RayPack®

Release Notes
RayPack 1.0 SP1

rayNET

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Release Notes RayPack

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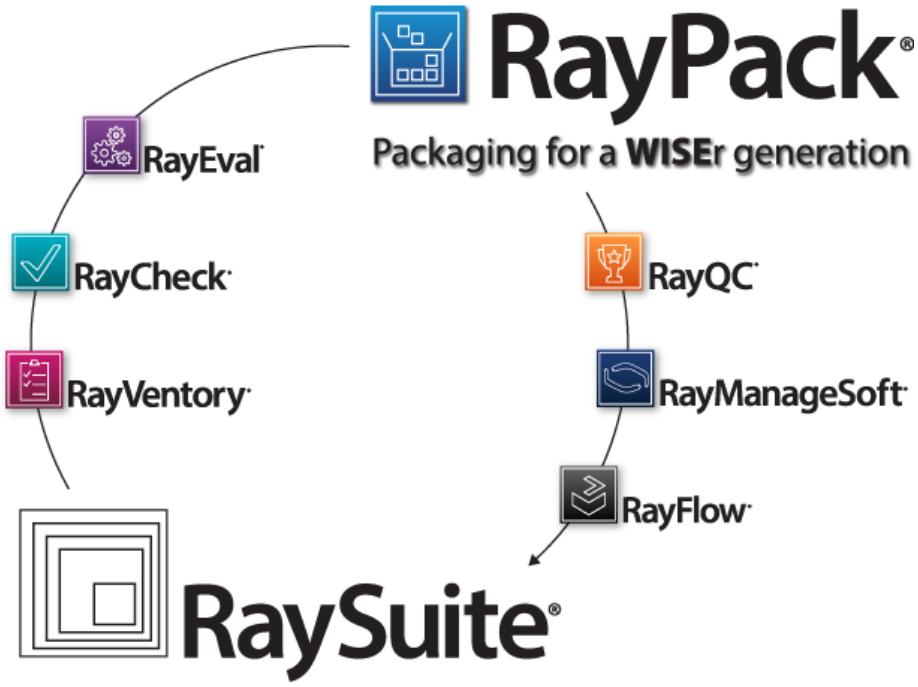
Introduction

RayPack is a framework for the creation and management of software packages. It is designed to support a broad variety of package formats, target operating systems and deployment systems. RayPack is available as stand-alone product as well as having the ability to be integrated into the RaySuite solution powered by RayFlow.



The RayPack components allow enterprises to implement well-structured processes, which control package evaluation, creation, manipulation, import, export, validation, storage, and deployment.

In the upcoming release of 1.0 SP1, Raynet introduces core components of the framework, which allow users to create MSI packages from scratch or build them based upon the result of installation capturing processes on Windows platforms. It is also possible to extend standard installations with transform files (MST), and edit their native contents, and to create App-V packages from packaging projects.

Development Roadmap

Upcoming releases will introduce additional components, such as the PackBench packaging workflow management tool, the PackLib package database, and the PackBot for automated application conversion. Please contact your sales representative to take a detailed look at the RayPack development roadmap.

What's new

The following list is a collection of highlighted changes introduced in this version as compared to RayPack 1.0.0.1992:

- PackTailor - a new module for producing response transforms created from user input and interaction with MSI dialogs,
- Enhancements of PackDesigner, specifically:
  - Permissions managament for deployable files, folders and registry keys, providing a robust, powerful and easy-to-use ways of adjusting or adding permissions on a target system,
  - The new property manager view with the standard and predefined property browser
- Many enhancements based on user feedback,
- Performance and stability improvements.

Dashboard

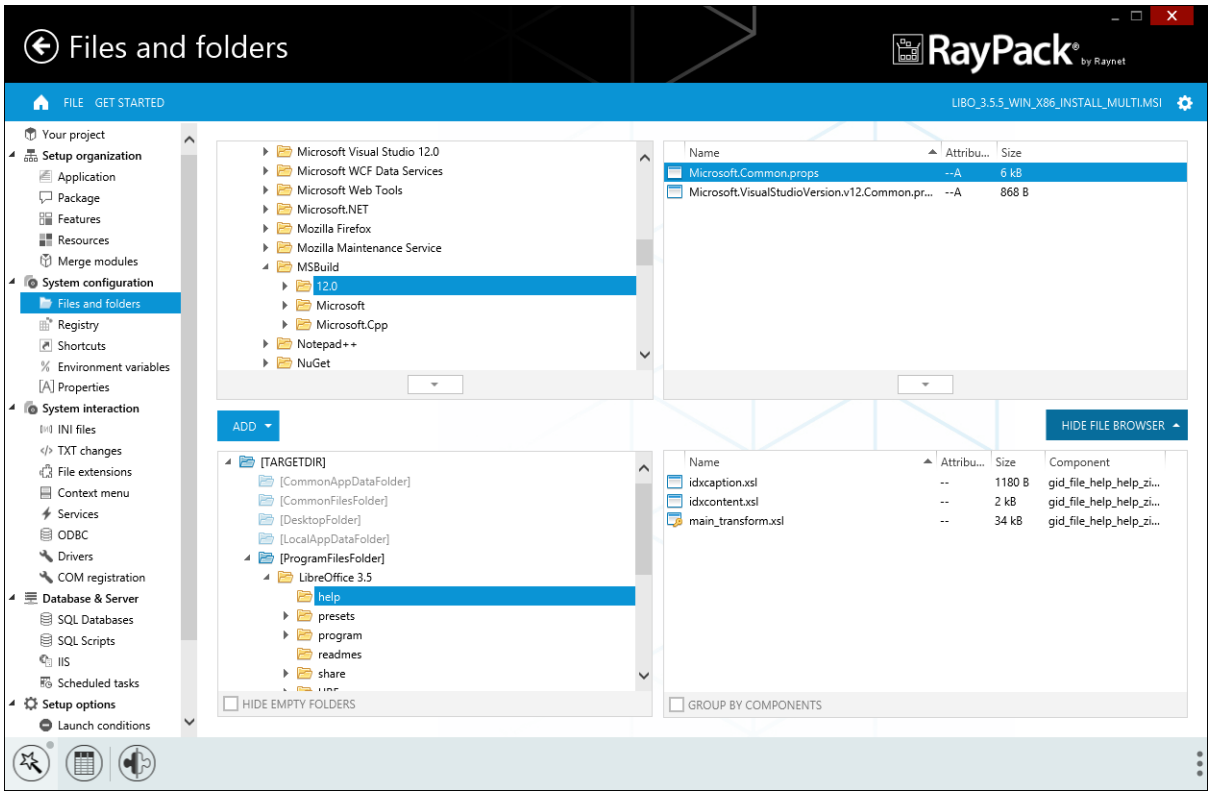
RayPack launches a highly functional home screen with a tile based dashboard that offers quick access points to key functions and a user-specific history of recently active packaging projects. The recent list has an integrated filter function to reduce the displayed list of projects and packages to a specific format, such as RayPack packaging project files (.rpp), RayPack capture project files (.rcp), Windows installer packages (.msi), or transforms (.mst).

PackDesigner

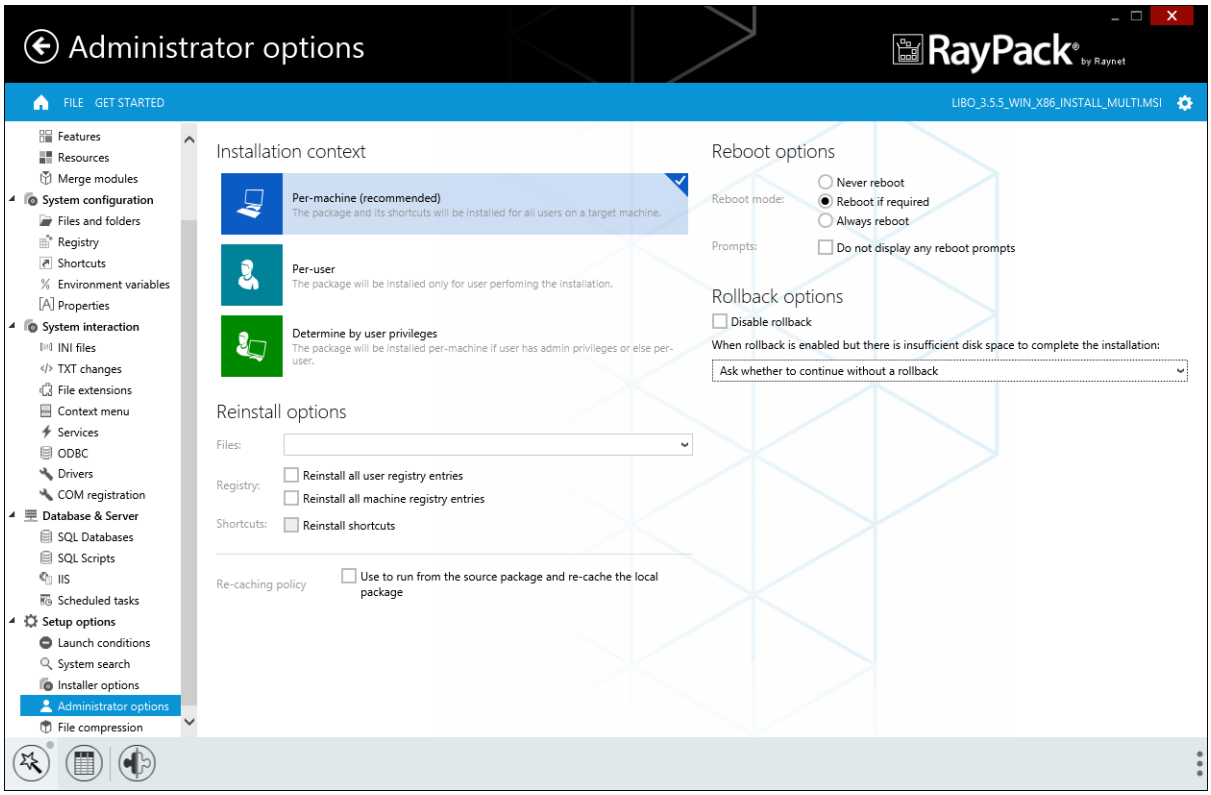
PackDesigner enables packagers to create, manipulate, and validate software packages. In the scope of release 1.0 SP1 the project editor version for Windows target operating systems is introduced.

Visual Designer

Inspired by the many years of experience in the packaging business, Raynet has developed an innovative editor concept, which travels far beyond plain value manipulation functionalities (Visual Designer). Its new user interface provides a variety of improvements to ease the access, the overview, and the handling of data. Visual Designer, embedded into RayPack's flat Windows 8 inspired style, uses a whole set of unified presentation and control elements to support users with an elaborate, responsive, and comfortable interface. Preparing package properties for building MSI or MST files becomes a convenient click-through experience. The Visual Designer delivers an astonishing intuitive mixture of guided wizards, dynamic dialogues and best practice instructions.



Whenever users create or edit an MSI based RayPack project, the Visual Designer is their default working environment.


Administrator options
RayPack by Raynet
FILE GET STARTED
LIBO_3.5.5_WIN_X86_INSTALL_MULTI.MSI
Features
Resources
Merge modules
System configuration
Files and folders
Registry
Shortcuts
Environment variables
Properties
System interaction
INI files
TXT changes
File extensions
Context menu
Services
ODBC
Drivers
COM registration
Database & Server
SQL Databases
SQL Scripts
IIS
Scheduled tasks
Setup options
Launch conditions
System search
Installer options
Administrator options
File compression
Installation context
Per-machine (recommended)
The package and its shortcuts will be installed for all users on a target machine.
Per-user
The package will be installed only for user perfoming the installation.
Determine by user privileges
The package will be installed per-machine if user has admin privileges or else per-user.
Reinstall options
Files:
Registry:
Reinstall all user registry entries
Reinstall all machine registry entries
Shortcuts:
Reinstall shortcuts
Re-caching policy
Use to run from the source package and re-cache the local package
Reboot options
Reboot mode:
Never reboot
Reboot if required
Always reboot
Prompts:
Do not display any reboot prompts
Rollback options
Disable rollback
When rollback is enabled but there is insufficient disk space to complete the installation:
Ask whether to continue without a rollback

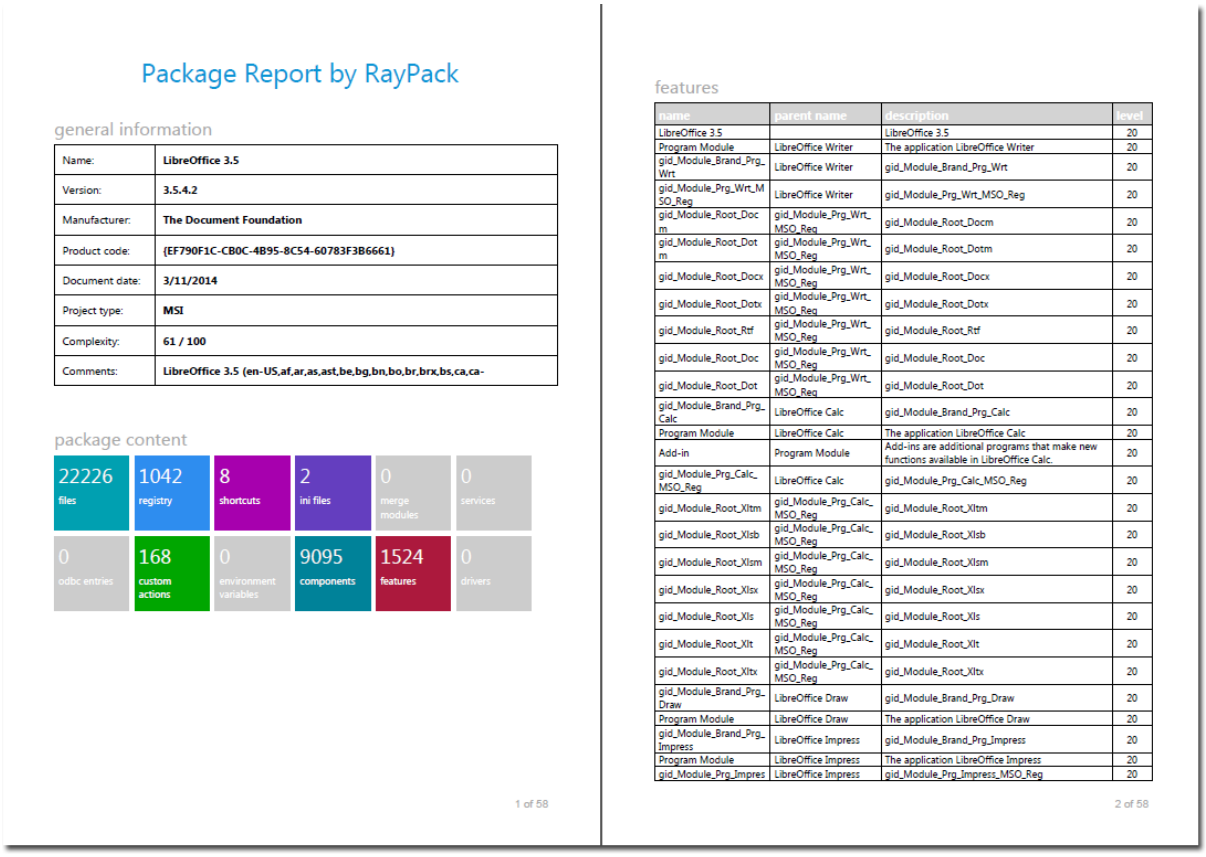
Your Project

Package Content Overview

The central package view shown in the screenshot below provides an overview on the current package contents. Clicking on the tiles directly opens the editor view for the specific content types: files, registry, shortcuts and the like. Use the additional activity buttons to validate your packaging project and build deployable software packages from it.

Generate Report

Since packaging projects usually include several parties, such as the requesting customer, packagers, and quality testers, an easily transferable report on the current package contents is quite useful for the project communication and documentation. Therefore, PackDesigner includes a package reporting functionality to generate PDF, Word, and HTML reports on the fly. To get an initial incoming resources report as well as an outgoing result report is a matter of seconds.



Package Report by RayPack

general information

Name:	**LibreOffice 3.5**
Version:	**3.5.4.2**
Manufacturer:	**The Document Foundation**
Product code:	**{EF790F1C-CB0C-4B95-8C54-60783F3B6661}**
Document date:	**3/11/2014**
Project type:	**MSI**
Complexity:	**61 / 100**
Comments:	**LibreOffice 3.5 (en-US,af,ar,as,ast,be,bg,bn,bo,br,brx,bs,ca,ca-**

package content

22226 files	1042 registry	8 shortcuts	2 ini files	0 merge modules	0 services
0 odbc entries	168 custom actions	0 environment variables	9095 components	1524 features	0 drivers

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features

name	parent name	description	level
LibreOffice 3.5		LibreOffice 3.5	20
Program Module	LibreOffice Writer	The application LibreOffice Writer	20
gid_Module_Brand_Prg_Wrt	LibreOffice Writer	gid_Module_Brand_Prg_Wrt	20
gid_Module_Prg_Wrt_MSO_Reg	LibreOffice Writer	gid_Module_Prg_Wrt_MSO_Reg	20
gid_Module_Root_Docm	gid_Module_Prg_Wrt_MSO_Reg	gid_Module_Root_Docm	20
gid_Module_Root_Dotm	gid_Module_Prg_Wrt_MSO_Reg	gid_Module_Root_Dotm	20
gid_Module_Root_Docx	gid_Module_Prg_Wrt_MSO_Reg	gid_Module_Root_Docx	20
gid_Module_Root_Dotx	gid_Module_Prg_Wrt_MSO_Reg	gid_Module_Root_Dotx	20
gid_Module_Root_Rtf	gid_Module_Prg_Wrt_MSO_Reg	gid_Module_Root_Rtf	20
gid_Module_Root_Doc	gid_Module_Prg_Wrt_MSO_Reg	gid_Module_Root_Doc	20
gid_Module_Root_Dot	gid_Module_Prg_Wrt_MSO_Reg	gid_Module_Root_Dot	20
gid_Module_Brand_Prg_Calc	LibreOffice Calc	gid_Module_Brand_Prg_Calc	20
Program Module	LibreOffice Calc	The application LibreOffice Calc	20
Add-in	Program Module	Add-ins are additional programs that make new functions available in LibreOffice Calc.	20
gid_Module_Prg_Calc_MSO_Reg	LibreOffice Calc	gid_Module_Prg_Calc_MSO_Reg	20
gid_Module_Root_Xltm	gid_Module_Prg_Calc_MSO_Reg	gid_Module_Root_Xltm	20
gid_Module_Root_Xlsb	gid_Module_Prg_Calc_MSO_Reg	gid_Module_Root_Xlsb	20
gid_Module_Root_Xlsm	gid_Module_Prg_Calc_MSO_Reg	gid_Module_Root_Xlsm	20
gid_Module_Root_Xlsx	gid_Module_Prg_Calc_MSO_Reg	gid_Module_Root_Xlsx	20
gid_Module_Root_Xls	gid_Module_Prg_Calc_MSO_Reg	gid_Module_Root_Xls	20
gid_Module_Root_Xlt	gid_Module_Prg_Calc_MSO_Reg	gid_Module_Root_Xlt	20
gid_Module_Root_Xltx	gid_Module_Prg_Calc_MSO_Reg	gid_Module_Root_Xltx	20
gid_Module_Brand_Prg_Draw	LibreOffice Draw	gid_Module_Brand_Prg_Draw	20
Program Module	LibreOffice Draw	The application LibreOffice Draw	20
gid_Module_Brand_Prg_Impress	LibreOffice Impress	gid_Module_Brand_Prg_Impress	20
Program Module	LibreOffice Impress	The application LibreOffice Impress	20
gid_Module_Prg_Impres	LibreOffice Impress	gid_Module_Prg_Impress_MSO_Reg	20

2 of 58

Package Complexity Indexing

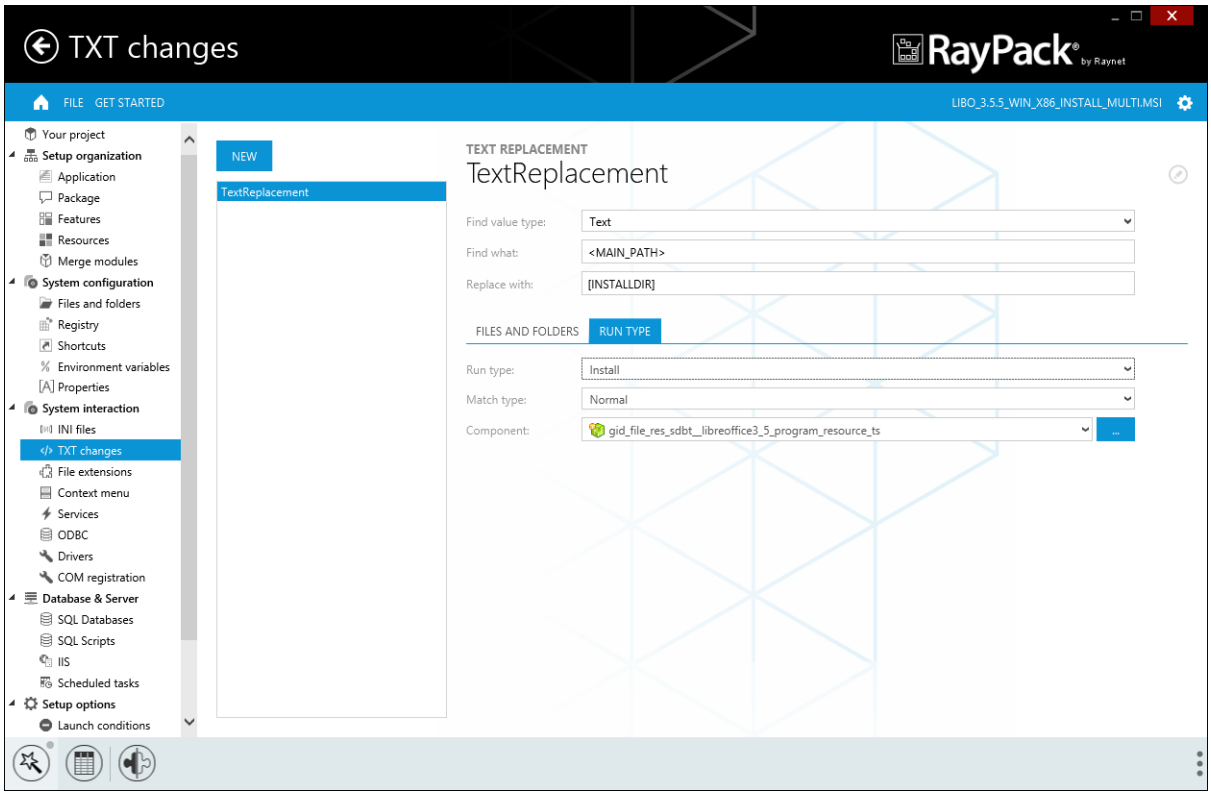
The complexity index value is calculated based upon an extensive package property analysis. Working on packages with high complexity usually takes more time and requires more precise fine-tuning than working on those with a lower index value. As soon as a packaging project is defined, the complexity reflects changes in real-time, allowing packagers not only to make estimations on the specific workload, but actually to monitor how their treatments take effect.

Manipulate project contents

The PackDesigner user interface is equipped with elaborate views to manipulate essential package properties, such as files and folders, registry values, and shortcuts.

In order to provide convenient management controls for advanced packaging requirements, PackDesigner additionally offers a broad set of specialized views. From the Project Content area users are able to manipulate package contents such as Properties, Environment variables, INI files, and text manipulations.

The screenshot below shows the TXT changes view, which enables the implementation of complex search and replace commands, embedded into a highly intuitive editor dialog composition.

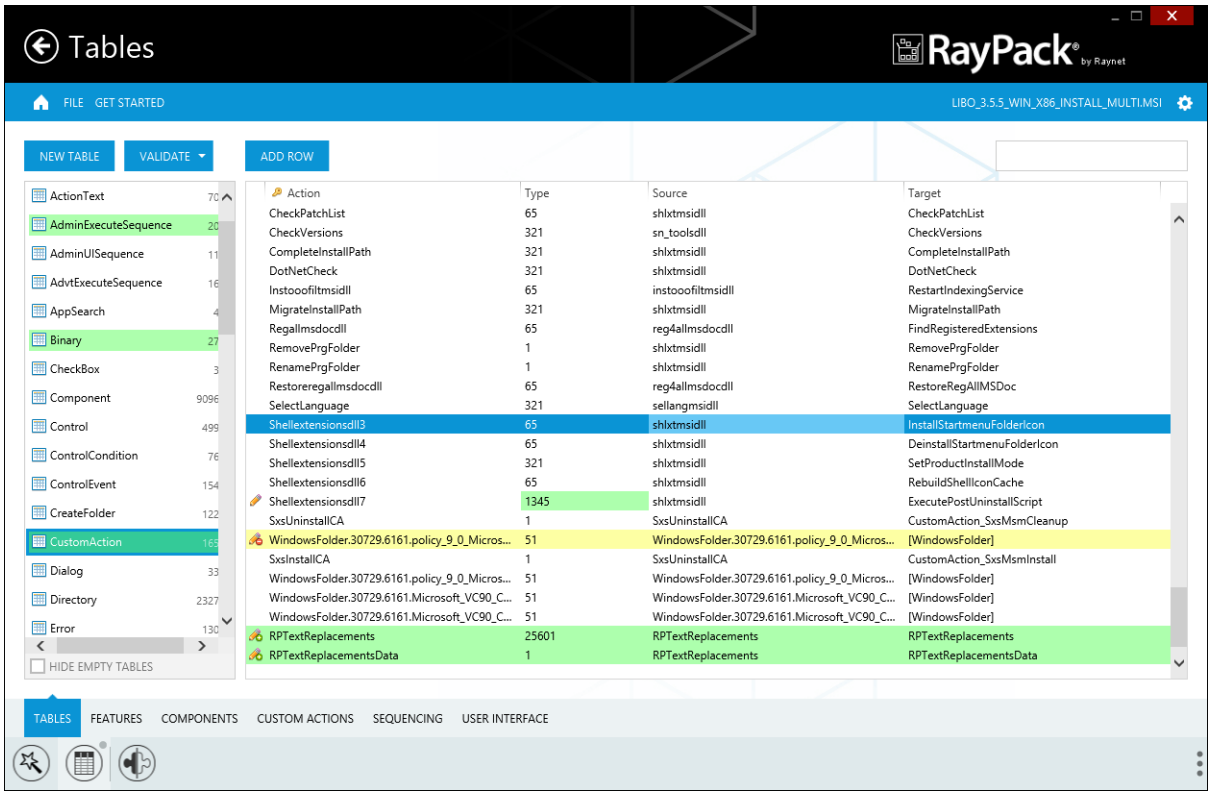


Working with the Visual Designer interface relieves users from having to fully understand the complex dependencies of packaging methods. By following the clear interface guidance, even advanced tasks become feasible with minimal effort. PackDesigner coordinates all the required database operations in the background, in order to allow users to stay focused on the intended packaging result. Unless they explicitly want to, users do not have to dive into knowledge regarding necessary detail work performed on the package resources.

Working with File Formats

At present, users can manipulate MSI, MST and RPP (RayPack Packaging Project) files in PackDesigner. RayPack project files in general (including PackDesigner RPP and *PackRecorder RCP files*) are XML based, and therefore easy to manage by version control systems.

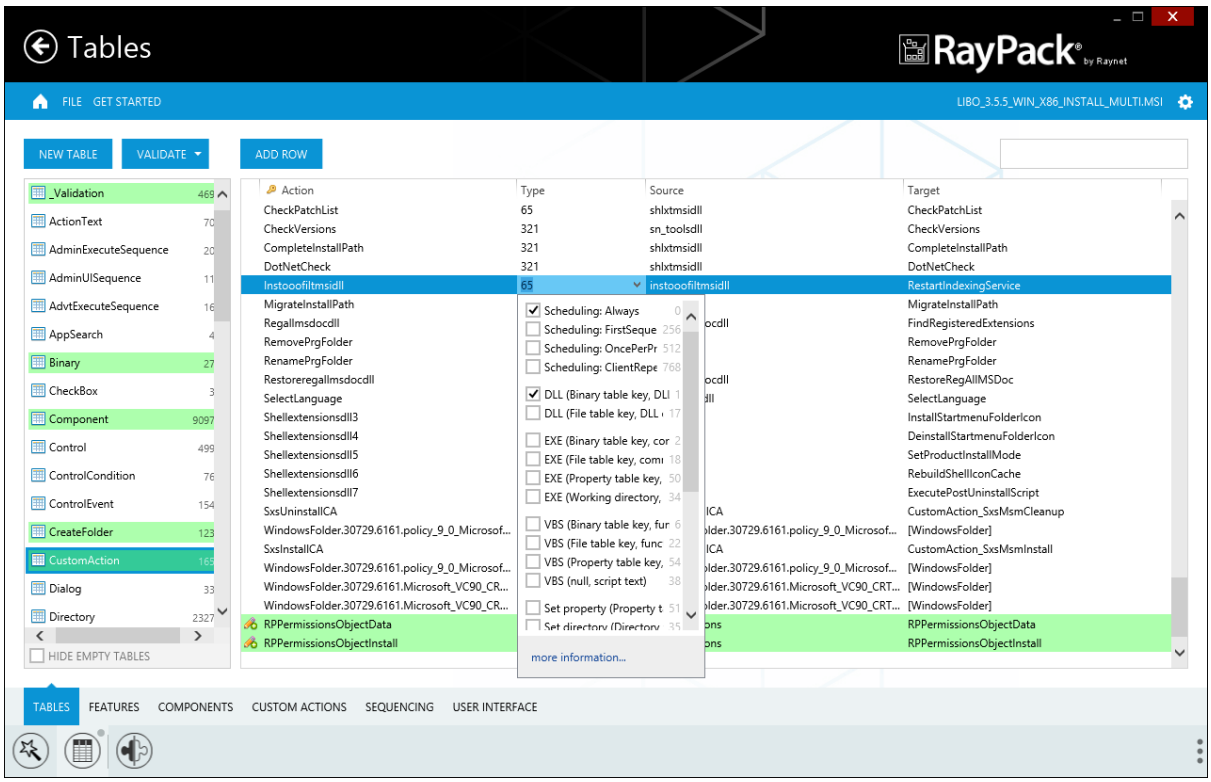
Besides editing an MSI or RPP file manually, it is also possible to add one or more transform (MST) files to an opened project. Users hit the Apply Transform button from the action bar at the bottom of the application window to select the MST from the file system. The newly added, removed or changed content is highlighted within the Advanced View Table Editor.



RayPack's PackDesigner is able to save projects as MSI, MST, or RPP file, and also to generate App-V package resources. To do so, use the FILE button from the menu ribbon, select the Save As option, browse to the target directory, enter a file name, and select the desired file type. The set of available target package formats depends on the licensed edition of a RayPack instance.

Advanced View

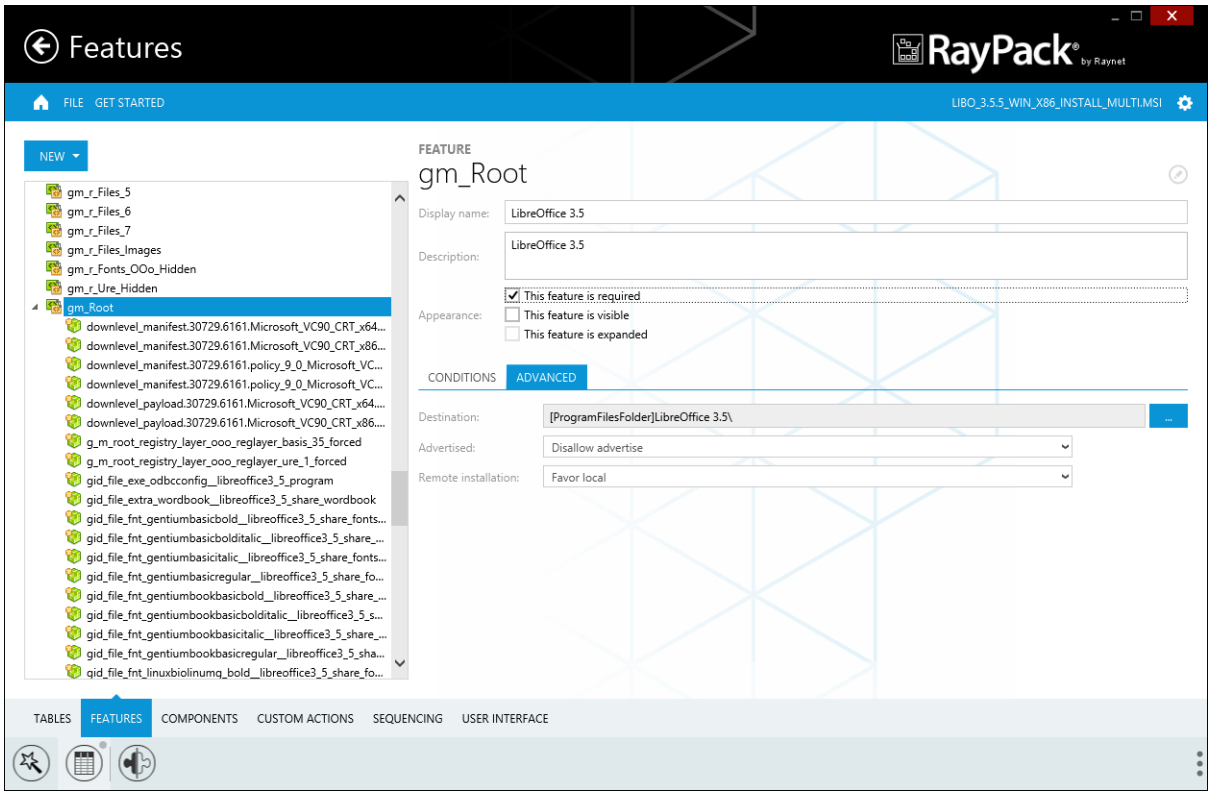
For all users who prefer direct database manipulation, there is a built in Advanced View which includes the Table Editor. Utilizing their knowledge about MSI structures, these packagers will love the straight access and pure editing methods on package resource tables within this view.



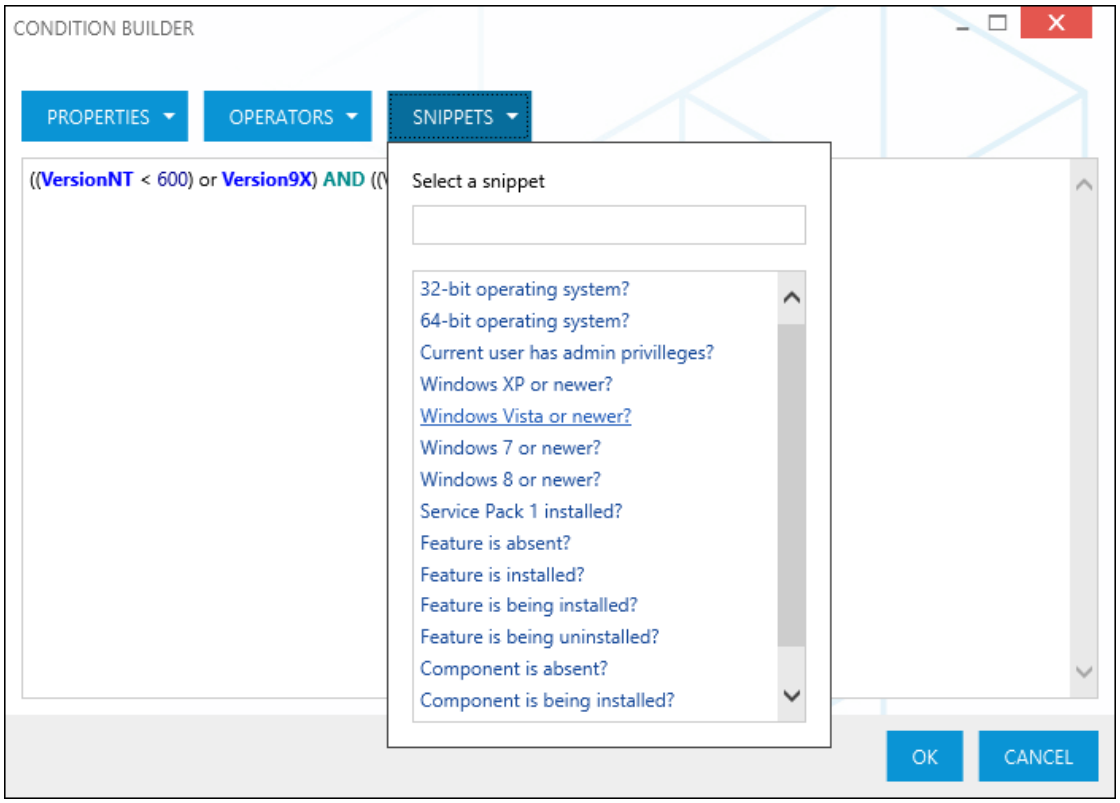
The table editor is a very good example for the functional vision behind the user interface of RayPack: Provide a clean-cut set of intuitive core features and augment them with an extra portion of user-friendliness. The screenshot above shows how Raynet followed this in the table editor interface: Attributes columns within tables are equipped with an additional dialog, assisting users with selectable values to build numerical Attribute values from. Users can type the codes they have used for years and years manually, but additional convenience is added to allow quick and easy task fulfillment beyond that.

Features & Components

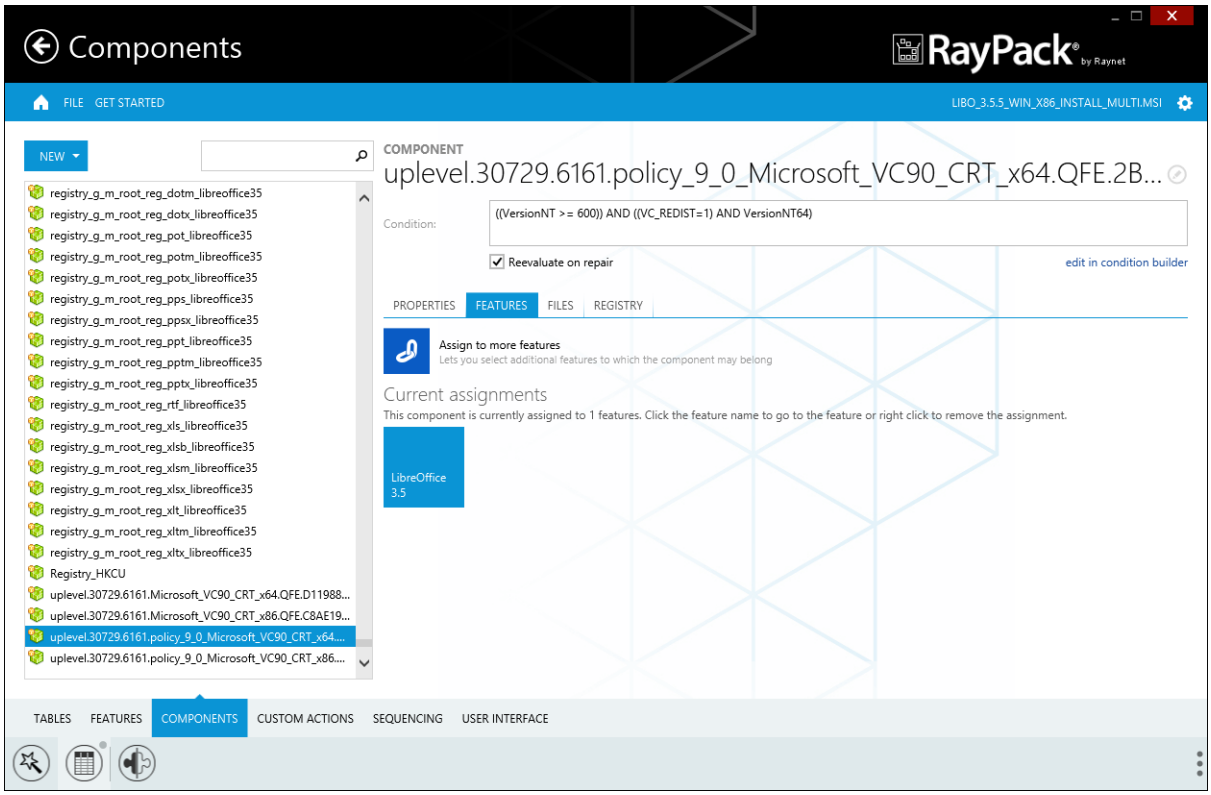
The Advanced View also allows full management of package features and components, including conditions, visibility, and options such as advertised or remote installations.



It goes without saying that Raynet has integrated some additional helper tools, such as the condition builder shown below, which make using RayPack as care free as possible, and improve the overall user experience.



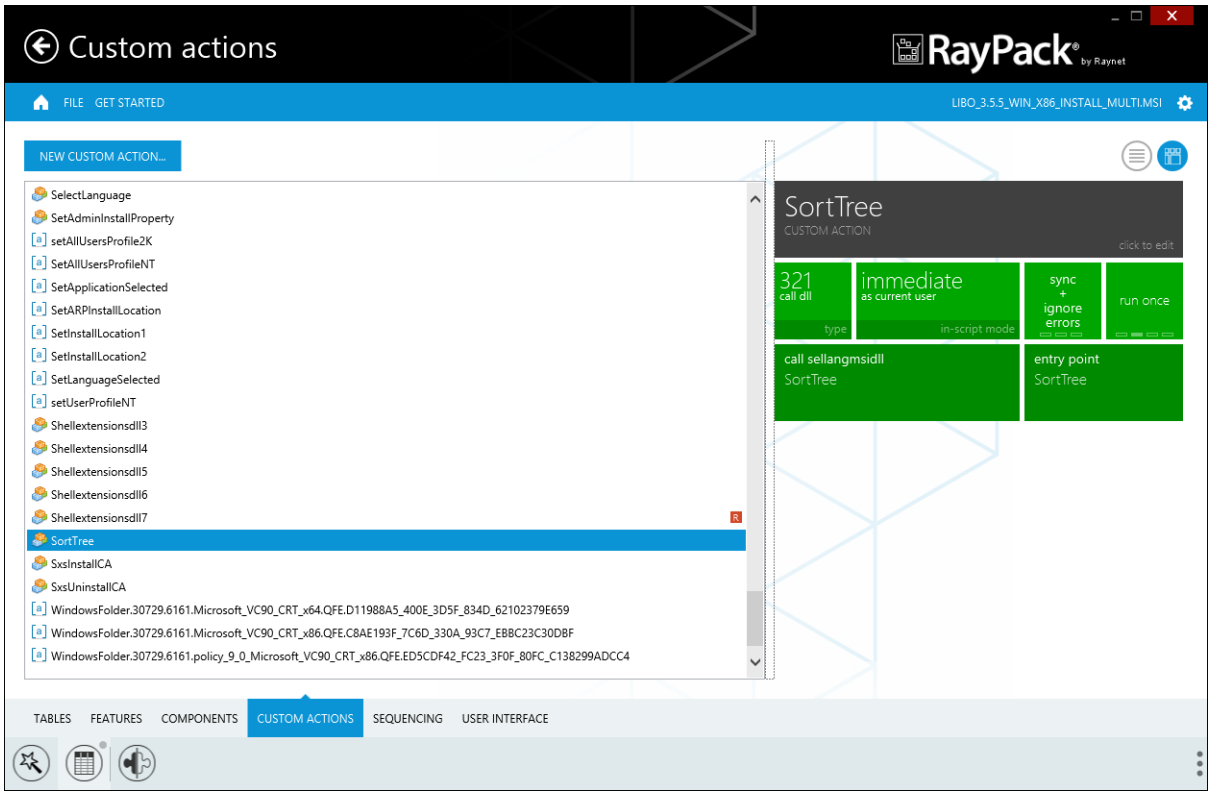
Assigning components to features is done as easy as 1-2-3, either by a right-click on a component within the list view of items on the left hand side of the Features or Components view, or by selecting a component and starting the assignment from the details pane on the right hand side of the views.


Components
RayPack by Raynet
FILE GET STARTED
LIBO_3.5.5_WIN_X86_INSTALL_MULTI.MSI
NEW
registry_g_m_root_reg_dotm_libreoffice35
registry_g_m_root_reg_dotx_libreoffice35
registry_g_m_root_reg_pot_libreoffice35
registry_g_m_root_reg_potm_libreoffice35
registry_g_m_root_reg_potx_libreoffice35
registry_g_m_root_reg_pps_libreoffice35
registry_g_m_root_reg_ppsx_libreoffice35
registry_g_m_root_reg_ppt_libreoffice35
registry_g_m_root_reg_pptm_libreoffice35
registry_g_m_root_reg_pptx_libreoffice35
registry_g_m_root_reg_rtf_libreoffice35
registry_g_m_root_reg_xls_libreoffice35
registry_g_m_root_reg_xlsb_libreoffice35
registry_g_m_root_reg_xlsm_libreoffice35
registry_g_m_root_reg_xlsx_libreoffice35
registry_g_m_root_reg_xlt_libreoffice35
registry_g_m_root_reg_xltm_libreoffice35
registry_g_m_root_reg_xltx_libreoffice35
Registry_HKCU
uplevel.30729.6161.Microsoft_VC90_CRT_x64.QFE.D11988...
uplevel.30729.6161.Microsoft_VC90_CRT_x86.QFE.C8AE19...
uplevel.30729.6161.policy_9_0_Microsoft_VC90_CRT_x64....
uplevel.30729.6161.policy_9_0_Microsoft_VC90_CRT_x86....
COMPONENT
uplevel.30729.6161.policy_9_0_Microsoft_VC90_CRT_x64.QFE.2B...
Condition:
((VersionNT >= 600)) AND ((VC_REDIST=1) AND VersionNT64)
Reevaluate on repair
edit in condition builder
PROPERTIES FEATURES FILES REGISTRY
Assign to more features
Lets you select additional features to which the component may belong
Current assignments
This component is currently assigned to 1 features. Click the feature name to go to the feature or right click to remove the assignment.
LibreOffice 3.5
TABLES FEATURES COMPONENTS CUSTOM ACTIONS SEQUENCING USER INTERFACE

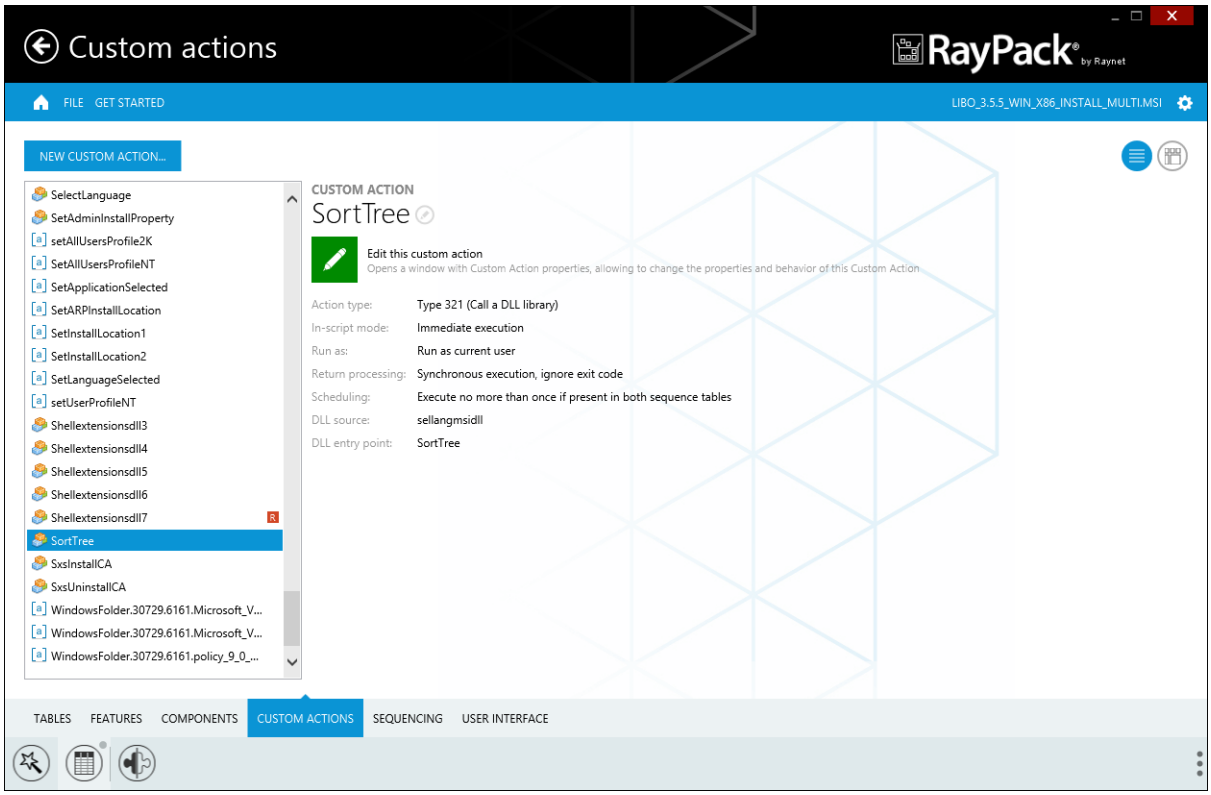
Custom Actions

Integrating custom actions into the installer sequences offers packagers the flexibility to enhance package appliance procedures with their very own commands. The custom action management view within RayPack is designed to gain a maximum of convenience and clarity for the key tasks regarding such actions: the creation of new ones, the organization of existing ones, and their straight integration into the installation sequences.

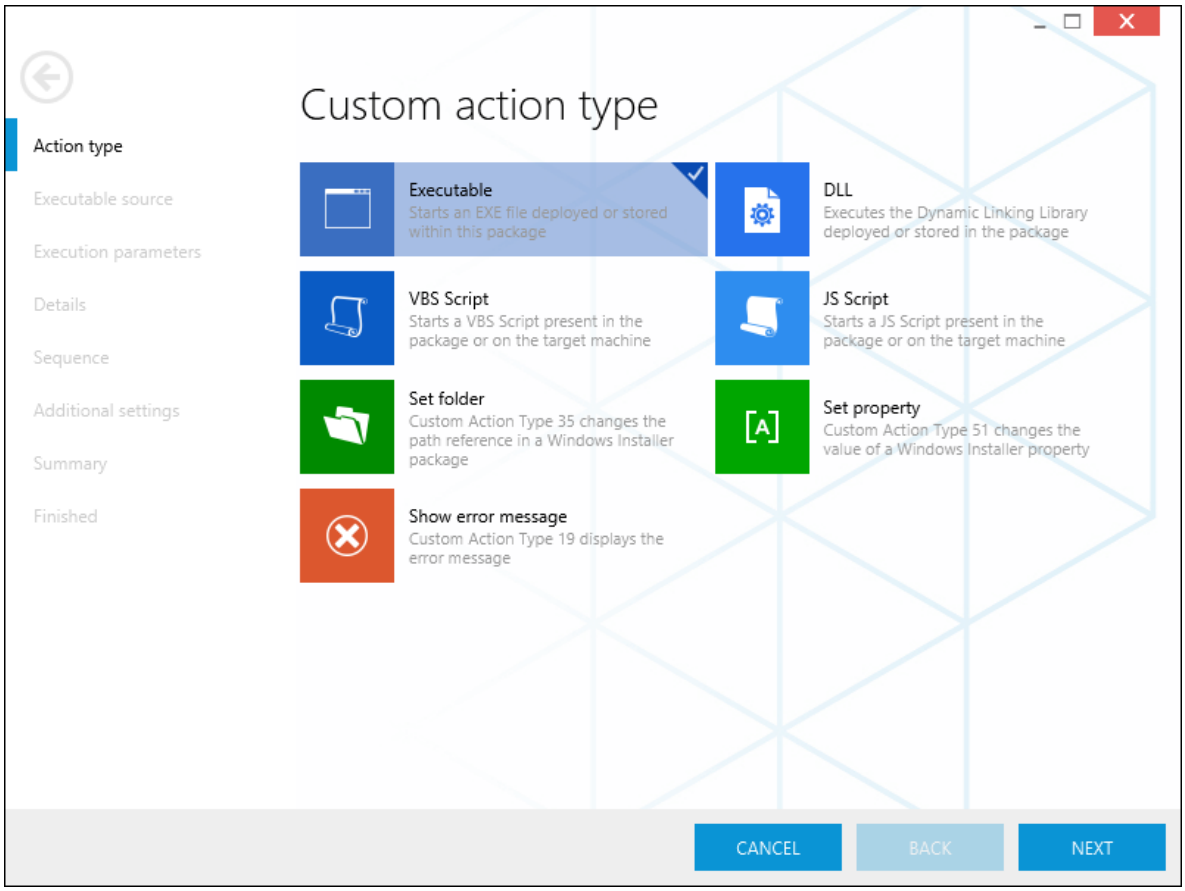
To accomplish those requirements, the Custom Actions view is divided into a list of already created objects, which on click are displayed within the details pane the right-hand side of the view.



Users have the choice to switch the Custom Action view mode according to their individual preferences. By using the view switch controls on the upper right corner of the details pane the classic column based and the innovative tile based view mode are available. The screenshot above displays the tile view, while the one below shows the classic column based mode.



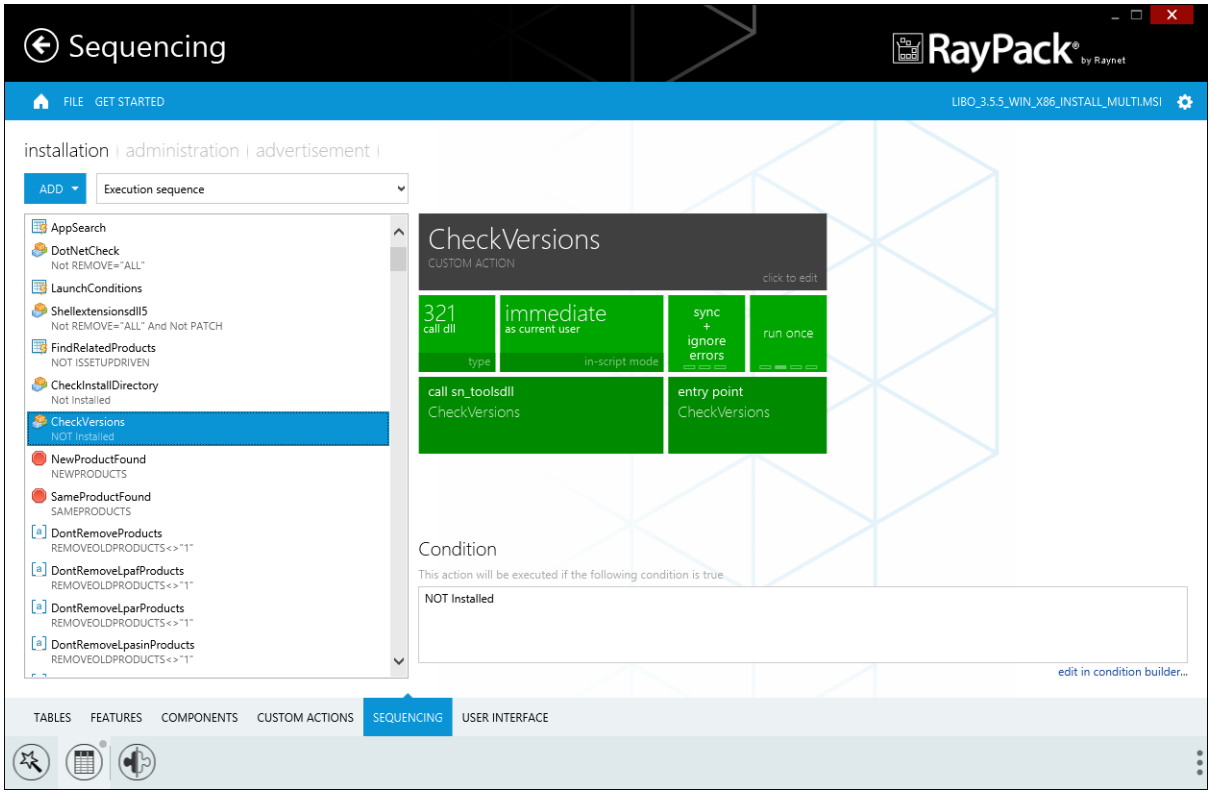
Since the properties for custom actions have to be defined exact and complete to achieve the desired functionality for the installation routine, RayPack supports packagers with a step-by-step wizard for their creation.



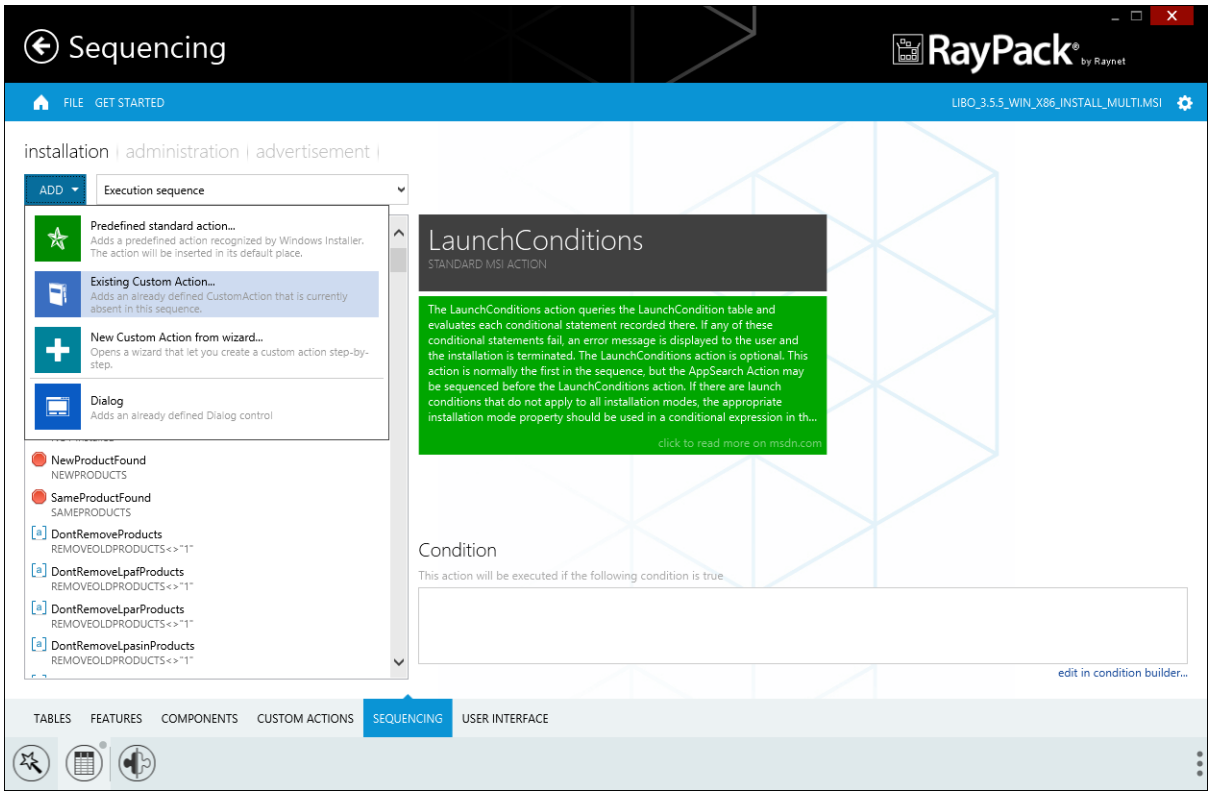
Once a custom action is available within the project, it can easily be integrated into the installer sequences. To do so, users switch to the sequencing view.

Sequencing

MSI based installer sequences are the core of the activity path that is followed throughout the package appliance procedure. It is of essential importance to manage the different types of sequences in a flawless and well structured manner. RayPack contains an elaborated view to allow users to switch between the installation, administration and advertisement sequences, and at the same time to easily navigate through the steps of each single sequence type.



Standard actions and custom actions are displayed in their actual appliance order within the list box on the left-hand side of the view. Selecting one of the actions displays its details in the info pane on the right-hand side. Adding a new step to a sequnce is initiated by a click on the NEW button. The options menu allows to chose between the integration of an additional, not yet sequenced standard or custom action, of a new custom action, or a new dialog control.

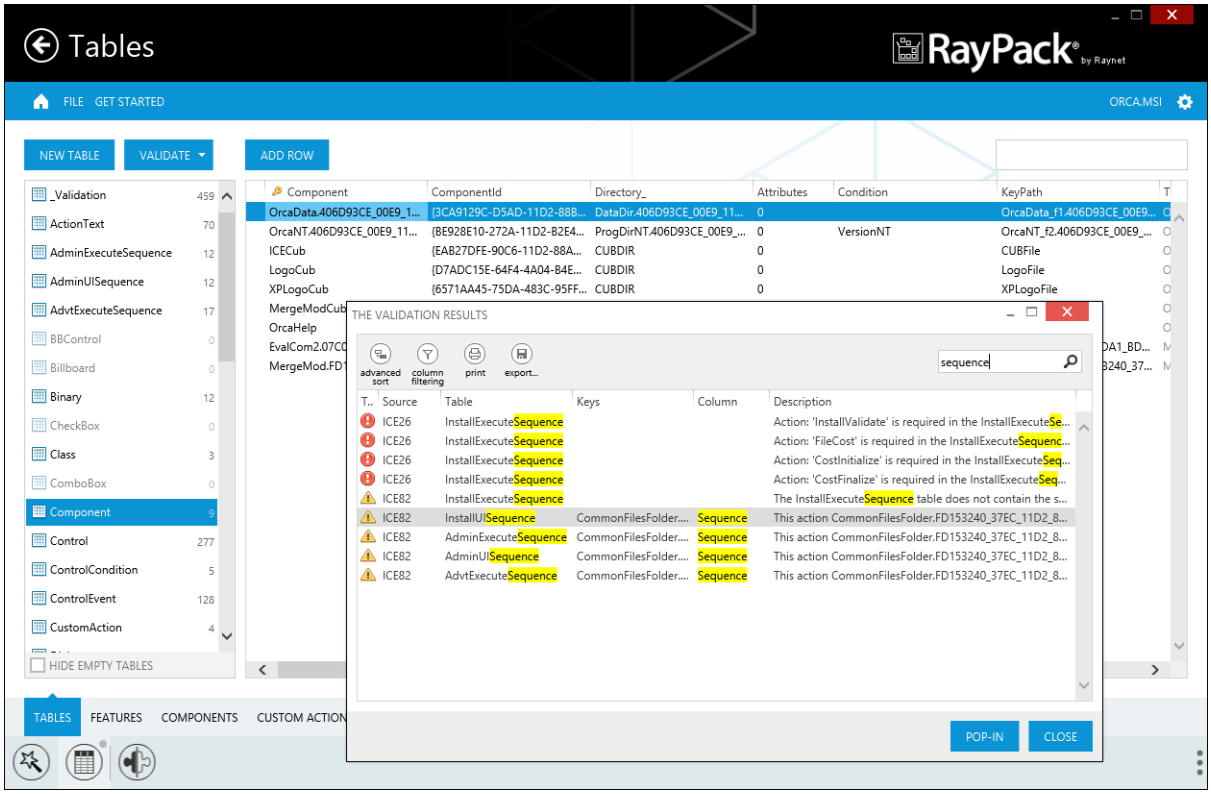


Newly added steps are always positioned at the beginning of the currently visible sequence. To change that position, simply use drag & drop within the list box on the left hand side, or the context menu that appears when the user performs a right-click on a sequences action item.

Since some basic sequencing-rules have to be followed in order to guarantee successful package installation, RayPack offers descriptions for all standard actions, which support the user to ensure essential conditions, for example the execution of InstallInitialize before InstallFinalize.

Package Validation

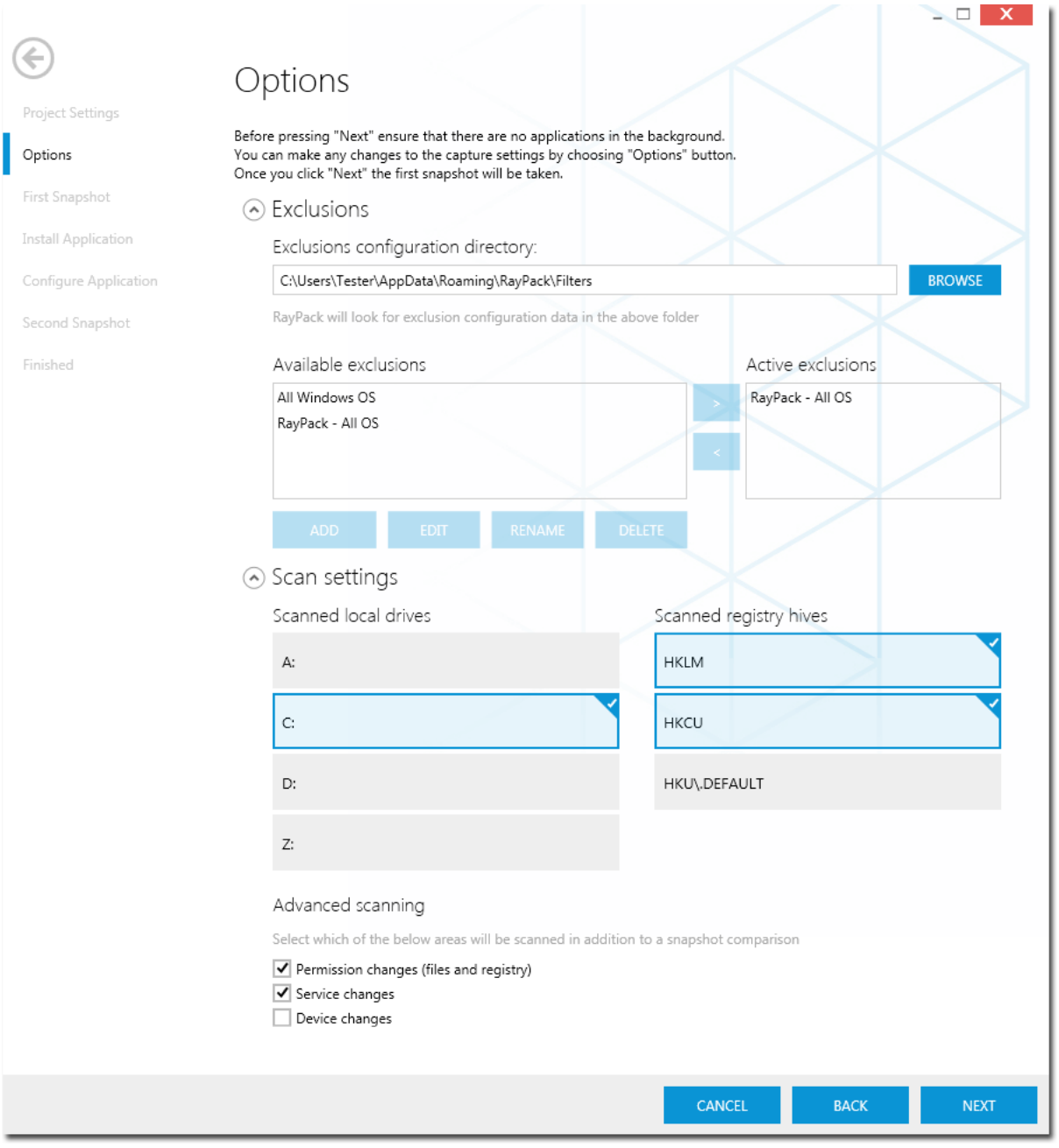
Testing packages for internal quality is paramount for professional software packaging. PackDesigner includes a variety of test sets, which support validation against ICE (Internal Consistency Evaluators) and Windows Logo compliance. These features are the perfect first line detection system, designed as a preflight before the built package goes out to deeper compatibility and conflict testing. Following the standard Windows validation rule-sets, RayPack ensures full operating system standard compliance for supported versions.



Working with several monitors is well supported by the convenient Pop-Out and Pop-In switch for the validation result dialog. Simply drag the popped out dialog to a different screen and have direct access to the result overview and the Table Editor at the same time. Clicking on a row within the validation dialog focuses the Table Editor on the triggering item within the project data.

PackRecorder

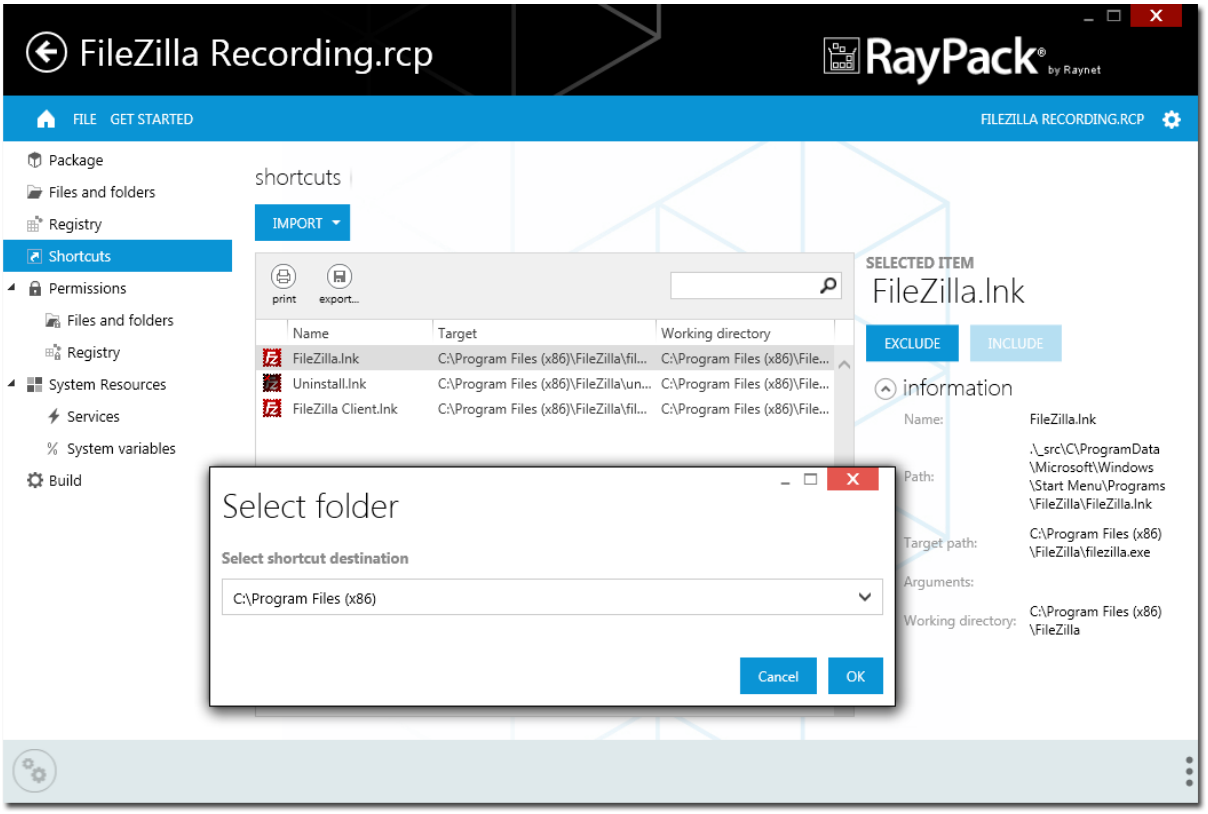
The Capture Wizard is RayPack's instrument for repackaging legacy setups. It uses snapshot technology to create Delta files, which are the basis for further steps of package project generation and property manipulation.



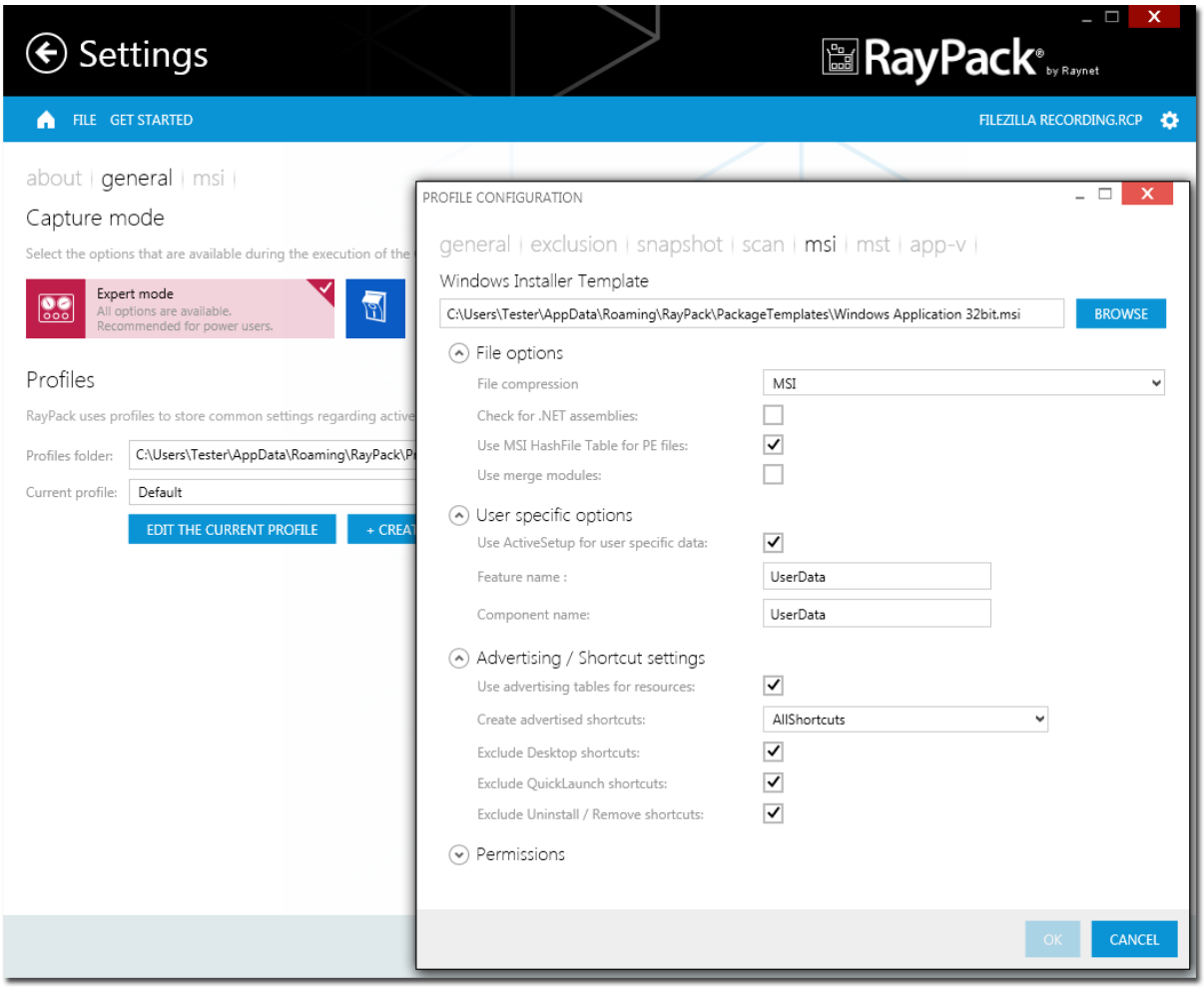
To capture a setup, RayPack's PackRecorder is executed on a clean machine, which is like a blank slate for

software usage caused files, registry keys, and the like. Nonetheless, offering a configurable exclusion list appliance helps to erase any potentially irritating footprints that might have been brought on to the system.

Following the steps of the capture wizard, an initial snapshot saves the system state before the setup sequence has been executed. After the setup has ended, a second snapshot is taken, which is used to calculate the system state differences caused by the installation (the so called Delta file).



Opening this RCP (RayPack Capture Project) file with the attached editor interface allows the manipulation of all native package properties which are required to build clean MSI, MST and App-V files.



PackRecorder uses different settings per customer or project. This includes scanned folders and drives, exclusion lists, and specific feature lists. Defining pointed exclusion list entries is assisted by RayPack's flexible regular expression editor, which is combined with a high-speed resolver engine. It is recommended to store profiles on shared file system locations, in order to be able to use identical profiles for packaging projects within the same customer or project context.

System Requirements

Hardware Requirements for Devices Running RayPack

This section lists the minimal hardware requirements for running RayPack.

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 framework itself requires about 100MB 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 for RayPack Framework Installations

The following operating systems are supported for the installation and running of RayPack.

- Windows 8.1
- Windows 8.1 x64
- Windows 8
- Windows 8 x64
- Windows 7
- Windows 7 x64
- Windows Vista
- Windows Vista x64
- Windows XP Professional SP3
- Windows XP Professional SP3 x64
- Windows 2012 R2 Server
- Windows 2012 Server
- Windows 2008 R2 Server
- Windows 2008 Server SP1-SP2
- Windows 2008 Server x64 SP1-SP2
- Windows 2003 R2 Server
- Windows 2003 R2 Server x64
- Windows 2003 Server SP2
- Windows 2003 Server x64 SP2

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

Prerequisite Software

- .NET 4.0 Client & Full for Windows XP up to Windows 7 systems (both 32bit and 64bit)

As a packaging best practice, it is recommended to install available .NET versions onto the base instead of including it within a package.

Known Issues

Since RayPack is introduced as a brand new product, there are some features which are implemented at a basic level, but need fine-tuning and polishing to fully meet Raynet's high quality standards. The following list of Known Issues is provided to inform about upcoming addons:

RayPack Core

Help & info

- Not all help links to external websites are working correctly
- The In-App Help is not available by context sensitive links yet

Settings

- Some advanced PackDesigner configuration settings are not available for manual edition by user yet

App-V

- The App-V / SFT Editor interface for direct package manipulation is under construction
- Generating App-V v4 is not available at present

SetupTracker

On some pre-Windows 8 systems SetupTracker may work unstable under certain circumstances.

PackDesigner

The PackDesigner interface already contains preview sections regarding upcoming functionality. The following views are not implemented within RayPack 1.0 SP1:

- Merge Modules
- COM Registration

- IIS
- System Search
- User interface

Additionally, there are some inactive buttons included to indicate upcoming features, e.g. the Build buttons for virtual package formats, or filtering objects by feature.

Files & Folders

- Advanced drag, drop, and clipboard operations will be added
- The performance of imports including large amounts of files or folders will be improved
- Filtering by feature is missing

Registry

- Advanced drag, drop, and clipboard operations will be added
- Moving keys or values from one component to another is not available yet
- The performance of imports including large amounts of registry objects will be improved
- Importing and exporting REG files is missing

Shortcuts

- Conversion from advertised to non-advertised shortcuts will be added

INI Files

- Manually creating new INI files is under construction

SQL Databases & Scripts

- Importing SQL scripts from file resources is not fully implemented

Setup Options

- Launch Conditions: Predefined launch conditions and advanced condition management are missing
- Installer Options: The status of the elevation option is not reflected within the MSI database
- File Compression: Options to generate MSI files with uncompressed sources or individually partitioned CAB files are under construction

Table Editor

- Advanced database management features, such as creating custom tables, editing the schema of existing tables, or dropping tables are not implemented yet
- The performance of search requests on large databases / tables will be improved

Additional Information

Visit *www.raypack.net* for further information regarding the product and current community incentives. It's also recommended taking a look at additional resources available at the Knowledge Base for Raynet products: *http://knowledgebase.raypack.net*.

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

Our Raynet support team gladly assists you on any question or issue you encounter regarding RayPack. Feel free to sign in and open incidents via our Raynet support panel, or by simply sending an email to *support@raynet.de* if you are an already registered Raynet customer.

RayPack®
Software Packaging

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