Remarks

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Release notes with changes since version 2022.1.1.
Note that Appway 2022.2 has been renamed FNZ Studio 2022.2.

See the following resources for further information:

Technical Requirements:
https://community.appway.com/screen/kb/article/system-installation-technical-requirements-
1482807410782

Upgrading 2022.1.x to 2022.2.x:
https://community.appway.com/screen/kb/article/system-upgrade-2022-1-x-to-2022-2-x-
2310103632386

New 2022.2 installations:
- System Installation 2022.2: https://community.appway.com/screen/kb/article/system-
installation-appway-2022-2-2310502568801
- System Installation Using Containers 2022.2:
https://community.appway.com/screen/kb/article/system-installation-using-containers-appway-
2022-2-2312114900937

Deprecated and removed features 2022.2:
https://community.appway.com/screen/kb/article/feature-removal-and-deprecation-with-appway-
2022-2-2310483981705

Known Issues 2022.2:
https://community.appway.com/screen/kb/article/appway-2022-2-known-issues-2321580857846

Product Lifecycle: https://community.appway.com/screen/kb/article/appway-releases-product-
lifecycle-and-end-of-support-1753664569425

Platform 2022 renaming: https://community.appway.com/screen/support/news/2022-appway-platform-
releases-renaming-announcement-2282031383370
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Appway Platform (Core)

Feature

Area	Importance	Description
Ad-Hoc Sub-Processes	High	Ad-Hoc Navigation is a new type of navigation where the user is constantly provided with an overview of the steps that are needed to reach the end of the process and can use shortcuts such as Next and Back to follow a predefined path. However, the user can also jump directly to a specific step without following a predefined sequence. Ad-Hoc Navigation is made possible by new Process components called Ad-Hoc Sub-Processes. Compared to the traditional connection-based navigation approach, different Process Tasks are still shown in a sequential UI, but users are allowed to click on any of these tasks at any time and there is no need to map out all possible connections between tasks. See documentation: https://community.appway.com/screen/kb/article/2317711876877
Advanced Studio Permissions	High	Starting from version 2022.2, for each Permission, three different access levels can be granted to each Role. For each Permission (e.g., Packages, Process Instances, and so on) in fact, a Role may have: - Full Access — The user with the current Role can perform all the listed actions in that area. - Read-Only Access — The user with the current Role can view the related Studio area but cannot perform any actions. - No Access — The user with the current Role cannot either view nor perform any actions in that area. Existing Permissions have been renamed and reorganized for easier access. Moreover, new Permissions have been added, such as: - 'Extension Configuration' — Allows editing the extension configuration properties. - 'Interactive Script Editor' — Allows accessing and using the Interactive Script Editor. NOTE: Check all other 'Advanced Studio Permissions' Release Notes for full information.

		See the full list of Permissions and related levels in our documentation: https://community.appway.com/screen/kb/article/1695975642783
App Tasks	Low	App Tasks are now supported by the 'HTTP Tracing/Network Statistics' Studio module. See documentation: https://community.appway.com/screen/kb/article/1482805279296
Business Object Editors	Low	Icon selectors in Business Object Editors (Data Logic, Data Class and Document Category) now show a preview of the icons in the dropdown for easier selection.
Catalog Editor	Low	When using the Cache Filter in a Catalog Business Object, the new implicitly defined variable '$cachedRecords' is available in the 'Retention Expression' property. This variable allows accessing the set of cached Catalog Records to check whether a specific record is present in the cache or not. See documentation: https://community.appway.com/screen/kb/article/1482804465636#51-cache-filter
Data Class Behaviors	Low	It is now possible to search icons by name in the 'Icon Id' dropdown list ('Configuration' tab) in Summary and Relationship Definition Object Behaviors.
Data Class Editor	Low	When undoing an action on the Data Class Editor, some visual feedback has been added to highlight what has actually been undone.
Data Logic Editor	High	The Data Logic Editor now supports copy-paste actions. It is possible to copy and paste Controls and Data Rules using dedicated context menu entries. CTRL-C, CTRL-X and CTRL-V shortcuts are also supported. In addition, a dedicated option is provided to copy and paste the Sentry value among Controls. See documentation: - Data Logic: https://community.appway.com/screen/kb/article/1739928404187 - Shortcut Keys in BOs: https://community.appway.com/screen/kb/article/1482803184315
Data Logic Editor	Low	When the 'Index Variable' property of a 'Collection' Control is updated, the Data Logic Editor now takes care of updating all usages of that Index in the contained Controls, for example in Bindings, Sentries and Variable Assignments.
Packages	Low	The 'Filter Packages' option in the Package Overview now also filters by Package version. See documentation: https://community.appway.com/screen/kb/article/1496136140789#1-package-overview
Process Editor	Medium	Improved the highlighting that occurs after clicking on a search result or validation message in the Process Editor. The editor now highlights the specific setting related to the search result or validation message inside each Task instead of the whole task, making it easier to find the relevant configuration.
Process Engine	High	It is now possible to configure Endless Loop protection through the following new configuration properties: - nm.workflowengine.endlessLoopProtection.limit: Sets the maximum number of iterations of update loop per process instance update call (-1 = no limit). Default value = -1. - nm.workflowengine.endlessLoopProtection.action: Sets the action to be executed when Endless Loop protection limit is reached. 1 = yield (leave update loop, but try again later), 2 = suspend (throw an exception in update loop). Default value = 1.
System Installation	Medium	Startup File Sync: The new configuration property 'nm.cluster.startup.file.sync.client.enabled' (default = false) allows nodes joining a running cluster to retrieve the files needed from the cluster itself before connecting as full Cluster members. See documentation: https://community.appway.com/screen/kb/article/2310502568801#2111-saving-the-data-home-in-cluster-storage

Change

Area	Importance	Description
Data Sources	Low	The Database password is no longer included in the Data Source .xml file obtained when downloading the Data Source definition from the 'Data Sources' Studio module.
Advanced Studio Permissions	High	In version 2022.2, some changes in the application of the Advanced Studio Permissions license have taken place. Such changes apply both to upgrades from previous versions and new installations:

		If the Advanced Studio Permissions License is NOT available: - The Administration Role has all Permissions, therefore it has full access to all Studio functionalities, both related to the Core Platform and Extensions. - The User Role has Workspace Permissions, therefore it has access to the Workspace. - The Compliance Permissions dialog (System Configuration > Users/Groups/Roles > Roles > [right click] > Permissions) is NOT available. If the Advanced Studio Permissions License IS available: - The Administration Role has Studio Permissions. It can assign Permissions to other Roles and, at the same time, Permissions can be removed from the Administrator. - The Compliance Permissions dialog (System Configuration > Users/Groups/Roles > Roles > [right click] > Permissions) IS then available. If the Advanced Studio Permissions License is REMOVED at some point: - The Administration Role regains all Permissions. Permission configurations for other Roles are "memorized" in the system in case the License is installed again at a later point. See documentation: - Advanced Studio Permissions: https://community.appway.com/screen/kb/article/1695975642783 - System Upgrade 2022.1 to 2022.2: https://community.appway.com/screen/kb/article/2310103632386 - Advanced Studio Permissions licensing: https://community.appway.com/screen/kb/article/2289730501061
Advanced Studio Permissions	High	With the introduction of three-level Permissions, when upgrading to version 2022.2, existing Permissions are automatically migrated to the new behavior. Consider the following upgrade information: - All the Permissions that were set in 2022.1 and lower are migrated to 'Full Access' in 2022.2. - Specific Permissions that were unset in 2022.1 and lower are migrated to 'Read-Only Access' in 2022.2: Packages, Process Messages, Logging, System Statistics, Configuration Properties, Users/Group/Roles. Note that 'Process Messages' and 'Logging' Permissions may require a page refresh (or logout/login) to be applied. - All the other Permissions that were unset in 2022.1 and lower are migrated to 'No Access' in 2022.2. NOTE: Check all other 'Advanced Studio Permissions' Release Notes for full information. See documentation: - Advanced Studio Permissions: https://community.appway.com/screen/kb/article/1695975642783 - System Upgrade 2022.1 to 2022.2: https://community.appway.com/screen/kb/article/2310103632386
Business Object	Low	The 'Properties' tab of each Business Object (opening on the right when clicking on the Business Object itself) also shows whether such Object is Visible, Replaceable or a Replacement. See documentation: https://community.appway.com/screen/kb/article/packages-1496136140789
Data Logic	Medium	When a 'Catalog Values' Data Rule is associated to a Data Class whose 'Property' is set to Boolean, the selected Catalog must contain exactly two records and their id columns must be set to true and false, respectively. If the Catalog does not satisfy these requirements, an error is shown in the Workspace for the corresponding Controls.
Discussion / Activity Log	Medium	Following the deprecation of 'Discussion' in Appway 2022.1, this feature is now read-only by default (the 'nm.studio.discussion.enabled' property is set to 'false'). This implies that user messages are disabled, while automatic activity logs are still kept. The former 'Discussion' tab ('Solution Design' module) has been renamed 'Activity Log'. See documentation: - Deprecation: https://community.appway.com/screen/kb/article/2297722129732#discussion - Feature overview: https://community.appway.com/screen/kb/article/2321608166635 - System Upgrade: https://community.appway.com/screen/kb/article/2310103632386
Process Editor	Low	The 'Validation' area is now located at the bottom of the left sidebar on the Editor. This allows browsing and fixing validation messages while keeping the central modeling area

		open. Validation messages are updated instantly according to changes made in the modeling area. Se documentation: https://community.appway.com/screen/kb/article/1482806118517#21-process-editor-overview
Removal	Medium	The Script Language function 'XPath' (deprecated in Appway 7.0) has been removed. If there are any usages of this function in your Solution, contact Support. See documentation: - Removal: https://community.appway.com/screen/kb/article/2310483981705 - System Upgrade: https://community.appway.com/screen/kb/article/2310103632386
Security	High	The algorithm used for hashing of passwords for local Appway users has been changed from MD5 to Argon2id. Existing passwords can still be verified. New and updated passwords will be hashed with Argon2id and a random salt with 128 bit entropy. See documentation: https://community.appway.com/screen/kb/article/2310103632386#315-password-hashing-for-local-appway-users
Security	Medium	The following third-party library has been upgraded: - Apache Tika from version 1.26 to 1.28.4 The following third-party library has been removed: - OWASP ESAPI As a result of this removal, the configuration property 'nm.security.esapi.init' has also been removed. Moreover, the startup log no longer includes messages from the initialization of ESAPI. See documentation: https://community.appway.com/screen/kb/article/2310103632386#12-check-library-updates
System Maintenance	Low	The scheduled job 'Temporary Files Maintenance' now deletes files from '$DATA_HOME/work/cache' and its subfolders after 24 hours.
System Upgrade and Installation	Medium	Appway Studio has been renamed FNZ Studio, and this implies a change in the application logo (inside Studio and in the default login screen) and in the favicon on the browser tab. Moreover, FNZ Studio has a set of colors which are compliant with our branding strategy. This has the following implications: - When upgrading the Platform from a lower version, the predefined color for the previous Studio version is retained. We highly recommend that you change such color by setting the 'nm.system.color' configuration property ('System Configuration') to one of the compliant colors. - When installing the Platform, a default color is set automatically. However, if you are using more than one environment, you may want to have distinct favicons on your browser window. In this case, you can set the 'nm.system.color' configuration property of each system to one of the compliant colors. See documentation: - System Upgrade: https://community.appway.com/screen/kb/article/2310103632386 - System Installation: https://community.appway.com/screen/kb/article/2310502568801
Web API	Low	Invalid URLs now return a '400' status code instead of a '404' status code.

Bugfix

Area	Importance	Description
Application Servers	Medium	Fixed a compatibility issue with WebSphere Liberty versions 22.0.0.3 and greater. This fixes Known Issues KI-100-30: https://community.appway.com/screen/kb/article/2321580857846
Business Object Editors	Low	Added the possibility to select and copy the ID of a Business Object from the top bar of the Business Object Editor.
Catalog Editor	Low	Fixed an incorrect behavior occurring while dragging rows in the Catalog Editor.
Data Engine	Medium	Fixed an issue that prevented the correct execution of an Update Function set on a Data Logic Control when the Update Function executed a sorting operation on a Collection ('Collection:Sort' Function). See documentation: https://community.appway.com/screen/kb/article/1739928404187#42-

		data-controls
Data Engine	Medium	Fixed an issue that prevented the correct execution of an Update Function set on a Data Logic Control when the Update Function modified and then deleted an object.
Data Logic	Low	Fixed an issue in the 'Eligible Types' Data Rule which, in some cases, prevented the selection of Data Classes with child Data Classes located in other Packages. See documentation: https://community.appway.com/screen/kb/article/1739928404187#56-eligible-types
Hazelcast	Low	Fixed an issue during startup, where XXE warnings might be logged. This fixes Know Issue KI-20221-2: https://community.appway.com/screen/kb/article/2321580857846
Media Types	Low	Web Application: The media type for legacy Microsoft Excel files with filename extension '.xls' has been changed from 'application/msexcel' to 'application/vnd.ms-excel'. See documentation: https://community.appway.com/screen/kb/article/1482810866567
Overriding Translations	High	Fixed an issue occurring when first exporting a Package containing Overriding Translations where these were not present in the exported file. This fixes Known Issue KI-20221-4. See details: https://community.appway.com/screen/kb/article/2321580857846
Process Editor	Medium	Fixed an issue that caused missed or wrong updates to Custom Actions defined on App Tasks. The issue occurred in the Process Editor when clicking outside of a task or on a different task just after editing one of the settings of a Custom Action. See documentation: https://community.appway.com/screen/kb/article/2218909162075#522-custom-actions
Rule Editor	Low	Fixed an issue that caused wrong variable assignments to be displayed in the 'Variable Assignments' tab of Rule components under certain circumstances. See documentation: https://community.appway.com/screen/kb/article/1482804401233
Script Language	High	IMPORTANT NOTE: This bugfix represents a breaking change. Fixed an issue where a workaround did not block the execution of @Restrictred annotated Java getter/setter methods that were called via property notation. This fix, however, constitutes a breaking change, therefore the 'nm.license.exprlang.java.restricted.ignoreForBeanProperties' license property allows restoring the previous behavior when necessary. See documentation: https://community.appway.com/screen/kb/article/2310103632386
Script Language	Low	Inbox: 'FilterTrayCollectionFilter.getValues()' now returns an Indexed Collection of String instead of a Java list of String.

Appway Extensions

Feature

Area	Importance	Description
Extension	Medium	AppTask Extension 4.0.0: The AppTask Extension is used in Application Business Components (ABCs). See separate Release Notes: https://community.appway.com/screen/support/news/2313990754581
Extension	Medium	AppTaskAPI Extension 4.0.0: The AppTaskAPI Extension is used in Application Business Components (ABCs). See separate Release Notes: https://community.appway.com/screen/support/news/2313990754581
Extension	Medium	DefaultUser Extension 1.0.0: The new DefaultUser Extension can be used if no another mechanism to create users is available. It creates a user with id 'nm'.

		See documentation: https://community.appway.com/screen/kb/article/2310502568801
Extension	Medium	JsonWebKeys Extension 1.1.0: The new JsonWebKeys Extension exposes an endpoint to retrieve the public keys used to verify the Json Web Tokens created by Solutions.
Extension	Medium	Mail Extension 7.0.1: Added support for OAuth 2.0 authentication for SMTP and IMAP email protocols. See documentation: https://community.appway.com/screen/kb/article/1482805597919#323-authentication
Extension	Low	OIDCAuth Extension 1.0.0: The new OIDCAuth Extension contains some Script Functions previously contained in the Functions Extension to access OpenID Connect tokens.
Extension	Medium	OpenApi Extension 1.0.1: The new OpenApi Extension provides functionality to generate OpenApi documentation for Web APIs. It provides a Business Object exporter that can be used to generate the OpenApi specification for a given Web API.
Extension	Medium	RelationalDbHazelcastStore Extension 17.0.1: Platform version 2022.2 internally requires a new persistent distributed map called 'systemEntriesMap'. When upgrading to version 2022.2 this map needs to be created in the Cluster Storage. Depending on your system installation, the map is created automatically or you may need to create it manually. See documentation: https://community.appway.com/screen/kb/article/2310103632386

Change

Area	Importance	Description
Extension	Low	BusinessDataStorage Extension 1.8.0: The Business Data Storage 'Duplicated IDs Sensor' is now executed also right after the startup of the Business Data Storage (BDS) Extension. See documentation: https://community.appway.com/screen/kb/article/1742715018300#34-business-data-storage-duplicated-ids-sensor

Bugfix

Area	Importance	Description
Extension	Low	Functions Extension 9.0.1: Fixed an issue that was causing an error when the 'Format:Number' function was called inside a Script Function.