGIS Runtime has been updated to version 100.5.

- Upgraded Xcode to 10.1.

- Support has been added for building Android 64-bit apps.

- Android target API level has been updated to 28.

- Hindi and Ukrainian are now supported languages.

- The new Management AppFramework plug-in provides support for AppConfig and Enterprise Mobile Management (EMM).

- Minimum supported iOS version has been updated from 10 to 11.

- The button to register an ArcGIS Client ID in the Settings tool will now prompt you to upload the app if you have not already.

- The AppFramework BrowserView component now provides a Chrome experience on Android.

Changes and new features in AppStudio Player include the following:

- Hindi and Ukrainian are now supported languages.

- A new **Templates** category has been added to the **Samples** page.

Changes and new features to the Map Tour template include the following:

- Hindi and Ukrainian are now supported languages.

Changes and new features to the Map Viewer template include the following:

- Hindi and Ukrainian are now supported languages.

- Web pages will now open to a Chrome browser view on Android.

- Various bug fixes have been made.

Changes and new features to the Quick Report template include the following:

- Support has been added for multiple feature layers from the same feature service.

- Hindi and Ukrainian are now supported languages.

- Location access disabled errors will no longer constantly display on desktop platforms, even when location is enabled.

Version 3.2

Changes and new features in ArcGIS AppStudio include the following:

- Qt has been updated to version 5.11.2.

- ArcGIS Runtime has been updated to version 100.4.

- The command line parameters `enablehighdpi`, `disablehighdpi`, and `renderingEngine` are now supported.

- Added support for supplying platform-specific launch images.

- AppStudio Desktop will now check if an AppStudio update is available.

- Various bug fixes and improvements have been made.

Changes and new features in AppStudio Player include the following:

- A new onboarding page has been added.

- Enhancements have been made to ArcGIS Enterprise login.

- A dark theme has been added.

- The **Settings** page now includes the option to enable or disable your app being run using its ArcGIS Runtime license.

- **Settings** now provides the ability to clear downloaded files or samples.

- The new **Reset** button in **Settings** will sign the user out, and delete all apps downloaded in Player.

- Search functionality has been added for downloaded apps.

- Search has also been enhanced to allow filtering for apps from your organization, your user, or apps shared publicly.

- Public app items can now be downloaded without signing in.

- Platform-specific app icons are now supported.

Changes and new features to the Map Tour template include the following:

- Improvements have been made to the process of downloading offline maps.

- A warning message will now display when the user denies permission to access the device's storage if attempting to download an MMPK.

Changes and new features to the Map Viewer template include the following:

- A new browsing experience has been implemented when opening a web page inside a Map Viewer app.

- Minor UI enhancements.

Changes and new features to the Quick Report template include the following:

- The **Camera**, **Album**, **Audio**, and **Video** icons are now disabled when the maximum number of attachments have been provided.

- Haptic feedback has been added to reflect the report's sent status.

- Support has been added for MMPKs set for anonymous use using the ArcGIS Pro Publisher extension.

- A warning message will now display when the user denies permission to access the device's storage if attempting to download an MMPK.

- Various bug fixes have been made.

Version 3.1

Changes and new features in ArcGIS AppStudio include the following:

- Qt has been updated to version 5.11.1.

- ArcGIS Runtime has been updated to version 100.3.

- Hungarian and Catalan are now supported languages.

- AppStudio has received UI updates for visual consistency across Esri products.

- The Settings tool has received a major UI update.

- The Settings tool's **Advanced** tab now provides the option to specify an app's short name, displayed on iOS and Android home screens.

- Ability to enable or disable background external accessories in the Settings tool has been added.

- You can now choose between OpenGL and Angle rendering for your app on Windows.

- Android target API level has been updated to 26.

- Minimum Android version has been updated from 16 to 19.

- Gradle is now used for building Android apps.

- If Android Studio is not installed, the **Launch Virtual Devices** button now provides a link to documentation on setting up virtual devices.

- Background location performance for Android has been improved.

- Background audio is now supported on iOS.

- New samples are available, including **Email Composer**, **Check Capabilities**, **Cryptographic Hash**, **Offline Search and Route (MMPK)**, and **Offline Geocode (Locator)**.

  🥕 **Beta:**
  Some of these samples showcase functionality that's currently in beta. This means that documentation is incomplete, and functionality may undergo minor changes.

Changes and new features in AppStudio Player include the following:

- The Player app has received a major UI and UX update.
  - An introduction page has been added.
  - The Update page allows you to update all apps saved on your device.
  - The Diagnostics page provides information about your device, such as screen size, network connectivity, sensors, and locale.
  - The Explore page allows you to preview more than 60 samples on your device.
  - The App Details page shows app metadata, such as capabilities and licensing information.
- Error messages can now be shared when an app fails to run in Player.

Changes and new features to the Map Tour template include the following:

- The `appid` and `index` URL scheme parameters can now be used to launch the app to a specific map and point, respectively.

- Minor UI updates have been added.

Changes and new features to the Map Viewer template include the following:

- Support has been added for identifying feature collections.

- Offline geosearch is now supported.

- Various enhancements have been made to the measure tool, including color options for drawing lines and areas, displaying segment length results, and support for identifying features while measuring.

- Measure results can now be captured as a screen capture and sent as an email attachment.

- Enhancements have been made to offline feature search.

- Various bug fixes have been made.

Changes and new features to the Quick Report template include the following:

- A new template property is provided to hide the album in the **Add Photo/Media** page.

- HEIC images can now be submitted as a report attachment.

- A warning message will now display if the total size of attachments is greater than 10 MB.

- Various bug fixes have been made.

Version 3.0 hotfix

This release contains two specific bug fixes for AppStudio Player only:

• Level 1 named users can download and test apps in AppStudio Player.

• Apps can now be launched in AppStudio Player using a custom URL scheme on iOS, as with all other operating systems.

Version 3.0

Note:

As of this update, ArcGIS Runtime 10.2.6 is no longer supported. Apps written with Runtime 10.2.6 can still be built with AppStudio 2.1, for users who still require features that aren't present in the Runtime 100.x release.

iOS 32 bit is also no longer supported, and the minimum supported iOS version is now 10.

The AppFramework.Dialogs plug-in is now deprecated.

Changes and new features in ArcGIS AppStudio include the following:

• Toolchains have been updated. Qt has been updated to version 5.10, Visual Studio has been updated to 2017, and XCode has been updated to 9.

• ArcGIS Runtime has been updated to version 100.2.1.

• Slovenian is now a supported language.

• The Make and Settings tools have received UI updates.

• The Settings tool now provides the option to allow multiple instances for Windows and Linux apps.

• Options in **Advanced Settings** have been expanded, including options to set a URL scheme for your app and defining a list of supported external accessories for iOS apps.

• Support has been added for signing Universal Windows Platform apps.

• Support has been added for supplying different app icons for different platforms.

• You can now view the current status of cloud Make build requests.

• The Android permission model is now supported.

• The iOS distribution method can now be defined for iOS apps in **Advanced Settings**.

• Text-to-speech functionality has been finalized.

• There have been ongoing improvements to the API documentation, with more examples provided and expanded explanations of components, methods, and properties.

• Searching for apps using hashtags is no longer case-sensitive.

• A new layout template has been added, using the Material design standard.

• A new GNSS Info sample app has been added.

• Text behavior on iOS and macOS has been improved, leading to fewer instances of garbled text.

• Various bug fixes have been made.

Changes and new features in AppStudio Player include the following:

> **Note:**
> There are now two versions of AppStudio Player. Player supports Runtime 100.2.1 and Qt 5.10, lacks iOS 32-bit support, and will be continually updated. AppStudio Player Classic is the same version from the AppStudio 2.1 release; supports Runtime versions 100.1 and 10.2.6, Qt 5.9.1, and iOS 32-bit; and will not be updated.

- Support has been added for saving user credentials and refreshing tokens.
- iOS Face ID detection is now supported.
- Android fingerprint login is now supported.
- The UI has been updated to support the iPhone X resolution.
- Various bug fixes have been made.

Changes and new features to the Map Tour template include the following:

- The template has been updated to ArcGIS Runtime API 100.2.1.
- A setting to sort the order of map tour points has been added. There is also a setting when creating the app for hiding this button.
- The template is now capable of downloading mobile map packages (MMPKs).
- The UI has been updated to support the iPhone X resolution.
- Various bug fixes have been made.

Changes and new features to the Map Viewer template include the following:

- The template has been updated to ArcGIS Runtime API 100.2.1.
- Users can now clear the app's cache and downloaded MMPKs.
- The list of items in the gallery can now be filtered to display web maps only, MMPKs only, or both web maps and MMPKs.
- Improvements have been made to the display of the map legend.
- Improvements have been made for downloading MMPKs.
- MMPKs that contain raster datasets and tile packages are now supported.
- Support has been added for saving user credentials and refreshing tokens.
- Measuring functionality is now available, allowing the user to measure the length of a line or area of a polygon.
- Geosearch results are now displayed based on the distance from device location.
- Biometric authentication for iOS and Android are now supported.
- iOS Face ID detection is now supported.
- The back button on Android devices now moves the user to the previous page, rather than exiting the app.
- The UI has been updated to support the iPhone X resolution.
- Various bug fixes have been made.

Changes and new features to the Quick Report template include the following:

- The template has been updated to ArcGIS Runtime API 100.2.1.
- The details page has received UI improvements.

- An option is now available to limit the number of attachments a user can submit in a single report.

- The UI has been updated to support the iPhone X resolution.

- Various bug fixes have been made.

Version 2.1 hotfix

This fix is to resolve the Networking.isOnline property being nonfunctional on Windows and macOS devices. If you intend to build AppStudio apps for these platforms, please download the newest version of ArcGIS AppStudio; if you intend to use AppStudio Player for either testing or deployment purposes on these platforms, please update Player as well.

Version 2.1

Changes and new features in ArcGIS AppStudio include the following:

- Qt has been updated to version 5.9.1.

- A new optional side panel in the gallery has been added, showing up-to-date activity of the AppStudio group on GeoNet, as well as recent official AppStudio YouTube videos and tweets.

- If an app running in AppRun has translation files available and set, the files that match the system's current locale will be loaded.

- The **Settings** > **Advanced Settings** window now provides a **Register** button, to immediately generate a Client ID.

- The `--locale localename` command line argument, when applied to AppStudio Desktop, now launches all AppStudio tools in the chosen locale.
  - This command line argument also applies to an app within AppRun, if translation files are available and set.

- The AppStudio tools have received major UI updates.

- The App Upload tool now includes an option to immediately share your app, either to your organization or publicly.

- When deleting an app, you will now be asked if you want to delete only the local copy or across both local and cloud storage.

- New sample apps are available, including **SQL Viewer**, **SQL - Select City from CSV**, **Geocoding**, **Text to Speech**, **Biometric Authentication**, **Secure Storage**, **Interapp Communication**, and **QML Promises**.

  🥕 **Beta:**
  Some of these samples showcase functionality that's currently in beta. This means that documentation is incomplete, and functionality may undergo minor changes.

- New design layouts are provided on the **Layout** tab of the **New App** window, using the Material design standard.

Changes and new features in AppStudio Player include the following:

- Integrated Windows Authentication sign-in has been implemented.

Changes and new features to the Map Tour template include the following:

- A new side panel design has been implemented for large screens.

- A message will now display if a layer is unsupported or is premium content.

- Map pins are now numbered according to the order of points in the tour.

- Users now have the ability to interact with the full-screen version of an image.

- The side menu now provides an option to adjust font size.

- The back button on Android devices now moves the user to the previous page, rather than exiting the app.

Changes and new features to the Map Viewer template include the following:

- Secured web maps are now supported.

- The gallery page will now be skipped if only one web map is available.

- The side menu now provides an option to adjust font size.

- Geosearch has been improved, now including autocomplete functionality, distance indicators, and zooming to results.

- The amount of web maps provided in the gallery can now be configured by the user. Default is 25.

- ArcGIS Grid has been added to the map view.

Changes and new features to the Quick Report template include the following:

- Photos taken through the camera can now be annotated.

- A new calendar control has been implemented.

Version 2.0 hotfix

This fix is specific to the use of the ArcGIS Runtime 100.1 MapView component in an app, on Android high-DPI displays. If you observe any of the following symptoms, you should download the latest version of AppStudio Player for Android and rebuild any apps that use this component with cloud Make:

- Truncation of copyright text on the map

- Features being added to a location offset from the mouse position

- Inability to select a feature on the map

This patch has been applied only to the cloud Make environment. To fix this issue with an app built with local Make, see create app installation files with local Make.

Version 2.0

The online API guide and API reference documentation have been improved, with new documentation on the AppStudio AppFramework, as well as links to ArcGIS Runtime API 100.1, ArcGIS Runtime API 10.2.6, and Qt documentation. The AppStudio Framework API reference contains the same information that is installed with AppStudio Desktop and viewable in Qt Creator.

For installing your apps on devices, the over-the-air (OTA) URL is now https://appstudio-ota.arcgis.com/.

Changes and new features in ArcGIS AppStudio include the following:

- ArcGIS Runtime API 100.1 is now supported.

  📒 **Note:**
  ArcGIS Runtime API 10.2.6 is still supported for existing apps.

- The gallery UI and UX have received a major update.

- The new **AppStudio Preferences** menu provides options to customize the appearance of AppStudio.

- Apps can now be sorted by date and name as well as filtered by ownership, location, and shared status.

- A QR code can now be generated to download an app directly to AppStudio Player.

- The app gallery can now be searched using @username and #tag.

- The **New App** dialog box now provides the option to search through sample and template apps.

- More than 40 new sample apps, providing ready-to-use QML code to be adapted into your own apps, are now available.

- Minimum supported iOS version for apps is now 9.0.

- Support has been added for Material and Universal styles in apps.

- Bar code scanning has been improved.

- Cloud Make error reporting has been improved.

- Scripts are now provided to aid unattended uninstallation and installation of AppStudio and apps created by AppStudio.

Changes and new features in AppStudio Player include the following:

- New options have been added in AppStudio Player **Settings**.
  - A switch is available to select the version of ArcGIS Runtime API to be used.

  - Automatic refresh of the app menu can now be switched on or off.

  - Users can now choose between Material and Universal styles.

- Player can now search and download public apps.

- The side tab, accessible when running an app in AppStudio Player, can now be repositioned by dragging.

- The side tab can now be hidden, ideal for taking screen captures.

- A **Reload** button is now available on the side tab. This button allows you to download the latest version of the app (if one exists) and reload the app without closing and reopening.

- Various bug fixes have been made.

Changes and new features to the Map Tour template include the following:

- The template has been updated to ArcGIS Runtime API 100.1.

- Various bug fixes have been made.

Changes and new features to the Map Viewer template include the following:

- The template has been updated to ArcGIS Runtime API 100.1.

- The user interface has been updated, better accommodating different screen sizes.

- Support for Material design style has been added.

- The template now supports pop-ups, including both attachments and media.

- Geosearch is now supported, both inside and outside the extent of the map.

- Bookmarks are now available.

- Users can now switch between multiple different basemaps.

- Map units can now be changed.

- Secured and premium layers are now available.

- Support has been added for OpenStreetMap, Bing, Image, and web tiled layers.

Changes and new features to the Quick Report template include the following:

- The template has been updated to ArcGIS Runtime API 100.1.

- MMPK support has been added, allowing template apps to work completely offline.

- The **Settings** page has been updated with new functions.
  - Font size is now scalable.

  - A switch has been added to enable Dark Mode.

  - The **Reset** button deletes all saved drafts and returns the app to default settings.

  - A new **Sign Out** button has been added.

- Camera functionality has been greatly improved.
  - A slider to control zoom has been added.

  - Users can now switch between front and back cameras.

  - EXIF info is now added to pictures.

  - Camera now has continuous focus.

  - Red eye reduction has been implemented.

- Geosearch is now available on the map page.

- Images can now be edited before submission.

- Saved drafts can now be sorted by date and time.

- The **Submit** button is now on every page of a report draft.

- Various bug fixes have been made.

Changes and new features to the AppStudio website include the following:

- The new **Showcase** link provides a collection of publicly available apps created using AppStudio.

- Quick Reports can now be created through the website using polyline and polygon features. In the previous release, this was only possible through the desktop app.

- The **Client ID** field has been replaced with a **License Key** field.

- UI and UX improvements have been made.

Version 1.4

Changes and new features in ArcGIS AppStudio include the following:

- Qt has been updated to version 5.8.0.

- Bosnian and Indonesian are now supported languages.

- Documentation of the AppStudio Framework has been expanded with component descriptions as well as code samples.

- Pressing `F1` while highlighting a component in Qt Creator opens the help at the relevant section.

- Android x86 has been enabled as a target for cloud and local Make.

- Various bug fixes have been made.

Changes and new features in AppStudio Player include the following:

- Bosnian and Indonesian are now supported languages.

- Various bug fixes have been made.

Changes and new features to the Map Tour template include the following:

- Map tours can now be used offline. Pictures, thumbnails, and text are now cached locally on the device.

  📒 **Note:**
  The map view is currently not supported offline.

- Updated map pins are available.
- **Learn More** provides information about the given map tour.
- Various UI and UX improvements and bug fixes have been made.

Changes and new features to the Map Viewer template include the following:

- Bug fixes and minor UI and UX improvements have been made.

Changes and new features to the Quick Report template include the following:

- Polyline- and polygon-based feature services are now supported. This includes support for area and length calculations and full undo and redo of feature drawing, even when editing saved reports.

- Quick Report now supports secured feature services.

- Back button support has been added for Android devices.

- Data entry on the **Add Details** page has been improved.

- Image Viewer now has the ability to zoom in or out and geotag images.

- Various UI and UX improvements and bug fixes have been made.

Version 1.3

Changes and new features in ArcGIS AppStudio include the following:

- AppStudio now supports Android emulators and iOS simulators.
- Player autoconnects to AppStudio Console when run on Android and iOS virtual devices.
- Enterprise logins using OAuth are now supported.
- The advanced configuration tool has been added, guiding users to select and configure a Qt kit to interact with AppStudio.
- You can now connect to AppStudio Console by scanning a QR code.
- Starter templates have been improved.
- Enterprise templates are now available for basic users.
- The camera interface can now identify if the device supports camera flash.

Changes and new features in AppStudio Player include the following:

- Player now supports QR code scanning to connect to the AppStudio Console for diagnostic purposes.

- Improvements have been made to the Portal selection page.

- Enterprise logins using OAuth are now supported.

- Improvements have been made to camera and flash controls.

- UI improvements have been made to the app gallery.

Changes and new features to the Map Tour template include the following:

- Images can now be sorted by distance or name.

- The app can now be configured to send email feedback directly from the app.

- Story map videos can now be played directly within the app.

Changes and new features to the Map Viewer template include the following:

- Map credits, scale, and about app sections are now available.

- Layer list components, map units, and location accuracy have been added to the map.

Changes and new features to the Quick Report template include the following:

- A custom message can now be displayed after submission.

- Submissions can now include multiple photos.

- Creating and editing reports can now be done while offline.

- Web maps are now supported.

Version 1.2

Changes and new features in ArcGIS AppStudio include the following:

- AppConsole, a syslog console for debugging across platforms, has been added. Support for logging console messages has also been added to the AppFramework.

- Portal for ArcGIS 10.4 or later is now supported.

- Qt has been updated to version 5.6.

- AppFramework now has more network components.

- Accuracy parameters for capturing points are now supported.

Changes and new features in AppStudio Player include the following:

- Ability to sign in to Portal has been added.

- Player now supports the logging of console messages to desktop, web, or file.

- Improved scanning of bar codes.

- Improved web map support for your apps.

Template updates include the following:

- Improved translations in Quick Report.

- Support for OpenStreetMap has been added and improved photo display in Map Tour.

- Improved web map and pop-up support in Map Viewer.

Version 1.1

Changes and new features in ArcGIS AppStudio include the following:

- Survey123 is included as a template app.

- Windows apps can now be signed by local Make.

- Additional plug-in improvements (for example, there are now more options available for the configuration of the position plug-in).

- A new environment variable tab has been added to **Settings**, which is used with new plug-ins.

- Improved display of the side panel on retina devices.

- Custom assets are now used when building installation files and displayed in the desktop installers of your app.

- An app's full title, including spaces, is now used when creating the desktop shortcut, which is delivered inside the installation files.

- The URL displayed in Programs and Features (on Windows) can now be defined by a property in **Settings**.

- Users can supply a custom readme file by defining its name and location in the appinfo.json file, for example,

```
"deployment": {
            "readMe": "MyApp/README.txt"
        },
```

- A user can override the system language by launching AppStudio with a command-line launch parameter, for example, C:\Users\Username\Applications\ArcGIS\Survey123\Survey123.exe --locale fr.

- Localized EULA documents are now included.

- OAuth login pages are now localized on all platforms.

- ArcGIS AppStudio online documentation is now translated into German, French, Spanish, Arabic, Russian, Italian, Portuguese (Brazil), Portuguese (Portugal), Romanian, Polish, Chinese (Simplified), Japanese, and Korean.

Changes and new features in AppStudio Player include the following:

- Matched plug-in improvements have been made to ArcGIS AppStudio.

- OAuth login page has been localized on all platforms.

Template updates include the following:

- Improved handling of web maps and chart pop-ups in the Map Viewer template.

- Improved gallery display and ordering in the Map Viewer and Map Tour templates.

- Improved handling of story maps in the Map Tour template.

https://appstudio.arcgis.com/ updates include the following:

- Support for apps created in ArcGIS AppStudio has been added, so you can create landing pages for them or submit build requests via the website.

- Improved user experience when editing apps and browsing website pages.

- Minor bug fixes have been made.

Version 1.0

Changes and new features include the following:

- Basic and standard licensing have been enabled. With an ArcGIS Online user account, you can use ArcGIS AppStudio at the basic license level, and you can create public-facing mapping apps with the predefined application templates. With a basic license, you can also try the ArcGIS AppStudio. With an annual subscription, you can enable standard licensing, which is required to create your own apps using your developer skills and to distribute apps within the enterprise.

- OAuth sign-in has been enabled in both ArcGIS AppStudio and AppStudio Player.

- AppStudio is now built on Qt 5.5.1. Qt 5.5.1 significantly improves web views component support cross-platform. For additional details, see Change files in Qt 5.5.1.

- The current version of Qt Creator is 3.5.1. For additional details, see Qt Creator 3.5.1 changes.

- Mac apps can now be signed during the Make process (similar to iOS and Android).

- Downloading your native application installation files is now even easier—browse to https://appstudio.arcgis.com/ota on your device, sign in with your ArcGIS Online user account, and download or share your app.

- Map Tour template update—The unused module reference has been removed. This change will be invisible to users who create new map tours. Users who have map tours created with beta versions of AppStudio may see a white screen when they attempt to view their app. Users have two options:
  - Re-create the map tour with the new template in ArcGIS AppStudio 1.0.

  - Open the existing map tour in Qt Creator on the desktop and edit it manually. To do this, you will still need to create a new map tour to obtain a copy of the new file you need to add to your existing map tour. First, remove the statement `import ArcGIS.AppFramework.Runtime.Dialogs 1.0` from the top of the file `MapTour/MapTourApp.qml`. Second, copy the file `MapTour/PortSignInDialog.qml` to your existing `MapTour` folder.

    📄 **Note:**
    To help users learn about working with file folders in QML, there is a sample app that can make these changes for you. In AppStudio on the desktop, browse to **Search** > **Groups** > **Sample Apps** and download the **Map Tour Update** sample.

- Quick Report template updates include the following:
  - Text is no longer lost when scrolling a long list (longer than the device screen).

  - Improved picture browser for selecting and adding photos on iOS and Android.

  - Improved detection when offline.