DIAGNOSTICS®

In control

Release Notes

Version 3.2.0

This document contains a description of all changes (enhancements, bug fixes etc.) in version 3.2.0

Realworld Software Products B.V.
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Table of Contents

1 Release Notes 5
1.1 Version 3.2.0 6
Issue list 3.2 6
1.2 Version 3.1.2 7
1.3 Version 3.1.1 8
1.4 Version 3.1.0 8
Issue list 3.1 8
1.5 Version 3.0.2 9
1.6 Version 3.0.1 10
1.7 Version 3.0.0 10
Issue list 3.0 10
1.8 Version 2.7.1 11
1.9 Version 2.7.0 12
Issue list 2.7 12
1.10 Version 2.6.1 13
1.11 Version 2.6.0 13
Issue list 2.6 14
1.12 Version 2.5.3 14
1.13 Version 2.5.2 15
1.14 Version 2.5.1 15
1.15 Version 2.5.0 16
Issue list 2.5 16
1.16 Version 2.4.2 17
1.17 Version 2.4.1 17
1.18 Version 2.4.0 18
Issue list 2.4 18
1.19 Version 2.3.4 19
1.20 Version 2.3.3 20
1.21 Version 2.3.2 20
1.22 Version 2.3.1 20
1.23 Version 2.3.0 21
Issue list 2.3 21
1.24 Version 2.2.2 22
1.25 Version 2.2.1 22
1.26 Version 2.2.0 23
Issue list 2.2 23
1.27 Version 2.1.3 24
1.28 Version 2.1.2 24
1.29 Version 2.1.1 25

1.30 Version 2.1.0 25
Issue list 2.1 25
1.31 Version 2.0.2 26
1.32 Version 2.0.1 28
1.33 Version 2.0.0 28
Issue list 2.0 28
1.34 Version 1.5.2 29
1.35 Version 1.5.1 29
1.36 Version 1.5.0 30
Issue list 1.5 30
1.37 Version 1.4.1 31
1.38 Version 1.4.0 32
Issue list 1.4 33
1.39 Version 1.3.1 34
1.40 Version 1.3.0 35
Issue list 1.3 35
1.41 Version 1.2.2 38
1.42 Version 1.2.1 38
1.43 Version 1.2.0 38
Issue list 1.2 39
1.44 Version 1.1a.2 42
1.45 Version 1.1a.1 42
1.46 Version 1.1a.0 43
Issue list 43
1.47 Version 1.1.0 45
Issue list 1.1 45
1.48 Version 1.0.1 49

2 Third party licence agreements 50

1 Release Notes

This document contains a description of changes between subsequent versions of *Diagnostics*.

The current version of *Diagnostics* is 3.2.0.

- Version 3.2.0 6
- Version 3.1.2 7
- Version 3.1.1 8
- Version 3.1.0 8
- Version 3.0.2 9
- Version 3.0.1 10
- Version 3.0.0 10
- Version 2.7.1 11
- Version 2.7.0 12
- Version 2.6.1 13
- Version 2.6.0 13
- Version 2.5.3 14
- Version 2.5.2 15
- Version 2.5.1 15
- Version 2.5.0 16
- Version 2.4.2 17
- Version 2.4.1 17
- Version 2.4.0 18
- Version 2.3.4 19
- Version 2.3.3 20
- Version 2.3.2 20
- Version 2.3.1 20
- Version 2.3.0 21
- Version 2.2.2 22
- Version 2.2.1 22
- Version 2.2.0 23
- Version 2.1.3 24
- Version 2.1.2 24
- Version 2.1.1 25
- Version 2.1.0 25
- Version 2.0.2 26
- Version 2.0.1 28

- Version 2.0.0 28
- Version 1.5.2 29
- Version 1.5.1 29
- Version 1.5.0 30
- Version 1.4.1 31
- Version 1.4.0 32
- Version 1.3.1 34
- Version 1.3.0 35
- Version 1.2.2 38
- Version 1.2.1 38
- Version 1.2.0 38
- Version 1.1.0 45
- Version 1.1a.2 42
- Version 1.1a.1 42
- Version 1.1a.0 (labelled as 1.1.0) 43
- Version 1.0.1 49

1.1 Version 3.2.0

Version 3.2.0 enhances monitoring capabilities by embedding the Startup Profiler and its companion alerts out-of-the-box, alongside the introduction of the new Unique Value Allocators (UVAs) dashboard. On the infrastructure and stability side, this update brings a revised licensing architecture that works with Diagnostics Collector, crucial validation procedures for Splunk 10+ migrations, and essential bug fixes addressing macro search leakage, dashboard drilldown issues, and CST 4.2 backward compatibility.

Customers upgrading from an earlier version of Splunk and Diagnostics are strongly advised to follow the instructions in the Diagnostics Upgrade Manual. This release includes mandatory certificate validation procedures required specifically for Splunk environments.

The full list of major changes can be found here:

Issue list 3.2 6

1.1.1 Issue list 3.2

Item	Type	Release Notes
7099	New Feature	Introduced the Unique Value Allocators (UVAs) dashboard.
7119	Documentation	Added Explain these view docs for Alerts Configuration dahboard.

7121	Documentation

Updated the Diagnostics Upgrade Manual to include new SSL certificate validation checks, specifically covering Splunk 10+ KV store upgrades.

7122	Enhancement

Added "Explain This View" context-help manuals to React dashboards.

7125	Bug Fix

Resolved a token-forwarding bug on Application Details drilldowns.

7126	Bug Fix

Fixed a trail chart rendering issue on the SWMFS List dashboard.

7234	New Feature

Implemented a new licensing mechanism in the Diagnostics Collector (and removed it from the Diagnostics Archiver).

7570	Enhancement

Deprecated and removed the diagnostics_collector.rpm installer.

7571	New Feature

Enabled running SW Monitor concurrently with Datastore Monitor, and added support for generating all monitor configuration XMLs.

7612	Bug Fix

Used older API to query frozen files to fix support for CST 4.2.

7618	Bug Fix

Added backward compatibility for older CST versions by updating the swmfs_test 23 output parser to seamlessly handle both legacy and modern outputs, accommodating variations in the "elapsed time" text line.

7689	Bug Fix

Fixed unfiltered results from leaking into the result set in diagnostics_entity_search macro.

1.2 Version 3.1.2

This version includes a bug fix and an external library update.

Item	Type
7606	Bug Fix

Ensure environment heading for application window is preserved

7608	Security

Update Netty to 4.2.15

1.3 Version 3.1.1

This version is updated to be compatible with the latest Splunk 10.0.x, enhancements, updated documentation and external libraries.

Item	Type
Release Notes	
7026	Compatibility
Include latest Splunk 10.0.5	
7028	Enhancement
Run SW monitors during datastore monitor	
7032	Documentation
Typo in documentation for swmfs_test	
7154	Enhancement
Upgrage netty version	

1.4 Version 3.1.0

The installation package has been complemented with a Docker image for the Diagnostics Collector. This is now the preferred way for deploying the Collector on Linux, as it simplifies installation and future updates. For example, it eliminates the dependency on JSVC and adds convenient options for automatically starting and restarting the Collectors. The .rpm installer is still included in the package as well, but customers running their Collectors on Linux are encouraged to migrate to the Docker image instead.

The minimum Java version required to run Diagnostics has been raised to Java 11. This is due to an update in the external libraries. Both the Archiver ACP and the Collector have an option to specify the exact Java runtime to use, which allows the Diagnostics Java runtime to be upgraded independently from the system default Java runtime.

Customers upgrading from a 2.x version should take note of the upgrade steps for all intermediate releases.

The full list of major changes can be found here:

Issue list 3.1 8

1.4.1 Issue list 3.1

Item	Type
Release Notes	
6197	New Feature
Provided a Docker image and compose.yaml for running the Collector.	
6385	Enhancement
Provided better feedback on required permissions for entering the Environments and Users configuration dashboards.	

_____
6388 Enhancement
Prevented power users from editing out of box dashboards.

_____
6419 Enhancement
Stopped displaying the action_timestamp field and show _time instead, as the latter adjusts to the user's local timezone.

_____
6426 Compatibility
Updated all external libraries.

_____
6455 Bug Fix
Prevented negative values on the Dataset usage dashboard when using short transactions.

_____
6522 Bug Fix
Removed old references in the user interface to index, where actually environment is meant.

_____
6531 Documentation
Added documentation for rwx_ds_latency.

1.5 Version 3.0.2

This version contains bug fixes, compatibility test, enhancements and documentation updates.

Item Type
Release Notes

_____
6993 Compatibility
Removed the diagnostics-swmonitor.rpm from the installation package.

_____
7307 Documentation
Expanded documentation to include more error resolutions.

_____
7309 Bug Fix
Fixed display issues with environment and user configuration dashboards when using different authentication systems.

_____
7328 Compatibility
Upgraded external components to their latest version and updated code accordingly. For a list of currently included components see the 'Third party licence agreements' section.

_____
7346 Bug Fix
Addressed a bug that displayed an error message when navigating tabs in the 'Most Used Functions and Editors' dashboard.

_____
7347 Enhancement
Upgraded Splunk to the latest version (9.4.5) to ensure compatibility, security, and access to the latest features.

1.6 Version 3.0.1

This version is updated to be compatible with Splunk 9.4.3.

Item	Type
Release Notes	
7270	Enhancement

Upgraded Splunk to the latest version (9.4.3) to ensure compatibility, security, and access to the latest features.

1.7 Version 3.0.0

This release introduces the implementation of React and a new mechanism called entities. This introduces a continuously maintained list of Smallworld sessions, Datastore files and their key properties, derived from Diagnostics events. The entities state will be updated automatically in the background to reflect the latest known information. Dashboards will leverage this precomputed entities list instead of querying raw events, significantly improving performance and reducing load times. This release is compatible with Smallworld 5.3.5 and embeds the latest external libraries including Splunk 9.4.1.

Customers upgrading from an earlier version of Diagnostics are advised to follow the instructions in the *Diagnostics* upgrade manual, specifically because there are additional settings to be done for Splunk.

The full list of major changes can be found here:

Issue list 3.0 10

1.7.1 Issue list 3.0

Item	Type
Release Notes	
6523	Enhancement

Improved the performance of the datastore growth monitor dashboard.

6996	Enhancement

Incorporating IQ server (Sonatype) in the Jenkins build to detect threats and vulnerabilities for third party dependencies.

7059	Enhancement

Incorporated React JS to implement the creation of users and environments.

7065	New Feature

A new dashboard to create and show user view in Diagnostics.

7066	New Feature

Created a new dashboard to manage environments.

7074	New Feature

Created a Python command insightout to update entities collections.

_____
7101 New Feature
Changed the dashboard inputs to dropdowns which incorporates entities and improves the performance.

_____
7143 New Feature
Added an alert to notify users of high network and file system latency, complementing the existing SWMFS Latency Assessment dashboard introduced in release 2.7.

_____
7234 Compatibility
Upgraded external components to their latest version and updated code accordingly. For a list of currently included components see the 'Third party licence agreements' section.

_____
7235 New Feature
Ingest JSON app logs - added endpoint to ingest JSON app logs from Smallworld related applications, for example, Smallworld Enterprise Gateway.

_____
7239 Enhancement
Included hostname verification to enable or disable connection with the Diagnostics Collector.

_____
7246 Bug Fix
Prevent an error from occurring when making a record change.

_____
7253 Compatibility
Tested compatibility with Smallworld 5.3.5.

_____
7261 Documentation
Made improvements to the documentation to create diagnostics users and environments.

_____
7262 Enhancement
Improved the calendar to load faster in the Session capture summary dashboard.

1.8 Version 2.7.1

This version contains a bug fix, compatibility test, enhancements and documentation updates.

Item	Type
Release Notes	

_____
7046 Compatibility
Fixed compatibility issues with Smallworld 5.3.4.

_____
7061 Enhancement
Allow the diagnostics-sw-monitor.jar to dump events locally.

_____
7062 Enhancement
Allowed dump mode to not override existing tracked sessions.

7071 Bug Fix
Fixed an issue where duplicate events were occurring in cluster_log.

7079	Documentation
Corrected some typos in the documentation.	

1.9 Version 2.7.0

This release is tested for compatibility with Smallworld 5.3.3 and embeds the latest external libraries including Splunk 9.2.1.

Customers upgrading from an earlier version of *Diagnostics* are advised to follow the instructions in the *Diagnostics* upgrade manual, specifically because there are additional settings to be done for Splunk.

The full list of major changes can be found here:

Issue list 2.7 12

1.9.1 Issue list 2.7

Item	Type
Release Notes	
6724	Enhancement
Added an automatic restart mechanism for the Diagnostics Collector service after an OS reboot on Linux.	
6728	Enhancement
Enhanced the performance of the Datastore growth monitor dashboard to greater efficiency.	
6869	Enhancement
The Datastore growth monitor now also reports on working top.	
6923	New Feature
Added a new dashboard called Swmfs latency assessment.	
6941	New Feature
Added a new tracker for the swmfs_test.	
6946	New Feature
Added a login screen app.	
6973	Bug Fix
Prevented an index out of bounds error.	
6978	Enhancement
Added the possibility to restrict the set of datasets reported by the Datastore growth monitor.	
6987	Bug Fix
Prevented incomplete events when tracking the Kubernetes cluster logs.	
6991	Documentation

Updated the upgrade manual to include checking on the key value store.

_____

6994 Enhancement

Added a method that applies custom functions if Diagnostics is started before all modules are loaded.

_____

7033 Compatibility

Upgraded external components to their latest version and updated code accordingly. For a list of currently included components see the 'Third party licence agreements' section.

_____

7034 Enhancement

Enhanced the RPM installer for the Diagnostics Collector to ensure the creation of all necessary directories.

_____

7035 Enhancement

Improved the way to extract the inputs app.

1.10 Version 2.6.1

This version contains bug fixes, compatibility tests and enhancements.

Item	Type
Release Notes	
6757	Bug Fix
Prevent FileSystemException error in the Collector	
6787	Enhancement
Included the latest licence mechanism	
6901	Enhancement
Allow to configure alert maintenance window	
6913	Compatibility
Tested for compatibility with Smallworld 5.2.10	
6934	Compatibility
Tested for compatibility with Smallworld 5.3.3	

1.11 Version 2.6.0

This release is tested for compatibility with Smallworld 5.3.2 and embeds the latest external libraries including Splunk 9.1.1. Existing *Diagnostics* customers running on Smallworld 4 may notice a decrease in map action duration reported on the dashboards after installing this version because of an included bug fix.

Version 2.6.0 also includes all enhancements and bug fixes from the *Diagnostics* 2.5.x releases up until 2.5.3. Customers upgrading from an earlier version of *Diagnostics* are advised to follow the instructions in the *Diagnostics* upgrade manual, specifically because there are additional settings to be done for Splunk.

The full list of major changes can be found here:

Issue list 2.6 14

1.11.1 Issue list 2.6

Item	Type
Release Notes	
6607	Documentation
Removed the section for upgrade from Diagnostics version 1 from the upgrade manual.	
6630	Compatibility
Added compatibility for Splunk Cloud Platform by addressing failures reported by the Splunk appinspect cloud vetting tool.	
6643	Breaking Change
No longer add the time taken by a of spawned (render) thread to the duration of rwa_map_action events on Smallworld 4 as that could incorporate other threads too, leading to false high values recorded into the duration field.	
6760	Compatibility
Upgraded external components to their latest version and updated code accordingly; removed obsolete external Java libraries commons-cli, commons-lang, and jaxb-core; added netty-transport-native-unix-common. For a list of currently included components see the 'Third party licence agreements' section.	
6771	Compatibility
Tested for compatibility with Smallworld 5.3.2.	
6841	Enhancement
Made sure that .events and .log files created by the Linux Collector are readable without being root by applying umask 0022 to the process started by Jsvc.	
6849	Enhancement
Moved the dynamically populated part of the User-defined dashboards menu to the bottom to avoid misclicks on the static menu entries.	
6859	Bug Fix
Fixed a bug where activated alerts did not show the full index name, preventing them from being deactivated.	

1.12 Version 2.5.3

This version contains bug fixes and enhancements.

Item	Type
Release Notes	
6511	Bug Fix
Fixed a formatting error when inspecting specific internal Diagnostics exemplars on the prompt.	
6610	Enhancement
Lay out the 'Triggered alerts' dashboard with tabs, like the 'Alert configuration' dashboard.	

6657 Enhancement
Allow to drill down on errors from the 'Most used functions and editors' dashboard.

_____
6697 Bug Fix
Fixed a race condition resulting in a does_not_understand error in method cost_object_for().

_____
6706 Bug Fix
Fixed an edge case where specific event content could cause the event to appear on the wrong date in the timeline.

_____
6709 Enhancement
Allow to drill down on the calendar on 'Session capture summary' before it is fully loaded.

_____
6718 Bug Fix
Prevented an error when editing an object through the visual_framework in a specific scenario.

_____
6725 Bug Fix
The 'JVM statistics' dashboard would show any triggered alert for the session, now it only shows JVM alerts.

1.13 Version 2.5.2

This version contains the latest licence mechanism.

Item Type
Release Notes

_____
6601 Enhancement
Included the latest licence mechanism.

1.14 Version 2.5.1

This version contains changes to be compatible with Smallworld 5.3.0.

Item Type
Release Notes

_____
6509 Compatibility
Updated Diagnostics integration for GSS to allow new db_spec_name parameter.

_____
6518 Enhancement
Made sure the Diagnostics wrappers are not reported as false positives by the Infraction Checker.

_____
6540 Enhancement
Amended Collector logging with IP address of tracker connections, as well as request header details if an HTTP 500 internal server error occurs.

_____
6542 Compatibility
Updated /logs endpoint on Collector to allow Fluent Bit in Kubernetes to HTTP POST multple json log batches without opening a new TCP connection.

_____
6555 Compatibility
Configured set of existing Diagnostics integration modules to be applied to Smallworld 5.3 (same as for 5.2).

_____
6557 Compatibility
Added support for monitoring Smallworld 5.3.

_____
6575 Bug Fix
Split a Diagnostics wrapper into an extra integration module to prevent a potential issue.

_____
6579 Bug Fix
Prevented a potential issue with a Diagnostics wrapper.

_____
6585 Documentation
Added the required Splunk installers to the list of 3rd party products.

1.15 Version 2.5.0

This release adds new features and enhancements making the data in *Diagnostics* even more accessible.

The full list of major changes can be found here:

Issue list 2.5 16

1.15.1 Issue list 2.5

Item Type
Release Notes

_____
6273 New Feature
Added a speaker icon to the right top of all dashboards to show the latest online Diagnostics news.

_____
6275 Enhancement
Added a timestamp field to the usr_session and auth_group events to record the exact starting time of Smallworld sessions.

_____
6311 Enhancement
The 'Session capture summary' dashboard now also shows the exact time at which a session was started, where it would previously only show the day.

_____
6363 New Feature
Added a bell icon to the right top of all dashboards to show recently triggered alerts.

_____
6417 New Feature
Added an alert to notify about upcoming datastore depletion in the coming 90 days, accompanying the already existing 'Datastore growth monitor' dashboard from release 2.4.

_____
6425 Enhancement
Rewrote the logging implementation of Diagnostics' Java components by replacing Log4j with a lightweight logging backend behind the SLF4J API.

1.16 Version 2.4.2

This version contains bug fixes, an enhancement, and documentation refinements.

Item	Type
Release Notes	
6284	Bug Fix

Consistently apply alert email subjects, so now all alerts start with 'Diagnostics alert: ' and mention the applicable index indicating the Smallworld environment to which the alert applies (except for the 'Licence volume limit' alert which always applies to the data volume collected for all indexes combined).

6305	Documentation

Documented the ROOS Licencing Error for which the T&A Quick Install now refers to the licence manager guide.

6313	Documentation

Advice to stop splunkd before running the Splunk installer during an upgrade.

6314	Documentation

Clarified the location of Splunk SSL configuration settings in the documentation.

6322	Documentation

Documented the solution for Archiver SSL errors CertificateException and SunCertPathBuilderException.

6324	Bug Fix

Prevent an error while loading Diagnostics when version 2 of magik_gui_components is present on Smallworld version 4.3.

6347	Enhancement

Updated the dashboards 'Swmfs monitor overview', 'Swmfs list overview', 'Sw licence info' to automatically select the first database host from the dropdown and applied minor cosmetic changes in the inputs section of these dashboards for consistency.

6353	Bug Fix

Prevent machines from falsely being reported as 'Machines with inactive Diagnostics' on the 'Diagnostics finetuning' dashboard when the session was started before the selected time window.

6391	Bug Fix

Improved the efficiency of the file growth prediction search on the 'Datastore growth monitor' dashboard to prevent it from leaving out predictions for some files when tracking a high amount of files and alternatives (due to the internal search on the dashboard running out of memory).

6392	Bug Fix

Fixed 2 accuracy issues with the prediction of future file sizes on the 'Datastore growth monitor' dashboard related to adding and removing alternatives.

1.17 Version 2.4.1

This version contains bug fixes.

Item	Type
Release Notes	

_____
6214 Bug Fix
Made sure that the drilldown on the 'Traceback analysis' dashboard also works when clicking on a condition with a ! in its name.

_____
6261 Bug Fix
Fixed an error in the calendar timechart and treemap visualizations that only occurred when those visualizations were used in the 'Search' view.

_____
6277 Bug Fix
Prevented Java WeakHashMap operations from entering an endless loop by synchronizing accessor methods.

1.18 Version 2.4.0

This release adds major features requested by current *Diagnostics* customers. New use cases, new menus, new alerts, new dashboards, a new visualization, and even the first predictive dashboard are all included in this release.

The full list of major changes can be found here:

Issue list 2.4 18

1.18.1 Issue list 2.4

Item Type
Release Notes

_____
1700 New Feature
Added tracking for pop-up questions and notifications.

_____
5659 New Feature
Added an alert for crash detection.

_____
5816 New Feature
Added a connected scatter plot visualization and improved the dashboards 'Application details', 'Application usage', and 'Swmfs list overview' by applying this new visualization.

_____
5865 New Feature
Added an alert to notify about upcoming Smallworld licence expiration.

_____
5891 Enhancement
Improved the readability of the Replay user clicks dashboard by adding a preconfigured action filter.

_____
5906 New Feature
Added the 'Diagnostics dashboard usage' dashboard to learn about dashboard usage and performance.

_____
5945 New Feature
Added the 'Crash detector' dashboard to list Smallworld sessions that were not closed properly.

_____
6012 Documentation
Documented error messages related to proxy issues or misconfiguration.

_____
6044 Enhancement
Added a filter option to the 'Most used functions and editors' dashboard.

_____
6067 New Feature
Added the 'Datastore growth monitor' dashboard to monitor and predict datastore file sizes and impending 'Disk Full' errors by analysing alternatives and superfile limits.

_____
6091 Bug Fix
Updated tabs.js to fix a visualization bug.

_____
6098 New Feature
Added the ability to feed the Diagnostics events to a second system as JSON objects in real-time.

_____
6127 Documentation
Added documentation section 'Secure communications with SSL' with detailed steps to install and validate SSL certificates to secure Archiver, Collector, and Presentation communications.

_____
6212 New Feature
Added an alert for approaching the Smallworld licence quota.

_____
6221 Enhancement
Changed the index selector into a dropdown to occupy less space on the dashboards.

_____
6223 Enhancement
Added a separate 'Alerts' menu for viewing and configuring alerts.

_____
6256 Enhancement
Make sure that the 'User-defined dashboards' list only shows views created in Diagnostics.

1.19 Version 2.3.4

This version contains bug fixes, an enhancement and a documentation update.

Item Type
Release Notes

_____
6010 Bug Fix
Fixed visualization issues related to timezone differences between the Splunk server and the client web browser.

_____
6024 Bug Fix
Fixed custom functions defined through diagnostics_config.xml that were not applied correctly when Diagnostics was started while being in the sw package.

_____
6034 Enhancement
Included the latest licence mechanism.

_____
6109 Documentation
Extended the documentation of archiver error messages for proxy and other edge cases, and produce a specific error for URL misconfiguration.

_____
6114 Bug Fix

Fixed a drilldown on the Replay user clicks dashboard to carry over correct filters in all situations.

1.20 Version 2.3.3

This version contains a bug fix.

Item	Type
Release Notes	
5993	Bug Fix

Fixed an error in the build resulting in an incomplete libs folder.

1.21 Version 2.3.2

This version contains a bug fix and documentation updates.

Item	Type
Release Notes	
5864	Bug Fix

Avoid an error when editing an object through the visual_framework before Smallworld 4.3.

5930	Documentation

Included the 3rd party libraries in the release notes.

5933	Bug Fix

Avoid an error when anonymizing empty fields.

5961	Documentation

Amended a solution to the error messages described in the documentation.

1.22 Version 2.3.1

This version contains bug fixes, an enhancement, a documentation update and a new feature.

Item	Type
Release Notes	
5774	Documentation

Added instructions on how to keep the configuration files outside of a Docker image.

5782	Bug Fix

Fixed the listing of the indexes the on configuration dashboards.

5784	Bug Fix

Fixed the drilldown links on the Performance dashboard to carry over all filters.

5809	Bug Fix

Avoid an error when retrieving an URN when doing a replica.

5821	Enhancement

Added support for the use of environment variables in all configuration settings.

5830 Feature
Added the possibility to populate a second Splunk instance with anonymized events.

_____
5839 Bug Fix
Fixed an invalid token on the Traceback analysis dashboard that resulted in error messages.

1.23 Version 2.3.0

This release adds major features requested by current *Diagnostics* customers. New use cases, new events, new dashboards, Smallworld logging framework support on Kubernetes, and many improvements are included in the out-of-box product. Consistent with previous releases, the e-mail alerting capabilities have once again been extended.

The full list of major changes can be found here:

Issue list 2.3 21

1.23.1 Issue list 2.3

Item Type
Release Notes

_____
895 New Feature
Send out a notification event when a Smallworld session is ended nicely, such that bad terminations can be deducted from the lack of said event.

_____
5146 Bug Fix
Prevent the creation of superfluous (J)VM statistics events when waking a Smallworld session up from hibernation.

_____
5482 Enhancement
Improved the tracking of conditions, now also capturing conditions that are presented to the user in a pop-up message, adding colour coding to user actions in the 'Replay user clicks' and 'Hierarchy inspector' dashboards for easier navigation.

_____
5490 New Feature
Track the insert/update/delete of any Smallworld object in any alternative, providing new dashboard 'Conflict investigation' to examine objects that are touched by multiple users and why.

_____
5524 New Feature
Added a monitoring console to define the desired application server sessions, monitor them using the new 'Sw app server states monitor' dashboard, and receive an e-mail alert when a session is down or a server is overcommitted.

_____
5549 New Feature
Added integration with the Smallworld logging framework for GSS on Kubernetes, adding new dashboard 'Cluster logs' and complementing the existing 'GSS service calls' dashboard.

_____
5552 Enhancement
Added a bubble chart to the 'Most used functions and editors' dashboard, using the number of users to determine the colour along a linear scale.

_____
5637 Enhancement

Updated the 'Diagnostics finetuning' dashboard to filter by sourcetype upon drilldown.

_____

5666 Enhancement

Added a tooltip to the 'Apply previous filter' button that describes the previous filter before clicking.

_____

5763 Enhancement

Increased the capacity of event fields to avoid truncating longer string values.

1.24 Version 2.2.2

This version contains bug fixes and documentation updates.

Item	Type
Release Notes	

_____

5657 Documentation

Fixed some minor spelling mistakes in the application and documentation.

_____

5661 Bug Fix

Resolved an internal JavaScript error that occurred on some dashboards but did not disrupt functionality.

_____

5682 Bug Fix

List the number of all errors, warnings, informations on dashboard 'Traceback analysis' instead of only the top 10.

_____

5691 Bug Fix

Avoid producing negative values on dashboard 'Dataset usage' in specific scenarios.

_____

5695 Documentation

Added an upgrade guide for updating from a previous 2.x.x version.

_____

5696 Bug Fix

Eliminate the 500k event limit for results on some dashboards.

1.25 Version 2.2.1

This version contains bug fixes and enhancements.

Item	Type
Release Notes	

_____

5460 Bug Fix

Where needed the search commands first and last have been changed to latest and earliest to prevent inconsistent search results on search clusters.

_____

5499 Bug Fix

The error managed_value_text_item and processed_text_item is a conflict method does not occur anymore for specific user interface elements.

_____

5508 Enhancement

Avoid 2 unset globals when loading Diagnostics on Smallworld 4.

_____

5516 Bug Fix

Fixed the 'Apply previous filter' button on dashboards with a session_id dropdown list.

_____
5520 Enhancement
Performance improvement of the search that lists the sessions on the session_capture_summary dashboard.

_____
5530 Documentation
Added steps in documentation to debug SMTP settings in Splunk.

_____
5531 Documentation
Clarified the determination of the ingested data volume calculation in the documentation.

_____
5593 Bug Fix
Allow the diagnostics scheduler to recover from a thread sleep issue, and prevent it from throwing errors.

_____
5596 Enhancement
Improvement of the logging when the ArchiverAcp receives an error.

_____
5606 Enhancement
Performance improvement of the searches on the dashboards: Application usage, Ds cost, Performance dashboard and the Hierarchy inspector.

_____
5610 Bug Fix
Avoid creating an endless loop when reintegrating with a patch that is actually a user-defined wrapper method.

1.26 Version 2.2.0

The focus of this release is on monitoring, providing an accessible new interface to *Diagnostics'* alerting capabilities. Predefined alerts can be activated with a few clicks to signal and report common fault situations. Raised alerts can be found on the dashboards together with the data that triggered them. Alerts can also be sent directly via e-mail to make it easy to become proactive and get ahead of problems.

Diagnostics has further been extended on the visual level with the new Treemap visualization. It is a rich visualization to show a detailed breakdown of complex metrics. This visualization is first introduced on the SWMFS monitor overview dashboard. The interactive chart allows for convenient data drilldown to assist analysis.

The full list of major changes can be found here:

Issue list 2.2 23

1.26.1 Issue list 2.2

Item	Type
Release Notes	

_____
5148 New Feature
Added a Treemap visualization and used it on the SWMFS list overview dashboard, making improvements for consistency to other existing visualizations as well.

_____
5164 Enhancement
Minor documentation updates to reduce the depth of the table of contents.

_____
5212 Bug Fix
Addressed some inconsequential configuration warnings raised during Splunk startup.

_____
5214 New Feature
Introduced the alerting dashboards to signal and report common fault situations by creating events and sending emails, starting with 3 standard alerts.

_____
5256 Enhancement
Allowed Diagnostics to track Magik code added to the session after loading Diagnostics.

_____
5274 Enhancement
Refactored Magik VM statistics gathering into separate integration module.

_____
5316 Enhancement
Removed external libraries and code for legacy RDBMS support (Diagnostics 1.x).

_____
5346 Enhancement
Changed the default time ranges on some dashboards for consistency.

_____
5377 Enhancement
Updated external libraries including D3 and Netty.

1.27 Version 2.1.3

This version contains a bug fix.

Item Type
Release Notes

_____
5404 Bug Fix
Represent the contents of obfuscated user input fields, such as password fields, with *** to omit the actual input from the Diagnostics event and also not reveal the number of characters in the input.

1.28 Version 2.1.2

This version contains bug fixes and an enhancement.

Item Type
Release Notes

_____
5294 Bug Fix
Avoid an error when a record transaction is performed on a dataset that does not provide alternative or name.

_____
5311 Bug Fix
Updated the calendar timechart visualization to work in Internet Explorer 11.

_____
5314 Enhancement

Improved the map visualization on the dashboards so they now centre on the location of the first found record. Also made it possible to zoom in and out with scrolling.

_____

5315 Bug Fix

Updated 2 configuration files in the diagnostics_incontrol app to comply with standards.

1.29 Version 2.1.1

This version contains bug fixes and an enhancement.

Item	Type
Release Notes	
5147	Documentation
Updated all dashboard descriptions and screenshots in the documentation to match the 2.1.1 diagnostics_incontrol app.	
5152	Bug Fix
Added macro 'index_pattern' to restrict the number of indexes shown on the dashboards for Splunk power users. Also deduplicated the list for customers using a Splunk indexer cluster.	
5273	Bug Fix
Added an error message for the case where the https:// protocol specification is omitted from the url tag in archive_connection.xml instead of showing a NullPointerException.	

1.30 Version 2.1.0

The focus of this release is the usability of the *Diagnostics* analysis interface. All dashboards are revisited to provide richer insights into not only new but also existing *Diagnostics* events. Dashboards have been made interactive and are chained together to make it easier to interpret and correlate events.

Event tracking has been improved as well by extending tracking for database record transactions and increasing custom tracking capabilities.

The full list of major changes can be found here:

Issue list 2.1 25

1.30.1 Issue list 2.1

Item	Type
Release Notes	
671	Enhancement
The SWMFS monitor dashboard now allows to consult statistics from multiple Smallworld production databases.	
3562	Enhancement
Alternative path and uniform resource name (URN) are now tracked for database record transactions.	

_____
4204 Enhancement
The capacity of the rwa_custom_function fields info_before and info_after has been increased to allow for even richer customizations.

_____
4654 New Feature
A button 'Apply Previous Filter' was added to dashboards to easily carry over the time, index, session, location, department, machine filters entered on the previously visited dashboard.

_____
4780 Enhancement
Replaced the 'GSS monitoring' dashboard with the new 'GSS service calls' dashboard that provides insights into service call load balancing, performance and more.

_____
4855 New Feature
An overview of Smallworld sessions that are not yet tracked with Diagnostics is added to the 'Diagnostics finetuning' dashboard to ease installation.

_____
4882 Enhancement
Tracking of database record changes has been reworked to cover additional Magik interfaces such as dataset_transaction and custom_record_transaction. As transactions are now tracked at a lower code level it is possible that the recorded transaction duration is slightly lower compared to the previous version.

_____
4884 Enhancement
Custom integration modules are now supposed to explicitly list the Smallworld modules for which they provide tracking through their module.def. Implicit target declarations through the integration module folder name are still supported for backwards compatibility and will trigger a warning when the integration module is loaded.

_____
4896 Enhancement
The Splunk custom visualization API is now used for the bubble chart on the 'Ds cost' dashboard to allow for user interaction by clicking on the bubbles.

_____
4903 New Feature
A Calendar visualization is added to the dashboard 'Session capture summary'.

_____
4935 Enhancement
All dashboards have been enhanced for usability. Clicking on a dashboard chart will no longer show the raw events, but will rather present a new graph or open another dashboard showing a higher level of detail. Timelines on dashboards are now interactive and allow to zoom in to take a closer look. Dashoards 'Regional Performance' and 'Geographic activity' have been removed or integrated into other dashboards respectively.

_____
5099 Bug Fix
The Collector now runs on Java 11 in addition to Java 8.

1.31 Version 2.0.2

This version contains bug fixes, enhancements, new features, and is tested for compatibility with Smallworld 5.2.0.

Item Type
Release Notes

_____
4707 Bug Fix

StressTest tool would not report all errors properly.

_____
4715 Enhancement
Collector service can be upgraded from earlier 2.0.x version by running latest installer.

_____
4789 Enhancement
Hide the indexer app in the Splunk user interface because it is internal.

_____
4791 Documentation
The documentation has been updated, including system requirements documents, scaling advice, extra deployment troubleshooting tips.

_____
4815 Enhancement
Improved error handling on Collector server when HTTP header verification fails.

_____
4852 Enhancement
List of indexes on dashboards is now sorted alphabetically.

_____
4858 Enhancement
The Collector will partition event files for Splunk so that no batch contains 100k events or more.

_____
4860 New Feature
Make the JVM monitor compatible with Java 11.

_____
4867 New Feature
Allow the use of environment variables as part of the location and department settings in diagnostics_config.xml.

_____
4869 Bug Fix
Collector service on Windows no longer stalls when requested to stop.

_____
4876 Enhancement
List of indexes on dashboards now appears more quickly.

_____
4877 Enhancement
Not specifying a port number in archive_connection.xml now assumes default port 443.

_____
4937 Bug Fix
Allow to activate a custom function event for a method that is currently executing.

_____
4944 Bug Fix
Do not create ds_logical_file events when a dataset pool is in use.

_____
4945 New Feature
Tested for compatibility with Smallworld 5.2.0.

_____
4963 Bug Fix
Unable to define a custom function on a mixin method due to validation problem.

1.32 Version 2.0.1

This version contains bug fixes and an enhancement.

Item	Type
Release Notes	
4617	Bug Fix
Defining a custom function on a method with a question mark in its name would produce an error.	
4628	Bug Fix
If the connection to the Collector server was lost while shutting down the Smallworld session, the quit process would stall.	
4629	Enhancement
Simplified the use of setting ssl_certificate_file in archive_connection.xml by supporting relative paths and environment variable substitution, now expecting the certificate file to be located in the same folder as the archive_connection.xml itself by default.	
4682	Bug Fix
Removed the initial and maximum size of the Java heap of the Diagnostics Collector service running on Windows.	

1.33 Version 2.0.0

The *Collector* service was introduced to eliminate the need for an intermediate Oracle or MySQL database and to make it possible to run the *Diagnostics Collector* service over the Internet for cloud installations. Full on premise installations will benefit from the same *Collector* service on local networks.

It is no longer needed to create a data model from this release onwards as the intermediate Oracle or MySQL database is removed from the design. The *Diagnostics* data model is automatically applied to incoming events by the *Collector* service before sending them into Splunk.

The issue list containing all major changes can be found here:

Issue list 2.0 28

1.33.1 Issue list 2.0

Item	Type
Release Notes	
3950	New Feature
Introduced the Collector service to eliminate the need for an intermediate Oracle or MySQL database and add support for running Diagnostics in the cloud. The Splunk Feeder service and Oracle or MySQL database are no longer needed after upgrading to this release. Instead a server is needed to run the Collector service (1 per Smallworld environment). More information can be found in the documentation.	
4280	Enhancement

Made it easier to filter and select user sessions on a time range on dashboards with a user session selection box.

_____

4558 Bug

JVM monitor on Smallworld 5 would produce a NullPointer if running on a system with only 1 CPU.

_____

4588 New Feature

Tested for compatibility with Smallworld 5.1.8 (omit product.ser from now on to remain compatible with earlier 5.1.x versions).

1.34 Version 1.5.2

This version contains bug fixes and enhancements.

Item Type

Release Notes

_____

1620 Enhancement

Introduced more efficient queries to clean data from the intermediate relational database. The speed improvement is particularly noticeable on large MySQL databases.

_____

4129 Bug Fix

Bad events created for user actions in the Version Management dialog could cause the application to freeze temporarily.

_____

4386 Enhancement

Reduced the default value of minimum_queue_retention to 0 to keep the size of the intermediate database to a minimum.

_____

4569 Bug Fix

Events of type rwa_file_io could cause Diagnostics to stop tracking if the recorded filename was too long.

1.35 Version 1.5.1

This version contains bug fixes and minor changes, as well as one new feature.

Item Type

Release Notes

_____

3689 New Feature

Introduced value 'error' for configuration option 'record_traceback_on_condition' to record the full traceback only for error conditions, as a refinement to the possiblity to track it for all or no conditions.

_____

3932 Enhancement

Tracking of user group membership no longer requires elevated rights.

_____

3938 Bug Fix

The Splunk Feeder service will always leave at least one record in each MySQL table when cleaning to prevent MySQL from resetting the id generator after a database restart. This does not apply to Oracle.

_____

3942 Bug Fix

CST 5 GUI components like the SWIFT map will be ignored if they are already present in Smallworld 4.3.

_____

3986 Documentation

Described the use of '--action check' to validate Diagnostics data capture.

_____

3992 Bug Fix

Events of type rwa_geom_select could not be created in specific scenario's.

1.36 Version 1.5.0

This version contains the following functional changes:

- Added support for tracking Smallworld 5.1 sessions

- Extended and improved monitoring

- Easier installation and configuration

- And more

Version 1.5 contains data model changes. Both sides of *Diagnostics* must be updated by running the installers to upgrade *Diagnostics*. This includes the tracker and archiver on one end to generate events from Smallworld sessions, and Splunk and the presentation installer on the other end to analyze and present the data gathered.

The issue list containing all major changes can be found here:

Issue list 1.5 30

1.36.1 Issue list 1.5

Item Type

Release Notes

_____

3559 Enhancement

It is no longer possible to install the track and archive Smallworld product twice to avoid confusion.

_____

3568 Enhancement

Added support for 4-byte UTF-8 characters in MySQL.

_____

3591 Enhancement

Added field UI dialog to the UI action events to indicate in which dialog a user action was performed. This new field is added to exising dashboard 'Replay user clicks' and is used in new chart 'Top 25 most actively used dialogs' on the 'Application usage' dashboard.

_____

3605 New Feature

Added a command to the Diagnostics support tool to verify data capturing during trials.

_____

3639 New Feature

Added commands to identify the path to the Diagnostics configuration files on the Magik prompt.

_____
3652 Enhancement
Moved configuration setting jre_xmx from glue.magik into diagnostics_config.xml to avoid image rebuild after changing the value. Existing installations specifying a different value for jre_xmx through a glue.magik must now use the diagnostics_config.xml instead.

_____
3707 Enhancement
Field image_name on usr_session has been renamed to session_name.

_____
3741 Enhancement
The duration of UI actions no longer accounts for spawned threads to avoid false positives leading to erroneous conclusions.

_____
3793 New Feature
Added support for monitoring Smallworld 5.1 sessions with Diagnostics including JVM statistics.

_____
3800 New Feature
Facilitate starting Diagnostics with a startup procedure instead of an application plugin to capture more events on Smallworld session startup. All existing customers are encouraged to use this new installation procedure.

_____
3801 New Feature
Upgraded to Splunk 6.5.2 and made some dashboards updates.

_____
3802 New Feature
Expanded support for MySQL up to version 5.6.

_____
3894 Bug Fix
Windows Presentation installer now creates Temp directory.

1.37 Version 1.4.1

This version contains bug fixes and minor changes, as well as one new feature.

Item	Type	Affected Versions	Components	Status	Datamodel change?
Title Release Notes					
Diag-17390	Bug	1.4.0	Archiver	Closed	False
Archiver uses 2 database connections instead of 1 Each archiver ACP now uses 1 database connection instead of 2					
Diag-17737	Bug	1.4.0	Tracker	Closed	False
Smallworld licence does not need to have an end date Smallworld licence monitor can detect licence without an end date					
Diag-17753	Bug	1.4.0	Configuration	Closed	False
rwc_ds_cost does not work in ignore_types The configuration now allows to ignore events of type rwc_ds_cost					
Diag-17904	Change request		Tracker	Closed	False
Extract DS logical file details on CST 410 Events of type rwr_ds_access can now be generated on Smallworld 4.1					

_____
Diag-17907 Change Request | Configuration | Closed | False

Ignore geom_select in default config

Event type rwa_geom_select is ignored by default due to low information value

_____
Diag-17924 Bug | 1.4.0 | Feeder | Closed | False

Prevent mode manager from disabling both modes

Splunk Feeder service no longer blocks if initial cleaning iteration takes more than 15 minutes

_____
Diag-17976 New Feature | Configuration,Integrations | Closed | False

Undo integration for integration modules that generate a configured ignore_type

The setting unregister_if_ignored was added to revert integration for events specified in the ignore_types to increase efficiency for tracking server sessions

_____
Diag-18069 Change Request | Presentation | Closed | False

Do not specify index name in SPL searches

Removed the restriction for using the "main" Splunk index for storing Diagnostics events

1.38 Version 1.4.0

In this version the product is renamed from Realworld Diagnostics to Diagnostics.

Functional changes:

- Introduced the cleaning mode of the Splunk Feeder service to reuse storage of the Archive database (Oracle/MySQL)

- Extended and improved monitoring

- And more

No datamodel changes were applied in version 1.4 so it is compatible with version 1.3. This means that it is possible to keep running the 1.3 Track and Archive modules to generate events, whilst already using the 1.4 Analyse and Present modules to process the events. This way one can immediately benefit from the visualization improvements and the added feature for cleaning up the Archive, and install the Smallworld part of Diagnostics during the regular customer release cycle.

Please note that the cleaning future requires additional indices on the Archive database. The Diagnostics datamodel creation tool will add these automatically when performing **--action migrate** on an existing Diagnostics datamodel.

The issue list containing all bug fixes and enhancements can be found here:

Issue list 1.4 33

1.38.1 Issue list 1.4

Item	Type	Affected Versions	Components	Status	Datamodel change?
Title Release Notes					
Diag-14987	Enhancement	1.3.1	Visualisation	Closed	False
Real-time data capturing presentation is confusing Turned the user chart (bottom chart) into a stacked bar chart.					
Diag-15026	Enhancement	1.3.0	Feeder	Closed	False
Error unable to rollback when unable to find database Splunk Feeder service now suppresses stacktraces for consecutive request handling failures (for example in case of lost Archive database connection) to avoid flooding its log file.					
Diag-15191	Change Request	1.3.0	Tracker	Closed	False
Do not use global for _lock Avoid unnecessary declaration of global roos_tracked_action.latest_parenting_id.					
Diag-15197	Bug	1.3.0	Presentation	Closed	False
Update list of sourcetypes on Tracked info details dashboard Not all sourcetypes could be selected on dashboard Tracked info details.					
Diag-15505	Enhancement	1.3.1	Core	Closed	False
SwMonitor.jar hangs when Oracle does not accept connections Improved error handling for non-responsive Oracle database in Diagnostics Smallworld monitor jobs.					
Diag-15516	Enhancement		Documentation	Closed	False
Minor documentation enhancements 1.4 Minor improvements were made to the documentation.					
Diag-15529	New Feature		Feeder	Closed	False
Free up archive database once indexed Periodically free up space in the Archive database to keep it small (Splunk Feeder service - cleaning mode).					
Diag-16383	Bug	1.3.1	Tracker	Closed	False
Smallworld Monitor raises unknown error too often The Diagnostics Smallworld monitors (such as swmfs monitor) report an error if the configuration is incorrect. Error code 1 (indicating unknown cause) was sometimes produced when a more specific exit code was applicable. This is fixed, and feedback from the monitor is improved.					
Diag-16430	Information		Requirements, Marketing and Sales	Closed	False

Apply the new Diagnostics branding
The new style of Diagnostics branding was introduced.

_____
Diag-16712 Bug 1.3.1 Archiver Closed False
Archiver stops due to Java heap space error
Allow the archiver ACP process to use 5 MB more RAM if necessary.

_____
Diag-16716 Information Closed False
Upgrade Splunk to patch release 6.2.4
Splunk was upgraded to version 6.2.4.

_____
Diag-16805 New Feature Tracker Closed False
Add support for generating editor_request events on SW 4.2 classic
Added support for generating rwa_editor_request events on the classic user interface (GRS).

_____
Diag-16812 Change Request 1.3.1 Configuration Closed False
Windows script files (.bat) should use Windows line endings
Some .bat files did not have Windows style line endings.

_____
Diag-16822 Bug 1.3.1 Archiver Closed False
Oracle does not accept long traceback values
Archiver Java ACP could stop due to an Oracle error (ORA-01461) when inserting a condition event with a long traceback value (big stack) into an Oracle Archive.

_____
Diag-16846 Bug 1.3.1 Tracker Closed False
Lat/lon in rwa_db_transaction is affected by application coordinate system
The lat/lon location of record transaction events could be affected by application settings. This is now independent of the current world and coordinate system. It will only be available for geographic worlds using the WGS 84 coordinate system (CS) as the root for their own CS.

1.39 Version 1.3.1

This version contains packaging enhancements and a bugfix.

Item	Type	Affected Versions	Components	Status	Datamodel change?
Title Release Notes					
RwDiag-15278	Enhancement		Packaging and delivery	Closed	False
Make separate Diagnostics distributions for both Oracle and MySQL Distribute Diagnostics in 2 editions, so there is no longer a need to separately distribute the database connector (MySQL or Oracle). Diagnostics 1.3.0 by default contained the Oracle connector. Since 1.3.1, the name of the edition (Oracle or MySQL) indicates the included connector. Both editions are functionally identical.					
RwDiag-15289	Enhancement		Packaging and delivery	Closed	False

Include in distribution Splunk installer for Red Hat
Include Splunk installer for Red Hat in distribution.

_____
RwDiag-15291 | Bug | 1.3.0 | Archiver | Closed | False
Error code 4 when starting archiver ACP directly from UNC path
Added compatibility for starting the Diagnostics archiver ACP directly from a UNC path.

_____
RwDiag-15331 | Information | | Core | Closed | False
Include latest Realworld licensing mechanism
The Realworld licensing mechanism has been updated to the latest version.

1.40 Version 1.3.0

In this version the product is renamed from Realworld Analytics to Realworld Diagnostics.

Functional changes:

- Added support for MySQL
- Added support for Linux (Red Hat)
- Improved Splunk Feeder efficiency
- Added/updated dashboards
- Improved monitoring
- And more

The issue list containing all bug fixes and enhancements can be found here:

Issuelist 1.3 35

1.40.1 Issue list 1.3

Item	Type	Affected Versions	Components	Status	Datamodel Change
Title Release Notes					
RwDiag-10383	Enhancement		Archiver	Closed	False
Include option not to store a certain action Allow to configure certain action types that do not need to be tracked (for use in alternative configuration when monitoring batch servers)					
RwDiag-12426	Enhancement		Tracker, Presentation	Closed	True
Replace rwr_appl_state with new sourcetype that inherits from tracked action (rwa_*)					

Added monitoring of applications, identifying which applications are used by how many users, how long they take to start, if there are errors starting them, and more. Dashboard Application details has been added to visualize these actions.

RwDiag-13959 | Bug | 1.2.0 | Documentation | Closed | False

CHM file link to release notes is invalid

Corrected link to release notes from Diagnostics Smallworld help file

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RwDiag-13975 | New Feature | | Presentation, Tracker | Closed | False

Add support for running the Presentation module on Linux

Added support for running the analysis server (Splunk and Splunk Feeder) on Red Hat Enterprise Linux (RHEL), as an alternative to Windows Server. This includes the possiblity of running the Smallworld Monitor on RHEL.

RwDiag-13978 | Enhancement | | Feeder | Closed | False

Redesign the SplunkFeeder for more efficient operation

Turned the Splunk Feeder into a service (instead of frequently starting and stopping stand alone feeders), to allow better management of the feeding process and its required resources (the JVM and database connections are now reused)

RwDiag-14033 | Bug | 1.2.0 | Presentation | Closed | False

Splunk may mistake IP-address for a date

Splunk sometimes interpreted the IP-address as the date

RwDiag-14104 | New Feature | | Archiver | Closed | True

Add MySQL support

Added support for running the Archive database on MySQL, as an alternative to Oracle

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RwDiag-14117 | New Feature | | Archiver | Closed | False

Implement new Archive design

Introduced Liquibase and Hibernate to respectively maintain and use the Archive datamodel

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RwDiag-14126 | New Feature | | Archiver | Closed | False

Replace create scripts

Introduced a command line tool to create, upgrade, or destroy the Archive datamodel

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RwDiag-14142 | Bug | | Visualisation | Closed | False

Dashboard performance comparison shows charts spanning 2 weeks

Fixed incorrect time axis on dashboard Performance comparison

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RwDiag-14144 | Bug | | Presentation | Closed | False

The Diagnostics logo is too big on some dashboards in IE9 and 10
Diagnostics logo sometimes was too big on dashboards in IE9 and IE10

_____

RwDiag-14145	Change Request	1.2.0	Presentation	Closed	False

Dashboard licence usage shows ambiguous information
Redesigned the Licence usage dashboard, by changing the visualization of the licence quota, and showing charts for different preset time ranges

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RwDiag-14371	Enhancement		Archiver	Closed	False

Clearify message on prompt when archiverAcp loses communication with Magik proces
Produce special message on the prompt when a Smallworld image crash is detected

_____

RwDiag-14394	Enhancement	1.2.0	Archiver	Closed	False

Discarded actions are named incorrectly
Updated naming of action types in discarded actions (started with roos_, now matches name of sourcetype, rw*)

_____

RwDiag-14414	Bug		Feeder	Closed	False

Split canvas_dimensions field in rwa_map_action sourcetype
Split property canvas_dimensions into canvas_width and canvas_height

_____

RwDiag-14416	Bug		Archiver	Closed	False

JAR does not always exit when error occurs
The Archiver Acp would not always exit when unable to connect to Archive database

_____

RwDiag-14565	Bug		Archiver	Closed	False

Memory footprint of archiver Acp has increased
The amount of required internal memory (on the Smallworld client) for running Diagnostics has increased to 70-75MB due to the memory requirements of the archiver Java Acp (no impact on cpu)

_____

RwDiag-14586	Bug		Documentation	Closed	False

Environment variable ARCHIVER_CONFIG_FILE mentioned in config file should be DIAGNOSTICS_CONFIG_FILE
Environment variable DIAGNOSTICS_CONFIG_FILE was mentioned with wrong name in manual

_____

RwDiag-14588	Task		Documentation	Closed	False

Update manual since patent is no longer pending
The Dutch patent is approved

_____

RwDiag-14660	Change Request		Core	Closed	False

Rename Analytics to Diagnostics
Product name changed from Analytics to Diagnostics

RwDiag-14714	Enhancement		Feeder	Closed	False

Add configurable resource management to Splunk Feeder service

Implemented intelligent feed scheduling and configurable resource sharing in the Splunk Feeder service, including configuration of the maximum amount of concurrent connections/requests to the Archive database (defaults to 10)

1.41 Version 1.2.2

This version contains a bugfix.

Item	Type	Affected Versions	Components	Status	Datamodel change?
Title Release Notes					
RWANA-15078	Bug	1.2.1	Tracker	Closed	False

Error when generating an enormous amount of conditions from 1 action

Defended against the scenario where 1 action generates more than 1 million conditions.

1.42 Version 1.2.1

This version contains a bugfix.

Item	Type	Affected Versions	Components	Status	Datamodel change?
Title Release Notes					
RWANA-14376	Bug	1.2.0	Archiver	Closed	False

NullPointerException occurs in archiverAcp

Fixed a bug where missing view scale and nominal scale information for a map action caused Analytics to stop monitoring a session.

1.43 Version 1.2.0

In this version:

- Upgraded to Splunk 6

- Introduced a variety of new dashboards

- Renaming of tracked actions and making naming of these events consistent throughout the application

- Added support for the Smallworld side of GSS

- Refined calculation of database interaction

- And more

The issue list containing all bug fixes and enhancements can be found here:

Issue list 1.2 39

1.43.1 Issue list 1.2

Item	Type	Affected Versions	Datamodel change?	Components	Status
Title Release Notes					
RWANA-9768	Requirement		False	Tracker	Internal Test Passed
Acquire also data from MMP and other batch stations Added the possibility to develop your own additional integration product through code in addition to XML configuration. A sample integration product (not loaded by default) is provided with examples for Smallworld Enterprise Gateway and the Realworld auto merge post module.					
RWANA-9802	Enhancement		False	Presentation	Closed
create map showing locations of rendering Added dashboard Geographic activity to show locations of record mutations and map inspection					
RWANA-10341	Bug		True	Tracker	Test Passed
hook for db_query should not be on dd_collection_mixin.select() Replaced db_query by ds_cost, offering both a higher coverage of DS operation types and allowing accurate per query timing					
RWANA-10659	Enhancement		False	Archiver	Closed
Include SPOOL ON and SPOOL OFF in db scripts Enabled spooling in Sql scripts					
RWANA-11420	Task	1.1, 1.1a.0	True	Archiver	Closed
Removing view informer_metadata Removed compatibility view informer_metadata. When running a 1.1a Smallworld tracker against a 1.2 archive you will get a traceback on the prompt and tracking is disabled, but no image functionality will be impacted.					
RWANA-11860	Bug	1.1	False	Tracker	Closed
run_swmfs_list_monitor.bat fails on ds_file is unreachable Fixed bug where swmfs_list was unable to retrieve database statistics					
RWANA-11861	Bug	1.1	False	Tracker	Closed
run_swlm_clerk.bat fails when an open Smallworld session exists Fixed a bug where the licence information could not be retrieved in some cases					

RWANA-11998	New Feature	True	Tracker	Internal Test Passed

Performance indicators Magik

Added standard support for measuring GSS service request, service calls, and call overhead. Also notifications are sent when the GSS image starts and stops.

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RWANA-12521	Task	False	Documentation	Closed

Move Oracle installation forward in T&A quick install manual

Reordered the installation steps for better user experience and understanding

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RWANA-12585	Task	True	Tracker	Test Passed

Store VM statistics

Store Magik virtual machine statistics periodically for analyzing its progress.

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RWANA-12734	Bug	1.1a.1	False	Closed

Some ui_action events miss their common information in tracked_info

Use database transactions to store information objects that span multiple tables in the Archive in order to ensure integrity.

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RWANA-12823	New Feature	False	Tracker	Closed

Introduce scheduler for period measurements

Introduced a scheduler for registering periodic measurements on the tracker.

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RWANA-12849	Task	True	Closed

Add WGS84 (lat/lon) information to map_action and db_transaction actions

Added WGS84 geometries to map_action and db_transaction to allow global mapping of tracked actions.

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RWANA-12866	Bug	False	Tracker	Closed

Missing dependency on simple_xml

Explicated dependency on core module simple_xml

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RWANA-13060	Bug	False	Tracker	Closed

Improve threadsafety condition recording

When record_traceback_on_condition is set to yes then the traceback will contain arguments regardless of the value of !traceback_show_args?!.

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RWANA-13091	Change Request	False	Tracker	Closed

Wijziging Nurse icon naar Red cross

Changed Nurse icon to Red cross

RWANA-13095	Requirement	False	Presentation	Closed

Upgrade realworld_analytics app to Splunk 6

Migrated the Analyze and Present modules to Splunk 6 to unlock even more functionality.

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RWANA-13100	Task	False	Tracker	Closed

Use ProcessBuilder instead of Runtime to spawn utility processes

changed to swMonitor.jar to use the ProcessBuilder instead of the Runtime to spawn command line utilities

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RWANA-13137	Task	False	Archiver	Closed

Environment variable ANALYTICS_ARCHIVE_LOCATION may also point to directory

Specifying only the folder where archive_connection.xml is located is now sufficient for setting the environment variable ANALYTICS_ARCHIVE_LOCATION

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RWANA-13174	Task	False	Core	Test Passed

Revised and consistent naming of tracked types/sourcetypes

Renamed the sourcetypes to be more concise and renamed the early discard types to match the new sourcetype names.

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RWANA-13257	Task	False	Tracker	Closed

Populate point field of SPLUNK_MAP_ACTION also on area interaction

A map action now always has a point geometry. If necessary it is derived as the centroid of the area for example in case of box_zoom_in.

RWANA-13436	Task	False	Presentation	Closed

Change supported Splunk version to 6.0.3 / 6.1.1

Upgraded to Splunk 6.1.1

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RWANA-13509	New Feature	False	Tracker	Test Passed

Allow functions without parentheses in custom function definitions

Added tracking of custom functions without parentheses

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RWANA-13687	New Feature	False	Tracker	Test Passed

Introduce error exit codes for monitor JAR

Introduced exit codes for the monitor jobs to indicate whether the monitor was run successfully.

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RWANA-13701	Bug	False	Tracker	Closed

Archiver Acp type error on vm_statistics

Support for very high values in VM statistics (server class)

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RWANA-13823	New Feature	True	Archiver	Test Passed

Remove Oracle spatial data types from Archive
Prepared the Archive for running on other databases than Oracle by removing Oracle-specific data types.

1.44 Version 1.1a.2

This version contains a few bugfixes.

Item	Type	Affected Versions	Datamodel change?	Components	Status
Title **Release Notes**					
RWANA-11542	Bug	1.1a.1	FALSE	Tracker	Closed
Error when geometry_set.select() is called with only a selector Fixed a bug causing a traceback on spatial queries without arguments during plotting.					
RWANA-11574	Bug	1.1a.1	FALSE	Core	Closed
Missing package declarations allow loading Analytics when current package is a custom package					
RWANA-11752	Bug	1.1a.1	FALSE	Tracker	Closed
Alliander: Traceback in graphics_view.roos_tracked_refresh() Fixed bug when graphics_view.refresh(...) was called while graphics_view.window.bounds is _unset.					

1.45 Version 1.1a.1

This version contains a few documentation enhancements and a higher Splunk version.

Item	Type	Affected Versions	Datamodel change?	Components	Status
Title **Release Notes**					
RWANA-11313	Enhancement	1.1	FALSE	Presentation	Closed
Upgrade Splunk to 5.0.3 Splunk version has been upgraded to 5.0.3. Realworld Analytics is now tested against this 5.0.3 version.					

1.46 Version 1.1a.0

In this version, the product is renamed from Realworld Informer to Realworld Analytics.

Bug fixes and enhancements are described in the Issue list 43.

1.46.1 Issue list

Item	Type	Affected Versions	Components	Datamodel change?	Status
Title Release Notes					
RWANA-10220	Information		Archiver	TRUE	Closed
display_scale and map_scale Changed scientific notation of the view_scale into a real number. Also, the field names display_scale and map_scale are changed to resp. view_scale and nominal_scale.					
RWANA-10260	Enhancement	1.0.0 (Kermit)	Visualisation	FALSE	Closed
Sort sessions in hierarchy inspector descending instead of ascending Changed the sorting order of session ID's on the dashboard Hierachy inspector to descending.					
RWANA-10281	Enhancement		Requirements, Marketing and Sales	FALSE	Closed
setup wizard Setup Wizard now checks existing files and replaces only those that needs updating					
RWANA-10282	Change Request		Visualisation	FALSE	Closed
Tracked_info_details dashboard is quite slow. List of sourcetypes on dashboard Tracked info details loads much faster.					
RWANA-10318	Task	1.1	Presentation	FALSE	Closed
New dashboard for UI action sequences Dashboard Replay user clicks has been added to visualize the sequence of user clicks in a session over time					
RWANA-10342	Change Request	1.1	Tracker	FALSE	Closed
Please add opening/unfolding a menu as a UI action UI actions resulting from a click in the menu bar at the top of the application now include the full path to the used button. Previously only the name of the button was shown without the name of the menu and possible sub menu('s) in which it resides.					
RWANA-10658	Bug		Archiver	FALSE	Closed

No parenting_id registered for map actions
The parent_id and parenting_id (resp. down and up) of map actions where not stored into the Informer database (always 0), which prevented map actions from showing up in the hierarchy inpector dashboard.

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RWANA-10660	Bug	Presentation	FALSE	Closed

Special characters are not shown correctly in Splunk
Recommended use of the UTF-8 character set in Oracle to deal with special characters.

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RWANA-10665	Bug	Tracker	FALSE	Closed

Table of missing style definitions was not filled because of messages with diacritical marks

Extraction of missing style definitions (on dashboard Traceback analysis) is now language-independent.

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RWANA-10670	Bug	Presentation	FALSE	Closed

Dashboard 'Database usage' shows negative values
Closing and reopening a dataset by manage_soc() caused minus values in the database blocks statistics. This is fixed now.

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RWANA-10781	Change Request	Archiver	FALSE	Closed

Change branding of Splunk app, introduce logo, and make Splunk branding more subtle
Changed branding of Splunk app, redesigned its placement and added logo.

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RWANA-10783	Task	Presentation	FALSE	Closed

Remove ability to search on user_name in dashboards
To deal with potential privacy issues, the ability to search on a user_name in our dashboards is removed. The search on session_id will still be available, allowing a search within one session of a user.

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RWANA-10823	Requirement	Core	FALSE	Closed

Improve character set compatibility
Improved character set compatibility by using UTF-8 for internal communication.

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RWANA-10868	Task	1.1	Presentation	FALSE	Closed

Accelerate Splunk feeding from Analytics database
Increased efficiency of feeding Analytics data into Splunk.

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RWANA-10886	Bug	1.1	Tracker	FALSE	Closed

Error recording condition style_warn_using_default_style
Warning conditions style_warn_using_default_style were stored twice. This is now fixed.

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RWANA-10942	Task	Presentation	FALSE	Closed

Normalize filter sections across dashboards
Different notations for the filter fields in the filter sections are normalized in "Filter by x (optional)".

1.47 Version 1.1.0

In this version:

- The namechange of the product is finalized.
- Oracle 12c support
- New dashboard
- New tracked actions
- Altered installation steps to accommodate above changes
- And more

See the Issue_list 45 for all bug fixes and enhancements.

1.47.1 Issue list 1.1

Item	Type	Affected Versions	Datamodel change?	Components	Status
Title Release Notes					
RWANA-10219	Enhancement		TRUE	Tracker	Test Passed
deconstruct Field urn_record in DB_update Added fields dataset and collection to db_update events					
RWANA-10664	Bug		FALSE	Tracker	Closed
GRDF: swMonitor.jar stores a record when swmfs_monitor.exe reports an error When no information could be retrieved from swmfs_monitor.exe no empty record is inserted anymore.					
RWANA-10710	Task		TRUE	Tracker	Test Passed
Integrate event from tree_agent into UI actions Removed the handler_action event type formerly used for display_tree events. These events are now integrated into the ui_action events with more detail.					
RWANA-10782	Task		FALSE	Archiver	Closed
Allow to scramble or reject user name in session Added option "store_user_name" to analytics_config.xml to specify how to handle the user name of a session. Valid values are "yes", "no", and "scrambled". When "scrambled" is configured the user name will be scrambled into a sequence of 8					

characters. This sequence will be the same for every session of that user so trend detection is still possibly, for example as done in the default dashboard "Most used functions and editors".

RWANA-10784	Task		FALSE	Archiver	Closed

Show Informer session id in application GUI

Added a button to display the current Analytics session id in the application.

RWANA-10858	Task	1.1	TRUE	Documentation	Closed

Change Informer_metadata table in the database

Table Informer_metadata has been removed and replaced with metadata_datamodel

RWANA-10861	Task	1.1	FALSE	Configuration	Closed

SWMFS monitor properties file

swmfs_monitor.properties file changed. All references to Informer and Realworld Systems servers removed.

RWANA-10862	Task	1.1	FALSE	Configuration	Closed

Informer config file

The name of the main configuration file is changed from informer_config.xml into analytics_config.xml.
The environment variable is changed from INFORMER_CONFIG_FILE to ANALYTICS_CONFIG_FILE.

RWANA-10863	Task	1.1	FALSE	Configuration	Closed

Plugin name Informer -> Analytics

The name of the plugin in the Smallworld GUI has changed from Informer to Analytics.

RWANA-10864	Task	1.1	FALSE	Configuration	Closed

Renaming and upgrading Oracle SQL files

Create scripts for tables and views are combined into one for convenience. Upgrade scripts from earlier versions are provided.

RWANA-10872	Task		FALSE	Requirements, Marketing and Sales	Closed

Update Cambridge Swift application

Probably demo script needs to be updated during next sprint

RWANA-10934 | Enhancement | 1.1 | TRUE | Core | Closed

Add information about licence usage

Added monitoring of Smallworld licences.

RWANA-10935 | Information | | TRUE | Core | Closed

use info from swmfs_list ?

Added tracking of swmfs_list output

RWANA-11398 | Change Request | 1.1 | FALSE | | Closed

Module & product informer -> analytics

The product name has changed from rw_informer to rw_analytics, and the module names all contain analytics instead of informer.

RWANA-11440 | Bug | | FALSE | Presentation | Closed

Dashboard Smwfs Monitor Overview shows minus values

Fixed a bug where the dashboard Swmfs monitor overview could contain minus values

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RWANA-11464 | Task | | FALSE | Requirements, Marketing and Sales | Closed

Change packaging procedure for SQL scripts

Upgrade scripts are included in the package to upgrade your current Analytics archive to the latest datamodel version.

RWANA-11479 | Bug | 1.1a.1 | FALSE | Archiver | Closed

Toggle tracking raises warning when reference test is configured, but no software loaded

Warnings about badly configured Nurse reference test will be raised when running the Nurse instead of starting Analytics.

RWANA-11511 | Task | | FALSE | Documentation | Closed

Making of a "Giving the data back manual"

New Data delivery manual

RWANA-11543 | Bug | | FALSE | Visualisation | Closed

Dashboard Real-time data capturing shows null users

Dashboard Realtime data capturing now also shows splunk_swmfs_monitor_log events.

RWANA-11732 | Bug | 1.1a.1 | FALSE | Tracker | Closed

Problems loading Analytics 1.1a on SW 4.2 classic

Prevented information method on map_view to be loaded in a classic image.

RWANA-11824 | Task | | FALSE | Tracker | Closed

Redesign conditional loading for hooks

An integration subproduct is introduced to determine what functionality is loaded into the running Smallworld session and automatically integrate Analytics with that functionality. From now on, load the module analytics_integrator instead of analytics_archiver when loading the Analytics product.

RWANA-11925 | Task | | FALSE | Tracker | Closed

Make graphics_system integration comply to standard map_action tracking interface

For SW 4.2 Classic, record canvas dimensions, display style, and scale from the active graphics view, instead of always from the main graphics view.

RWANA-11953 | Bug | 1.1a.1 | FALSE | Presentation | Test Passed

Map interaction too much users

Limited the bottom chart on the dashboard Map interaction to 10 users.

RWANA-11954 | Bug | 1.1a.1 | FALSE | Presentation | Test Passed

dbquery: replace duration with count

Removed charts on database query duration until duration is measured accurately.

RWANA-11989 | New Feature | | FALSE | Configuration | Closed

Support Oracle 12c database connection based on service name

Connecting to Oracle using a service name or custom jdbc-url is now supported. Oracle 12c is supported as well. The different configuration files to specify the

database connection have been reduced to 2 and have exactly the same format and name: archive_connection.xml. The configuration files for the Smallworld utility monitors are now in XML instead of property format.

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RWANA-12028 New Feature FALSE Visualisation Test Passed

Add extension (with s) as standard evaluation in our splunk application

Added charts on time spent reading and writing files to the (new) dashboard Files and code.

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RWANA-12148 New Feature FALSE Archiver Closed

Enexis: make location archive_connection.xml customizable via environment variable

added environment variable ANALYTICS_ARCHIVE_LOCATION to specify the location of the archive_connection.xml-file pointing to the Analytics archive database

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RWANA-12171 Bug FALSE Tracker Test Passed

Error condition can keep action from being stored

Improved the action details logged on error conditions.

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RWANA-12315 Enhancement FALSE Tracker Test Passed

Refactor charindex_mixin.roos_trim_to_length() to prevent condition

Made the record value slicing mechanism more efficient.

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RWANA-12357 New Feature TRUE Tracker Test Passed

Track record transactions

Added tracking of record transactions, displayed in view Database transactions in the Administrators menu

1.48 Version 1.0.1

This version contains documentation updates only.

2 Third party licence agreements

Diagnostics uses several different third party materials. The licence agreements or licence statements are listed here.

3rd party material	Licence agreement/statement
Splunk Enterprise 10.2.4	
• splunk-10.2.4-1526e5e5df42.x86_64.rpm	For embedded use in Diagnostics only
• splunk-10.2.4-1526e5e5df42-windows-x64.msi	For embedded use in Diagnostics only
• splunkforwarder-10.2.4-1526e5e5df42.x86_64.rpm	For embedded use in Diagnostics only
• splunkforwarder-10.2.4-1526e5e5df42-windows-x64.msi	For embedded use in Diagnostics only
Apache Commons	
• commons-daemon-1.6.1.jar	Apache License Version 2.0
Bouncy Castle	
• bcprov-jdk18on-1.84.jar	MIT License
D3	
• d3.js	D3 License (modified 3-Clause BSD License)
JAXB	
• jakarta.activation-api-2.1.4.jar	Eclipse Distribution License - v 1.0 - Oracle
• jakarta.xml.bind-api-4.0.5	Eclipse Distribution License - v 1.0 - Oracle
• jaxb-core-4.0.9.jar	Eclipse Distribution License - v 1.0 - Oracle
• jaxb-impl-4.0.9.jar	Eclipse Distribution License - v 1.0 - Oracle
json-simple	
• json-simple-4.0.1.jar	Apache License Version 2.0
Netty	
• netty-buffer-4.2.15.Final.jar	Apache License Version 2.0
• netty-codec-base-4.2.15.Final.jar	Apache License Version 2.0
• netty-codec-compression-4.2.15.Final.jar	Apache License Version 2.0

• netty-codec-http-4.2.15.Final.jar	Apache License Version 2.0
• netty-codec-socks-4.2.15.Final.jar	Apache License Version 2.0
• netty-common-4.2.15.Final.jar	Apache License Version 2.0
• netty-handler-4.2.15.Final.jar	Apache License Version 2.0
• netty-handler-proxy-4.2.15.Final.jar	Apache License Version 2.0
• netty-resolver-4.2.15.Final.jar	Apache License Version 2.0
• netty-transport-4.2.15.Final.jar	Apache License Version 2.0
• netty-transport-native-unix-common-4.2.15.Final.jar	Apache License Version 2.0

SLF4J

• slf4j-api-1.7.36.jar	MIT License