Remarks

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Release notes with changes since version 11.0.2.

For Technical Requirement information, see:
https://community.appway.com/screen/kb/article/system-installation-technical-requirements-1482807410782

For information when upgrading to Appway 11 from Appway 10.x, see the 'System Upgrade: 10.x to 11.x' article:
https://community.appway.com/screen/kb/article/system-upgrade-10-x-to-11-x-2140770481340

For new Appway 11 installations, see:
- System Installation guide: https://community.appway.com/screen/kb/article/system-installation-appway-11-2169641374132
- System Installation Using Containers guide:
https://community.appway.com/screen/kb/article/system-installation-using-containers-appway-11-2170238244928

For information on deprecated and removed features in Appway 11, see:
https://community.appway.com/screen/kb/article/feature-removal-and-deprecation-with-appway-11-2107886397762

For Appway 11 Known Issues, see: https://community.appway.com/screen/kb/article/appway-11-known-issues-2199176263340

For information on the Appway product lifecycle, see:
https://community.appway.com/screen/kb/article/appway-releases-product-lifecycle-and-end-of-support-1753664569425
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Appway Platform (Core)

Feature

Area	Importance	Description
App Tasks	Low	- Custom Actions defined for App Tasks can now optionally spawn a new token instead of always moving users away from the App Task when an Action is triggered. - It is now possible to assign variables to the Label used in the 'Task Title' property of App Tasks (Data Gathering, Data Review). This makes it possible to have dynamic titles in App Task pages such as client names or account numbers. It is also now possible to assign variables to Labels used in App Task Action configuration. Note: These Appway Platform features are developed to be used with Application Business Components. See separate release notes: Data Gathering and Business Data Comparison: https://community.appway.com/screen/support/news/2267730552580 Relationship Definition: https://community.appway.com/screen/support/news/2283605146784
Blob Storage	Low	Version 1.2.0 of the Blob Package is available. 'Blob:File' now contains a constructor that accepts silo name and blob key arguments.
Compare Package Version	Medium	'Compare Package Version' is a new Appway Studio submodule ('Packages'> '[Package]' > 'Maintenance') that allows comparing the Business Objects contained in different Package versions. See documentation: https://community.appway.com/screen/kb/article/1496136140789#332-compare-package-versions
Data Class Behaviors	Low	The following Behaviors now allow setting Date properties as a Value ('Labeled Values' tab): 'Document' (previously called 'File Folder'), 'Summary' and 'Relationship Definition Object'. Note: This Appway Platform change affects mainly Application Business Components. See separate release notes: Data Gathering and Business Data Comparison: https://community.appway.com/screen/support/news/2267730552580 Relationship Definition:

		https://community.appway.com/screen/support/news/2283605146784
Data Logic	Low	'Controls' and 'Data Rules' Tabs: It is now possible to select multiple Controls or Data Rules and delete them all together through the context menu.
Data Logic	Medium	'Controls' Tab: - A new Sentry field is available for the 'Collection' Control to specify the visibility of Collection elements. Use Sentry to define which elements of a Collection can be removed. This new setting is available only for Collections of Data Class instances (not for Collections of Primitive Types). - The new 'Update Function' property available for 'Primitive' and 'Collection' Controls allows specifying the logic to be executed when changes are made on the Control in the Workspace. - The context menu of 'Group' ('Section Group' and 'Field Set Group') and 'Data Class' Controls now contains the 'Remove, Keep Children' option. This allows removing the selected item while keeping the Controls it contains. - The 'Text' Control contains two additional properties, 'Read More URL' and 'Read More Label'. They allow specifying a URL and a label for providing the end user with a link to read more information. - It is now possible to select multiple Controls and move them all together by drag-and-drop. See documentation for full information: https://community.appway.com/screen/kb/article/1739928404187#4-controls-tab
Data Logic	Medium	'Data Rules' tab: A new Data Rule, 'Named Collection', allows defining constraints on Named Collection Data Class properties, such as the set of valid values for the keys of the collection, taken from a Catalog Business Object. See documentation for full information: https://community.appway.com/screen/kb/article/1739928404187#5-data-rules-tab
Elasticity	Medium	Added a new utility, called 'Cluster Supervisor Service', which stops all activities that might corrupt data or produce incorrect results during network partitioning. See documentation: https://community.appway.com/screen/kb/article/2282634047697
Elasticity	Medium	Added two new REST endpoints that can be used to check the status of the cluster nodes or the status of the entire cluster: '/rest-api/cluster-status' and '/rest-api/cluster-status/local-node'. To access these endpoints you have to whitelist the IP or to be logged in. See documentation: https://community.appway.com/screen/kb/article/2282634047697
Extensions	Medium	Multi-threaded extension startup has been implemented. Extensions are now started in parallel within a priority batch and respecting dependencies on other extensions. Priorities can be adjusted by editing 'DATA_HOME/extensions/configuration.xml'. The configuration property 'nm.cluster.startup.extensions.parallel = false' allows restoring the previous behavior. An additional configuration property, 'nm.cluster.startup.extensions.numThreads = 4' , specifies the amount of threads used to load extensions in parallel.
Import/Export	Medium	Introduced a prevention mechanism to avoid import/export concurrency, thus ensuring safer deployment operations and avoiding unwanted override of Business Objects. While an import is running, no concurrent import or export operations can run on the same Appway instance. An error message is displayed in the UI in case of concurrent import/export procedures. See documentation: https://community.appway.com/screen/kb/article/2201707988521#21-importing-packages-and-configuration-business-objects
System Health	Medium	Added a new System Health Sensor, the 'Certificates Sensor', which checks whether there are any stored certificates that are about to expire soon and raises warnings or errors.

		See documentation: https://community.appway.com/screen/kb/article/1482807177758#67-category-configuration
System Health	Medium	Added a new System Health sensor, the 'Cluster Node Status' sensor. It reports an error if the local cluster node is not healthy. See documentation: https://community.appway.com/screen/kb/article/2282634047697

Change

Area	Importance	Description
3rd Party Library	Medium	Removed the following third-party libraries: - com.google.guava:failureaccess:1.0.1 - com.google.guava:guava:28.1-jre - com.googlecode.owasp-java-html-sanitizer:owasp-java-html-sanitizer:20160413.1 Note that this removal also affects several extensions (see Extension Release Notes)
3rd Party Library	Low	Upgraded the following third-party Java libraries: - Apache Commons IO from version 2.6 to 2.8.0 - Apache HttpClient from version 4.5.5 to 4.5.13 - Apache HttpCore from version 4.4.9 to 4.4.14 - Bouncy Castle from version 1.62 to 1.69 - PDFBox and its dependency FontBox from version 2.0.16 to 2.0.24
Data Class Behaviors	Low	The 'File Folder' Behavior has been renamed 'Document' Behavior. See documentation: https://community.appway.com/screen/kb/article/2281463536839
Data Logic	Low	'Controls' tab: The 'Iterator' Control is no longer shown in the 'Controls' tab. Its properties are now shown in the 'Collection' Control directly ('Element' section). This change has no functional impact on the editor or in the Workspace. The 'Element' section also displays the 'Label' and 'Extended Label' properties previously shown in the 'Iterator' Control. These are only displayed if any values were previously set for them, otherwise they are no longer shown as they are not used by any App Tasks. See documentation for full information: https://community.appway.com/screen/kb/article/1739928404187#4-controls-tab
Data Logic	Low	'Data Rules' tab: Newly added 'Catalog Values' Data Rules use the "description" (instead of the "id") column of the selected Catalog as a default to get display values. See documentation for full information: https://community.appway.com/screen/kb/article/1739928404187#5-data-rules-tab
Deprecation	Low	The Rule Set Business Object is deprecated since Appway 11.1 and will be removed in two years since release date or later. You can group Rules by invoking them from the same Rule Business Object using the 'Rule' Action instead. See documentation: https://community.appway.com/screen/kb/article/2107886397762
Deprecation	Low	The support of DB2 database in Appway Extensions is deprecated starting from Appway 11.1 and will be removed in two years since release date or later. See documentation: https://community.appway.com/screen/kb/article/2107886397762
Extensions	Medium	An informative error message is now displayed in Appway Studio when an extension is stopped while any dependent extensions are still running mentioning the reason why the extension cannot be stopped.
Extensions Module	Low	The interline available for each extension in Appway Studio ('System Configuration' > 'Extensions') now provides information about the extension build date and dependencies, as well as deprecation information (if relevant).
Interactive Script Editor	Low	Deprecated functions are no longer shown as auto-suggestions and in the search field in the Interactive Script Editor (ISE). The function description is still shown if an already existing function is highlighted.
Master Password	Low	The 'ChangeMasterPassword' function is now only available in the

		ChangeMasterPassword Extension. See documentation: https://community.appway.com/screen/kb/article/1482802752090
One-click Deployment	High	Deployment Profiles: Deployment Profiles now internally store Package version numbers instead of their version UUID. Important note: If you created Deployment Profiles in Appway 11.0, you need to re-create them in Appway 11.1. See documentation: https://community.appway.com/screen/kb/article/2201707988521#one-click-deployment-upgrade
Process Instance Lock Pool	Medium	The following hashing algorithms have been removed: md5, sha256, murmur3, sipHash24. The remaining algorithms are hashCode, crc32 (default algorithm is still crc32). If an installation used one of the removed hashing algorithms, the configuration needs to be updated manually to use hashCode or crc32 to prevent startup from failing.
Removal	Medium	The MailAdapter Extension, deprecated in Appway 6, is now removed. See documentation: https://community.appway.com/screen/kb/article/2107886397762
Script Functions	Low	The following Script Language functions have been moved to the Functions Extension, deprecated and renamed with auto-migration: - ThrowProcessTerminate (renamed 'Process:TriggerTerminate') - ThrowProcessError (renamed 'Process:TriggerError') - ThrowProcessCancel (renamed 'Process:TriggerCancel') - RethrowJavaException (renamed 'Throw:RethrowException') Moreover, Script Function 'ThrowJavaException' has been moved to the Functions Extension, deprecated and in some cases auto-migrated to 'Throw:IllegalArgumentException', 'Throw:IllegalStateException', 'Throw:Exception'. See documentation: https://community.appway.com/screen/kb/article/2107886397762
Serialization	Medium	Native Serialization is blocked by default in Appway 11.1 and throws an exception. You can temporarily allow Native Serialization, for example for running Process Instances, through the following configuration property: 'nm.cluster.serialization.allowNative = true'. Deserializing previously serialized data is still supported.
Shutdown	High	Note this is a breaking change! From now on when the Appway cluster is shut down, by default, JVM shuts down as well. Before this change, JVM was left running and could be used by other programs. To restore the previous behavior, set `nm.cluster.shutdown.jvm.stop` to `false`. See documentation: https://community.appway.com/screen/kb/article/1482807454242#33-after-stop-of-cluster-service https://community.appway.com/screen/kb/article/1482810885194#triggering-an-appway-cluster-shutdown--all-nodes-at-the-same-time
Variable Initialization	High	This is a breaking change! When the evaluation of default and assignment expressions used to "feed" a Business Object returns a value which is not compatible with the one defined by the Business Object itself, a runtime exception is thrown. When the evaluation of default and assignment expressions used to "feed" a Business Object returns a value of type Collection or a Data Class instance and the type defined by the Business Object is String, the value is converted to String as expected. Both these features can be disabled by setting the 'nm.exprlang.exception.onScopeInitExecuteTypeCheck' configuration property to false (true by default). However, consider that this configuration property is deprecated and will be removed in two years or later since release date. See documentation: https://community.appway.com/screen/kb/article/2140770481340#change-of-behavior-introduced-in-appway-111 https://community.appway.com/screen/kb/article/2107886397762

Bugfix

Area	Importance	Description

Data Logic Editor	Medium	Data Rules tab: A validation error is reported if the 'Variable' property of 'Data Logic Include' Data Rules (available when the 'Iterative Rule Execution' property is selected) starts with a $ sign. This field must contain only the variable name (without the $ sign). The $ sign, in fact, is also visible in the Data Logic Editor UI just before the 'Variable' field to remind the developer not to add a $ sign before the variable name. These validation and UI enhancements do not have any functional impact and the existing runtime behavior is fully preserved. However, we recommend removing the unnecessary $ sign from the Variable properties (if any) to avoid any unexpected behavior. Consider that this was true also in previous Appway versions: using the $ sign inside the 'Variable' property could lead to unexpected behavior and issues in the Workspace. However, no validation errors were reported in the Data Logic Editor, therefore this problem was not easily identifiable. See documentation: https://community.appway.com/screen/kb/article/2140770481340#312-validation-errors-generated-by-variable-names-in-data-logic
Exception Handling	Medium	Instead of logging an error and returning a wrong result, an exception is now thrown. This improvement affects multiple features in the Appway Platform.
Export	High	Fixed an issue occurring when exporting a Solution through Deployment Profiles from Appway Studio: if such Solution contained Packages in [Head] version, the export wizard was interrupted. The issue affected Appway 11.0.2 only. This fixes Known Issue KI-110-27: https://community.appway.com/screen/kb/article/2199176263340#fixed-issues-in-appway-1110
Interactive Script Editor	Low	Fixed an issue occurring for two functions with similar names, where the Interactive Script Editor (ISE) side panel showed the incorrect method description. This logic has also being unified for static and non-static methods.

Appway Extensions

Feature

Area	Importance	Description
Extension	Low	AppTask Extension 2.4.0: The AppTask Extension is used in Appway Application Business Components. See separate Release Notes: - Data Gathering and Business Data Comparison: https://community.appway.com/screen/support/news/2267730552580 - Relationship Definition: https://community.appway.com/screen/support/news/2283605146784
Extension	Low	AppTaskAPI Extension 2.3.0: The AppTaskAPI Extension is used in Appway Application Business Components. See separate Release Notes: - Data Gathering and Business Data Comparison: https://community.appway.com/screen/support/news/2267730552580 - Relationship Definition: https://community.appway.com/screen/support/news/2283605146784
Extension	Low	AzureBlobStorage Extension 2.0.1: Created a new Blob Storage Provider for Azure Blobs. See documentation: https://community.appway.com/screen/kb/article/1956522328698#7-azureblobstorage-extension
Extension	Low	AzureHazelcastDiscovery Extension 3.1.0: Elasticity: All distributed tasks are now serialized using custom implementations instead of Java Serialization. Furthermore, all distributed tasks specify an exception handling strategy when the distributed task is received by a node which is not fully started yet.

Extension	Low	ClusterTools Extension 10.0.0: Elasticity: All distributed tasks are now serialized using custom implementations instead of Java Serialization. Furthermore, all distributed tasks specify an exception handling strategy when the distributed task is received by a node which is not fully started yet.
Extension	Low	Functions Extension 7.1.0: Elasticity: Added new optional parameter ($retryable) to the ExecuteDistributed Script Function to specify if a failed execution should be retried or not (when possible).
Extension	Low	RelationalDBBlobStorage Extension 1.0.1: The RelationalDBBlobStorage extension contains the Blob Storage Provider to store Blobs using a relational database. See documentation: https://community.appway.com/screen/kb/article/2229749236979

Change

Area	Importance	Description
Extension	Low	BusinessDataStorage Extension 1.6.1: Fixed an issue that caused Database Connections to be left open when using the BDSFindDataClassInstances Script Function with a failing SQL Script.
Extension	Low	ChangeMasterPassword Extension 1.0.0: This extension contains the 'ChangeMasterPassword' function, previously available in the Appway Core Platform. See documentation: https://community.appway.com/screen/kb/article/1482802752090
Extension	Low	Removed the following 3rd party libraries: com.google.guava:failureaccess:1.0.1; com.google.guava:guava:28.1-jre; com.googlecode.owasp-java-html-sanitizer:owasp-java-html-sanitizer:20160413.1. This affects the following extensions: Functions Extension 7.1.0 AWSHazelcastDiscovery Extension 3.1.0 AzureHazelcastDiscovery Extension 3.1.0 AzureHazelcastStore Extension 2.1.01 BusinessDataStorage Extension 1.6.0 CassandraHazelcastStore Extension 29.0.0 CloudStorage Extension 8.1.0 DataAuditTrail Extension 5.1.0 DataStore Extension 3.8.0 IntegrationLinkComponents Extension 1.8.0 KubernetesHazelcastDiscovery Extension 3.1.0 OfflineWorklistClient Extension 6.1.0 RelationalDbHazelcastStore Extension 16.1.0 StatisticsCollector Extension 8.0.0 WorkitemFinder Extension 5.1.0 WorkspaceCollaboration Extension 6.0.0