Release Notes 6.3 - Official Release | 02.03.2016

Remarks
Release notes with changes since version 6.2.13.

Upgrade guide:
System Upgrade: 6.2 to 6.3
https://developer.appway.com/screen/ViewDocument/bookId/700fbfbb-9312-46e0-84e1-0fd816c4a637

Appway Platform (Core)

💡 Feature

Area	Importance	Description
Cluster	Low	Added a configuration property "nm.cluster.persistence.init.parallel" to initialize persistent maps in parallel. This speeds up the start-up with no or small amount of data in the cluster. The default value is "false".
Cluster	Low	Added a configuration property "nm.cluster.startup.services.parallel" to initialize Appway services in parallel. This speeds up the start-up of an Appway installation. The default value is 'false'.
Cluster	Low	Deflate compressor added as another option to be used for Hazelcast in-memory compression. The Deflate compressor might be useful in situations where hardware compression is available.
Cluster	Medium	Prevented loading of all Value Stores when opening the Value Stores tab in the Studio or Console. The Value Stores tab now shows the uncompressed, serialized size of each Value Store. The size is only shown when a Value Store has been updated already once since system startup. This update prevents additional computing of the Value Store size when clicking on the Value Stores tab and only displays the last seen size.
Cluster	Medium	Write locks will now be acquired also by new process instances, instead of only by the existing process instances.
Component Migration	Medium	Added a Studio module for supporting migration from old to new Screen Component versions. You can find it under Administration -> Migration -> Screen Components.
CPU Statistics	Low	The CPU Statistics tool now has two tabs - "Work Unit" shows information about jobs, tasks, etc. And the "Threads" tab shows information about threads.
CPU Statistics	Low	The CPU Statistics tool now shows a cluster-wide view. The data table rows show the aggregated values and you can open the interlining of a row to see the values per node.
Data Table	Low	It is now possible to set the comparison type that is used when a numeric filter or numeric sorter is applied. This ensures that a filter or sorter will not compare, for example, a number of type long with a number of type float.
Data Table	Medium	The Data Table has a new property "Create Row Data". It is visible only when using an Expression source. If enabled, the data table will pre-evaluate all row data in the screen render phase. The data table model will then not keep the data of the source collection in memory anymore. This may increase the screen rendering time, but dramatically decrease memory usage for this data table.
Diff Viewer	High	Business Object Diff Viewer is a new functionality available in the Appway Studio that lets you easily compare two versions of any Business Object and view the difference between them. This new feature greatly enhances the capabilities of a development team when performing parallel development in the Appway Studio. Diff Viewer presents the elements of the two compared Business Objects and highlights all differences between them. It also visually indicates changes to the text and script, letting you jump from one change to another.
Error Messages	High	The handling of HTTP errors has been revised and improved. Appway now distinguishes between business errors and technical errors, with different error page designs providing more information and guidance for the user. All errors now have an error code (e.g. "WSE1003"). See support document "Error pages in Appway" for more details.
Global Validation	Low	Added the possibility to use the text diff viewer feature to compare log files with validation results.
I/O Statistics	Low	The I/O Statistics tool now shows a cluster-wide view. The data table rows show the aggregated values and you can expand the row to see the values per node.
Platform	Low	A new background job "Data Handle Maintenance" has been introduced. It deletes unused data handles, reducing the memory usage. By default, the job only generates log messages for unused data handles. If the configuration property "nm.datahandlecleanup.removal.enabled" is set to "true", it also deletes unused data

		handles from the system. By default, the job is executed every 6 hours. This can be controlled with configuration properties "nm.datahandlecleanup.schedule" and "nm.datahandlecleanup.paused".
Process Messages	Medium	Process messages indexing is now enabled by default.
Screen Components	Low	Added new screen component action "Action Timer Action" that can be used to cancel Action Timers.
Studio	Low	Introduced a new Data Home Sizes tab in the Statistics tool that shows a cluster-wide view. You can access it from Administration -> Repository -> Statistics -> Data Home Sizes.
Studio	Low	The Caches tool in the Studio now shows a cluster-wide view. You can see the caches and corresponding statistics of all cluster nodes, as well as reset statistics and flush caches individually.
Studio	Medium	The Log Files tab in the Logging tool now shows the log files of all cluster nodes and allows to download, clear, and delete them.
Workspace	High	Added support for gradual migration to Workspace version 3. The configuration property "nm.workspace.css.version.v3.activation" can be used to specify a timestamp after which the Workspace Version 3 will be activated. Old running processes continue to use the previous Workspace Version as defined in the configuration property "nm.workspace.css.version".

📝 Change

Area	Importance	Description
Business Objects	Medium	Business Object editors: Added Collapsible/Expandable editor sidebars functionality with persistance of preferences per user and per Business Object .
Business Objects	Low	Business Object editors: Flat design implemented, changed styling, colors, icons in toolbar buttons, component icons and extension icons. Sticky headers implemented in the Components section. Read-only indication added.
Business Objects	Medium	Business Object editors: Shortcut keys refactoring including addition of new keys. Added documentation of all keys available in each editor.
Catalogs	Low	Improved support for Global Search, dependency analysis, validation, and refactoring in Catalogs with components that come from extensions.
Cluster	Low	Chat state and notification inbox history maps: changed Hazelcast eviction settings from 1 minute to 5 minutes idle timeout for the two non-persistent maps, and from 1 hour to 20 seconds TTL for the near cache. Chat states are now available a little bit longer, but stored only for a short time in the near cache. The reason for this change is reacting to users going offline in a more timely manner.
Cluster	Medium	Hazelcast upgrade to version 3.5.5-dev-20160118, including custom patches and bug fixes.
Cluster	Medium	License Log Service now uses aggressive lazy loading: only the required data is loaded and eviction is employed to minimize memory usage. A two-level compaction algorithm is employed (10 minutes and 1 day): compaction of the previous day's logs is performed every night at 00:10. In order to ensure compatibility with older data conversion is performed at start-up (if necessary): old data is removed from the licenseLogEntriesMap map and stored using the new format into the licenseLogEntryListsMap map.
Cluster	Low	Removed the workaround to disable JMX of Hazelcast as it is no longer needed. It is now possible to enable and use the JMX beans of Hazelcast. To do so, set "hazelcast.jmx" in the hazelcast.xml configuration file to "true".
Cluster	Low	Reset the operation call timeout to its default value in hazelcast.xml. The operation call timeout was temporarily increased in Appway 6.2 to 5 minutes to circumvent a bug in Hazelcast. This is now fixed in Appway 6.3.
Cluster	Low	The task in charge of retrieving information displayed in the Node Inspector is now capable of handling errors in a better manner.
Data Table	High	The source type "custom model" is not supported anymore. Instead, the source type "Data Class" has to be used.
Error Page	Low	Included error code in HTTP response headers with name "X-Appway-ErrorScreen-Code". This allows web testing frameworks to detect the type of error and react accordingly.
Login Page	Low	Replaced the logo of the login page with the new logo.
Studio	High	A new implementation of the Dropdown List has been added to the available Screen

		Components. The old component has been renamed to "Dropdown List [Legacy]". To replace the old component with the new one, follow the guidelines in "Migration of the Dropdown List Screen Component in Appway 6.3" on Appway Developer Portal.
Studio	Low	In Global search and in Import window: The XML diff viewer is now unavailable unless the DrMoriartyAdapter extension is installed.
Studio	Medium	On installations with multiple Appway cluster nodes, the collection of information in the Console -> Process Instances tab has been improved to reduce memory and network usage.
Studio	Low	Script Function editor: Added duplicate functionality that is applied with Ctrl+D shortcut key and changed delete row shortcut key to Ctrl+Shift+D .
Studio	Low	The error pages for "application locked", "no license", "startup", "shutdown" and "browser not supported" have been redesigned.
Workspace	Low	Buttons: Adjustments to HTML and CSS of buttons for proper alignment between text and icons. The visual appearance is now more flexible and robust when resizing the button, the text size or the icon.

🐞 Bugfix

Area	Importance	Description
Business Object Validators	Low	Business Object IDs starting with "-" can no longer be created. Previously, it was possible to create Business Objects with ID starting with "-". This caused issues with using these objects in the Studio. Starting from 6.3, if users try to create a Business Object with such an ID, they are blocked by the Studio and prompted to select a different ID. Existing objects with ID starting with "-" now generate a validation error.
Catalogs	Low	Fixed an issue where the Column Manipulation Filter would raise a Null Pointer Exception while running Global Search.
Cluster	Low	Appway start-up is aborted if the license log service fails to start.
Cluster Log	Low	Ensure all existing log statements are returned in the list method. Previously, some log statements shortly after startup might have been missed.
CPU Statistics	Low	A measurement is now counted only once instead of five times.
Documents	Medium	Fixed a race condition (ConcurrentModificationException) when more than one thread tried to render the same PDF Output at the same time.
Dropdown List [Legacy]	Low	Fixed the height of the legacy Dropdown List Screen Component to be consistent with all the other form elements.
Entity Manager	Medium	Fixed handling of missing property in data class.
Entity Manager	High	Fixed issue which prevented correct unload of entities properties upon ValueStore commit. Fixed issue which caused already persisted entities to be persisted again.
Error Page	Low	The HTTP header "Content-Type" is now always set to"text/html; charset=UTF-8".
Global Search	Low	Jumping from a search result into an editor now highlights the searched element for the Rule editor, Test Data editor, and several other editors.
Lock Service	Low	Only active locks will be used on a given resource to request a new lock.
PDF Output	Medium	Support global search and in-editor search for PDF Output business objects.
Platform	Low	Appway no longer returns an incorrect Content-Length header for static CSS and JavaScript files when running on Tomcat 8.
Process Editor	Low	The dropdown to select the Test Data now works in Firefox.
Rules Editor	Low	Fixed an issue in the Rules editor where the scope variable editor panel was appearing empty on second click.
Screen Components	Low	Dropdown List [Legacy]: Properly handle carriage returns.
Script Language	Low	Fixed the issue which prevented the ERROR function from catching all exceptions.
Security	Low	Set content security policy headers in HTTP response when rendering the login page. This prevents clickjacking attacks on the login page.
Studio	Low	Business Object Editors: Ctrl+W closed editors with unsaved changes and no confirmation dialog in containered editors.
Studio	Low	Business Object Editors: In read-only mode Ctrl-S shortcut key could save changes.
Studio	Low	Containered Editors: Fixed bug when clicking delete on a previously dropped item that

		considered it selected and prompted for deletion.
Studio	Low	Data Class editor: Save option in page menu didn't work.
Studio	Low	Editors: Prevent elements from wrapping in center header if width is narrow.
Studio	Low	Fixed an issue where deleted objects were not displayed when holding the Alt key in Firefox.
Studio	Low	In Library and Editors the search input fields rendered an additional clear icon in Internet Explorer 10 and 11.
Studio	Low	PDF Preview: Fixed on IE 11.
Studio	Low	Security: Breakpoints Inspector: Fixed potential cross-site scripting issue.
Studio	Low	Security: If the role "CompositionAdministrator" exists, access to business object editors is granted only to users in this role. Other users will see an error message if they try to open a business object. The same applies to the studio modules "Obliterate", "Revert All Objects" and "Undelete Deleted Objects". Viewing dependencies and validation results on the other hand is now possible for users even if they are not a member of this role.
Studio	Low	Test Data Editor: Fixed a bug where the editor failed to open if the Business Object has a dot in its ID.
System Health	Low	System Health Service: Remove all sensor states of local sensors from the distributed map if the system health service is stopped (e.g., on shutdown). This prevents other nodes from seeing old sensor states of nodes which are not part of the cluster anymore.

Appway Extensions

💡 Feature

Area	Importance	Description
Extension	Medium	ComponentExtension 6.3.0: New Date Picker Screen Component added. Old component name has changed to "Date Picker [Legacy]".
Extension	Medium	ComponentExtension 6.3.0: New Dropdown List Screen Component added. Old component name has changed to "Dropdown List [Legacy]".
Extension	Low	ComponentExtension 6.3.0: Studio: Added Migration Module for Screen Component migration.

📝 Change

Area	Importance	Description
Extension	Medium	ComponentExtension 6.3.0: Adaptive Flow Layout: New implementation based on CSS to prevent bugs and jumps when calculating the width of elements.
Extension	Low	ComponentExtension 6.3.0: Studio: Substituted icons with new ones and corrected typos in component names.
Extension	Medium	ComponentExtension 6.3.0: The "Date Picker [Legacy]" Screen Component is deprecated from Appway 6.3 but is still functional in this release. It will be removed from future Appway versions. The functionality has been replaced by the new Date Picker component.
Extension	Medium	ComponentExtension 6.3.0: The "Tab Box" & "Tab Content" Screen Components are deprecated from Appway 6.3 but are still functional in this release. It will be removed from future Appway versions. The functionality has been replaced by the Adaptive Tab component and some functionality does not comply with the Appway Platform's design rules anymore.

🐞 Bugfix

Area	Importance	Description
Extension	Low	ComponentExtension 6.3.0: Adaptive Flow Layout Group: Fixed alignment for labels on more than one line.
Extension	Low	ComponentExtension 6.3.0: Adaptive Tab Element: Removed second, unnecessary rendering of child components inside Adaptive Tab element.
Extension	Low	ComponentExtension 6.3.0: Flowbar: Changed button display for smaller screens. Icons will now be aligned within the buttons.
Extension	Low	ComponentExtension 6.3.0: Skip CSS minification to avoid breaking custom CSS rules in the generated file.