RAYPACK® STUDIO

Enterprise Software Packaging

Release Notes RayPack Studio 5.1

RayPack Studio is part of RaySuite.

•rayNET

RAYPACK® STUDIO

Release Notes RayPack Studio

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Table of Contents

Introduction

RayPack Studio 5.1 is the next iteration of Raynet's framework for the creation and management of software packages. RayPack Studio 5.1 includes powerful tools with new features that automate and accelerate holistic packaging projects.

RayPack Studio covers all the steps: From compatibility checks of software applications and packages to the evaluation to the packaging and the subsequent quality control as well as to the clearly structured workflow management. The perfectly matched software products allow to efficiently pass through the individual phases of a packaging process. At the same time, they enormously accelerate the workflow: the integration of all products into RayFlow enables an extremely comfortable exchange of data and information.

This release contains new features, enhancements and bug fixes for all of these applications: RayFlow (client), RayPack, PackBench, RayQC, RayQC Advanced, and RayEval.

Visit www.raynet.de for further information regarding the product and current community incentives.

Raynet is looking forward to receiving your feedback from your RayPack Studio experience. Please contact your Raynet service partner or write an e-mail to sales@raynet.de to add your ideas or requirements to the RayPack Studio development road map!

What's New?

The following chapters contain an overview of the improvements, resolved issues, and the new features that are part of the new release of RayPack Studio 5.1.

RayPack

Automated repackaging/conversion (also in bulk mode) using Virtual Machines via new PackBot component RPK-1408; RPK-2494; RPK-2498; RPK-2499

PackBot has arrived. PackBot offers the ability to repackage and virtualize applications automatically using defined set of Virtual Machines.
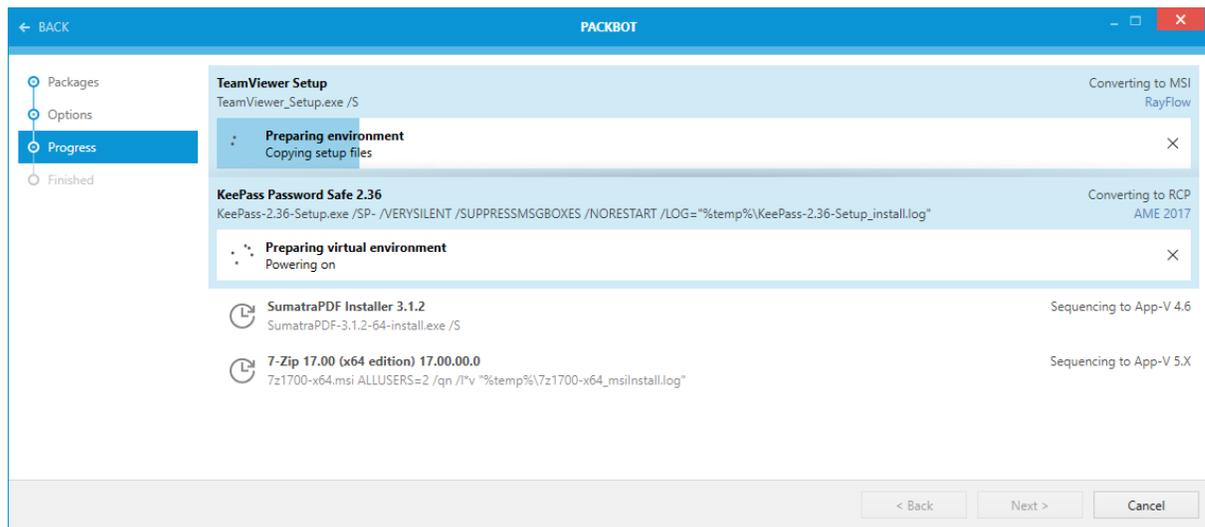
PackBot supports various formats, including repackaging executables to Windows Installer Projects, RayPack projects, sequencing using Microsoft App-V Sequencer (4.6/5.x) and Thin-App. Popular virtualization technologies are supported (VMware Workstation, VMware ESX, Hyper-V).

The new PackBot Wizard will guide you through all necessary steps and the new settings that have been added for this can be reused by other wizards which are a part of RayPack.
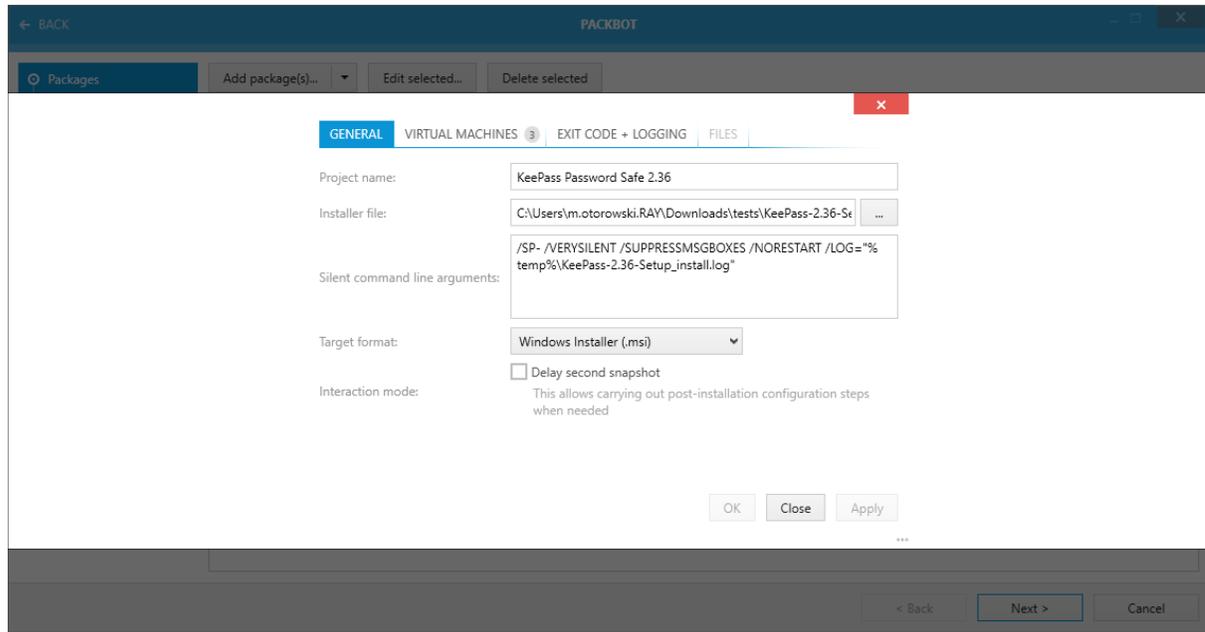
For easier handling, PackBot even offers automatic detection of silent command lines for typical setup files. Custom exit codes and supporting files can be defined with ease, and finally it supports mixed-modes in which setups are repackaged in parallel/sequential way, giving the user an option to carry-out extra post-configuration steps after the main installation. Automatic log collector makes sure, that failed installations are documented and provides packagers an easy way to verify the cause of the problem whilst the bulk repackaging continues with other packages/tasks.

In order to speed up lengthy, bulk conversion, PackBot may be configured to use a pool of virtual machines running in parallel, and it manages effectively packages and idle machines to ensure that no resources are wasted and that the whole bulk processing (for example conversion of hundreds of App-V packages to App-V format) is finished in possible shortest time.

PackTailor can tailor Windows Installer instances running on Virtual Machines RPK-2478

PackTailor is now able to capture the installation on a virtual machine instead on a local machine.
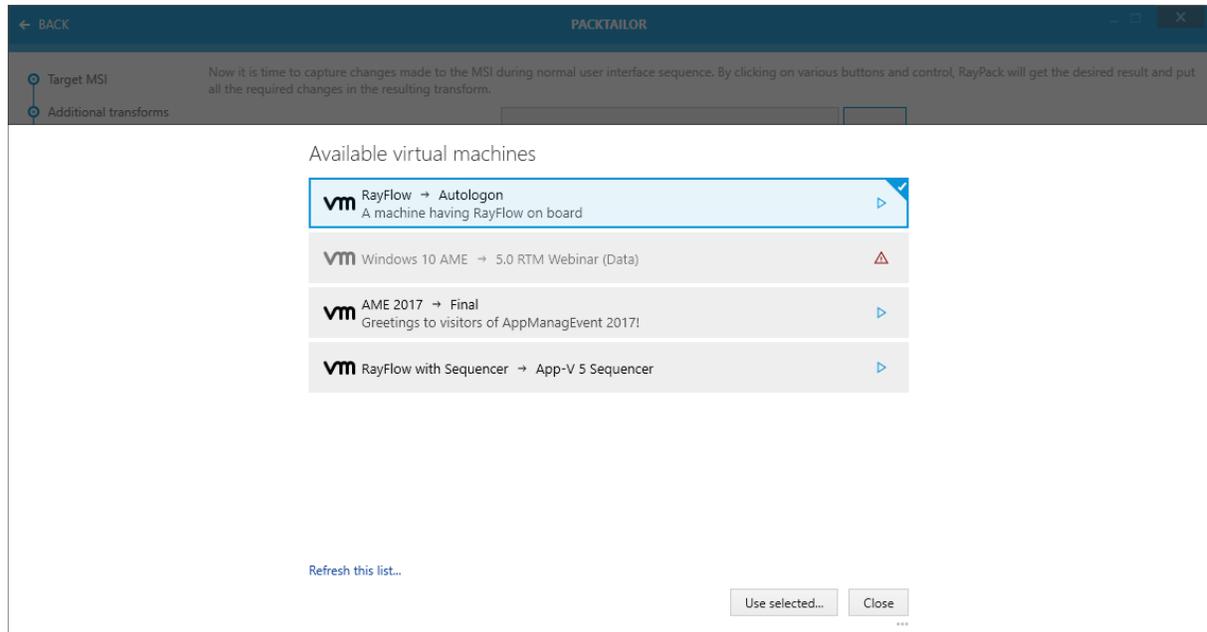
Users may power on a virtual machine and revert to a preconfigured snapshot directly before starting the tailoring of a selected setup.

PackWrapper: A new wizard for the generation of PowerShell AppDeploymentToolkit wrappers has been added RPK-2517

If a user has packages in different formats he can now use the new wizard to create PowerShell AppDeploymentToolkit wrappers in order to have only one wrapper that will be able to perform all necessary steps regardless of the package type.
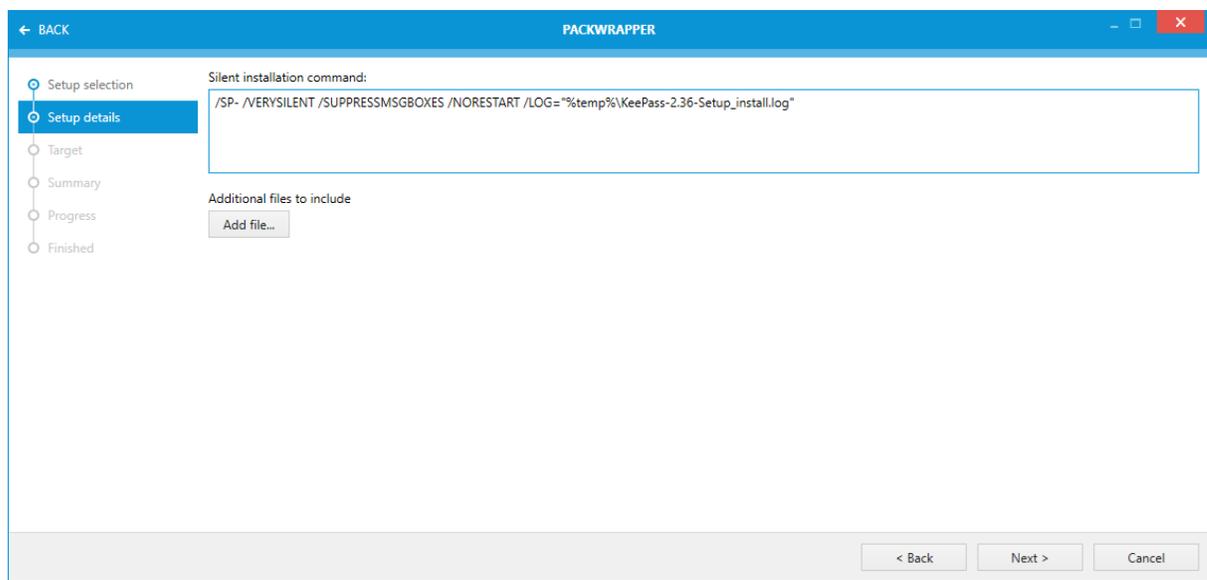
PackWrapper generates installer-neutral wrappers which have unified command lines for installation and

uninstallation of packages. It supports silent and interactive mode (with a basic UI) and is handling well both Windows Installer setups as well as classic executables (also with supporting files). To speed up the process, popular installation frameworks are automatically recognized and a silent command line is automatically generated for them.
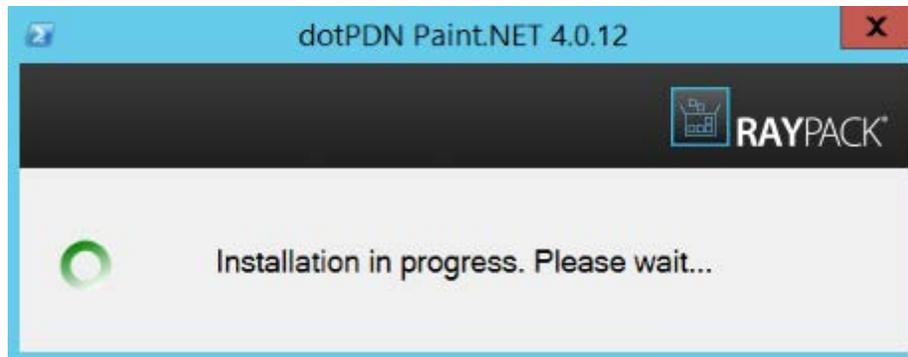
The Deployment Wizard for SCCM has been enhanced RPK‑2467

Multiple new functionalities have been added to the **DEPLOYMENT WIZARD** for SCCM. An advertisement functionality for program and application has been added. Furthermore, placeholders for deployment object values are now supported.

Virtualization Pack

This release received a massive overhaul of App-V converter mechanism, which is used by both MSI to App-V conversion as well as by repackaging/PackBot tools. As a result, conversion success rate should be much higher with this 5.1 release than with a previous version of RayPack.

- RPK‑2560 RayPack now supports static dependencies for App-V 5.x. Static dependencies are automatically parsed from executable headers, unless the user opts-out from this behavior by disabling this functionality in the Settings screen.

- RPK‑2522 A configuration option for App-V 5 which allows to configure that all named objects interact with the local system has been added.

- RPK‑2542 When conversion fails, a more detailed and precise error message is shown to the user (previously the exact error was only to be found in the log files).

- RPK‑2561 Support for PVAD folders has been added to RayPack. RCP and MSI converters set the root folder to the folder which is marked as INSTALLDIR.

- RPK‑2519 When converting to App-V, information in the Version History contains the actual App-V Sequencer version.

Several App-V 5.x conversion issues have been resolved in this version. For detailed information, refer to Resolved Issues section.

Other

- RPK‑2442 The description in the **Capture mode** tab in the **Repackaging** tab of the **Settings** has been improved to better describe the functionality of **Basic mode** and **Expert mode**.

- `RPK-2481` The performance of RayPack when deleting a huge number of entities has been improved.

- `RPK-2490` A switch which supports repacking on a virtual machine has been added to the `rpcmd.exe` and `raypack.exe`.

- `RPK-2597` Some new exclusions have been added to the default exclusions.

RayQC

Checklists can now be remotely executed on Virtual Machines `RQC-812`; `RQC-813`; `RQC-814`

A new User Interface has been added which can be used to remotely execute checklists on Virtual Machines. Using the new User Interface it is possible to add and remove machines. Furthermore, a button has been added within the checklist viewer which enables the user to start a virtual machine, thereby also launching the User Interface.
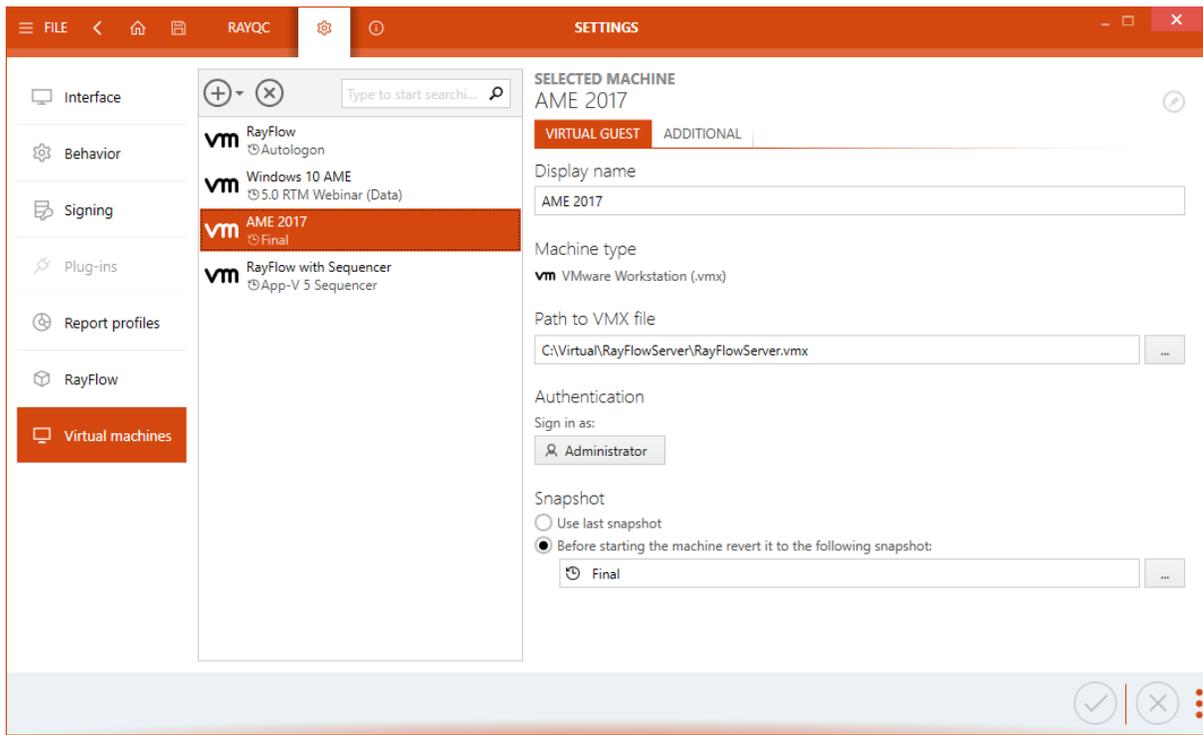
Other

- `RQC-796` A new plugin that can get registry sub keys has been added to RayQC.

- `RQC-806` A signature field has now been added to the protocol page.

- `RQC-818` The description of the command line functionality in the RayQC User Guide has been improved.

- `RQC-820` The execution of checklists can now be performed in a fully automated mode and RayQC is now able to work in silent mode.

RayQC Advanced

Virtual Machines can now be used for legacy conversion into the Software Library RTS-927

If importing a legacy file into the Software Library of RayQC Advanced it is now possible to use a virtual machine for the conversion of the legacy file instead of the local machine.
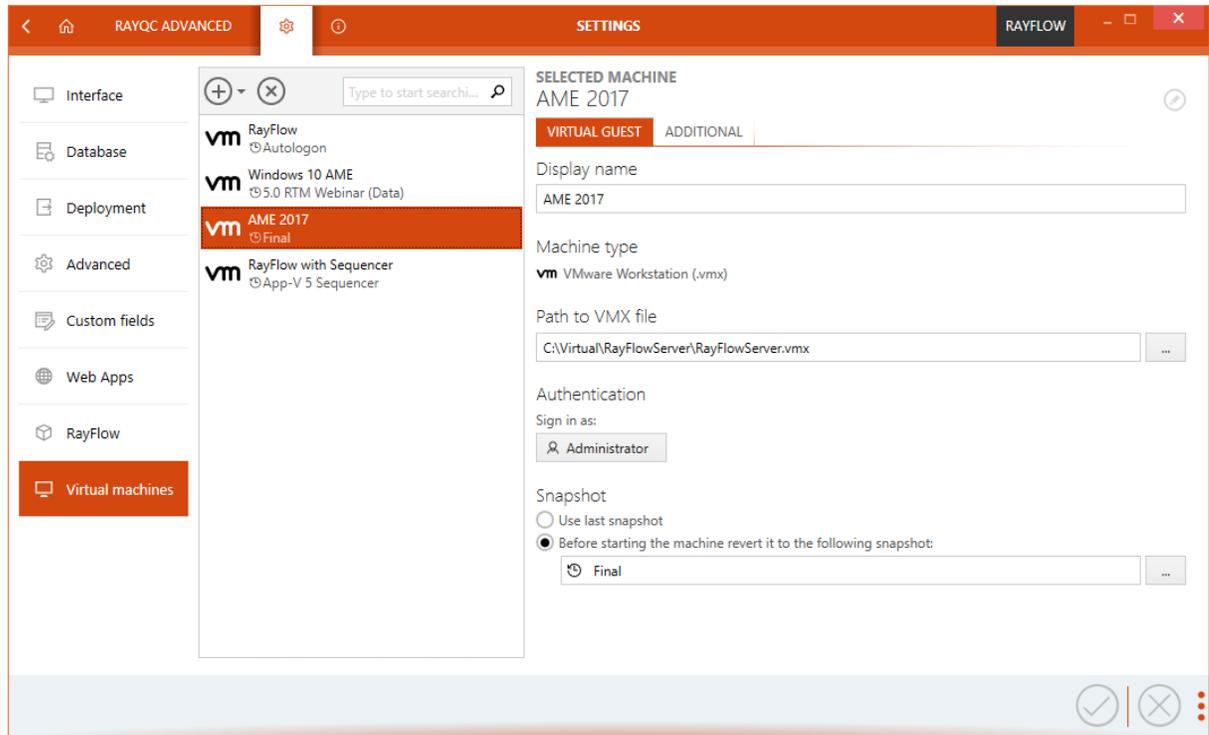
The Deployment Wizard for SCCM has been enhanced RTS-2186

Multiple new functionalities have been added to the **DEPLOYMENT WIZARD** for SCCM. An advertisement functionality for program and application has been added. Furthermore, placeholders for deployment object values are now supported.
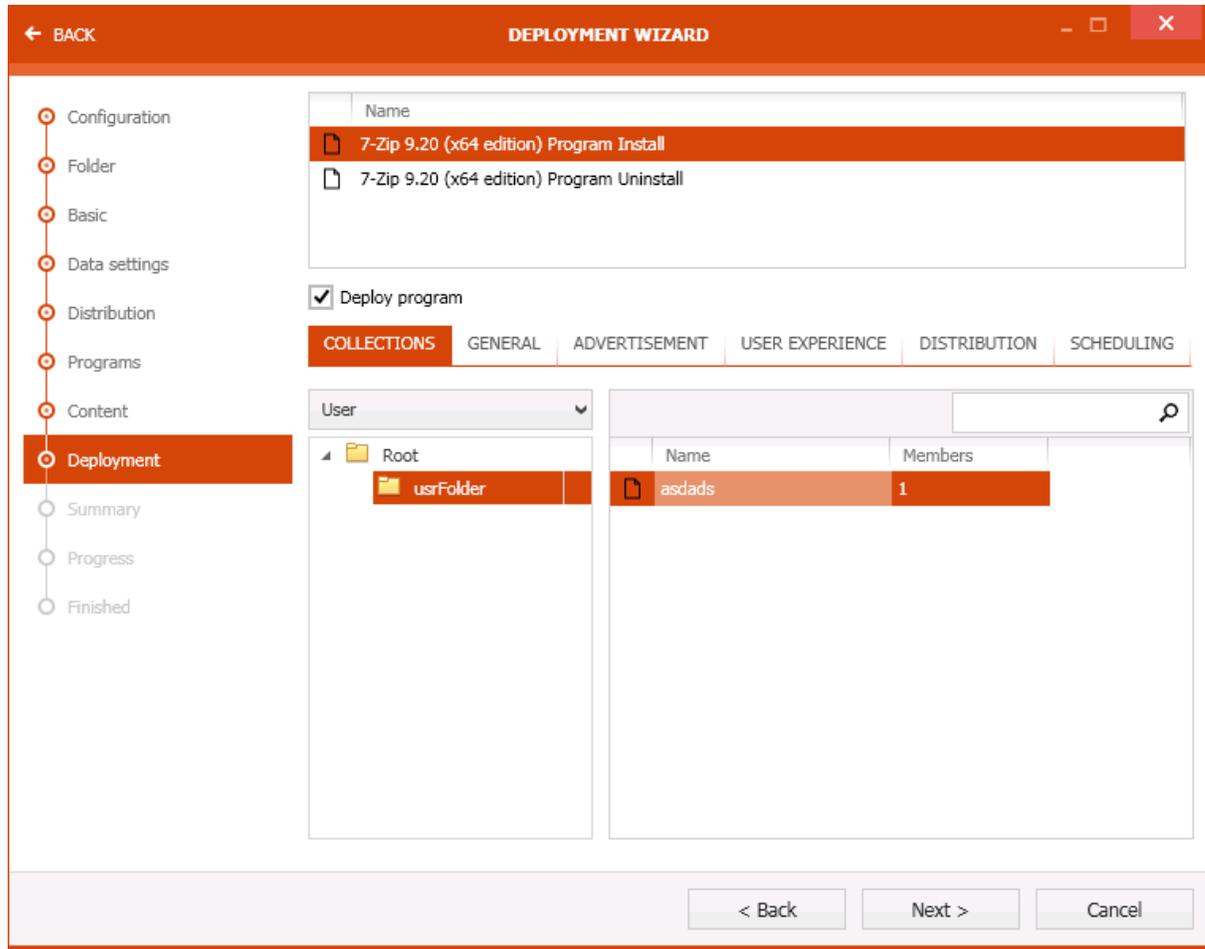
Extended rulesets for compatibility tests `RTS-2171`; `RTS-2172`

This release has two new rules for APPX/UWP testing and brings overall minor improvements to the existing rulesets.

RayFlow Reports now have a summary comment `RTS-2109`

For reports that are exported to RayFlow a summary comment is added. This enables users in RayFlow to view a quick summary of the results without having to open the whole report that has been uploaded.

Copying supporting files when deploying an application to RayManageSoft `RTS-2176`

When deploying an `.exe` file there are usually also supporting files which need to be copied together with the `.exe` file. An option to copy such files has now been added to the **DEPLOYMENT WIZARD**.

The command line for the Test Wizard has been improved `RTS-2179`; `RTS-2180`

The command line for the Test Wizard has been improved in order to offer a more flexible and more intuitive usage. Furthermore, it is now possible to use the command line to launch the Test Wizard directly from RayFlow.

Other

- `RTS-1123` In RayQC Advanced it is now possible to create several levels of folders at once.

- `RTS-1394` The style of the Drag & Drop elements in RayQC Advanced has been improved in order to ease the handling of those elements.

- `RTS-2195` It is now possible to also import legacy files (`.exe`) on a machine by starting PackBot and not only by repackaging.

- `RTS-2199` The **DEPLOYMENT WIZARD** can now be started from the package context menu.

RayEval

It is now possible to capture screenshots on a virtual machine `RVL-367`

Screenshots can now be remotely captured on virtual machines using the new built-in user interface.
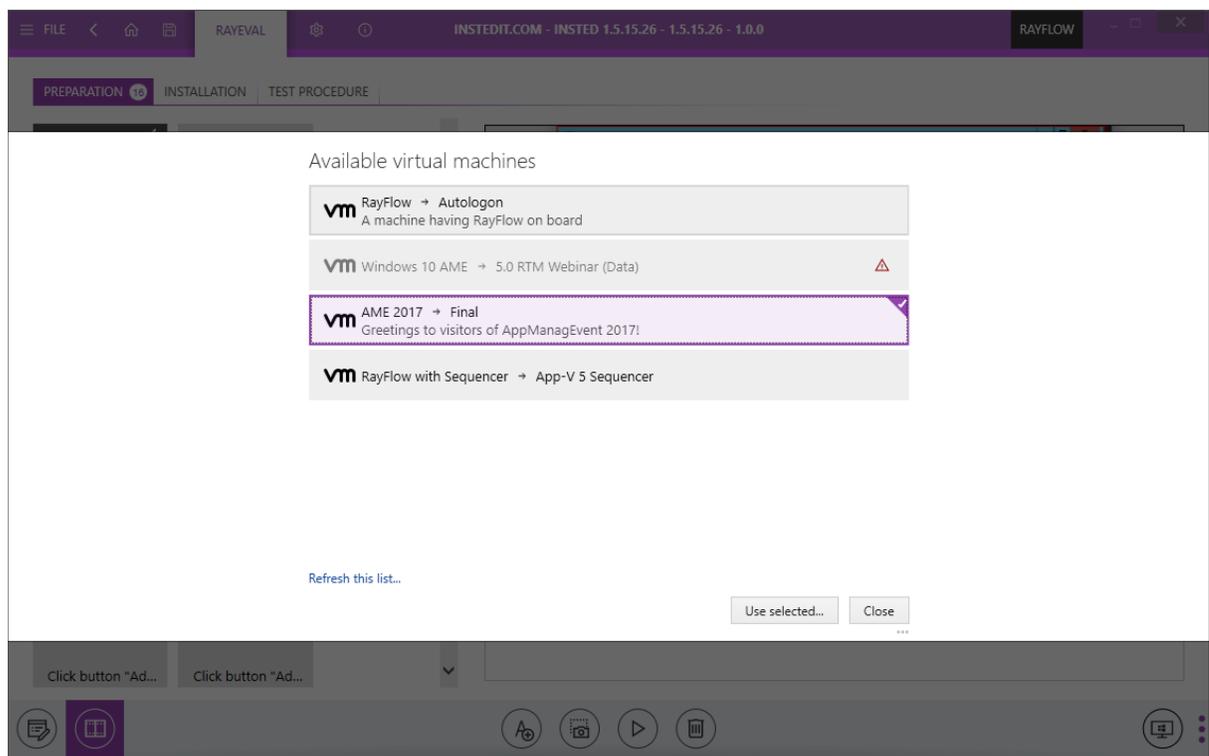
Captured images can now be exported and swapped `RVL-302`

An option has been added to RayEval which enables users to export and swap captured images.
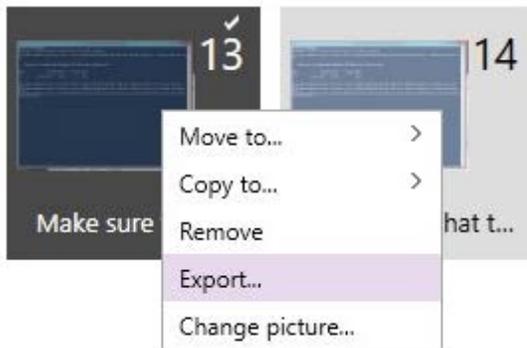
Other

- RVL-332 The recent list and the corresponding settings now match the other RayPack Studio products.

- RVL-337 RayEval now asks for a restart after changing the language in the settings.

- RVL-352 The standard Keyboard shortcuts for copy, paste, and cut are now supported in the currently selected RayEval step.

- RVL-355 A **SAVE** button has been added to the top of the application shell in order to match the other RayPack Studio products.

- RVL-357 The RayFlow connection field is now trimming the connection string if there is a space at the end.

- RVL-388 It is now possible to use external manifest files for the rayeval.exe instead of embedded manifest files.

Licensing

Email activation has now become Offline Activation RSC-432

In order to match our new and improved support process, email activation has now become offline activation. In order to activate your license on your offline computer, you will now be guided to our Support Panel in order to ensure a prompt processing of your license file request.

Resolved Issues

The following issues from the previous version of RayPack Studio have been resolved in this release:

RayPack

This release improves overall performance of various components and data grids.

General

* `RPK-2452` When clicking on a removed recent item, the link to the item is always removed even though the user settings are configured to keep the link.

* `RPK-2474` When the name of a project is changed the project is deleted from the **recent** list.

* `RVL-358` The project information shows the domain name as author instead of the author name.

* `RPK-2534` Some Polish translations are not correct.

* `RPK-2582` The requested schema is not respected when creating projects and packages using the command line.

* `RPK-2590` Building a project with the PowerShell wrapper does not save the external .cab files to the correct location.

* `RPK-2602` It is impossible to browse for a `.pfx` file in the non-English language versions of RayPack.

PackDesigner

* `RPK-2376` Missing empty `ProgId` table in `.msi` files and `.rpp` files created from an `.rcp` file.

* `RPK-2405` In the source view of a file, it is not possible to see files from a cross-domain shared location.

* `RPK-2454` The application screen in PackDesigner does not validate the entry for the `ProductName`.

* `RPK-2456` When trying to build an `.msi` file to RayFlow which is using an external `.cab` file an exception is shown.

* `RPK-2465` After renaming a component in the **Component** view (Advanced Designer) of PackDesigner a warning is shown, that the name is invalid because of duplicate entries, even though this information is wrong and the entry will be saved if the user ignores the warning.

* `RPK-2466` Missing empty `Media` table in the default `.msi` template (`blank.msi`).

* `RPK-2469` There are some circumstances under which the installation context in PackDesigner is not working properly.

* `RPK-2471` Removing the `ARPPRODUCTION` from the system configuration properties in PackDesigner results in an error.

* `RPK-2472` It is possible to add prohibited characters to a component name when using the right side of the menu to edit the name.

- RPK-2475 The uninstall actions are not shown in the headers within the **Services** view.

- RPK-2476 If a dialog / components condition which relies on the property `ACTION` exists in a package, it will not be tailored correctly.

- RPK-2480 It is not possible to rename a folder that has been created using the **Folders** step in the **DEPLOYMENT WIZARD**.

- RPK-2482 The `Class` table is missing in the default `.msi` template (`blank.msi`).

- RPK-2483 Nested folders that are created in the **Folders** step in the **DEPLOYMENT WIZARD** are not created on the SCCM server. Instead, the package is put into the root folder.

- RPK-2484 If an `.msi` file has an additional `.mst` file, there is a wrong install command when using SCCM deployment.

- RPK-2485 Install and uninstall program are not set if deploying `.msi` files with `.mst` files using the **DEPLOYMENT WIZARD**.

- RPK-2486 The in-script type of the PowerShell Custom Action is not shown properly in the UI in the **Advanced View** of the **PackDesigner**.

- RPK-2493 Instead of the image, the name of the image is shown in the **Summary** step when adding a new shortcut.

- RPK-2479 After the SCCM connection settings in RayPack have been configured the test connection shows an error.

- RPK-2535 When creating a new shortcut after all shortcuts have been removed, the new shortcut will point to an incorrect component.

- RPK-2562 The **Reboot** / **Restart Manager** does not pick up preexisting settings.

- RPK-2583 After a rename operation is finished a duplicated child-row is added, although this should not be the case.

- RPK-2606 Clipped content of the Custom Permissions dialog

- RPK-2609 Loop of background workers when removing registry values

PackRecorder

- RPK-2450 When creating a new repackaging project, special characters like **?** and ***** are accepted in the project directory, even though these characters should be prohibited.

- RPK-2488 Polish version of RayPack may crash with an error messages that says that the snapshot is corrupted.

- RPK-2573 PackRecorder cannot generate an `.msi` from `.rcp` files with a spezific size / number of files combination and CAB compression enabled (affects installation having both less than 1000 files and more than 2GB total size).

- RPK-2534 When exporting a registry from PackRecorder, an invalid `.reg` file is being produced.

PackTailor

- `RPK-2613` Incomplete/misleading message when tailoring an already installed setup

- `RPK-2611` Command line arguments textbox does not support text wrapping in PackTailor

Virtualization Pack

This release received a massive overhaul of App-V converter mechanism, which is used by both MSI to App-V conversion as well as by repackaging/PackBot tools. As a result, conversion success rate should be much higher with this 5.1 release than with a previous version of RayPack.

- `RPK-2518` Converted packages have no shortcut icons if the original icon was present in an excluded folder (for example `%windir%\Installer`).

- `RPK-2543` When converting to App-V 5.x duplicated AppPaths (32-Bit / 64-Bit) are not accepted and an error is shown.

- `RPK-2559` When converting `.rcp` files to App-V 4.6 or Thin-App the shortcuts are not converted when the underlying files are excluded.

- `RPK-2518` Services which have been excluded are still present in a generated App-V package.

- `RPK-2489` Formatted arguments of shortcuts are not resolved when building App-V packages.

- `RPK-2540` When error is captured during conversion to APPX/UWP format, its message has invalid formatting.

- `RPK-2603` The checkbox in the APPX configuration is called **Sign the MSI each time the project is built**, but it should be **Sign the APPX each time the project is build**.

- `RPK-2614` Conversion from RPP/MSI to App-V/App-V4.6 via unattended command line may end up with "Canceled by user" message.

RayQC

This release improves overall performance of various components and data grids.

Resolved issues:

- `RQC-636` When selecting a RayFlow package using **Post Processing** > **RayFlow Package**, none of the RayFlow plugin elements receive the **PackageID**.

- `RQC-753` The **Write IniFile** Plugin replaces all **#** characters with **;** characters.

- `RQC-817` The swipebar in RayQC is expanded initially even though by default it should be collapsed.

- `RQC-819` In the **Settings** section there is a button with a wrong label in the **Report profiles**.

- `RQC-826` Spelling errors in German RayQC localization.

- `RQC-829` Old RayQC icon in generated reports.

- `RQC-832` In the Backstage view the icons for the recent items are missing.

- `RQC-833` The style of the **OK** and the **CANCEL** button does not fit the style used in RayPack and RayEval.

- RQC-836 Logging out of RayFlow may cause a freeze of RayQC.

- RQC-838 The execution of the **Export to disk** functionality crashes RayQC if it has been started from RayFlow.

- RQC-854 The URL for the RayFlow server that is given during the installation is not saved.

RayQC Advanced

This release improves overall performance of various components and data grids.

Resolved issues:

- RTS-1246 Progressbar of RayUpdater shows wrong information in the command line interface.

- RTS-2146 When importing `.msi` file with `.mst` and `.cab` file from RayFlow, only the `.msi` file and the `.mst` file are imported and the `.cab` file is missing.

- RTS-2149 RayQC Advanced is not responding anymore when importing a web page using the web crawler.

- RTS-2163 When changing the size of the console there are glitches in the progress bar in the command line version of RayQC Advanced.

- RTS-2164 It is possible to use prohibited name values when using the **Save as...** option.

- RTS-2166 Custom fields that are imported from RayFlow and which contain a UNC value are missing their first backslash when displayed in RayQC Advanced.

- RTS-2167 The **Reports** Dashboard shows wrong numbers for the quarterly overview if there are multiple reports available.

- RTS-2173 If a `.cab` file is attached to a transform and such a package is imported and copied to the RayManageSoft repository, only the `.msi` and the `.mst` is copied, but the `.cab` file that is attached to the `.mst` is missing.

- RTS-2174 The **TRANSFORMS** property is not filled correctly if two or more `.mst` files are attached to an `.msi` file and later deployed to RayManageSoft.

- RTS-2175 If using a quotation mark when deploying a package to RayManageSoft, the quotation mark is not escaped and the package cannot be edited. This results in a broken `.ndp` file.

- RTS-2177 When re-testing packages from the Report view, the target packages are reset.

- RTS-2178 The command line generator always creates a command line that executes all available tests instead of generating a command line that only uses the selected rules.

- RTS-2181 Degrading application performance when defined extraction directory is not accessible to the current user.

- RTS-2182 When testing a RayFlow package in RayQC Advanced the checkpoints on the **Results** page are cut.

- RTS-2185 No rule token in generated command line arguments.

- RTS-2191 The test result details for App-V are empty.

- RTS-2202 There are cases in which the installation of RayQC Advanced fails.

- RTS-2235 The **RayQC Checklist** button is not automatically selected in the **Test Wizard** even if there are checklists available.

- RTS-2237 There are typos in the Reports tab for RayQC Checklist results.

- RTS-2239 An error might occur when importing specific packages because of an error during the conversion.

RayEval

This release improves overall performance of various components and data grids.

Resolved issues:

- RVL-347 After disabling the animations in the **Settings** section and saving the settings under specific circumstances an error message is shown.

- RVL-354 The default value for empty fields is not refreshed after changing the settings.

- RVL-356 The package information is not automatically refreshed after the main package has been changed.

- RVL-358 The project information shows the domain name as author instead of the author name.

- RVL-363 Sporadically, clicking on **File** results in an error which says that RayEval needs to be closed.

- RVL-365 The scroll bar is always displayed within the **Settings** section.

- RVL-373 Capturing some specific elements of an operating system might lead to an exception and a crash to the desktop.

PackManager for App-V

This release improves overall performance of various components and data grids.

Resolved issue:

- RSC-406 In some caes it is not possible to install PackManager for App-V using the RayPack Studio Installer, even though it is licensed.

- RMT-126 Access denied to AppData is thrown when removing a package in a cleanup-routine for a remote installation.

Migration

RayPack / PackBench

Upgrading the RayPack Application

General upgrade preparations

RayPack 5.1 is delivered as part of the RayPack Studio Installer. In order to install it safely:

1. Download the RayPack Studio Installer 5.1 from the Raynet resource repository.
   (If you have not already received credentials, please contact the Raynet support team via the Raynet support portal to receive them via the ticket system).

2. Copy all files that need to be kept for later reuse or look-up (such as resources of global external plugins, log, settings and config files, the `*.rsl` file, etc.) to a temporary transfer directory outside of the RayPack Studio application directory (where they usually reside).

3. *(only if PackBench is installed)* Make a backup of the SQL Server database which is used by the PackBench.

4. Execute the RayPack Studio Installer and work through the setup routine. The installation of RayPack 5.1 using the RayPack Studio Installer is described in the *RayPack Studio Installer User Guide*.

> **Note:**
>
> If upgrading PackBench, ensure that a **running** SQL server is available before starting the migration/ installation.

Migration from RayPack 5.0

There are no breaking changes or special considerations for upgrade paths.

Migration from older versions

Breaking changes

- In version 5.1, conversion to App-V 5.x uses your `INSTALLDIR` settings to configure PVAD (root) folder. Previous RayPack Studio versions always deployed files to VFS regardless of `INSTALLDIR` settings. In order to use the legacy behavior, either do not use `INSTALLDIR`, or set it to a dummy folder having no subitems.

To permanently revert to old behavior, edit the configuration file `RayPack.exe.config` and change the value of `PreferRootOverVfs` to `False`.

- Upon launching the product, RayPack Studio tries to reconnect mapped drives if they were previously mapped in a non-admin context. In some rare scenarios, this may trigger a credential dialog shown directly after starting the product. To disable this functionality and get legacy 5.0 behavior, edit the configuration file `RayPack.exe.config` and change the value of `ReconnectMappedDrives` to `False`.

Troubleshooting

If you experience abnormal symptoms (like program not starting, missing features, etc.) after the upgrade, we highly recommend to perform the clean installation of RayPack / PackBench 5.1. In order to do that, please perform the following steps:

1) Locate your product order number. If you can't find it, contact our support.

2) Make a backup of your license file (by default installed to `<ProgramData>\Raynet\Licenses\RayPack\*.rsl`).

3) Uninstall the previous version of RayPack / PackBench.

4) Delete the content of the installation folder (by default `C:\Program Files (x86)\RayPackStudio\RayPack`, `C:\Program Files (x86)\RayPackStudio\RayPack\PackBench`).

5) Install RayPack / PackBench 5.1.

6) Start the main application (`raypack.exe` or `packbench.exe` respectively) to re-activate RayPack / PackBench again.

If the issues are not resolved after performing the steps described above, the following steps will revert the profile to the original state:

7) Close RayPack / PackBench.

8) Backup and then remove the content of the following folders:

- Configuration files

  o For RayPack: `%AppData%\RayPack`

  o For PackBench: `%AppData%\RayBench` and `%ProgramData%\RayBench`

- `AppData\Local\Raynet`

- Optionally, you can also revert the <%PACKPOINT%> to the default state by removing the <%PACKPOINT%> folder (standard installation path is `C:\RayPack\<%PACKPOINT%>`).

- For PackBench, you may try to install a new database with sample data to see if the problem persists.

9) Start RayPack / PackBench again.

If the procedures given above did not resolve the issue, please contact our support.

RayQC / RayQC Advanced

Upgrading the RayQC Application

General upgrade preparations

RayQC 5.1 is delivered as part of the RayPack Studio Installer. In order to install it safely:

1. Download the RayPack Studio Installer 5.1 from the Raynet resource repositories.
   (If you have not already received credentials, please contact the Raynet support team via the Raynet support portal to get them via the ticket system)

2. Copy all files that need to be kept for later reuse or look-up (such as resources of global external plugins, log, settings and config files, the `*.license` file, the `*.rsl` file, etc.) to a temporary transfer directory outside the RayPack Studio application directory (where they usually reside).

3. Make a backup of your SQL Server database which is used by the RayQC Advanced Module.

4. Execute the RayPack Studio Installer and work yourself through the setup routine. The installation of RayQC 5.1 using the RayPack Studio Installer is described in the RayPack Studio Installer User Guide.

> **Note:**
>
> If upgrading RayQC Advanced, ensure that a **running** SQL server is available before starting the migration/installation.

If an older version than RayQC 2.1 is installed on the target machine

If an older version then RayQC 2.1 is already installed on the target machine there are two different ways to migrate to the new RayQC 5.1.

- Install RayQC 5.1 and keep the installation of RayQC 1.5 or RayPack Studio 2.0. They will remain untouched by the installation of RayQC 5.1.

General upgrade preparations

RayQC 2.1 is delivered as an MSI software package. In order to install it safely:

1. Download the MSI package for RayQC 2.1 from the Raynet resource repositories.
   (If you have not already received credentials, please contact the Raynet support team via our Support Panel).

2. Copy all files that need to be kept for later reuse or look-up (such as resources of global external plugins, log, settings and config files, the `*.license` file, etc.) to a temporary transfer directory outside the RayQC application directory (where they usually reside).

3. Remove the old RayQC installation manually.

4. Execute the RayQC 5.1 MSI package and work yourself through the setup routine. The installation of RayQC 5.1 is described in the RayQC 5.1 Installation Guide.

Adjusting the newly installed RayQC instance

1. Launch RayQC.

2. Define `.config` files and settings according to the old system state.

3. Test the new settings and configurations by creating and evaluating checklists, communicating with RayFlow, reviewing log files, etc.

4. If there are issues regarding broken or missing functionality, please feel free to contact the Raynet support team via our Support Panel.

RayUpdater

During the migration, if database changes are necessary, these will be done automatically. While executing the setup routine, RayUpdater, the tool used for a safe migration of the data, will be launched automatically and perform all necessary steps without the necessity of any user input.

Upgrading RayQC Files

The file formats RQCT and RQCP Raynet introduced in RayQC 1.5 and have been massively reworked to match the needs of the modernized application logic. Therefore, it is not possible to simply reuse templates and projects that have been generated with RayQC 1.5 in the current version 5.1.

The RQCT files used in RayQC 5.1 are no longer XML structures, but ZIP containers that contain the XML checklist file (`checklist.xml`) as well as all other resources required to run the checklist on RayQC: plugins, help files, images, etc. are stored within dedicated directories wrapped in the ZIP container.

Additional files that represent the current project status of a checklist evaluation (`state.xml`), post-processing settings and signature information, are added when a template is saved as project file RQCP.

Knowing about these changes makes it quite obvious that there must be some manual steps in any kind of checklist transition from version 1.5 to 5.1. Once this is done, the following standard procedure is a valid option for their transition to 5.1:

To transfer a RayQC 1.5 RQCT to the current 5.1 format, users have to run the following procedure:

1. Copy the original RQCT file to a temporary working directory.

2. Change the file

    a. name to `checklist`

    b. extension from `.rqct` to `.xml`

3. Create a new ZIP that contains the `checklist.xml` file. Name the ZIP container according to the old checklist file name, and set the file extension to RQCT.

4. The result of steps 1-4 has to be a zip container with the file extension `*.rqct`, that contains a `checklist.xml` file with the original checklist structure.
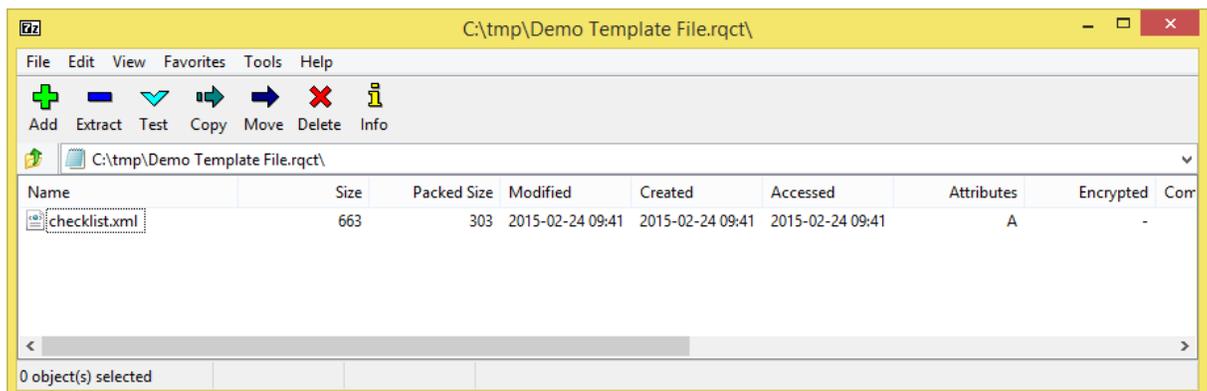
5. Open this file in RayQC 5.1.

6. It is most likely, that the validation procedure run during checklist loading states issues with the XML source structure. In this case, a dialog is displayed, revealing details about invalid areas with a click on the more button.

Open the `checklist.xml` file from within the RQCT container, and correct all mentioned issues to establish an XML file that is valid according to the `ChecklistSchema.xsd` demanded by RayQC 5.1.

7. Save the changes to the `checklist.xml` file, and re-try to open the RQCT container with RayQC.

8. Repeat steps 6 & 7 until the checklist is successfully validated and opened by the application.

Once this level is achieved, all upcoming changes may be executed directly within the checklist editor. Please refer to the User Guide section about editing checklist templates for further instructions.

Be aware:
Checklists with extended plugin and condition usage may be quite difficult to upgrade manually, since both parts of the system logic have undergone revolutionary changes during the development of RayQC 5.1. Therefore, these checklists are recommended to be recreated from scratch.
Also be aware:
There is no direct upgrade path for RayQC projects from product versions prior to 1.5.

Please contact your RayQC service consultant, or the Raynet support team to get information about possible forms of assistance for any required upgrading measures.

RayEval

Upgrading the RayEval Application

General upgrade preparations

RayEval 5.1 is delivered as an MSI software package. In order to install it safely:

1. Download the MSI package for RayEval 5.1 from the Raynet resource repositories.
(If you have not already received credentials, please contact the Raynet support team via our Support Panel).

2. Copy all files that need to be kept for later reuse or look-up to a temporary transfer directory outside the RayEval application directory (where they usually reside). This is important for all files that have been customized like the project configuration file (`Projectconfiguration.xml`), the export plugins configuration file (`PluginTemplates.xml`), and the folder which contains all the template documents (`<INSTALLDIR>\Plugins\Templates\`).

3. Execute the RayEval 5.1 MSI package and work yourself through the setup routine. The installation of RayEval 5.1 is described in the RayEval 5.1 User Guide.

4. After the installation has been finished, copy the files that have been backed-up to their previous locations.

System Requirements

Hardware Requirements

This section lists the minimal hardware requirements for devices running RayPack Studio.

Minimal

- Screen resolution: 1024 x 768 pixels

- Color settings: 16 bit

- RAM: 2GB

- Disk space: 10GB

Recommended

- Screen resolution: 1280 x 1024 pixels

- Color settings: 32 bit

- RAM: 4GB or higher

- Disk space: 100GB or more

Note:
The installation of the RayPack Studio framework itself requires about 400MB of disk space. The amount of additional space needed depends on the volume of your packaging material and the location of the data store.

Supported OS

The following operating systems are supported for the installation and running of RayPack Studio at the time of release.

- Windows Vista
- Windows 7
- Windows 8
- Windows 8.1
- Windows 10
- Windows Server 2008 SP1-SP2
- Windows Server 2008 R2
- Windows Server 2012
- Windows Server 2012 R2
- Windows Server 2016

> **Note:**
> Packages generated with RayPack Studio have their own, individual set of target OS. The list above is not designed to display which target OS are reachable by RayPack Studio packages.

Prerequisite Software

- .NET 4.5 Client & Full for Windows Vista up to Windows 8 systems (both 32-bit and 64-bit)

General requirements

In order to use RayFlow functionality directly from RayPack Studio components, a running RayFlow server has to be accessible.

In order to use *RayManageSoft* integration, *Management Console* has to be installed on the machine on which RayPack is running.

RayPack

Virtualization

- In order to create SWV packages, the Symantec Workspace Virtualization Agent 7.5 has to be installed on the packaging machine.
- In order to create Thin-App packages, the VMware ThinApp has to be installed on the packaging machine.

Compatibility and Quality Control

In order to use Quality features (checklists, compatibility, virtualization, and conflict testing) RayQC and / or RayQC Advanced have to be installed on the local machine.

PackBench

Depending on the configuration of RayPack Studio, additional tools and/or components of RaySuite may be required. To get more information about the command line usage of these tools refer to the respective *User Guides* of these products.

For PackBench: SQL Server, version 2008 or higher. Express editions are also supported.

RayQC

In order to install and use the product, PowerShell 3.0 or newer must be installed.

RayQC Advanced

In order to install and use the product, SQL Server version 2008 or higher. Express editions are also supported.

Virtual Machines

Sequencing to App-V 4.6 / App-V 5.x using PackBot

In order to convert legacy setups to Microsoft App-V 4.6 / 5.x format using a virtual machine, the virtual machine must have Microsoft App-V Sequencer installed. Additional requirements for specific Operating System version/ platform may by required by Microsoft Sequencer tools.

Converting to Thin-App using PackBot

In order to convert legacy setups to Thin-App, Thin-App converter must be installed either on host or on the virtual machine.

Hyper-V integration

- Both host and guest machine must have PowerShell 3.0 or newer installed.

- Windows Remote Management

- RayPack Studio Tools for Hyper-V need to be installed on the guest machine.

The tools can be installed from a Windows Installer package that is present in the RayPack subfolder `Tools \HyperVTools\Packaging Suite Tools for Hyper-V.msi`.

The installation of the tools is required, so that the user can see interactive prompts and windows on Hyper-V machines. It is recommended to install the tools as a part of the base snapshot.

VMware Workstation / ESX integration

RayPack Studio supports the following products:

- VMware vSphere 5.5 and newer

- VMware Workstation 10 and newer

- VMware Workstation 7, 8, 9 and for VMware vSphere 4.x, 5 and 5.1 are <u>experimentally</u> supported.

To use any of VMware Workstation / ESX machines, one of the following must be installed in an appropriate version:

- VMware workstation

- VMware VIX API (https://my.vmware.com/web/vmware/details?productId=26&downloadGroup=VIX-API-162)

- vSphere

The required VIX API version depends on the systems that it needs to connect to. The below table presents the supported versions of VMware products depending on the installed VIX API version.

VIX API Version	VMware Platform Products	Library Location
1.11	vSphere 5, Workstation 8 or earlier	Workstation-8.0.0-and-vSphere-5.0.0
1.12	vSphere 5.1, Workstation 9 or earlier	Workstation-9.0.0-and-vSphere-5.1.0
1.13	vSphere 5.5, Workstation 10 or earlier	Workstation-10.0.0-and-vSphere-5.5.0
1.14	Workstation 11 or earlier	Workstation-11.0.0
1.15.0	Workstation 12 or earlier	Workstation-12.0.0

Additional Information

Visit *www.raynet.de* for further information regarding the product and current community incentives. It is also recommended to take a look at additional resources available at the Knowledge Base for Raynet products: *https://raynetgmbh.zendesk.com/hc/en-us*.

Raynet is looking forward to receiving your feedback from your RayPack Studio experience. Please contact your Raynet service partner or write an e-mail to *sales@raynet.de* to add your ideas or requirements to the RayPack Studio development roadmap!

Our Raynet support team gladly assists you on any question or issue you encounter regarding RayPack Studio. Feel free to sign in and open incidents via our Raynet Support Panel.