Release Notes 6.1.2 - Patch Release | 28.07.2014

Remarks
Release notes with changes since version 6.1.1.

Upgrade Notes:
Appway 6.1.2 changes the way it deals with process instances if these are accessed in read-only mode. Read-only process instances are now strictly immutable. Make sure that all scripts have been updated following the 5.3.x to 6.x upgrade instructions:
https://developer.appway.com/screen/ViewDocument/bookId/6ac38f72-006a-43dc-8834-d728c7461658#a1e59e16-ea46-4388-af6a-db1c8abc46ad.

Appway Platform (Core)

💡 Feature

Area	Importance	Description
Core	Low	SSL & HTTP: - Support for Named SSLContexts. - Support for HTTP / HTTPS Proxies. - Support for enabling/disabling hostname verification. - Support for specifying named HttpMethodExecutors. - changed to fix bug with timeout values in the RequestProperties.
Monitoring	Low	Cluster: Hazelcast operation and execution statistics added to node states.
Monitoring	Low	New JMX attributes added to ProcessInstancesLockPool MBean.
Monitoring	Low	New JMX MBean "WorkflowTokenLookupCache" implemented.
Monitoring	Low	New JMX MBeans for Caches implemented.
Studio	Medium	Administration: Added a "CPU Statistics" view.
Studio	Low	Administration: Script Language: Show minimum and maximum values in function call statistics.
Workspace	Medium	Screen Component "Dropdown List": Re-added the ability to add read-only entries into searchable dropdowns by prepending an entry with three hashes ("###").

📝 Change

Area	Importance	Description
Business Object Repository	Medium	Performance: Thread-local write-through cache for business objects implemented. This cache reduces the number of lookups on the distributed business object map, which has a positive impact on the performance of the script language. The configuration property "nm.businessobjects.cache.enabled" (default value "true") can be used to disable this in-memory cache.
Cluster	Low	Performance: Query entries of distributed maps using a distributed task instead of using the built-in Hazelcast query method. The main difference is that tasks make use of the "near cache", a fast lookup cache with deserialized versions of local and remote objects.
Logging	Low	Added file appender "lockslog" for locks history to debug locking
Logout Listener	Low	Two new configuration properties "nm.processdata.logoutlistener.cancelprocessinstancestask.async" (default value "true") and "nm.processdata.logoutlistener.changesessionidprocessinstancestask.async" (default value "false") have been added. They allow to switch between synchronous and asynchronous execution of the distributed tasks used to cancel process instances bound to invalidated HTTP sessions (on logout) and to reassign such process instances to new HTTP session ids (on login).
Monitoring	Low	New JMX MBean "HzOperationServiceInfo" implemented.
Notifications	Low	Changed name of job "NotificationCleanupJob" to "Notification Cleanup Job" and its job group from "User Messaging" to "Maintenance".
Notifications	Low	The notification subscription management script functions (SubscribeForNotifications, UnsubscribeFromNotifications, ExcludeFromNotificationSubscription, UnexcludeFromNotificationSubscription) caused a FATAL message to be logged if one tried to make a subscription/subscription exclusion that already existed, or removed a subscription/subscription exclusion that did not exist. This is now silently ignored.
Process Engine	Low	Lock Pool: Set default process instance lock pool size to 2048 for fewer lock collisions with respect to the previous default value of 256.

Process Engine	Low	Lock Pool: Setting the configuration property "nm.cluster.lockpool.processinstances.timeout" to "-1" now switches off force unlocking.
Process Engine	Low	Lock Pool: Setting the lock pool size to -1 now causes the actual process instance to be used as the lock key (lock pooling is circumvented).
Process Engine	High	Performance: Process Instance Service: Process instances returned by service methods ending with "RO" (e.g. "getWorkflowInstanceRO") now have a read-only flag set. The same is true for process instances and tokens referenced from within Workitem objects. Trying to modify such a process instance or a nested process token set or process token throws an IllegalStateException. This change allows the service to reuse the same process instance when it is asked for a read-only instance, and the service no longer has to create a thread-local copy. Please note that this change has an effect on the return values of the functions "ProcessToken", "WORKITEM" and "WORKLIST". Code like "ProcessToken($tokenId).setAttribute(...)" is very likely to fail.
Process Engine	Medium	Performance: Workflow Token Lookup Cache now performs a remote search in in-memory caches of other cluster nodes before executing a full search through all process instances. In addition, the cache no longer validates whether a process instance or token exists before it returns its id.
Studio	Low	Console: Process Instances: It is now more obvious what the batch operations do.
Studio	Medium	Console: Process Instances: Reintroduced the batch actions (Update, Cancel, Remove, Change Version Filter) for the set of currently visible process instances (selected by current filter settings).
Studio	Low	Console: The Java Threads list now shows the execution time of Hazelcast tasks.

🐞 Bugfix

Area	Importance	Description
Catalogs	Low	An exception was thrown when applying a Sort Filter where a column was set to be sorted numeric and a non-numeric value was processed. This behavior is now fixed and again like in Appway 5.1, where a non-numeric entry will be internally converted for sorting to the value 0.
Cluster Cache	Low	You can now supply a time-to-live when storing a cluster cache entry and the corresponding expiration time is displayed correctly in the Studio at "Administration -> System -> Cluster Cache". If nothing is supplied, the default configured time-to-live is used, and if 0 is supplied, the entry never expires until invalid. Furthermore, if you overwrite an already existing entry, the expiration time is reset.
Cluster Log	Low	If null is passed as message to a logger, it is replaced with an empty string to avoid a NullPointerException.
DataTable	Low	Clearing a dropdown filter in IE9 will now set the value of the dropdown correctly, so the filter is really cleared.
DataTable	Low	Clicking the interline triangle will no longer trigger a possible click action on the row or the cell.
Documents	Low	When using PDF Output Table with the page replication feature it always added an empty page instead replicating the original page.
Documents	Low	When using PDF Output Table with the page replication feature it did not replicate a page when 'Replicated if Visible' was set and the visibilty expression evaluated to 'true'.
Integration Links	Medium	Make sure that thread-local changes to process instances and value stores are always committed at the end if an integration link is executed by a Camel thread.
Job Scheduler	Medium	A job which has been paused for a while and has missed one or more executions does not get executed automatically on resume anymore.
Notifications	Low	Function "GetNotificationSubscriptions": The function threw a NullPointerExceptions when searching for a user's subscriptions which does not exist.
PDF Output Table Editor	Low	Due to a wrong initialization in the editor data model the property "Break" on a Layout component was not correctly serialized. Therefore the page break did not work correctly if such a component wouldn't have fit on the current page.
Process Engine	Low	Execute "Process Job Cleanup" job on every node of a cluster, not only on one node.
Process Engine	Low	Fix for "NotSerializableException" when a process with a timer start event with a schedule (not a cron pattern) is committed.
Process Engine	Low	Prevent parallel execution of job "Process Engine". If the job should get executed while it is still active, the current execution is skipped. The job implementation logs a warning and

		throws an exception which is visible in the "Job Scheduler" administration. The job gets automatically rescheduled for an execution 5 minutes later.
Screen Editor	Low	Fixed bug in User dropdown list where the topmost result was not shown.
Script Language	Low	Function "ESBSendMessage" is now deprecated. Please use "CallIntegrationLink" instead.
Script Language	Low	Function "ESBSendMessage": Retrieve the value from the Future object instead of returning the Future object itself. This restores the original behavior of the function as it was in Appway 5.
Script Language	Low	Improved performance of "SORT" function. Sorting always created a index-change array even if no change events where triggered.
Script Language Editor	Low	Fixed code completion for ForEach and For loops.
Studio	Low	Administration: Job Scheduler: It is now possible to pause a job again.
Studio	Low	Administration: Logging: Log Viewer: When sorting by Date/Time column, the log entires are no longer sorted based on the timestamp but simple reversed in order. This way log entries are displayed in the same order (reversed) as they were written to the cluster log.
Studio	Low	Breakpoints: Fix for uncaught RuntimeException during inspection of breakpoint contexts in processes.
Studio	Low	Business Object Editors: Fixed problem where dropdowns did not respect default value.
Studio	Low	DataTable: DateTime columns are now sorted correctly again.
Studio	Low	Global Search: Clicking on "Go to Advanced Search" in the Library started the Global Search with a wrong version filter which did not display deleted but uncommitted Business Objects.
Studio	Low	In IE9 it was sometimes not possible to focus input fields or select text after one or more modal windows have been displayed. The problem was that IE9 cannot correctly handle the focus changes as long as the modal windows are faded in and out to be shown. Since the fading effect is not necessary it has been removed completely, thus modal windows will no longer be faded but shown/hidden instantly. The user will probably not even notice the change. What exactly caused the problem probably lies deep within IE, because the bug was not triggered all the time. It seems like a race condition.
Studio	Low	Library: Fixed a problem where, after dragging a Business Object into a List, clicking repeatedly into the list would, in some specific situations, add one of the clicked Business Objects to the same List.
Studio	Low	Users: Roles: It is now possible to add the current user to a role. Please note that on certain installations the user may get removed from this role again since role membership could be synchronized from an external user management system on every HTTP request.
User Messaging	Low	Job scheduler must not distributed "Notification Cleanup Job" on startup. Job is registered on every node individually.
Value Stores	Low	Using AdapterObjectOutputStream and AdapterObjectInputStream to serialize and deserialize value stores. This allows to store data which uses classes that are defined in extensions.
Workspace	Low	If an URL of the form "/process/<id>" is invoked, Appway now first checks if the given id is a process token id. If it fails to find a token with this id, it checks if it is a process instance id. This makes it less likely that the user gets a "no accessible token" error message if (by accident) a process instance and process token share the same id.
Workspace	Low	Layout Manager: When the Layout Manager is triggered, the layout handlers are called in order of the elements' depth. The sorting function must consider also their position in the DOM, or the order is potentially inconsistent.
Workspace	Low	Screen Component "Grid": Component no longer generates two "class" HTML attributes. This makes the output XHTML valid.
Workspace	Low	Screen Component "Info Box": Fixed problem where clicking on the Info Box's "i" button (defined using the Tooltip property) would show a tooltip that wrongly HTML-encodes special characters twice. In other words, when you put "ä" (an a with an umlaut) into the property, the tooltip would show "ä" instead.
Workspace	Low	Tooltips should no longer overlap right edge of window. Instead, it should always be fully visible. If it is called with an x-value that would push part of it out of the window, the x-value is changed.
Workspace Collaboration	Low	Function "LoadChatMessages": Changed type of "includeSystemMessages" parameter from String to Boolean.

Workspace Collaboration	Low	If a chat was already deleted, deleting it again caused a NullPointerException since the corresponding index entry did not exist anymore. Deleting an already deleted chat now just does nothing.
Workspace Collaboration	Low	Moved UserProfileAjaxHelper registration to core.
Workspace Collaboration	Low	Previously, in case of a concurrent deletion of a chat, the submission of a chat message could fail. Now, chat message submission never fails.
Workspace Collaboration	Low	Previously, in case of concurrent deletion of a chat and submission of messages, a new chunk could be created earlier than necessary (i.e., a very small previous chunk would arise). This is now fixed, and chunks are always filled as configured with "nm.usermessaging.chat.chunksize".
Workspace Collaboration	Low	The current chunk ID for a chat is no longer cached to make sure that a chat is recreated when it is deleted and a message is submitted to it after it.