ROSS PLATFORM MANAGER RELEASE NOTES

Welcome to the Ross Platform Manager (RPM) v3.15.2 Release Notes. Please read this document to find important information on areas of the Ross Platform Manager that may not be covered in the User Guide or the User Help system.

CONTENTS

ROSS PLATFORM MANAGER RELEASE NOTES 1
RPM VERSION HISTORY 3
VERSION 3.15.2 – NOVEMBER 2026 3
VERSION 3.15.1 – OCTOBER 2026 4
VERSION 3.15 – SEPTEMBER 2026 4
VERSION 3.14 – JULY 2026 6
VERSION 3.13.1 – MAY 2026 8
VERSION 3.13 – APRIL 2026 10
VERSION 3.12 – DECEMBER 2025 13
VERSION 3.11 – SEPTEMBER 2025 17
VERSION 3.10 – JULY 2025 19
VERSION 3.9.1 – MAY 2025 21
VERSION 3.9.0 – MARCH 2025 21
VERSION 3.8.0 – DECEMBER 2024 24
VERSION 3.7.0 – OCTOBER 2024 25
VERSION 3.6.3 – JULY 2024 28
VERSION 3.6.2 – JUNE 2024 28
VERSION 3.6.1 – MARCH 2024 28
VERSION 3.6.0 – FEBRUARY 2024 29
VERSION 3.5.0 – DECEMBER 2023 31
VERSION 3.4.0 – SEPTEMBER 2023 33
VERSION 3.3.0 – JULY 2023 35
VERSION 3.2.0 – FEBRUARY 2023 38
VERSION 3.1.0 – DECEMBER 2022 41
VERSION 3.0.0 – OCTOBER 2022 42
VERSION 2.0.0 – JUNE 2022 44
VERSION 1.7.0 – MARCH 2022 45
VERSION 1.6.0 – DECEMBER 2021 48
VERSION 1.5.0 – OCTOBER 2021 50
VERSION 1.0.1 – JUNE 2021 52
VERSION 1.0.0 – FEBRUARY 2021 55
HORIZON VERSION HISTORY 57

VERSION 3.0.1 – OCTOBER 2020 57
VERSION 2.0.6 – JUNE 2020 59
VERSION 2.0.5 – MARCH 2020 60
SYSTEM REQUIREMENTS 61
KNOWN ISSUES 63
GETTING HELP 64

RPM VERSION HISTORY

VERSION 3.15.2 – NOVEMBER 2026

BUGS ADDRESSED

- Fixed an issue where automatically activating an OverDrive product key could result in the key remaining inactive and an incorrect license version being returned. (DBE-4489)
- Fixed an issue where a high number of active database connections could cause RPM performance issues and license activation timeouts. (DBE-4480)

VERSION 3.15.1 – OCTOBER 2026

BUGS ADDRESSED

- Fixed an issue where a high number of active database connections could cause RPM performance issues and license activation timeouts. (DBE-4419)

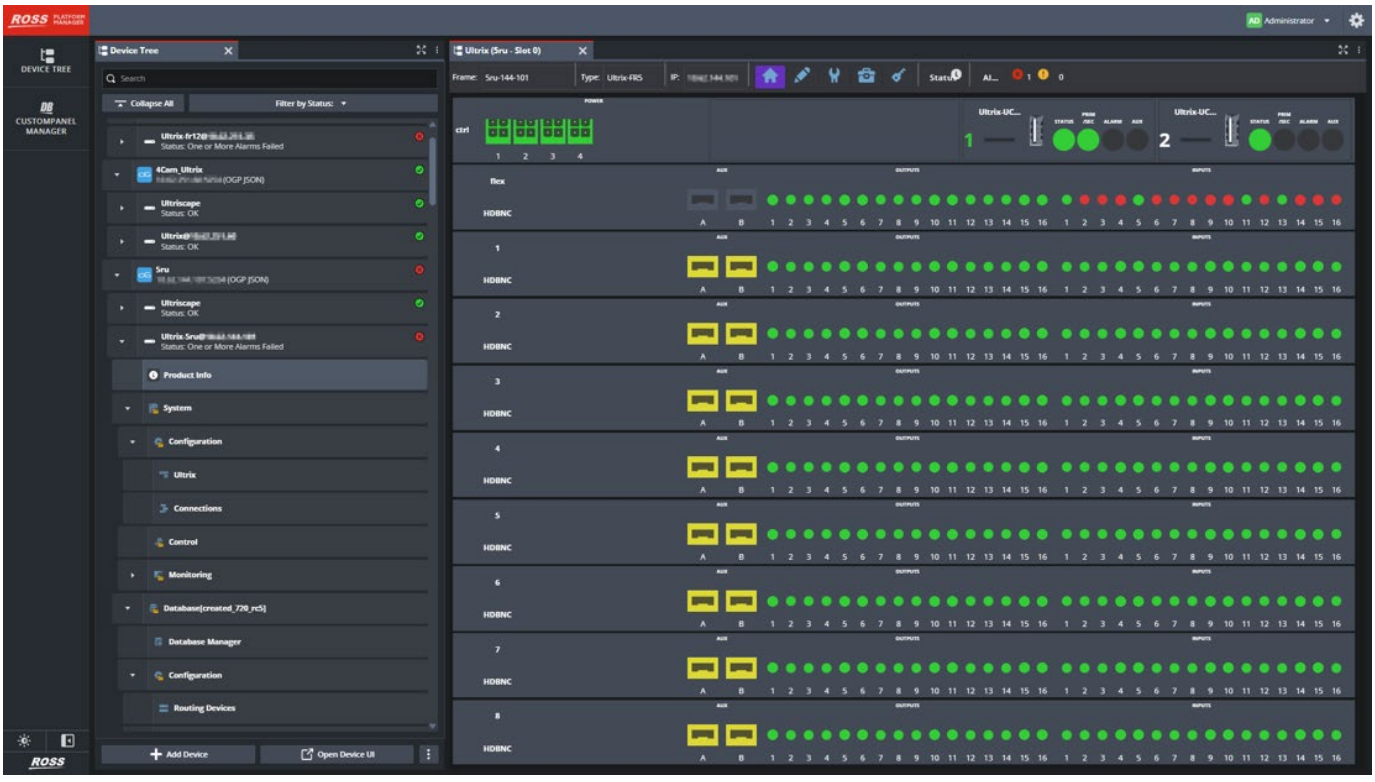
VERSION 3.15 – SEPTEMBER 2026

WHAT'S NEW IN RPM

- **IMPROVED ULTRIX DEVICE TREE SUPPORT**

  RPM now provides greater compatibility with Ultrix devices in the Device Tree, with support for additional functionality and improvements to device UI layouts.

  Note that RPM 3.15 requires Ultrix version 6.7.8 or later. Earlier versions of Ultrix are not compatible.



EXAMPLE OF IMPROVED ULTRIX SUPPORT

- **LICENSING RELIABILITY ENHANCEMENTS**

  Improved licensing reliability under load, including improvements to concurrent activations, database state handling, retry behavior, and DNS lookups.

- **ACTIVATION SERVER CONNECTION TIMEOUT**

  The default Activation Server connection timeout has been increased from 200 ms to 2 seconds to better support activation over higher-latency network connections.

BUGS ADDRESSED

- Fixed an issue where Visual Workflow jobs would stop executing if a Transition node did not have a mode selected. Transition nodes without a selected mode are now skipped. (DBE-4264)
- Fixed an issue where Apply Snapshot nodes in Visual Workflow could incorrectly display the snapshot selected for another node. (DBE-4265)
- Fixed an issue where offline activation and reactivation could fail for secondary RPM nodes in a Galera cluster. (DBE-4224)
- Fixed an issue where the first product key added after a new MariaDB installation could fail. (DBE-4268)

VERSION 3.14 – JULY 2026

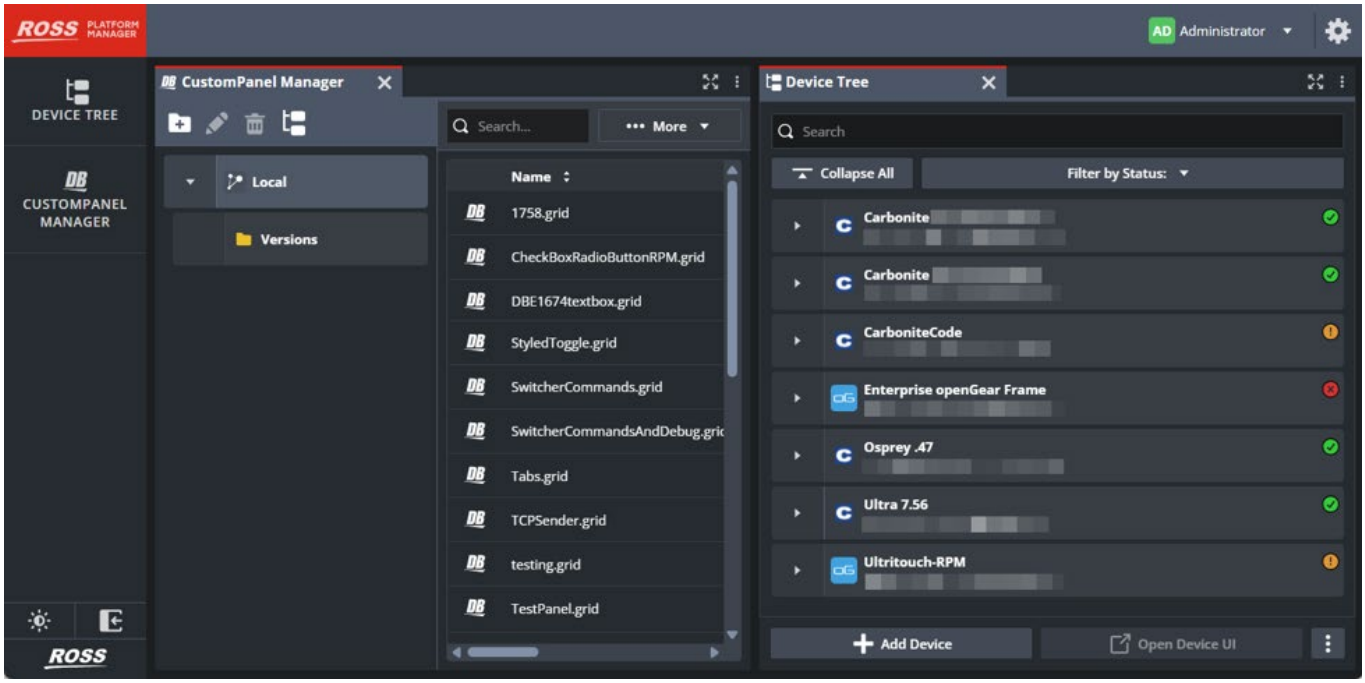
WHAT'S NEW IN RPM

- **DASHBOARD FUNCTIONALITY IN THE AURA WORKBENCH**

RPM 3.14 introduces a new, modern area of RPM that supports DashBoard functionality. The Device Tree, Device UIs, the CustomPanel Manager, and CustomPanels themselves can now be viewed using the Aura workbench. The existing UIs for these functionalities are still available in the legacy workbench if preferred.



THE NEW AURA WORKBENCH CAN BE ACCESSED USING THE AURA ICON IN THE MAIN TOOLBAR



EXAMPLE OF DASHBOARD FUNCTIONALITY IN THE AURA WORKBENCH

- **NDI VIDEO SUPPORT FOR CUSTOMPANELS AND CARBONITE VIEWCONTROL**

This release introduces NDI video support for CustomPanels, enabling the use of Carbonite ViewControl in RPM. Operators can now access the ViewControl interface from RPM in their web browser, with live video and interactive control overlays, without requiring DashBoard.

- **OFFLINE LICENSING FOR RPM**

  RPM can now be activated in offline and air-gapped environments. Administrators can generate an offline license request, import a response file, and complete the activation process without connecting RPM to the internet. Refer to the *Configuring System Properties* chapter of the RPM User Guide for more details.

- **GRAFANA ALLOY LICENSING LOG ENHANCEMENTS**

  Added support for the `meta` key in the Grafana Alloy configuration for licensing log ingestion.

BUGS ADDRESSED

- Fixed an issue where Caprica device UI pages could not be loaded from the Device Tree. (DBE-3958)
- Fixed an issue where external object submenu icons for device panels did not display correctly in the Device Tree. (DBE-3780)
- Fixed an issue where touch wheel components did not display correctly in CustomPanels opened in RPM. (DBE-3803)
- Fixed an issue where custom node icons in CustomPanel tree widgets did not render correctly. (DBE-3871)
- Fixed an issue where the ogScript `Subscribe` and `UnSubscribe` functions did not work with openGear devices linked to CustomPanels. (DBE-3834, DBE-3837)
- Fixed an issue where Project Server license deactivation could intermittently fail. (DBE-3957)
- Fixed an issue where RPM-generated MariaDB database backups did not include stored functions/routines required for a successful restore. (DBE-3924)
- Fixed an issue where newly added features on activated OverDrive product keys were not reflected in the re-activation response. (DBE-3922)
- Fixed an issue where the “Key is currently locked” error message was not displayed when attempting to activate a locked dynamic key. (DBE-3711)
- Fixed an issue where license activation errors could occur after the grace period ended. (DBE-3755)
- Fixed an issue where license activation could fail when RPM could not retrieve the associated product key. (DBE-3662)
- Fixed an issue where closing XPression could cause “Invalid license key code” errors to be recorded in the RPM licensing logs. (DBE-3620)

VERSION 3.13.1 – MAY 2026

WHAT'S NEW IN RPM

- **MANUAL OFFLINE MODE SELECTION**

  RPM 3.13.1 introduces the ability to manually place RPM into Offline Mode when RPM is licensed with a Product Key.

  When RPM loses connection with the Ross Activation Server, it enters Offline Mode automatically. When this occurs, RPM will regularly attempt to restore the connection, which can cause RPM to become sluggish and/or unresponsive. By manually setting the System Operation Mode to Offline Mode, you will prevent RPM from trying to restore the connection and inadvertently causing performance issues.

To manually set RPM to Offline Mode:

1. While logged in as an Administrator, on the main toolbar, click the **Configuration** icon.
2. On the Configuration window toolbar, click the **System** icon.
3. On the System panel, click the **System** tab.
4. Select **Offline** mode from the **System Operation Mode** dropdown field.
   Note that if RPM is not licensed with a Product Key, you will not have this option.
5. Click **OK**.
   RPM's System Operation Mode has been set to Offline Mode.

- **LATENCY TOLERANCE SELECTION FOR ACTIVATION SERVER CONNECTION**

  RPM 3.13.1 introduces the ability to select the latency tolerance for the connection to the Ross Activation Server when RPM is licensed with a Product Key.

  By default, the latency tolerance is set to 200 ms, but users can enter a custom length of time (in milliseconds) for RPM to use before considering the Activation Server unreachable (activating Offline Mode and causing RPM to enter the grace period).

To change the latency tolerance:

1. While logged in as an Administrator, on the main toolbar, click the **Configuration** icon.
2. On the Configuration window toolbar, click the **System** icon.
3. On the System panel, click the **System** tab.
4. Enter the desired time in milliseconds in the **Activation Server Connection Timeout** field.
   Note that if RPM is not licensed with a Product Key, you will not have this option.
5. Click **OK**.
   RPM's latency tolerance has been changed.

- **OTHER IMPROVEMENTS**
    - Improved logging around target authorization.

BUGS ADDRESSED

- Fixed an issue where RPM would lose connection to the Ross Activation Server due to issues with the set timeout of the connection. (DBE-3872)
- Fixed an issue where RPM would be stuck in grace mode due to the connection to the Ross Activation Server timing out. (DBE-3887, DBE-3891)
- Fixed an issue where an expired maintenance license would prevent the activation of releases prior to the expiration date. (DBE-3883)

THINGS TO NOTE

- **RPM USER GUIDE MISMATCH**

  The RPM User Guide (7900DR-004-3.13) does not reflect the new abilities to manually put RPM into Offline Mode or change the latency tolerance. This info is currently missing from the **Configuring System Properties** chapter, under *Configure Default System Settings* (page 5-5), but will be updated with the upcoming release of RPM v3.14.

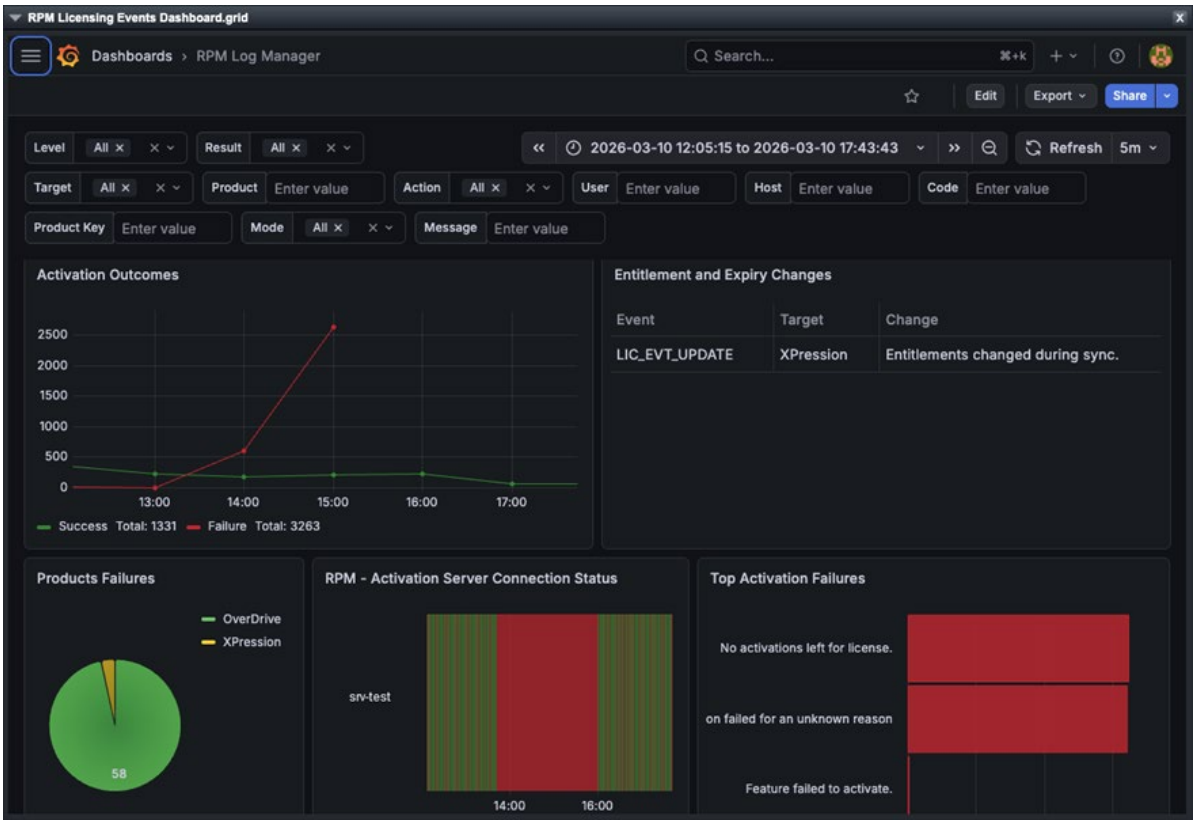
VERSION 3.13 – APRIL 2026

WHAT'S NEW IN RPM

- **DEDICATED LICENSING LOG FILE AND VISUALIZATION DASHBOARD**

  RPM 3.13 introduces a new dedicated licensing log file that is separate from the general RPM logs, making it easy to quickly find and review licensing activity. Using this dedicated licensing log file, users can now visualize licensing health, failures, utilization signals, and trends using a new dashboard for RPM licensing logs. This new visualization dashboard uses the following tools:

  - Grafana Alloy, which collects and forwards log data
  - Grafana Loki, which stores and organizes logs
  - Grafana, which visualizes the data through dashboards



EXAMPLE OF NEW RPM LICENSING LOGS VISUALIZATION DASHBOARD

- **ADDITIONAL SUPPORT FOR TRANSITIONING SDPE BLADES**

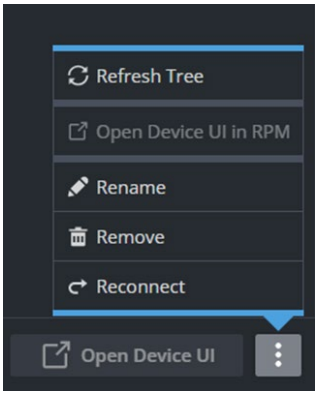
  Previously, users could transition SDPE Blades to either Carbonite or Acuity modes. Now, users can transition SDPE Blades to an additional three modes:

  - HyperMax
  - Ultrix Carbonite
  - Ultrix Carbonite Mosaic

  This additional support is accompanied by a new Visual Workflow Manager node that sends RossTalk messages to target devices.

- **ENHANCED DASHBOARD SUPPORT IN RPM**

  - Administrators can now set whether users can see the Device Tree with the new View Device Tree role permission.
  - Previously, frames had to be deleted from the Device Tree to be renamed. Users can now rename frames from within the Device Tree through the context menu.
  - How DashBoard and device panels open by default (either in RPM or in a new browser tab) is set in the Configuration menu. Users can now open DashBoard and device panels using the non-selected method from the Device Tree context menu.
  - Frames will now only collapse/expand in the Tree View when the user does so themselves, and refreshing the tree will maintain its previous state.



NEW "OPEN DEVICE UI IN RPM" AND "RENAME" OPTIONS IN DEVICE TREE CONTEXT MENU

  - There is now a Collapse All button in the Tree View, which collapses all devices and device subnodes, allowing users to quickly and easily view all frames in their tree.
  - Users can now filter devices shown in the Device Tree by their status.
  - The Device Tree now loads faster.
  - Users can now auto-detect and fill connection settings when adding Catena devices to the Tree View.
  - RPM now supports the listener element and the touch wheel widget within CustomPanels and param table row styling.
  - The Mozilla Rhino plugin has been upgraded, adding support for ES6 in the CustomPanel scripting layer.

- **OTHER IMPROVEMENTS**

  - Previously, the filter button in the License Analytics window would be disabled when the filter state was invalid. It now remains enabled, allowing users to exit filter mode or reset filters without needing to close and reopen the window.

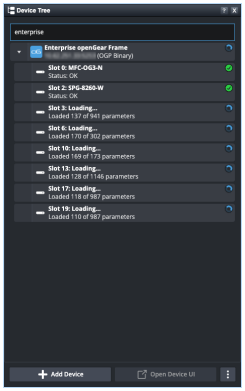
BUGS ADDRESSED

- Fixed an issue where the Apply Snapshot dialog would not allow users to select multiple targets. (DBE-3788)
- Fixed an issue where param tables were not displaying properly in default UIs. (DBE-3765)
- Fixed security vulnerability CVE-2021-44228. (DBE-3558)
- Fixed an issue where RPM would crash on Ubuntu 24.04.3. (DBE-3482)

VERSION 3.12 – DECEMBER 2025

WHAT'S NEW IN RPM

- **ADVANCED DASHBOARD PANELS NOW AVAILABLE IN WEB BROWSER**
  RPM can now display the same advanced DashBoard device interfaces (previously limited to the desktop app) directly in the browser, enabling complex UIs like Ultrix Soft Panels and the Carbonite Audio Mixer to run fully on the web. The Tree View has also been upgraded with search, automatic device detection, and real time loading progress, making it faster and clearer to discover and connect to devices. Additional ogScript improvements include rossTalkEx support, the ability to add login buttons, and script-level access to logout functionality.



DEVICE TREE

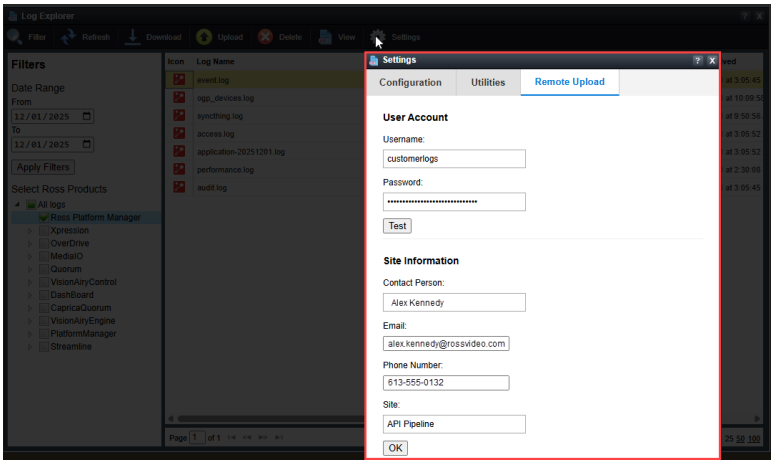


AUDIO MIXER PANEL



ULTRIX PANEL

- **UPLOAD LOGS WITH A SINGLE-CLICK**
  This release introduces a one-click **Remote Upload** form to the Ross Platform Manager Log Explorer panel, enabling users to securely submit product logs directly to Ross Technical Support without leaving the application. This enhancement removes manual steps, allowing customers to accelerate issue escalation and resolution. The result is a faster, simpler, and more reliable support experience for mission-critical broadcast and live production environments. Located within the Tools menu under **Log Explorer** > **Settings**.



DISPLAYS THE 'REMOTE UPLOAD' TAB OF THE SETTINGS DIALOG

- **UNIFIED LICENSING USER EXPERIENCE**
  This update introduces a unified licensing experience in RPM, standardizing the interface and workflows across all license types. Users will benefit from consistent button labels across all types (whether its dynamic or static implementation), with similar activation flows journey. This will reduce confusion for customers and improve efficiency when managing licenses across Ross products.

IMPROVEMENTS

- **LICENSE ANALYTICS PANEL**
  - After using the filter and expanding a single row, the dropdown menu now only collapses that row. Previously all rows were simultaneously collapsed. (DBE-3510)
  - The analytics records now accurately reflect the correct status for the license usage values. (DBE-3522)
  - A warning icon now indicates expired licenses. (DBE-3178)
  - Improvements to handle product key searches for both finite and infinite values. (DBE-3282)

  To view this panel, navigate to **License Reporting** > **License Analytics - By Feature**.

BUGS ADDRESSED

- Fixed an issue where the product version drop-down menu was not available for known keys in Offline mode. (DBE-2467)
- Fixed an issue where excess decimal places were shown in the slider when the display range differs from actual range. (DBE-2775)
- Fixed an issue where placeholders were not shown inside a tab when a device data source is unavailable. (DBE-2849)
- Fixed an issue where a user cancelling instead of proceeding to save a file caused issues deactivating the check-in of the product key. (DBE-2865)
- Fixed an issue where the **Used License** count did not decrement after the XPression key was disabled on activation server. (DBE-3048)
- Fixed an issue where the **Expiry** column was incorrectly highlighted instead of the **Disabled** column. (DBE-3050)
- Fixed an issue where re-uploading a .ZIP file to the Custom Panel Manager published it by default. (DBE-3096)
- Fixed a FR12 issue where the device user interface did not handle different types of nodes for devices that define their own subtree. (DBE-3153)
- Fixed an issue where the XPression key remained checked out after deactivation or check-in. (DBE-3231)
- Fixed an issue where a blank license icon was shown when the user did not have license permission. (DBE-3264)
- Fixed an issue where sorting in the **License Analytics - By Feature** view was limited to the current page. (DBE-3276)
- Fixed an issue where refreshing the tree collapsed the sub-slots of non-selected devices. (DBE-3277)
- Fixed an issue where the expand icon erroneously displayed for locked features in the **License Analytics - By Feature** view. (DBE-3289)
- Fixed an issue where the **Number** column incorrectly displayed for static keys after offline activation. (DBE-3317)
- Fixed an issue where the **Cancel Activation Request** did not reset the user interface state. (DBE-3329)
- Fixed an issue where the incorrect Used value was shown when unlimited XPression keys were checked out. (DBE-3336)
- Fixed an issue where the Search/Global sections collapsed when paging through multi-page search results in the Feature View. (DBE-3342)

- Fixed an issue where features with blank numbers were not handled properly. (DBE-3450)
- Fixed an issue where RPM was unable to load device UIs when a status menu did not exist. (DBE-3357)
- Fixed an issue where there were missing Views on secondary nodes in a Galera cluster. (DBE-3376)
- Fixed an issue where clearing or exiting the filter showed both filtered and unfiltered data. (DBE-3412)
- Fixed an issue where the sorted **License Analytics - By Feature** view fails to load on refresh license consumption data is unavailable. (DBE-3413)
- Fixed an issue where expired features with an infinite total still showed usage instead of being hidden. (DBE-3415)
- Fixed an issue where the Log Viewer did not respect the date filter on initial load. (DBE-3417)
- Fixed an issue where refresh deactivates the product key on RPM. (DBE-3431)
- Fixed an issue where the offline activation fails with a “No Release found” message for a known static key when uploading response. (DBE-3432)
- Fixed an issue where the OverDrive license times out and is released from activated key. (DBE-3446)
- Fixed an issue where delayed components do not load in the public panel. (DBE-3488)
- Fixed an issue where the Custom Panel Explorer version resets to “1” after refresh and focus change. (DBE-3513)

VERSION 3.11 – SEPTEMBER 2025

WHAT'S NEW IN RPM

- **DEVICE TREE**

  The Device Tree is a new UI paradigm in RPM that provides a familiar experience similar to DashBoard. It can be used to add, view, and manage OGP JSON devices, OGP Binary devices, and Catena devices. The Device Tree also allows users to monitor device status and explore the device hierarchy. Please refer to the User Guide for more details. Any OGP devices added on previous versions of RPM will automatically be migrated over to the new Device Tree.



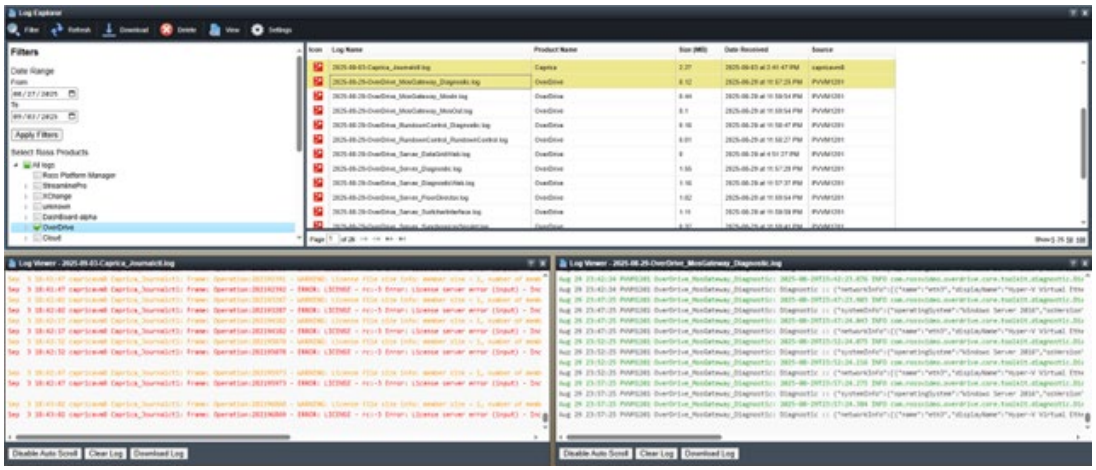
NEW DEVICE TREE VIEW

- **CATENA SUPPORT**

  RPM 3.11 introduces Catena support, now allowing users to add, view, and interact with Catena devices in RPM. Previously, DashBoard was required to access a Catena device, meaning users would need to have DashBoard downloaded and installed on their computer. Now, users can access these devices easily from a web browser.

- **LOG AGGREGATION**

  RPM now provides a Log Aggregation feature, allowing logs from Ross products to be forwarded directly to RPM for centralized access. Configuration files are available to quickly enable endpoints to send Ross Product logs, and RPM automatically categorizes logs by product and hostname. Users can filter logs by product name and date range, as well as batch download logs across multiple products for easier analysis and troubleshooting. Please refer to the user guide for more details. Note that this feature is only available on the Linux variant of RPM.



NEW LOG AGGREGATION FEATURE

- **LICENSE ANALYTICS**

  Users can now track and analyze license usage from within the new license analytics feature of RPM. License analytics can be displayed in two different ways – by feature, or by host. When viewing license analytics by feature, information is displayed in a way that gives a clear view of how licenses are being used. When viewing license analytics by host, the information is presented with a focus on who is using the licenses and how. Both ways of viewing license analytics allow users to monitor and manage their license usage simply and effectively.

BUGS ADDRESSED

- Fixed an issue where RPM would not update data for existing releases. (DBE-3405)
- Fixed an issue where product keys with active licenses could be deleted. (DBE-3299)
- Fixed an issue where the Offline License Activation (OLA) response file would not work with lowercase product keys. (DBE-3251)
- Fixed an issue where the MariaDB database would not get populated with the required data. (DBE-3207)
- Fixed an issue where the concurrent user limit was not being enforced correctly on Galera clusters. (DBE-3071)

VERSION 3.10 – JULY 2025

WHAT'S NEW IN RPM

- **DISPLAY OGLML DEVICE UIS**

  Ross Platform Manager 3.10 delivers a significantly refined experience by combining the familiar power of DashBoard—including device control and custom panel interfaces—with the flexibility of a modern web-based application. Users can now access rich control surfaces directly in the browser, with no local installs required, while benefiting from multi-user collaboration, enterprise-grade security, and centralized access control.

  This release marks a major milestone in the shift toward a fully web-based control environment. Customers can now browse connected devices using a familiar tree view within RPM and launch device UIs as web-based panels, delivering an experience that closely mirrors the traditional DashBoard interface—now entirely in the browser.

  Customers can now:

  - **Access device UIs directly from any browser** connected to RPM—no local DashBoard installation required
  - **Navigate connected devices using a familiar tree view** within the RPM interface
  - **Open most device UIs as web panels**, delivering a control experience similar to DashBoard. While support for the most advanced UIs may not yet reach full parity with the desktop application, each RPM release continues to close the gap with ongoing improvements.

  In addition, key enhancements to the CustomPanel experience include:

  - **Major enhancements to OGLML and ogScript support**, including new widgets such as XPression Preview, Countdown timers, file upload/download, time/date pickers, and many others—bringing the web-based panel experience closer to full DashBoard parity.
  - **Integrated user login within CustomPanels**, allowing operators to authenticate without navigating through the RPM interface
  - **Public access configuration**, enabling specific panels to be used without requiring an authenticated session—ideal for guest or kiosk-style usage
  - **Role-based access to CustomPanel folders**, ensuring users only see and operate the panels relevant to their permissions

  This release marks a major step forward in our journey toward a **unified, web-based management platform** for Ross devices. More enhancements are on the way as we continue building the next-generation Enterprise Management solution.

- **NEW TIERED PRICING MODEL**

  With the release of RPM 3.10, we are introducing a new tiered pricing model. This new tiered pricing introduces both new and improved functionalities and simplifies the previous pricing model. For a breakdown of the tiers and what they offer, see the *RPM Tiered Pricing* application note (7900DR-013-01).

- **SINGLE POINT AUTOMATED RPM INSTALLATION**

  RPM 3.10 introduces a simplified method of installing and upgrading RPM on both Windows and Linux with the use of a self installer file available on the Enterprise Control page of the Ross Community site. Installing or upgrading RPM using this file cuts down on the time and effort needed, and reduces the chance of error.

BUGS ADDRESSED

- Fixed an issue where multiple activations sharing the same hardware ID would prevent licenses from being deactivated. (DBE-3104)
- Fixed an issue where the CustomPanel Manager sort function would not work when there were multiple pages of panels. (DBE-2874)
- Fixed an issue with textbox styling. (DBE-2870)
- Fixed an issue where RPM was unable to create and download a backup using MariaDB. (DBE-2665)

VERSION 3.9.1 – MAY 2025

BUGS ADDRESSED

- Fixed an issue where deactivating a Project Server license would remove the Licensed Product Version from an activated OverDrive key. (DBE-2927)
- Fixed an issue where Vision[ai]ry features would not deactivate properly on the Activation Server. (DBE-2940)
- Fixed an issue where RPM would send activation requests without timeouts to Vision[ai]ry keys on the Activation Server. (DBE-2949)
- Fixed an issue where Vision[ai]ry keys would transition to a “Not Activated” state despite having an active license assigned. (DBE-2966)
- Fixed an issue where the total number of Vision[ai]ry licenses was displayed inconsistently in RPM. (DBE-2971)
- Fixed an issue causing the maintenance feature for Vision[ai]ry products to be displayed inconsistently compared to other products. (DBE-2981)

VERSION 3.9.0 – MARCH 2025

WHAT’S NEW IN RPM

- **OPENGEAR DEVICE UIS**

  Users can now use RPM on the web to access and interact with OpenGear device UIs. This introduces a centralized way to access the device UIs, eliminating the need to use DashBoard.

  Please note that this functionality is in beta, and some features may not work as expected, especially for more complex device UIs.

- **CUSTOMPANEL IMPROVEMENTS**
  - RPM now supports the following OGLML tags within CustomPanels:
    - Timer tag
    - Constraint overriding
    - Fullscreen element
    - Ext element
    - Popup container
    - Flow container
    - Custom widgets
    - Display max/min for Sliders/Spinners
    - <ogscript> tag
    - <browser> tag
    - <include> tag

- <summary> tag
- Parameters with an Alarm constraint
- <menu> and <menugroup> tags
- “runtasksonload” property of a <param>
- Maxperrow attribute in table
- The “skip” attribute in OGLML
- <params> and <constraint> tags to handle OGLML local params served from a real device
- weightx/weighty properties of a table cell
- Non-abs containers

- **LICENSE EXPIRY NOTIFICATIONS IMPROVEMENTS**
  - Users can now select whether or not they want to include info about Product Keys already past expiry in the notification email.
  - The notification email now includes the DNS or IP address to show which RPM server triggered the email.
- **ORCHESTRATION DIRECTORY PATH SELECTION**

  Users can now specify a custom directory path to be used for orchestration. This allows users to configure RPM to use whatever storage path best suits their orchestration needs.

- **OTHER ENHANCEMENTS**
    - MariaDB can now be selected as a database driver.
    - Users can now import nested Xpression zip files.
    - Improved RPM log messages for clarity.
    - The RPM UI is now automatically refreshed after activating or reactivating RPM.
    - UI refinements.

BUGS ADDRESSED

- Fixed an issue where users could not download a backup created using a MariaDB database. (DBE-2665)
- Fixed an issue where the expiry and maintenance expiry info would not get updated when Quorum keys were reactivated while online. (DBE-2652)
- Fixed an issue where the upload of a large release file would not appear without refreshing. (DBE-2622)
- Fixed an issue where OGP devices previously locked in DashBoard would remain locked in RPM, even after being unlocked. (DBE-2614)
- Fixed an issue where deployments could not be opened with MariaDB. (DBE-2612)
- Fixed an issue where certain elements in CustomPanels were not rendering properly in RPM. (DBE-2571)
- Fixed an issue where dropdown fields would display misaligned. (DBE-2510)
- Fixed an issue where RPM would improperly be unable to open CustomPanels and would display an error saying, “Failed to find CustomPanel”. (DBE-2330)
- Fixed an issue where trying to deactivate a license from a different source IP address would fail. (DBE-2328)
- Fixed an issue where RWP products were not getting an expiry date displayed for licenses activated with RPM. (DBE-2257)
- Fixed an issue where RPM files would not be deleted when RPM was uninstalled on Windows devices. (DBE-2174)

VERSION 3.8.0 – DECEMBER 2024

WHAT'S NEW IN RPM

- **LICENSE EXPIRY NOTIFICATIONS**

  Users can now rely on license expiry notifications to watch for expiring licenses. This reminder to renew licenses on time helps avoid any interruptions to the use of licensed products. Once the outgoing mail server has been configured, recipients can be added to the mailing list to receive notifications when a license is expiring soon (or has already expired).

- **CUSTOMPANEL IMPROVEMENTS**
  - Users can now download CustomPanels containing assets that are stored in RPM.
  - RPM now supports the following within CustomPanels:
    - Tree widget
    - Multiline text widget
    - Header widget
    - Checkbox param widget
    - Fader bar widget
    - HTML content widget
    - Button with prompt widget
    - Button without prompt widget
    - List widget
    - Toggle button widget
    - Elements with borders
    - Spinner widget
    - IP input
    - Password input
    - Slider widget
    - Positioner widget
    - Progress bar widget
    - Color picker widget
    - Status dot widget
    - Styles for table components
    - Level meter widget
    - Relative joystick widget
    - Joystick widget
    - Frame and device states now displayed in the device tree

- **OTHER ENHANCEMENTS**
  - Users can now cancel an Activation Request so that the product key can return to it's known state.
  - Grace period notification refinements.
  - The device tree is now displayed in the Target Details area of the Target Manager, allowing users to see all devices associated with a target.

BUGS ADDRESSED

- Fixed an issue where OverDrive and Caprica product keys with multiple licenses were only activating one. (DBE-2575)
- Improved the wording of the expiry time label for Activation Request Files for clarity. (DBE-2539)
- Fixed an issue where static product keys would incorrectly activate with a status of disabled. (DBE-2498)
- Fixed an issue where thread pool crashes could lead to the overconsumption of licenses for dynamic product keys. (DBE-2495)
- Fixed an issue where activating an already activated static product key in offline mode would result in the product key being deactivated. (DBE-2469)
- Improved performance speed of RPM when batch adding product keys. (DBE-2303)
- Fixed an issue where users with view-only permissions would be unable to close Visual Workflows after attempting to modify them. (DBE-2062)
- Removed the Maintenance Expiry column in the Product Key Manager for product keys with maintenance as a feature. (DBE-1813)

VERSION 3.7.0 – OCTOBER 2024

WHAT'S NEW IN RPM

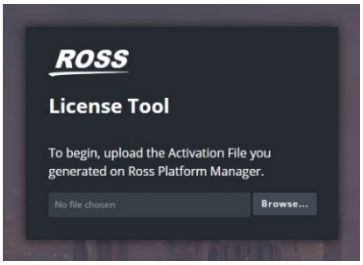
- **OFFLINE LICENSING**

  Users can now use RPM to license Ross products without an internet connection. When used with the Offline License Activation (OLA) tool, users can permanently activate a license without internet access. This procedure accommodates scenarios where RPM must facilitate licensing in the absence of any internet connectivity.

  For more information on offline licensing, refer to the *Managing a Product Key* chapter of the RPM User Guide for more information.

- **OLA TOOL**

  The Offline License Tool (OLA) is now accessible online at https://ola.rossvideo.cloud. Users can check out licenses for offline use without needing to install the tool on a Windows desktop. The desktop version included with previous RPM versions has been discontinued and is no longer compatible with RPM v3.7.



NEW OLA TOOL IN WEB

- **HIGH AVAILABILITY DEPLOYMENTS USING GALERA CLUSTER**

  Users are now able to deploy RPM clusters with Active/Active database synchronization, which eliminates the need for manual switchover steps to the primary database following an outage. Please refer to the appropriate operating system RPM Installation Guide for more information.

- **CUSTOMPANEL IMPROVEMENTS**
  - RPM now supports the following within CustomPanels:
    - Tables
    - Embedded objects
    - Assets
    - Grouped vertical radio buttons
    - Grouped horizontal radio buttons
    - Grouped horizontal toggle buttons
  - Changes made to values or parameters in a CustomPanel in RPM will be saved. When the CustomPanel is refreshed/reopened after any changes, it will retain them. These changes are saved in the same CustomPanel file version opened, not as new file versions.
  - Users can now download CustomPanels that are stored in RPM.

- **ABILITY TO ADD OGP DEVICES AND INTERACT USING VISUAL WORKFLOW**

  Users can now add OGP JSON and Binary devices as targets and interact with them within RPM's Visual Workflow. With this new functionality, users can extend Carbonite targets as OGP devices, preventing the need to add the Carbonite target multiple times to make full use of its functionality.

- **LOG VIEWER UPDATES**

  Users can now select specific app logs to download from the Log Viewer.

- **UI ENHANCEMENTS**
  - The Product Key Manager now displays a "Disabled" status for a Product Key if it is disabled on the Activation Server.
  - The Product Key Manager now displays the expiry status for Dynamic licenses. Previously, this information was only displayed for Static licences.
  - The Product Key Manager now displays the license mode (Dynamic or Static) for Product Keys.
  - The System Monitor in the System Health tab of the Configuration window now displays the last successful connection between RPM and the Activation Server when disconnected.

- The Activation View of a license (accessible by double clicking a license in the Product Key View) now displays the activation method. This column will display whether the license was activated when RPM was online, offline, or by using the grace period.
- The Product Key Summary panel now displays the expiry dates of each feature, and users can export a CSV file containing information on all features and their expiry dates.

- **TIME ZONE BASED VISUAL WORKFLOW JOB EXECUTION**

  Recurring Visual Workflow jobs can now be set to execute with the selection of a specific time zone. Previously, users had to convert time differences manually.

BUGS ADDRESSED

- Fixed an issue where Static keys expiring within a week were highlighted in green instead of yellow. (DBE-2490)
- Fixed an issue where RPM would enter Maintenance Mode due to congestion control. (DBE-2468)
- Fixed an issue where the incorrect status would display when activating Vision[Ai]ry with RPM offline. (DBE-2438)
- Fixed an issue where the maintenance expiry dates for Vision[Ai]ry keys would not update when reactivated. (DBE-2424)
- Improved the wording of the grace period log message for clarity. (DBE-2267)
- Fixed an issue where the Edit Notes button would display in the Product Key Manager with no Product Key selected. (DBE-2258)
- Fixed an issue where the Log Viewer would not show logs from a non default location. (DBE-2222)
- Fixed an upgrade error with MariaDB. (DBE-2192)
- Fixed an issue where the product version would not be displayed in the Product Key Manager for certain products. (DBE-2176)
- Fixed an issue where the grace period for nodes in a multi-node setup would be out of sync. (DBE-2155)
- Fixed an issue where RPM was unable to authorize Windows Targets with non-22 ssh ports. (DBE-2139)
- Fixed an issue where a snapshot's history was unable to be viewed when the snapshot was applied from Deployment view. (DBE-2138)
- Fixed an issue where multiple requests for activation of the same license with and without timeout values would result in an error. (DBE-2137)
- Fixed security vulnerability CVE-2024-21147. (RWP-2709)

VERSION 3.6.3 – JULY 2024

BUGS ADDRESSED

- Fixed an issue where SDPE blades under transition to Acuity mode would remain locked after rebooting RPM. (DBE-2162)
- Fixed an issue where a deactivated OverDrive key would still consume a license. (DBE-2219)
- Fixed an issue where exceptions from the Activation Server could result in the loss of XPression licenses. (DBE-2312)
- Fixed an issue where OverDrive ProjectServer licensing would occasionally fail. (DBE-2313)
- Fixed security issue for Log4j vulnerability. (DBE-2327)
- Fixed security vulnerability CVE-2023-41993. (DBE-2329)

VERSION 3.6.2 – JUNE 2024

BUGS ADDRESSED

- Fixed an issue where RPM would disconnect abruptly and would require a restart to license XPression. (DBE-2238)
- Fixed an issue where static OverDrive licenses were not being released properly. (DBE-2249)

VERSION 3.6.1 – MARCH 2024

BUGS ADDRESSED

- Fixed an issue where an activation call would cause the OverDrive ProjectServer to incorrectly be marked as not purchased. (DBE-1760)
- Fixed an issue where users were unable to add OverDrive and Caprica product keys after upgrading from RPM 3.4 to RPM 3.6. (DBE-2164)
- Added support for Postgres scram-sha-256 encryption. (DBE-2168)

VERSION 3.6.0 – FEBRUARY 2024

WHAT'S NEW IN RPM

- **ENHANCED RPM FUNCTIONALITY WITH FULL REPLICATION SUPPORT**

  In this latest release, RPM introduces comprehensive replication capabilities across all of its functionalities. Users now have the flexibility to leverage multiple RPM nodes within a cluster for seamless software orchestration, configuration backup and restore scenarios, and switcher transition scenarios. Additionally, users can access custom panels through various RPM nodes in the cluster.

- **FILE SYNCHRONIZATION UI**

  RPM now has a File Sync tab within the System configuration panel that allows users to view a list of RPM nodes and their status. Users are able to enable/disable synchronization for specific RPM nodes, and when Orchestration and/or CustomPanel features are licensed, can view the size and status of features associated with the nodes.

- **PRODUCT KEY MANAGER ENHANCEMENTS**
  - Users are now able to include notes for Product Keys (up to 255 characters), which display in the *Notes* column. These notes can be used to display any information that may be relevant or helpful to make note of for each Product Key.
  - When adding Product Keys, any keys that are unable to be added will be listed with a message saying "Error while adding the following product keys".
  - *Maintenance Expiry* column is now displayed in the Product Key View when a Product Key is double-clicked in the Product Key Manager. This allows users to easily see when the Maintenance Expiry date for a Product Key is.
  - *Active Until* column is now displayed when a specific license is double-clicked in the Product Key View. This allows users to easily see when the license for a specific node is active until.
- **ORCHESTRATION ENHANCEMENTS**
  - Once authenticated on one RPM server, existing targets in multi-node setups are now automatically authenticated on all nodes.
  - Newly created targets can now be commissioned by all nodes in a multi-node setup.
  - Users are now able to modify the release version of an existing deployment. This allows users to cycle between different release versions of a product without needing to recreate a deployment each time.
  - Filesystem is now automatically cleaned to save space when user deletes a release.
  - Powershell 7 is now supported.
- **LINUX ENHANCEMENTS**

  Automatic detection of RPM public-keys in Linux deployments.

- **API ENHANCEMENTS**

  Users are now able to use an API query to fetch the states of all targets that are currently associated to a target-group. This specification of the target-group was not previously possible.

- **VISUAL WORKFLOW ENHANCEMENTS**

  The Visual Workflow icon no longer appears in the RPM menu if the feature's license key has expired or has not been purchased.

BUGS ADDRESSED

- Fixed an issue where the deployment screen would prevent toast messages from displaying. (DBE-2121)
- Fixed an issue where users were unable to connect to the Activation Server while using a network-proxy. (DBE-2113)
- Fixed an issue where RPM was unable to fetch the OS name from Powershell 7. (DBE-2112)
- Fixed an issue where old snapshots would disappear from the Snapshot Manager after the deployment was modified. (DBE-2100)
- Fixed an issue where a failed import of a manifest file would display in the Deployment Manager. (DBE-2079)
- Fixed an issue where the characters "<>" entered together in the notes of the CustomPanel File Explorer. (DBE-2075)
- Fixed an issue where a Product Key would remain activated after being marked unpurchased in the Activation Server. (DBE-2068)
- Sanitized sensitive information on API. (DBE-2058)
- Fixed an issue where the Target selection dropdown in the Apply Snapshot node would be obscured by the Snapshot dropdown. (DBE-2056)
- Removed time from the *Maintenance Expiry* column to fix an issue where incorrect timestamps would display due to time zone conversion. (DBE-2007)
- Fixed an issue where snapshots would disappear from the Snapshot Manager in replicated RPM servers. (DBE-1398)
- Fixed an issue where the Secondary RPM server could not load License exception when a product key was removed on the Primary RPM server in a multi-node setup. (DBE-1395)
- Fixed an issue where the Secondary RPM server could not load ProductKey exception upon activation in a multi-node setup. (DBE-1284)
- Fixed security vulnerability CVE-2023-50164.

VERSION 3.5.0 – DECEMBER 2023

WHAT'S NEW IN RPM

- **LOG VIEWER**

  RPM now allows Local Administrator Users to view, clear, and download application log data from within the RPM UI.

- **VISUAL WORKFLOW ENHANCEMENTS**

  Several enhancements have been made to RPM's Visual Workflow:

  NEW VISUAL WORKFLOW ICON

  - The Visual Workflow icon has been changed.
  - Two new nodes have been added:
    - the Pause node, which pauses the workflow for a specified amount of time.
    - the Blocking HTTP Request node, which sends an HTTP request to a specified URL, and waits for a response for a given timeout duration. If the request times out, the job fails.
  - Targets can now be viewed in the Visual Workflow sidebar.
    - Targets can be displayed in assigned groups or individually.
    - Targets have an indicator displaying whether they are in a Ready State or not.
    - Open Visual Workflow canvas automatically refreshes to update the Target list, even when added by another user.
    - Selecting a Target in the sidebar will display only Nodes supported by the Target, and adding a Node to the canvas this way will automatically set the Target for the Node.
  - ID column is now displayed in the Visual Workflow Manager.

- **PRODUCT KEY MANAGER ENHANCEMENTS**

  RPM now allows users to add up to 100 Product Keys at once, and Activated Product Keys are now highlighted green in the Product Key Manager.

- **TARGET MANAGER ENHANCEMENTS**

  RPM now allows users to specify Target Domain name when User Type is set to ActiveDirectory/LDAP, and users are now able to copy Target details directly from cells within the Target Manager.

- **LICENSING ENHANCEMENTS**

  RPM now gets information from Activation Server that allows it to assign a Product Key the either Dynamic Mode or Static Mode, as well as information for whether to use Proxy Mode or Bridge Mode for licensing.

- **DATABASE DRIVER ENHANCEMENTS**

  RPM now supports MySQL and MariaDB as database drivers.

- **ORCHESTRATION ENHANCEMENTS**

  The enhancements made to RPM's Orchestration abilities are:

  - Expanded installer file types supported on Linux.
  - RPM now allows users to fetch the current SDPE state after a transition time-out failure.

BUGS ADDRESSED

- Fixed an issue where sensitive information was being disclosed on the RPM Target list. (DBE-2055)
- Fixed upgrade errors from RPM 3.4 to RPM 3.5. (DBE-2048, DBE-2051)
- Fixed an issue where authorizing an unavailable Target would incorrectly change it's State to Available. (DBE-2038)
- Fixed an issue where RPM was unable to load properly with database records without File-System assets. (DBE-2031)
- Fixed an issue where using the "&" character in the name of Visual Workflow jobs could cause errors. (DBE-2029)
- Fixed an issue where syncing products from Activation after restarting RPM would be slow. (DBE-2021)
- Fixed an issue where offline activation requests would be created incorrectly. (DBE-2019)
- Fixed an issue where dragging and dropping Targets within the Target Manager would result in an error. (DBE-2018)
- Fixed an issue where the Activation button was broken for offline activations. (DBE-2012)
- Fixed an issue where Visual Workflow jobs would not update without being closed and reopened. (DBE-2010)
- Fixed an issue where the Maintenance Expiry column in the Product Key Manager would populate for non-feature level maintenance Product Keys. (DBE-2006)
- Fixed an issue where users were unable to add Linux Targets with Domain names. (DBE-1998)
- Fixed an issue where the Domain name of a Target would get incorrectly validated after the User Type was changed from AD/LDAP to Local or empty. (DBE-1997)
- Fixed an issue where Product Keys would get stuck during activation and not timeout. (DBE-1995)
- Fixed an issue where the Used Licenses count would exceed the Total Licenses count for XPression Product Keys. (DBE-1994)

- Fixed an issue where users were unable to create Static and Ross Platform Targets. (DBE-1985)
- Fixed an issue where retrieving OverDrive license data would result in an exception. (DBE-1976)
- Fixed an issue where sending a call with the value of productVersion empty in GetRawLicenseData.js would result in an exception. (DBE-1975)
- Fixed an issue where saving a Visual Workflow job containing a Take Snapshot Node would fail if the snapshot name already existed. (DBE-1955)
- Fixed an issue where Carbonite and SDPE Targets would lose their States when modified. (DBE-1925)

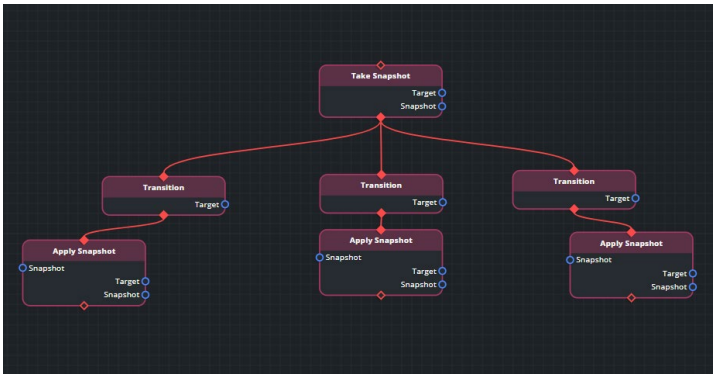
VERSION 3.4.0 – SEPTEMBER 2023

WHAT'S NEW IN RPM

- **VISUAL WORKFLOW ACTIONS TO TRANSITION AND CONFIGURE SWITCHERS**

  Ross Platform Manager's Visual Workflow now supports the following:

  - Ultrix Acuity, Ultrix Carbonite, and SDPE blades to:
    - Take WorkingSet configuration backup;
    - Apply WorkingSet configuration.
  - SDPE blades transition:
    - from Carbonite Mode to Acuity Mode;
    - from Acuity Mode to Carbonite Mode.



VISUAL WORKFLOW TAKING WORKINGSET SNAPSHOT FROM ACUITY CONTROLLER, CONVERTING SDPEs TO CARBONITE MODE, AND APPLYING WORKINGSET SNAPSHOT

- **UNREACHABLE TARGETS**

  RPM now allows users to add unreachable targets to support offline configuration of those targets.

- **LABEL TARGET USERNAMES BASED ON ACCOUNT TYPE**

  RPM now allows users to label Target usernames based on their type (Local Account or ActiveDirectory/LDAP).

BUGS ADDRESSED

- Fixed an issue where OverDrive and Caprica Product Keys were not updated when reactivated. (DBE-1804)
- Improved logs for switcher scenarios. (DBE-1843)
- Fixed an issue where there was an exception for Auth Log failure for Switcher Scenarios. (DBE-1849)
- Fixed an issue where users were unable to drag and drop keys into a folder in the Product Key Manager. (DBE-1868)
- Fixed an issue where Target types were changed to Windows automatically after a version upgrade. (DBE-1874)
- Fixed an issue where the Target Group text box disappeared when there was no target group set in the create Target Window after a version upgrade. (DBE-1875)
- Fixed an issue where modifying the Target group for cloud Targets was inconsistent. (DBE-1876)
- Fixed an issue where the Filter and Sort options in the Target Manager did not work. (DBE-1894)
- Fixed an issue where snapshots from a Carbonite were unable to be applied to a SDPE target in Carbonite mode. (DBE-1908)
- Fixed an issue where the Transition would fail after taking or applying a snapshot to a SDPE target in Acuity mode. (DBE-1909)
- Fixed an issue where working set files were not appearing for snapshot names with spaces in them. (DBE-1924)
- Fixed an issue where Carbonite and SDPE targets lost their state when modified. (DBE-1925)
- Fixed an issue where newly uploaded CustomPanels were not visible on a new RPM installation. (DBE-1934)
- Fixed an issue where Carbonite snapshots were not available to apply to SDPE targets in Carbonite mode. (DBE-1936)
- Fixed an issue where Carbonite snapshots were available to apply to SDPE targets in Acuity mode. (DBE-1937)
- Improved the functionality of the CustomPanel File Explorer. Now when a CustomPanel is deleted, the file explorer related to that CustomPanel is closed automatically. (DBE-1767)

- Improved the functionality of the Target Manager. Now users are able sort the columns. (DBE-1794)
- Improved state reporting for Windows targets. Now when a Windows target with a pre-configured ssh key is added on RPM, the correct state will be reported. (DBE-1939)

VERSION 3.3.0 – JULY 2023

WHAT'S NEW IN RPM

- **CUSTOMPANEL MANAGER ENHANCEMENTS**

  Several enhancements have been made to Ross Platform Manager's CustomPanel Manager.

  - **NEW SUPPORTED CUSTOMPANEL COMPONENTS**

    Ross Platform Manager's CustomPanel Manager now supports CustomPanels with:

    - **Tags:** Meta, lookup, API, style, and color.
    - **Styling elements:** Foreground colour, background color, font, and font size, in addition to state-specific styling for toggle buttons and radio buttons.
    - **ogScript functions:** Rename, set style, hide, reveal, and conditional.
    - **Parameters:** Editable text box, label, read only textbox, and drop down menu.
    - **CustomPanel layouts:** abs, tabs, and simplegrid containers.
    - **UI components:** Toggle buttons, checkboxes, and radio buttons.
    - Parameter scripting.

  - **CUSTOMPANEL FILE VERSIONING**

    You can now upload and manage different versions of the same CustomPanel in RPM using the built in file versioning feature. This enables you to maintain multiple versions of a CustomPanel file and navigate between them as required.

    To designate a CustomPanel file version as the primary version:

    1. Select the file in the **CustomPanel Manager**.
    2. Open the **CustomPanel File Explorer**.
    3. Click on the **Published** check box so that it is checked.



CUSTOMPANEL FILE EXPLORER

- **DOUBLE CLICK TO OPEN CUSTOMPANEL**

  You can now double click on a CustomPanel file in the CustomPanel Manager to open it in a new window.

- **SWITCHER ORCHESTRATION ENHANCEMENTS**
  - Ross Platform Manager now supports adding SDPE Blade targets to the Target Manager. You can transition an SDPE Blade target between Ultrix Carbonite and Ultrix Acuity state.
  - Working sets of SDPE Blade targets can be saved in RPM.
  - RPM now supports saving working sets of Acuity and Carbonite targets.

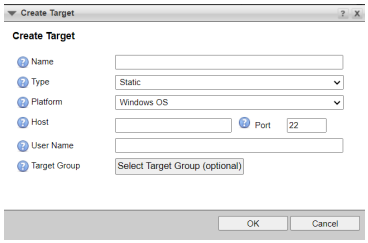
  - The following software versions are supported for Working Set functionality and SDPE Blade Transitioning support:
    - Acuity - 12.1a and later
    - Carbonite - 7.1.3.10812 and later

- **TARGET MANAGER ENHANCEMENTS**
  - **IMPROVED AUTHORIZATION PROCESS FOR WINDOWS TARGETS**

    You will no longer be required to re-install OpenSSH to reauthenticate Windows targets that have OpenSSH pre-installed from RPM. Ross Platform Manager now enables users to re-authenticate a Windows Target directly from the RPM interface.

  - **TARGET GROUPING**

    You can now create Target groups in the **Target Manager**. When you create a new target, you can choose to assign it to a group.



CREATE TARGET WINDOW

BUGS ADDRESSED

- Fixed an issue impacting RPM users on an iPad using FireFox browser, where moving from split view to full view mode causes the interface to stay minimized. (DBE-1581)
- Fixed an issue where RPM did not render CustomPanel components with HTML correctly. (DBE-1596)
- Fixed an issue where CustomPanel file names did not display as expected on FireFox tabs. (DBE-1698)
- Fixed an issue where Ross Platform targets with snapshots could not be deleted from the Target Manager. (DBE-1699)
- Fixed an issue where targets could not have a username with spaces in it. (DBE-1745)
- Fixed an issue where running an activation call from the OverDrive Project Server to RPM unchecked “purchased” for Feature ID (71) Project Server in RPM. (DBE-1760)
- Fixed an issue affecting Linux and Acuity targets where they could not be authorized using password-based authentication. (DBE-1773)
- Addressed licensing issues that occurred when RPM and OverDrive were installed on the same machine. (DBE-1853)
- Fixed an issue where features displayed incorrectly in offline mode. (DBE-1862)
- Addressed issues with activating a Project Server license. (DBE-1853)
- Fixed an issue where XPression was not able to pull licenses from RPM. (DBE-1702)

UPGRADE CONSIDERATIONS

- Any CustomPanel files that were uploaded to the CustomPanel Manager in RPM 3.2 will become unavailable upon an upgrade to RPM 3.3. CustomPanel files that you wish to use in RPM 3.3 will need to be reuploaded to the CustomPanel Manager.

VERSION 3.2.0 – FEBRUARY 2023

WHAT'S NEW IN RPM

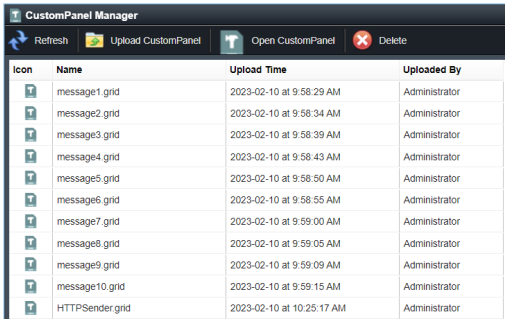
- **CUSTOMPANEL MANAGER (BETA)**

  Ross Platform Manager v3.2 provides a new tool that allows users to upload and store DashBoard CustomPanel files. RPM will render the CustomPanel for HTML, allowing you to open a CustomPanel in a browser window.

  The CustomPanel Manager is only available to users with a license for this feature.

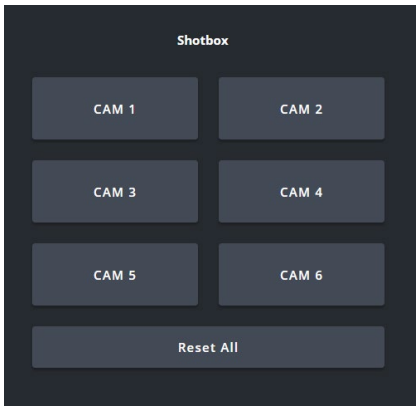
  - **UPLOAD A CUSTOM PANEL**

    CustomPanel files can be uploaded and stored in the CustomPanel Manager. To open a CustomPanel, select one so that it is highlighted in yellow and click **Open CustomPanel**.



  - **OPEN A CUSTOM PANEL**

    You can open a CustomPanel from RPM in a browser. Currently, CustomPanels in RPM will only display buttons and labels. RPM currently supports sending TCP, HTTP, UDP, and RossTalk commands, as well as debug messages using CustomPanels in browser.



Ross Platform Manager does not currently support the following CustomPanel tags:

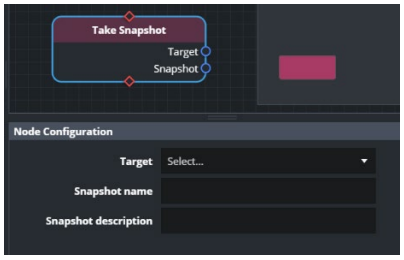
- `param`
- `img`
- `ndi`
- xml string

- **VISUAL WORKFLOW ENHANCEMENTS**

  Learn about all of the new Visual Workflow enhancements below.

  - **SNAPSHOT ORCHESTRATION**

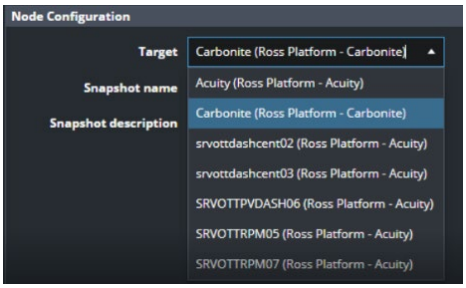
    You can now use the Visual Workflow canvas to orchestrate a configuration snapshot of a target using the Take Snapshot node. You can then apply that snapshot to a target using the Apply Snapshot node.



TAKE SNAPSHOT NODE

  - **SEARCHABLE DROP DOWN MENU FOR TARGETS**

    When selecting a Target in Node Configuration in the Visual Workflow canvas, you can type in a keyword or number to search for associated Targets in a drop down menu.



SEARCHABLE DROP DOWN MENU FOR TARGETS

  - **TEN MINUTE MINIMUM INTERVAL FOR RECURRING JOB**

    The minimum interval for a recurring Visual Workflow job is now ten minutes. A ten minute interval ensures that RPM does not overly burden a remote machine and/or increase network traffic.

- **IMPROVED TARGET ATTRIBUTE VIEW**

  Double clicking on a Target in the Target Manager window will now display associated Visual Workflows.



TARGET ATTRIBUTE VIEW

- **AUTOMATIC RETRIEVAL OF EC2 INSTANCE IP**

  RPM will now automatically retrieve the private IP address of an EC2 instance when it is added as a Cloud Target.

BUGS ADDRESSED

- Made improvements to XPression software start and restart process. (DBE-1515)
- Fixed an issue where incorrect permissions were returned for devices with node-ids that are substrings of another node-id. (DBE-1518)
- Addressed issues with Target filters in the Create Deployment window. (DBE-1523)
- Fixed an issue with license keys where some features would still function after they had expired. (DBE-1477)
- Fixed an issue where the Target Name field in the Apply Snapshot configuration dialog box was only partially visible. (DBE-1410)

VERSION 3.1.0 – DECEMBER 2022

WHAT'S NEW IN RPM

- **EXPANDED PORT CONFIGURATION FOR TARGETS**

  Targets can now be configured with non-default ports. Target ports can be specified in the **Target Manager**.

- **CLOUD TARGET: INSTANCE STATE AND STATE REASON COLUMN**

  A new column added to the **Target Manager** displays the **Instance State** of Cloud targets. If the EC2 target is online and reachable, the **Instance State** column will display as **Running**.



State	Instance state	State Reason
Stopped	Stopped	
Stopped	Running	

- **ABILITY TO DELETE SNAPSHOTS**

  Snapshots can now be deleted from the Snapshot Manager after they are taken.

- **ENHANCEMENTS TO VISUAL WORKFLOW CANVAS**

  See below for enhancements to the Visual Workflow canvas.

  - **SEARCHABLE DROP-DOWN MENU FOR TARGETS**

    You can now search through available cloud targets when adding a target-operation node, such as a **Start Instance** node.

- **PERFORMANCE ENHANCEMENTS FOR AWS INSTANCE MANAGEMENT**

  NOTE: If RPM is being upgraded from an older version where the AWS management feature was used, boto and boto3 dependencies are not required and can be removed if installed.

BUGS ADDRESSED

- Fixed an issue where deployment attempts fail when RPM is configured with MySQL. (DBE-1291)
- Fixed an issue where product key details fail to update when the activation server is offline. (DBE-1444)
- Fixed an issue where enabling the sync on startup setting for an active XPression key incorrectly marks some features as active. (DBE-1457)
- Fixed an issue where the snapshot manager did not correctly display all snapshot records. (DBE-1470)

- Fixed an issue where applying a snapshot for an XPression deployment fails when a component directory is deleted. (DBE-1485)

VERSION 3.0.0 – OCTOBER 2022

WHAT'S NEW IN RPM

- **SUPPORT FOR NEW TARGET TYPES**

  Ross Platform Manager now supports Ross Platform and Cloud target types.

  - **ROSS PLATFORM TARGET** — Ross Video Carbonite and Acuity switchers can now be added as targets in the Target Manager. This functionality is currently Beta only, and can be enabled using a system setup. The documentation for the settings will be made available on request.
  - **CLOUD TARGET** — Amazon Web Services servers can now be added as targets in the Target Manager.

- **FOLDER BASED USER PERMISSIONS**

  New folder-based user permissions enable Ross Platform Manager administrators to configure specific target permissions for different user roles. These permissions can be configured from within the **Target Manager**. The three permission categories are **View**, **Execute**, and **Manage**. See below for a table displaying the capabilities of each permission category.

Permission Name	Permission Capabilities				
	View Target	Update State (Cloud Target)	Add, Delete, or Modify (Cloud and Static Targets)	Execute (Start and Stop Cloud Targets)	Authorize (Static Targets)
View	Yes	Yes	No	No	No
Manage	No	No	Yes	No	Yes
Execute	No	No	No	Yes	No

NOTE:
The permission framework works on the principle of Least-Privilege. The lowest level of permission granted to the user will be the permission level of the user.

- **PERFORMANCE ENHANCEMENTS TO SNAPSHOT PROCESS**

  Previously, snapshots could only be taken of XPression targets. A snapshot can now be taken of any target from within **Ross Platform Manager**.

  - **SNAPSHOT MANAGER** — All snapshots are now contained in the **Snapshot Manager**. To navigate to the **Snapshot Manager**, select  **Browse Configuration Snapshots** from the top menu of Ross Platform Manager.
  - **SNAPSHOT FILES** — You can view all files associated with a snapshot in the **Snapshot Viewer**. To navigate to the **Snapshot Viewer**, right click on a selected snapshot in the **Snapshot Manager**, and select **View Snapshot Files**.
  - **SNAPSHOT HISTORY**— You can view a log of all previous snapshot applications associated with a particular snapshot, including what times snapshots were applied, and by which users.To view **Snapshot History**, right click on a selected snapshot in the **Snapshot Manager**, and select **View Snapshot History**.

- **VISUAL WORKFLOW MANAGER**

  Ross Platform Manager v2.1 provides a new tool that allows users to visually map out and orchestrate workflows that start and stop running Cloud targets. It can be used to map out sequential flows, and schedule flows to start and stop running at particular times. To access the **Visual Workflow Manager**, navigate to the top menu of **Ross Platform Manager**, and under tools select  **Visual Workflow Manager.**

BUGS ADDRESSED

- Fixed an issue where Caprica product keys did not deactivate once expired, or reactivate once renewed. (DBE-1349 and DBE-1350)
- Fixed an issue where a newly created target or deployment was automatically added to the local virtual directory, irrespective of the virtual directory level selected by the user. (DBE-1315)
- Fixed an issue where the purchased feature is not updated when the OverDrive or Caprica license is modified in the Web Activation server. (DBE-1336)
- Fixed an issue where a deactivated OverDrive key still presents as active on the Ross Platform Manager interface (DBE-1335)
- Fixed an issue where the XPression product name appeared in Ross Platform Manager's log to represent a newly activated product key - regardless of which product key was activated. (DBE-1326)
- Fixed an issue where a vague "status: error" message appeared when an incorrect product key was entered into the application. The message now specifies that an invalid product key was entered. (DBE-726)
- Fixed security vulnerabilities CVE-2022-21449, CVE-2022-25647, and CVE-2022-34169.

VERSION 2.0.0 – JUNE 2022

WHAT'S NEW IN RPM

- **SOFTGEAR ORCHESTRATION CAPABILITY**

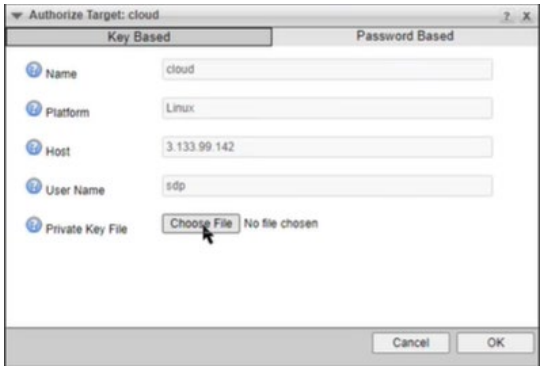
  SoftGear products can now be uploaded to the release manager, and deployed to remote machines.

  NOTE:
  SoftGear deployments can only be made to Linux targets, and XPression deployments can only be made to Windows targets.

- **KEY-BASED TARGET AUTHORIZATION**

  The target manager now supports key-based authorization for Linux targets. The SSH keys are encrypted at rest.

  NOTE:
  Once key-based authorization is used, you will no longer be able to revert back to password-based authorization.



- **DISABLED ACTIVATION FOR XPRESSION AFTER EXPIRY TIME**

  When an XPression product has an expiry time set on the Activation server, the product will not be activated after the expiry time has passed.

BUGS ADDRESSED

- Fixed an issue where two targets could not be created with the same host name. (DBE-1243)
- Fixed an issue where XPression keys were not activated in offline mode. (DBE-1261)
- Fixed an issue where Caprica was constricted to use Horizon licensing. (DBE-1258)
- Fixed an issue where the Take-Snapshot box did not align when RPM was used in Firefox. (DBE-795)
- Fixed an issue where XPression products could not be activated in offline mode. (DBE-1261)
- Fixed an issue that occurred when requesting a deactivation for an OverDrive key while in offline mode. (DBE-1235)
- Fixed an issue where running state was not reflected for all SSG containers. (DBE-1262)

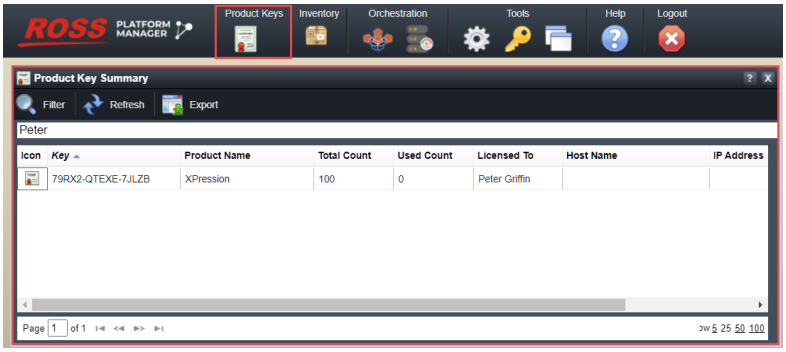
VERSION 1.7.0 – MARCH 2022

WHAT'S NEW IN RPM

- **IMPROVED NEW PRODUCT KEY SUMMARY PANEL**

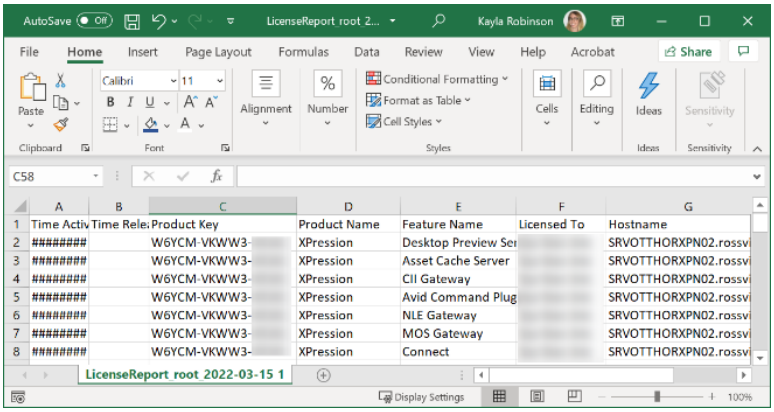
  You can use this panel to filter for product keys or export a license usage report. The report includes a history of product key activation and release times, licensed users, and network details. It can be found under **Product Keys >** **Product Key Summary**.

  - **PRODUCT KEY SEARCHABILITY** — To search for a product key, click **Filter** and enter the product key, product name, feature, or the assigned user for the product key(s) that you wish to view.



NEW PRODUCT KEY SUMMARY PANEL

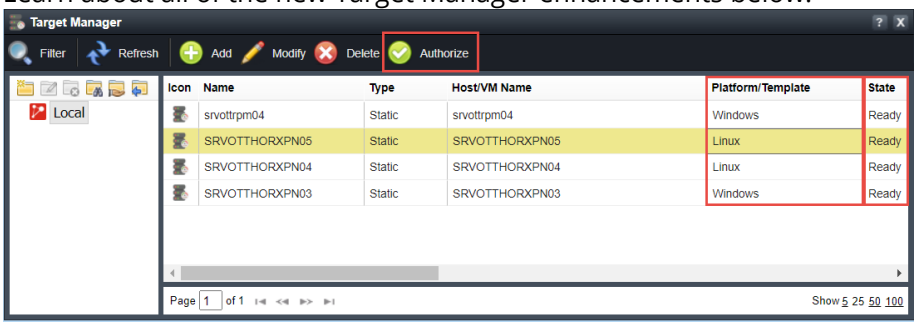
  - **GENERATE A LICENSE USAGE REPORT** —To generate a license report, select the product key, and click **Export**. The **.csv** file will appear in your **Downloads** folder.



EXPORTED LICENSE REPORT (.CSV File)

- **TARGET MANAGER ENHANCEMENTS**

  Learn about all of the new Target Manager enhancements below.



TARGET MANAGER

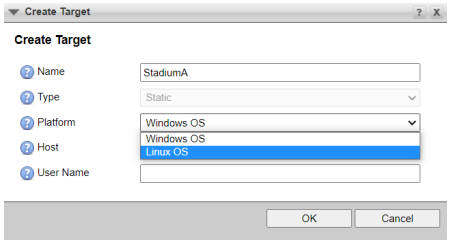
To view the Target Manager, go to **Orchestration > Browse Targets**.

  - **SUPPORTS ORCHESTRATION FOR AMAZON WEB SERVICES (AWS) TARGETS**

    Orchestration is now available for AWS targets. This includes enhancements to support AWS domain names.

  - **SUPPORT FOR LINUX OS TARGETS**

    You can now add Linux OS targets.

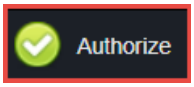


CREATE TARGET DIALOG

In the Target Manager, click to add a Linux target.

  - **AUTHORIZE OS LINUX TARGETS**

    RPM can authorize Linux OS targets using password-based authentication over SSH.



AUTHORIZE BUTTON

In the Target Manager select a Linux target, and click **Authorize**. Once it is authorized, the **State** column will change to "Ready".

- **NEW COLUMNS**

  The Target Manager now displays the target's **Platform** and **State**. The **State** indicates if it is "Ready" or "Not ready" for use in orchestration.

  NOTE:
  Windows targets may not support all states.

Platform/Template	State
Windows	Ready
Linux	Ready
Linux	Ready
Windows	Ready

PLATFORM/TEMPLATE & STATE COLUMNS

- **SSH UPGRADES**

  RPM now supports file transfer over SFTP for windows targets.

BUGS ADDRESSED

- Fixed an issue with saving a snapshot, where the pop-up appeared blank when the same snapshot name already existed. (DBE-1025)
- Fixed an issue where the running product version was not updated correctly. (DBE-1039)
- Fixed a deployment editing error, where an exception was thrown. (DBE-1067)
- Fixed a Target Manager issue, where the **Authorize** button was not cleared when a target was deleted. (DBE-1149)

VERSION 1.6.0 – DECEMBER 2021

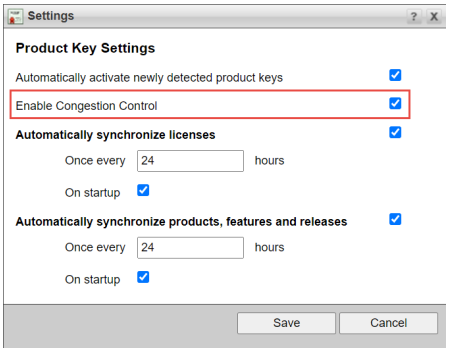
WHAT'S NEW IN RPM

- **ROLE-BASED ACCESS CONTROL SUPPORT FOR DASHBOARD**

  Ross Platform Manager v1.6 provides Role-Based Access Control (RBAC) features to support future releases of DashBoard v9.3 and later. The DashBoard facility control management system is a free open-source platform provided by Ross Video, and when used in conjunction with the RPM Server, it can be used to apply different levels of device access based on a user's role.

- **SUPPORT FOR HTTPS PROTOCOL**
  Support for the HTTPS protocol is available for all supported Ross product lines (XPression 10.5+, OverDrive 18.2+, DashBoard 9.2.2+).

- **REDUCE CONGESTION DURING ACTIVATION**
  The Product Key dialog now includes an "**Enable Congestion Control**" option. Select the checkbox to avoid congestion when activating a large number of product keys.

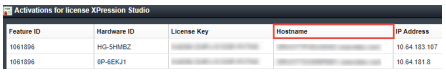


ENABLE CONGESTION CONTROL FEATURE

This feature can be found under **Product Key Manager > Settings**

- **PERFORMANCE ENHANCEMENTS TO PRODUCT KEY ACTIVATION PROCESS**
  The RPM product key activation process now includes increased heartbeat duration and more.

- **NEW HOSTNAME COLUMN FOR ACTIVATED LICENSES**
  When you double-click to open an activated product license, the dialog now displays the hostname.



NEW HOSTNAME COLUMN

NOTE
If the product does not provide a hostname, RPM attempts to resolve the hostname from the IP address.

BUGS ADDRESSED

- Fixed security issues for Log4j vulnerability, where any potential issues were mitigated. (DBE-1028)
- Fixed issues with the offline licensing workflow for XPression. (DBE-1005)
- Fixed an issue where RPM did not display special characters correctly. (DBE-956)
- Fixed an issue, where XPression orchestration needed to be sanitized for Windows arguments. (DBE-926)
- Fixed an issue with licensing, where activation performance was impacted when a large number of activations were performed. (DBE-917)
- Fixed an issue with RPM snapshots, where new deployment snapshots did not show the deployment name spacing correctly. (DBE-869)
- Fixed an issue with RPM permissions for XPression, where users with read-only permission could perform read-write actions, such as “Take” actions. (DBE-864)

VERSION 1.5.0 – OCTOBER 2021

WHAT'S NEW IN RPM

- **UI ENHANCEMENTS**

  The new Ross Platform Manager (RPM) logo easily identifies RPM with a modern logo and a nod to the past.

RPM LOGO



The RPM icon makes it easy to locate the RPM server or directory.

RPM SERVER LOGO



RPM Server



RPM Directory

- **SUPPORT FOR OVERDRIVE WORKFLOWS**
  OverDrive activation workflows are now supported.

  NOTE

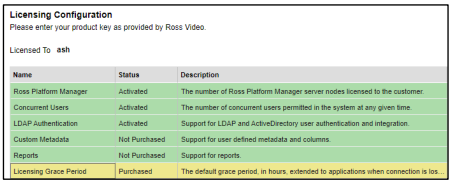
  Upgrade procedures are now available for Ross products that are still using Horizon 2.0 for license orchestration and want to upgrade to the latest version of RPM. It is recommended to upgrade to RPM 2.0. For more details, see **SYSTEM REQUIREMENTS**.

- **ENHANCEMENT TO ACTIVATION AND LICENSING WORKFLOWS**

  Enhancements include improved security for device communication, updates to ensure a consistent workflow for Ross products, and more.
  NOTE

  For Ross licensing workflows that use the RPM activation endpoints, developers must refer to the RPM API documentation to get the latest changes to those endpoints.

- **NEW "LICENSING GRACE PERIOD" FEATURE**
  There is a new **Licensing Grace Period** feature that you can activate to extend the default 2 day grace period for applications when the connection is lost between RPM and the Activation Server. The default is 48 hours, unless a greater value is indicated in the activated license key (provided by the Activation Server).



New Licensing Grace Period feature

The feature key can be added under  **Configuration >**  **System > Licensing** tab.

BUGS ADDRESSED

- Fixed a potential security vulnerability issue, where changing the RPM system time could be exploited to impact the license expiry time frame. (DBE-587)

VERSION 1.0.1 – JUNE 2021

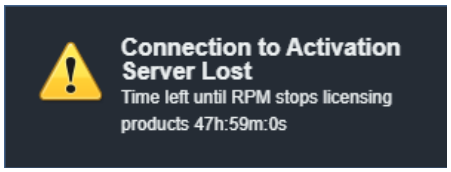
WHAT'S NEW IN RPM

- **SUPPORT FOR XPRESSION OFFLINE WORKFLOW**

  XPression v10.5 offline activation workflows are now supported.

- **ENHANCEMENTS TO LICENSE EXPIRY ALERTS**

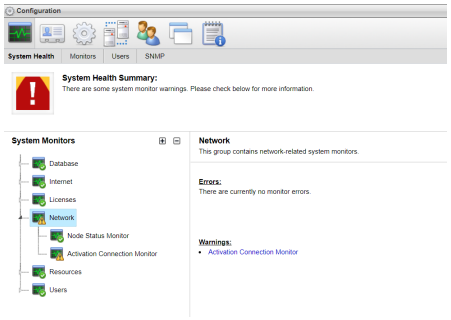
  A warning message now appears when the connection to the Activation server is lost. RPM provides a default grace period of 2 days to allow the administrator to regain a connection to the activation server and update the licenses.



Warning Message
This alert displays how much time is left until RPM stops licensing the products.

- **SYSTEM HEALTH MONITOR ENHANCEMENTS**

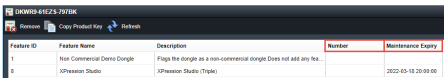
  You can now use the RPM System Health monitor's **Activation Connection Monitor** to provide notification of the server status to the SNMP monitoring tool of your choosing. It is only visible in licensed versions of RPM.



Activation Connection Monitor
This displays the status in the **Configuration** dialog under **System Health**.

- **NEW SUPPORTED VALUES FOR LICENSES**

  XPression and OverDrive licenses now include columns for **Maintenance Expiry** and **Number** values.



New License Columns
This example displays the new columns in the License dialog.

BUGS ADDRESSED

- Fixed a product key manager issue where the product key was not fully removed. (DBE-258).
- Fixed a virtual directory issue where the drag and drop function did not function. (DBE-259)
- Fixed a product key issue where the XPression licenses accounted for were not always accurate. (DBE-261)
- Fixed a product key manager issue where the XPression version was not displayed correctly after the product key was added. (DBE-269)
- Fixed an API endpoint issue where it displayed a success incorrectly. (DBE-270)
- Fixed a directory issue where a permission denied message displayed when the product key was moved to the directory. (DBE-279)
- Fixed an error message issue where the newly added product triggered an error message in the log. (DBE-280)
- Fixed a license issue for the activation API where an error displayed in the log. (DBE-347)
- Fixed an issue with the XPression product key where it did not appear in the GUI following a custom release import. (DBE-366)
- Fixed an issue where the used license count was unable to sync with the activation server. (DBE-367)
- Fixed an issue with the OverDrive product key where the refresh button temporarily appeared. (DBE-393)
- Fixed an XPression licensing issue where RPM required a manual refresh to clear the product version field when adding a key. (DBE-394)
- Fixed a product key issue where the initial endpoint call had an empty response. (DBE-449)

UPGRADE CONSIDERATIONS

- As of v1.0, the Ross Platform Manager only supports the following:
    - **Operating system:** Linux - CentOs 7
    - **Database**: PostGreSQL 11
    - **Hardware:** VM or customer supplied machine
    - **System resource requirements:**
        - CPU - 4 cores, 2 GHz
        - RAM – minimum of 8 GB RAM, 16 GB recommended
        - Hard drive - minimum of 64 GB free
        - LAN - minimum of 100 Mb/s

- **Additional limitations include:**
  - Redundant mode is not supported
  - Clustered mode is not supported
  - The application and database must be installed on the same machine
- **Supported Ross Products and Software versions include:**
  - XPression v10.5

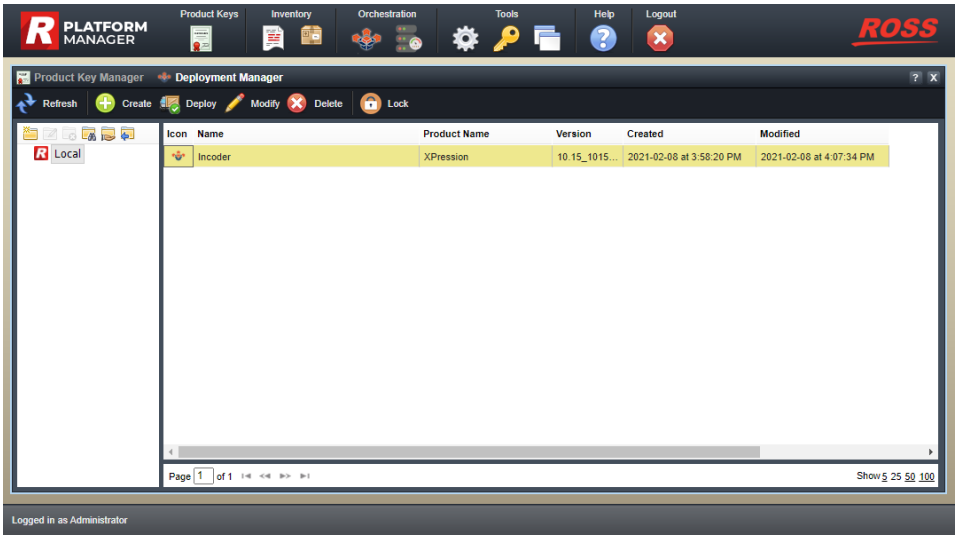
Note: For other considerations see the **System Requirements** Section.

- As of v1.0, the Ross Platform Manager does not uninstall the deployed product.

VERSION 1.0.0 – FEBRUARY 2021

WHAT'S NEW IN RPM

- **ROSS PLATFORM MANAGER OFFERS LATEST HORIZON ORCHESTRATION FEATURES**
  The Ross Platform Manager combines the licensing and activation features from Horizon v3.0 with improved orchestration from the new UI. Now merged under the name "Ross Platform Manager", you can look forward to using RPM with a growing number of Ross products.



- **SUPPORT FOR XPRESSION V10.5**

  Provides support for XPression v10.5.

UPGRADE CONSIDERATIONS

- As of v1.0, the Ross Platform Manager only supports the following:
  - **Operating system:** Linux - CentOs 7
  - **Database**: PostGreSQL 11
  - **Hardware:** VM or customer supplied machine
  - **System resource requirements:**
    - CPU - 4 cores, 2 GHz
    - RAM – minimum of 8 GB RAM, 16 GB recommended
    - Hard drive - minimum of 64 GB free
    - LAN - minimum of 100 Mb/s
  - **Additional limitations include:**

        - Redundant mode is not supported
        - Clustered mode is not supported
        - The application and database must be installed on the same machine
    - **Supported Ross Products and Software versions include:**
        - XPression v10.5

    Note: For other considerations see the **System Requirements** Section.

- As of v1.0, the Ross Platform Manager does not uninstall the deployed product.

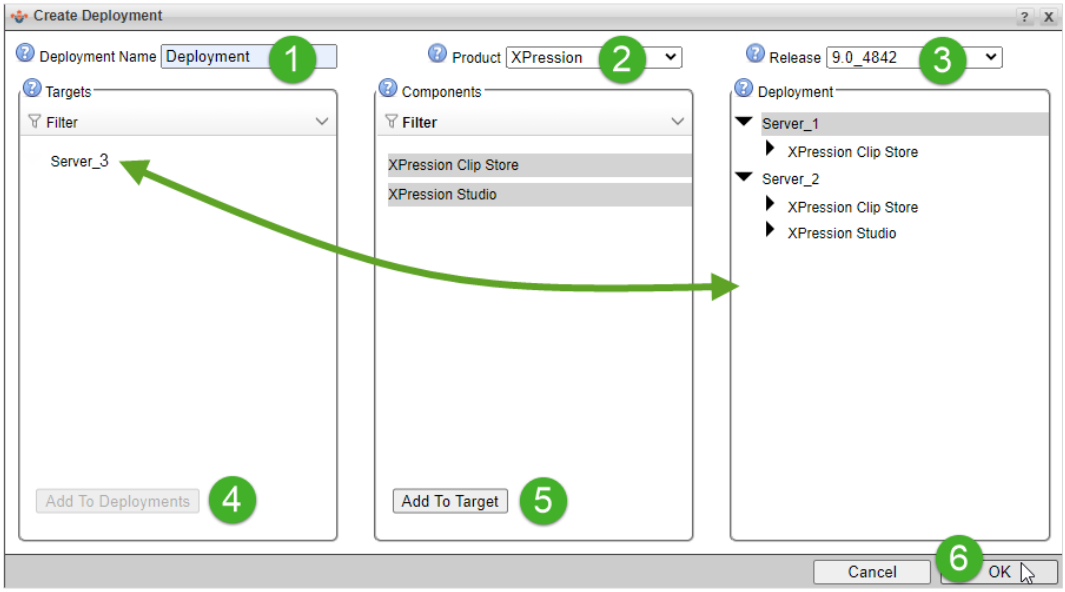
HORIZON VERSION HISTORY

VERSION 3.0.1 – OCTOBER 2020

WHAT'S NEW IN HORIZON

- **SUPPORT FOR XPRESSION COMPONENTS**

  Install and upgrade the XPression components required for your workflow.

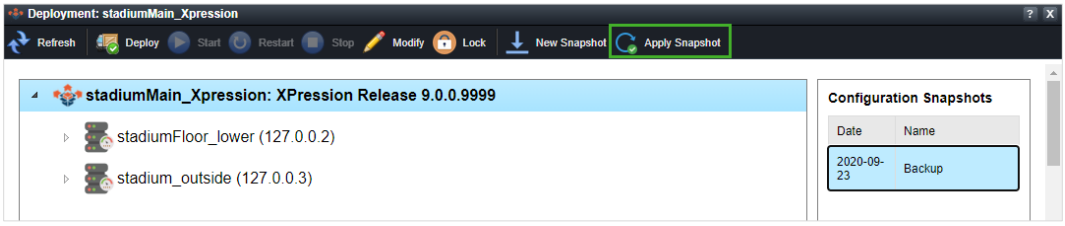


XPression Deployment Workflow Diagram

This workflow illustrates how to add an XPression deployment. Targets and Components can be selected and added in sequential order using the "**Add to Deployment**" or "**Add to Target**" buttons, or by dragging and dropping into place. XPression deployments now include components, such as XPression Clip Store and Studio shown above.

- **SAVE XPRESSION CONFIGURATIONS FOR REUSE**

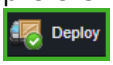
  Snapshot XPression preferences and hardware settings to use again later or elsewhere.

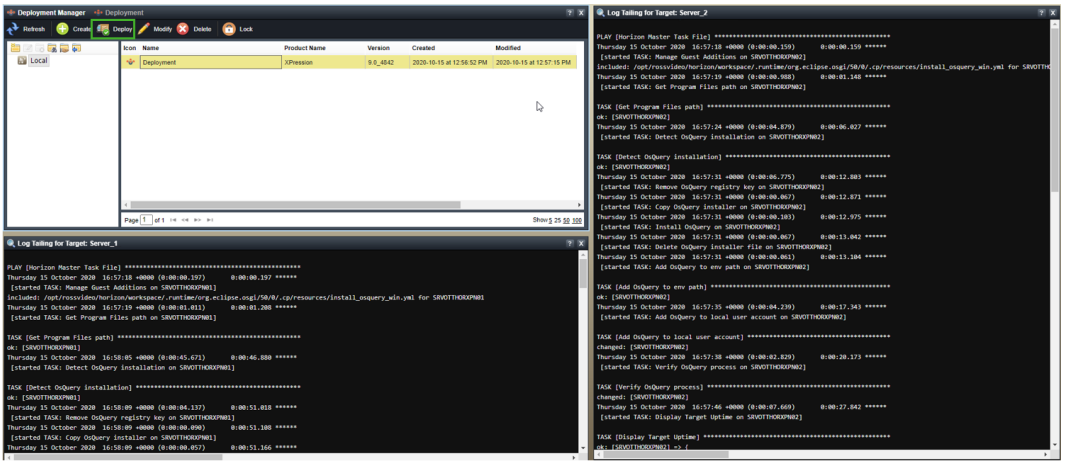


Applying an XPression Snapshot

This screenshot shows where to select the configuration snapshot to apply it to one or multiple deployments.

- **LOAD PRECONFIGURED SETTINGS TO MULTIPLE XPRESSION DEPLOYMENTS**
  Push preconfigured settings to newly installed or upgraded XPression components. A single operator can upgrade a fleet of 30 XPression turnkey systems for a stadium production, or swiftly repurpose a single instance to run a show with different I/O and hardware preferences.





Deploying XPression on Multiple Servers
This screenshot shows the single deployment highlighted in yellow being deployed across multiple servers when an operator clicks **Deploy**. The log dialogs show the targets being deployed for Server 1 and Server 2.

BUGS ADDRESSED

- Fixed an issue where a list of the same components provided to different targets was preventing deployment creation. (HZN-1772)

UPGRADE CONSIDERATIONS

- As of v3.0, Horizon does not uninstall the deployed product.
- As of v3.0, Horizon orchestration only supports Linux operating systems. If you are not using the new orchestration features, you can install on Windows or Linux operating systems.
- It is recommended that you use PostgreSQL as your database.

VERSION 2.0.6 – JUNE 2020

WHAT'S NEW IN HORIZON

- **DEPLOY TO TARGETS OR ASSIGNED COMPONENTS**
  Create deployment with selected targets and assigned components.
- **EDIT TARGETS AND DEPLOYMENTS**
  Browse and modify targets and deployments.
- **SUPPORT FOR BASIC XPRESSION DEPLOYMENT**
  Ability to create simple deployment for XPression.
- **CREATE XPRESSION SNAPSHOTS**
  Create and view XPression snapshots.

BUGS ADDRESSED

- Fixed an issue where Horizon did not return the correct response code expected by Overdrive.
- Fixed an issue where a timeout occurred during database transaction on Postgres.
- Fixed an issue where alert messages for the Create Deployment dialog were not consistent.
- Fixed an issue where the Virtual Directory Association did not work with deployments and targets.
- Fixed an issue where the user was unable to select row for target types.
- Fixed an issue where the new product version did not display version options in the Reactivate dialog.
- Fixed an issue where the Backport Offline Licensing was not working correctly.
- Fixed an issue where users could add an invalid Product Key.
- Fixed an issue where the Backspace / Delete key was not working for Product Key Setting - Sync hours setting.
- Fixed an issue where the keyboard shortcut to add a button (Ctrl + N) was not working for Horizon.
- Fixed a typo in the product and platform instance manager views that prevented initial row focus.
- Fixed an issue with SQL Exceptions that occurred when uninstalling a product instance.

VERSION 2.0.5 – MARCH 2020

BUGS ADDRESSED

- Fixed an issue where the settings of synchronization with activation was not persisted.
- Fixed an issue where an exception was thrown when updating OGP metadata that defined STRING_ARRAY.

SYSTEM REQUIREMENTS

OPERATING SYSTEM

- Refer to the chart below to ensure you meet the OS requirements for the features you wish to support:

Supported RPM Feature Set	Base OS for Installation	
	Linux	Windows
Orchestration	Ubuntu 22.04.5 LTS	N/A
No Orchestration	Ubuntu 22.04.5 LTS	10, 2016, 2019, 2012

Note: Orchestration is only supported on Linux.

RECOMMENDED DATABASE

- It is recommended that you use PostgreSQL 11 as your database.

HAREWARE REQUIREMENTS

- VM or customer supplied machine

SYSTEM RESOURCES

- CPU – minimum 4 cores, 2 GHz
- RAM - 8 GB RAM minimum, 16 GB recommended
- Hard Drive - minimum 64 GB free
- LAN - minimum 100 MBit/s

LIMITATIONS

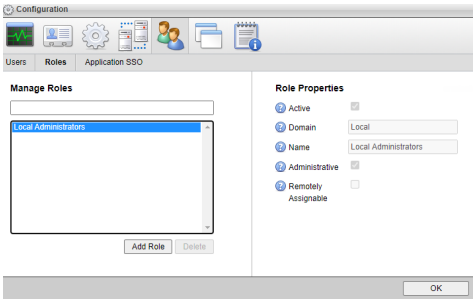
- Redundant mode is not supported.
- Clustered mode is not supported.
- The application and database must be installed on the same machine.

SUPPORTED ROSS PRODUCTS AND SOFTWARE VERSIONS

- XPression v10.5 and later
- OverDrive

PERMISSIONS

- You must have an administrator level role configured and assign the Local Administrator role.



Local Administrator Role
The **Configuration > Roles** dialog is shown with the required permissions.

KNOWN ISSUES

XPRESSION

- The XPression controller process does not start, stop, or restart.

SNAPSHOTS

- Applying snapshot tasks currently saves the configuration file in the parent directory and then copies the files over the respective nested source directories.

CHANGING A TARGET'S OPERATING SYSTEM

- If a target is deleted and then added later with a different operating system selection than the original target, the Ross Platform Manager (RPM) may not provide an accurate state for the target in the Target Manager. This is because RPM may reach out to establish a connection with the original authorized platform, and indicate erroneously that the new target is "Ready" for deployment. The recommended workaround is to delete the target, and add it with the original authorized platform. (DBE-1158)

CONNECTING TO WINDOWS TARGETS

- Ross Platform Manager can not connect to a Windows Target that is not using the default SSH port. (DBE-2139)

GETTING HELP

- Horizon's Online Help system opens in your default web browser.
- Our 24-hour hotline service provides access to technical expertise around the clock. After-sales service and technical support is provided directly by Ross Video personnel.
- During business hours (Eastern Standard Time), technical support personnel are available by telephone.
- After hours and on weekends, emergency technical support is available. A telephone-answering device will provide the names and phone numbers of technical support and field service personnel who are on call. These people are available to react to any problem and to do whatever is necessary to ensure customer satisfaction. For serious issue which need urgent attention and tracking, please ensure you are given a ticket number and refer to this in future communications.
    - **Technical Support: (+1) 613-652-4886**
    - **After Hours Emergency: (+1) 613-349-0006**