RELEASE NOTES

PACE Suite 4.3

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1 PACE Suite Overview

PACE Suite is an advanced and fast software packaging tool with intuitive user interface and set of features providing (re)packaging in Windows Installer and various virtualization formats.

1.1 Key Advantages

- Out-of-the-box application packaging solution
- Intelligible wizards for running complex user scenarios
- High performance when generating large packages
- Per-user license valid for any number of physical and virtual machines

1.2 PACE Components

PACE Suite consists of the following components:

MSI GENERATOR

- Repackage any existing installation into Windows Installer or a virtual format (Microsoft App-V 5.x, and VMware ThinApp)
- Auto-detection of embedded installers
- Create a response transform
- Tune any existing Windows Installer package by applying your settings and saving them as a Windows Installer transform (MST)
- Include the excluded files/registry back to a package

MSI EDITOR

- Manage the contents of an MSI in a tree view
- Import the desired resources
- Edit and manage Custom Actions
- Integrate scripts into your package
- Use a smart and advanced MSI database editor, with formatted string autocompleting, Excel-like formula bar, row reference tracking, and more.
- Create patches (MSP)
- Manage permission settings for file system and registry
- Handle upgrades easily – just let MSI Editor know which MSI you want to be upgraded at runtime.
- Publish your applications to Microsoft SCCM 2007, 2012, 2016.
- See the estimated complexity of an app right away.
- Generate package documentation containing the details about your package and configuration.
- Undo-redo any manipulation and see the changes highlighted in the MSI tables

DOCU GENERATOR

- Automatically record your on-screen actions into a nice-looking document with screenshots and annotations

1.3 System Requirements

OS	Windows 10/8.1/8/7 SP1, Windows Server 2012/2008 R2 SP1
Middleware	Microsoft .NET Framework 4.6.1 (https://www.microsoft.com/en-us/download/details.aspx?id=49981) or higher.
Privileges	Administrative privileges on the system.

1.4 Hardware Requirements

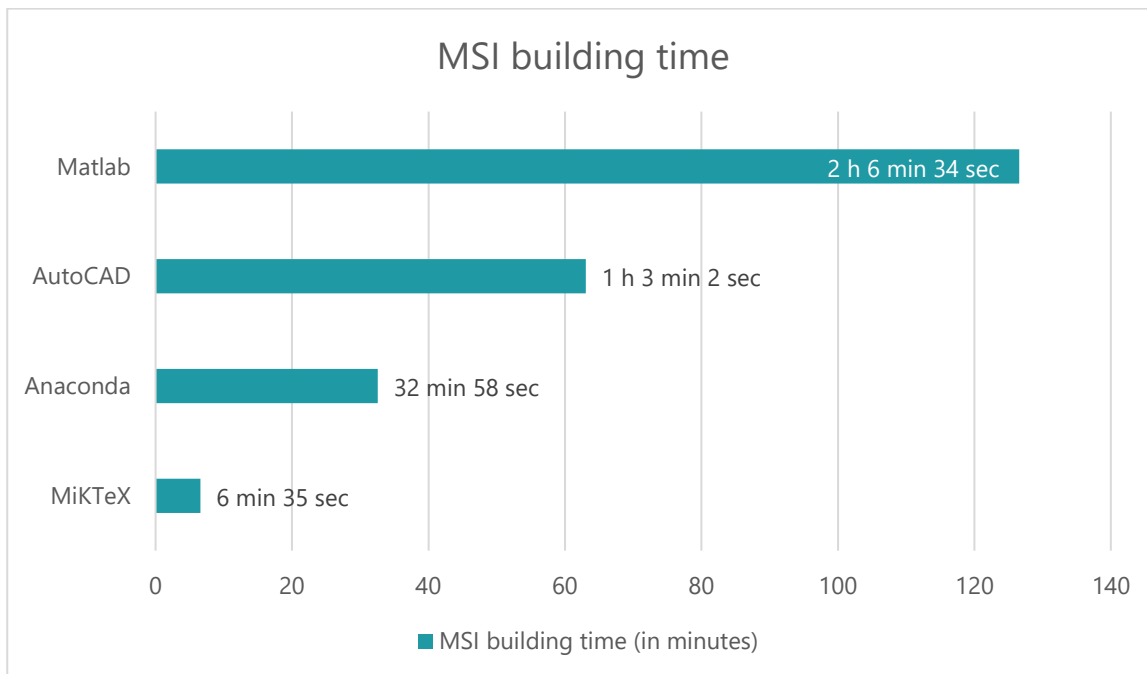|	
Processor	32-bit (x86) or 64-bit (x64) processor at 2 GHz or greater NOTE To repackage 64-bit applications or create 64-bit App-V packages, use PACE Suite on a 64-bit Windows operating system.
RAM	2 GB
Hard drive free space	1 GB NOTE Additional storage is required for your projects and packages and depends on their size and quantity.
Display	1280 x 768 resolution or higher.

2 Release Notes

2.1 About This Release

The 4.3 release is mainly dedicated to the performance question. After the recent PACE Suite 4.2 release, for almost two months we worked a lot to improve the speed and quality of the building and opening of MSI packages. Now we can say that PACE Suite 4.3 is the fastest tool for building MSI packages.

In this release, you will find new feature and functionality improvement, which are described below. As usual, reported by our customers and internally detected nasty bugs were politely asked to leave the product.

2.2 Important Highlights

2.2.1 Enhanced Performance of Building MSI

Check our new enhanced algorithm of the building of MSI packages. Even the largest installers have been re-packaged in an amazingly short periods of time.

MSI building time

Matlab	2 h 6 min 34 sec
AutoCAD	1 h 3 min 2 sec
Anaconda	32 min 58 sec
MiKTeX	6 min 35 sec

0   20   40   60   80   100   120   140

■ MSI building time (in minutes)

Below you can find the detailed information about the packages and the virtual environment we used for our internal speed tests.

	MSI building time	Output package size	Number of files	Number of registry entries
Matlab R2017a 9.2	2h 06m 34s	2,77 GB	147 524	594
AutoCAD 2018 3.1.0.175	1h 03m 02s	4,80 GB	16 776	18 078
Anaconda 4.3.1	32m 35s	1,29 GB	46 318	21
MiKTeX 2.9	6m 35s	0,29 GB	13 509	184

For this test, we have repackaged applications, mentioned above into MSI using PACE Suite version 4.3, which was installed on the virtual machine with Windows 10 OS.

Virtual Box 5.1.18 r114002 **virtual machine** configuration:

Processor	2 virtual x64-based CPUs
RAM	4 GB
Hard drive	SATA HDD 50 GB
Video memory	128 MB
Guest OS	Windows 10 Enterprise 64-bit OS (10.0, Build 10586)

Physical machine configuration:

Processor	i5-3230M CPU @ 2.60GHz
RAM	8 GB
Hard drive	SATA HDD 1 TB
Video memory	1 GB
Host OS	Windows 10 Enterprise 64-bit OS (10.0, Build 10586)

2.2.2 Improved Speed of Opening MSI

Previously, opening a particularly large MSI in MSI Editor could have taken a substantial amount of time. In this release, we have improved the Open MSI feature in MSI Editor, so now you can open packages significantly faster:
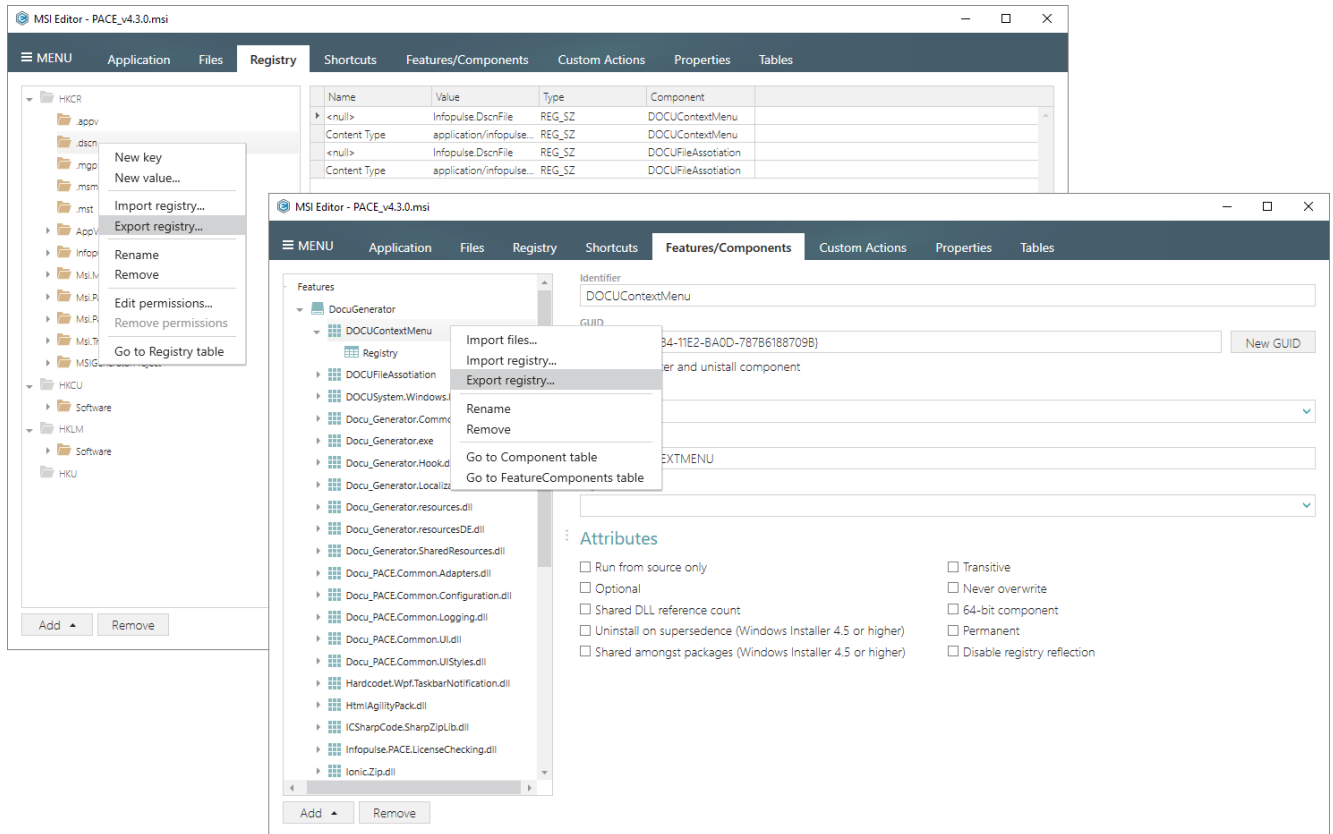
	MSI opening time using **PACE Suite 4.2**	MSI opening time using **PACE Suite 4.3**
Matlab R2017a 9.2	14m 41s	2m 17s
AutoCAD 2018 3.1.0.175	29s	24s
MiKTeX 2.9	4m 2s	14s

2.2.3 Export Registry to REG File

Now you can export registry entries from your MSI package to the REG file using MSI Editor.
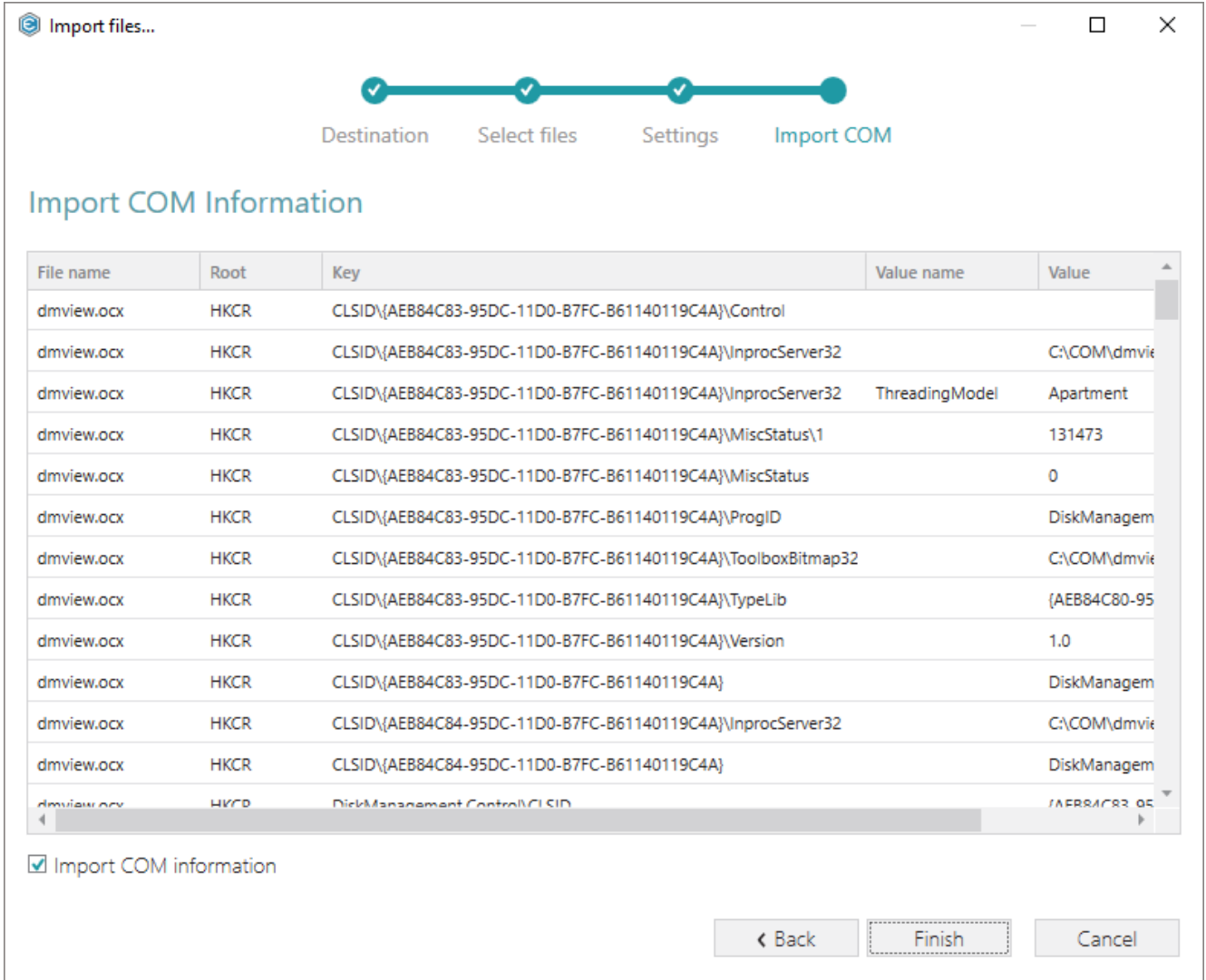
Registry export is available from different places: (1) Export the selected registry key or hive using the Registry tab; (2) Export registry of the selected Feature or Component using the Features/Components tab; (3) Export the selected registry entries from the Registry table on the Tables tab. The created REG file will have the latest 5.00 format version.

2.2.4 Import .NET Assemblies and 64-bit COM information

Update small MSI packages, which require adding new files with their registration information, without them being recaptured.

Now the Import Files Wizard allows extracting and importing to the package both 32-64 bit COM information and .NET assemblies. Just import new files to the package by selecting the 'Import COM information' option on the last step of the wizard.

2.3 Fixed Bugs

2.3.1 MSI Generator

Bug #	Description
28033	Getting the "Unable to cast object of type 'System.Byte[]' to type 'System.String'" error on building MSI package.
28082	Some properties from the selected MST are not applied to the simulated installation during creating a response transform.
28094	Absence of confirmation message on overwriting an existent MST with the newly created response transform.
26840	Wrong validation of captured and detected hardcoded values on the Properties tab.
22959	The generated MSI package does not have captured icon, displayed in the 'Programs and Features' of the Control Panel.
27665	Summary Information, displayed on the Package tab are overwritten with Summary Information from the selected 'MSI settings profile'.
26263	Redundant special symbols are exported to the REG file.
28300	Crash on switching to the Start screen after canceling save changes.
28304	Losing FTAs on importing some of App-V packages.
28346	Issue with saving project file, created by importing App-V package.
28338	Unexpected behavior on closing the Monitoring window.
23195	Renamed component is not displayed on the Features/Components tab after undoing changes.
26851	The 'There is an error in XML document' problem, appeared during the Snapshotting.
28355	Excluded registry keys are saved to the exported REG file.
22915	Validation does not work for the Language field of the Package tab.
22971	Validation does not work for the Product Code and Upgrade Code fields of the Package tab.
28297	Incorrect values of the required files are saved to the generated package.
28425	Permissions that were captured for the excluded registry keys are saved to the created MSI package.
28383	The "RemoveIniValues" and "WriteIniValues" actions are not added if absence on building MSI package with permission changes.
27647	The 'C:\Users\Public' directory is not defined properly in the created MSI package.
25702	Some internal and external CAB files of huge packages are missing.
24178	

2.3.2 MSI Editor

Bug #	Description
24142	Issue with opening huge packages with big amount of resources.
27090	Extracting COM information from the C:\Windows\SysWOW64\dplaysvr.exe file requests installing DirectPlay Windows feature.

27605	Crash on importing VSConvertersPackage.dll file to package.
28049	Closing the "Save As" dialog will close the application.
28265	Issue with opening certain MSI packages.
28296	Crash on reverting some changes such as applying MST.
24215	Crash on dropping some tables with changed content.
26273	The Find and replace windows does not respond in some specific cases.
28366	Crash on comparing some identical MSI packages.
28394	Unexpected behavior on multiple renaming key column values using the Tables tab.
28455	Crash on specific renaming of custom and standard actions on the Custom Actions tab.
28430	Incorrect import of the REG_MULTI_SZ registry value.
28404	Issue with updating some tables in result of complete removing and adding new permissions.
28423	Some of folders could not be expanded on the Files tab for some specific packages.
23030	The 'Existing' media type option is not available for the further file import if the Image Type in the Summary Information was set to 'External tree - *'.
21862	Incorrect information message on comparing identical packages.
23973	Failed to import locked system files without warning message.
25930	Issue with displaying imported files on the Files tab if the TARGETDIR directory does not exist.
27761	Redundant row is added to the Media table after importing files with the 'Uncompressed' media type option.
28267	Special symbols are not replaced in the file name of the imported icon containing file to the Icon table.
28275	Incorrect value of the DiskId column is saved to the Media table on files import.
28276	Issue with importing some registry entries, which contain the 'WOW6432Node' key.
28277	Imported TLB files are saved to one component instead of separate ones.
28283	The import shortcut function displayed incorrectly in the Undo/Redo history list.
28287	By default, the Platform type is not specified for the blank packages.
28363	Empty binary registry values are imported as string values.
28364	Issue with escaping some special symbols in the registry, imported from the REG file.
28372	Some of input fields on the Registry tab is not disabled for the read-only packages.
28426	Find/Replace does not work with the backward slash symbol '\'.
28407	Sorting by column does not work properly in the list on the last step of the Import files wizard.
28447	Issue with escaping square brackets in string registry values on the registry import.
28448	Incorrect replacing of the "%1\ substring in MSI tables using the Find/Replace functionality.
28095	The "RemoveIniValues" and "WriteIniValues" actions are not added if absence on adding permission changes.

28381	Paths to imported COM objects are not replaced with the respective file properties ([#filekey]).
24226	Validation for adding new folder with a non-unique name does work.
21250	Renaming folder to a non-unique name leads to hiding this folder from the Files tab.
24178	Issue with importing big amount of files to MSI package using the 'New CAB' media type.

2.4 Known Issues and Limitations

- MSI Editor: Undoing a large number of actions at once can cause unwanted results. Please apply UNDO in a sequence.
- MSI Editor: Opening big Windows Installer packages (500MB in size and more or 50K rows in a table) may take a long time.

3 Release History

- PACE Suite 4.2
- PACE Suite 4.1
- PACE Suite 4.0
- PACE Suite 3.5.5
- PACE Suite 3.5
- PACE Suite 3.4.2
- PACE Suite 3.4.1
- PACE Suite 3.4
- PACE Suite 3.3 – 3.3.1