

# Software Deployment can be so easy!

My experiences and simple steps

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## 1. A few words

Even back then, when I was still at the helm myself, it was often a time-consuming challenge to roll out software in the company.

The reasons? Apart from the totally crazy idea of doing all of this without the employees' knowledge or interference?

There are:

- Poorly or insufficiently packaged software
- Missing or incomplete documentation
- Missing full installers
- Oh, and of course missing documentation about silent install switches

This all adds up to the crazy idea mentioned above of doing everything without any user interaction and without disturbing employees. Let's be honest! I am now in my mid-fifties and have a few decades of these discussions on my now bald head. Today, this strategy is taking its revenge. Because the employees are poorly trained without involving them. They are not prepared enough and use unpatched systems privately. Worse still, they may even use these systems to log into our company networks via browsers or other tools.

Well, this discussion is going nowhere and I'm just opening a wound for one or the other. So back to the core message of this e-book: "Software deployment can be so easy!"

Since I'm a pretty lazy person, I want to make this job as easy as possible when it comes to software deployment. To do this, I need the right tool. A tool that does as much as possible for me, and for me that is definitely "Endpoint Central" from ManageEngine.

In this e-book, I therefore want to use my preferred and 100% recommended solution to show you how easy I can make my life with software distribution and what a software distribution tool must have as a minimum. I will show all the steps using an example and document it with screenshots.

In the end I will then give you a tip on how to make your life even easier with the Self Service Portal and at the same time save on support and increase system security.

So let's get started 😊

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## 2. Create and distribute template-based software packages

The effort involved in searching for installation switches and full installers is often quite great and you cannot be sure that nothing will change in the switches over time. The download installers often offered today, which initiate the complete download of the software during the installation of this download installer, cannot be used in Enterprise Enrolment. In order to get these full installers, I often have to contact the manufacturer in a laborious and time-consuming process. But I don't have the time to do this when I have to roll out software. It usually has to be done yesterday.

ManageEngine is doing a fantastic job here (I almost cried when I saw this). They offer templates.

The screenshot shows the 'Software Deployment' section of the Endpoint Central interface. At the top, it displays 'Recently added Templates' with a count of 1393. Below this is a table of templates with columns for Application, Software Name, Vendor, Operating System, Download Size, Added Time, Status, License Type, Type, and Action. A green arrow points to the 'Notify Template Release' button in the top right corner of the table area.

Application	Software Name	Vendor	Operating System	Download Size	Added Time	Status	License Type	Type	Action	
<input type="checkbox"/>	Docker for MAC (Intel) (4.28.0)	Docker for MAC (Intel)	Docker Desktop	Mac	540 MB	13/03/2024	Yet to Start	Non-Commercial	Automatic	Create Package
<input type="checkbox"/>	Docker for MAC (Apple Silicon) (4.2...	Docker for MAC	Docker	Mac	465 MB	13/03/2024	Yet to Start	Non-Commercial	Automatic	Create Package
<input type="checkbox"/>	Egnyte for Mac (0.11.0)	Egnyte for Mac	Egnyte, Inc.	Mac	132 MB	13/03/2024	Yet to Start	Non-Commercial	Automatic	Create Package
<input type="checkbox"/>	Element for Mac (1.11.60)	Element for Mac	Element	Mac	200 MB	13/03/2024	Yet to Start	Non-Commercial	Automatic	Create Package
<input type="checkbox"/>	Sonos S2 Controller for Mac 78.1.5...	Sonos for Mac	sonos	Mac	40 MB	13/03/2024	Yet to Start	Non-Commercial	Automatic	Create Package
<input type="checkbox"/>	Telegram for Mac 10.9.1	Telegram for Mac	Telegram	Mac	94 MB	13/03/2024	Yet to Start	Non-Commercial	Automatic	Create Package
<input type="checkbox"/>	Microsoft AutoUpdate For Mac (4.6...	Microsoft AutoUpdate...	Microsoft	Mac	4 MB	13/03/2024	Yet to Start	Non-Commercial	Automatic	Create Package
<input type="checkbox"/>	Microsoft OneNote for Mac 16.83.0	Microsoft OneNote F...	Microsoft	Mac	507 MB	13/03/2024	Yet to Start	Non-Commercial	Automatic	Create Package
<input type="checkbox"/>	Microsoft Outlook for Mac 16.83.0	Microsoft Outlook fo...	Microsoft	Mac	1 GB	13/03/2024	Yet to Start	Non-Commercial	Automatic	Create Package
<input type="checkbox"/>	Microsoft PowerPoint for Mac 16.8...	Microsoft PowerPoin...	Microsoft	Mac	839 MB	13/03/2024	Yet to Start	Non-Commercial	Automatic	Create Package
<input type="checkbox"/>	Microsoft Excel for Mac 16.83.0	Microsoft Excel for M...	Microsoft	Mac	934 MB	13/03/2024	Yet to Start	Non-Commercial	Automatic	Create Package
<input type="checkbox"/>	Microsoft Word for Mac 16.83.0	Microsoft Word for ...	Microsoft	Mac	1 GB	13/03/2024	Yet to Start	Non-Commercial	Automatic	Create Package
<input type="checkbox"/>	WinSCP (6.3.2)	WinSCP	WinSCP	Windows	11 MB	13/03/2024	Yet to Start	Non-Commercial	Automatic	Create Package
<input type="checkbox"/>	WebEx Teams (44.3.0.28993)	WebEx Teams	Cisco Systems, Inc.	Windows	177 MB	13/03/2024	Yet to Start	Non-Commercial	Automatic	Create Package
<input type="checkbox"/>	VSCodium (x64) (1.87.2.24072)	VSCodium	VSCodium	Windows	90 MB	13/03/2024	Yet to Start	Non-Commercial	Automatic	Create Package
<input type="checkbox"/>	Tower Deployment Tool (6.0.474)	Tower Deployment T...	SaaSgroup	Windows	78 MB	13/03/2024	Yet to Start	Non-Commercial	Automatic	Create Package
<input type="checkbox"/>	Spyder (5.5.2)	Spyder	Spyder Project Co...	Windows	216 MB	13/03/2024	Yet to Start	Non-Commercial	Automatic	Create Package
<input type="checkbox"/>	Snagit 2024 (x64) (24.1.1)	Snagit 2024 (x64)	TechSmith Corpor...	Windows	447 MB	13/03/2024	Yet to Start	Non-Commercial	Automatic	Create Package

At the time the screenshot was taken, there were 108,341 templates! For different operating systems such as Windows, Mac, Ubuntu, Debian and Redhat.

What is such a template: It is a template in which the installation and uninstallation parameters, as well as a link to the full installer directly from the respective software manufacturer, are entered.

Using Opera as an example, I will show you all the steps from package to distribution.

First, I search for the software using the magnifying glass icon on the far right:


The screenshot shows the same Endpoint Central interface, but with a search filter applied. The search bar in the top right corner contains the text 'Opera'. The table below shows the results for 'Opera' templates. A green arrow points to the search icon in the top right corner of the table area.

Application	Software Name	Vendor	Operating System	Download Size	Added Time	Status	License Type	Type	Action	
<input type="checkbox"/>	Opera Stable (x64) (108.0.5067.24)	Opera Stable	Opera	Windows	115 MB	13/03/2024	Yet to Start	Non-Commercial	Automatic	Create Package
<input type="checkbox"/>	Opera Stable (108.0.5067.24)	Opera Stable	Opera	Windows	104 MB	13/03/2024	Yet to Start	Non-Commercial	Automatic	Create Package
<input type="checkbox"/>	Opera For Mac 108.0.5067.24	Opera Stable	Opera	Mac	208 MB	12/03/2024	Yet to Start	Non-Commercial	Automatic	Create Package
<input type="checkbox"/>	Opera Password Recovery (5.7.0.45...	Opera Stable	Opera	Windows	3 MB	09/01/2019	Yet to Start	Non-Commercial	Automatic	Create Package

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Here I select the Windows x64 package:

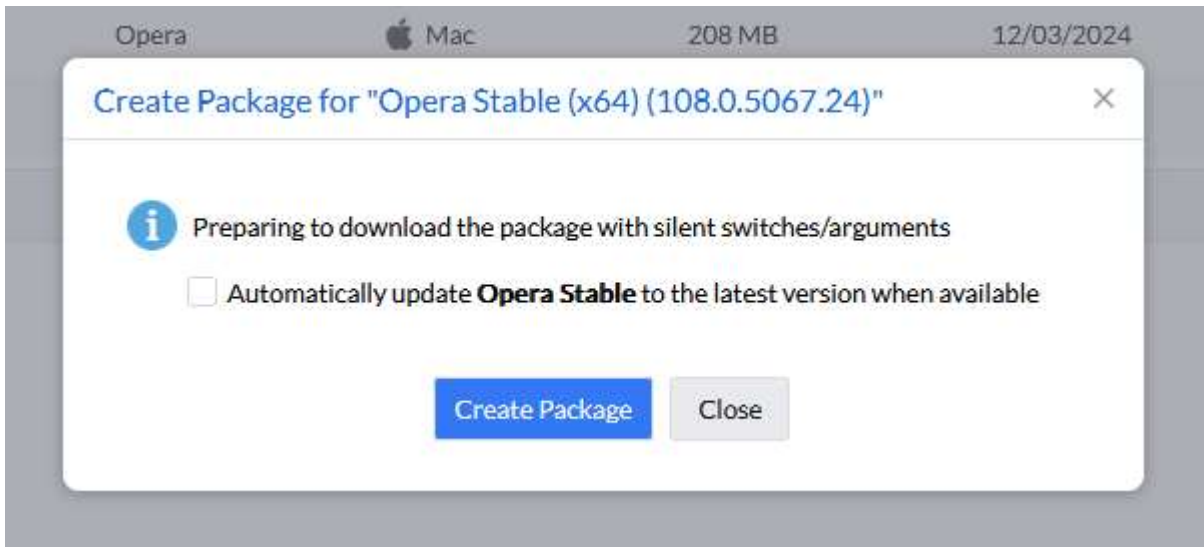
### Application Details ✕

Application Name	: Opera Stable (x64) (108.0.5067.24)
Version	: 108.0.5067.24
Type	: exe
Platform	:  Windows
Location	: <a href="#">Opera_108.0.5067.24_Setup_x64.exe</a>
Install Switches	: /install /silent /norestart /launchopera=0 /setdefaultbrowser=0 /allusers=1
Uninstall switches	: \$programfiles\Opera\Launcher.exe /uninstall /silent
License	: Non-Commercial

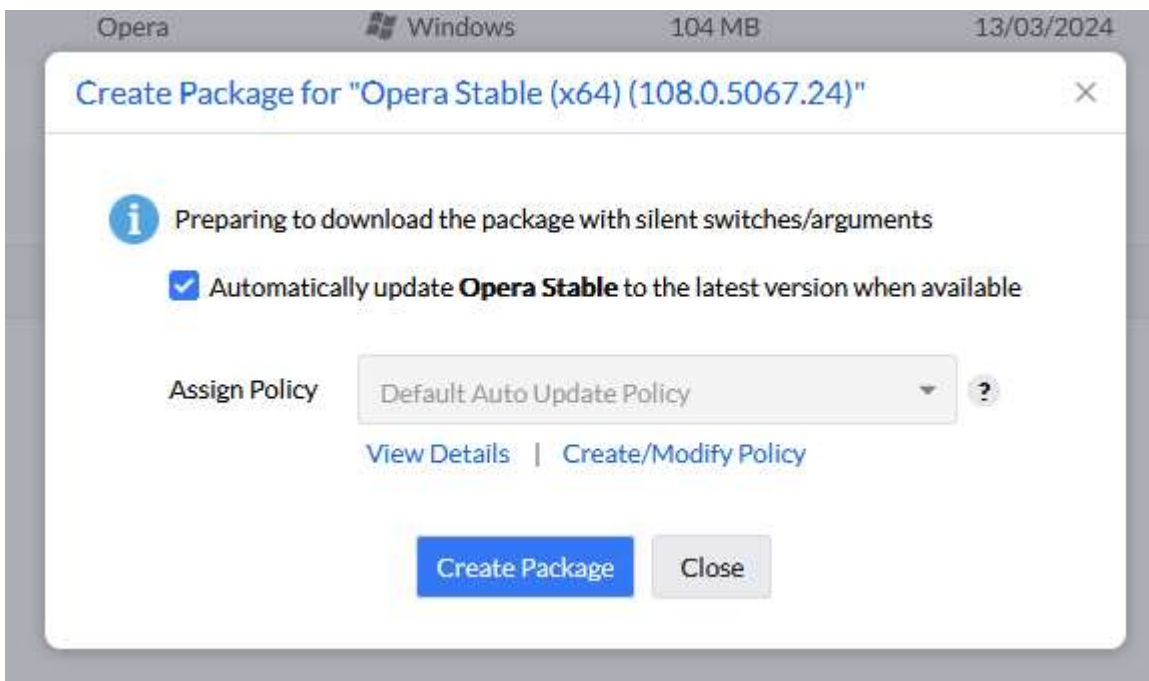
As you can see, the Location (blue link with the .exe), Install Switches and Uninstall Switches are already included here.

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If I now click on the "Create Package" button, I get another handy dialog:

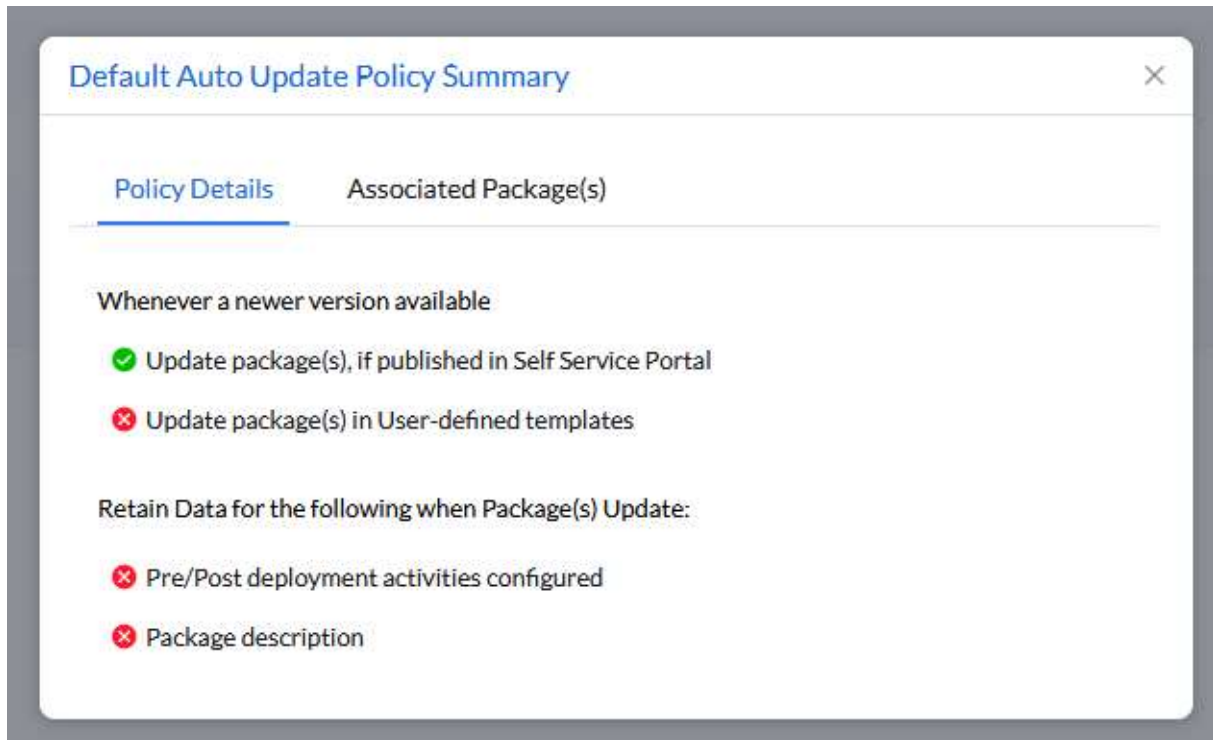


I am asked if I would like a new package to be created automatically when there is a new version. Fantastic! Of course, I want that - so I check the box and move on to the next great function.



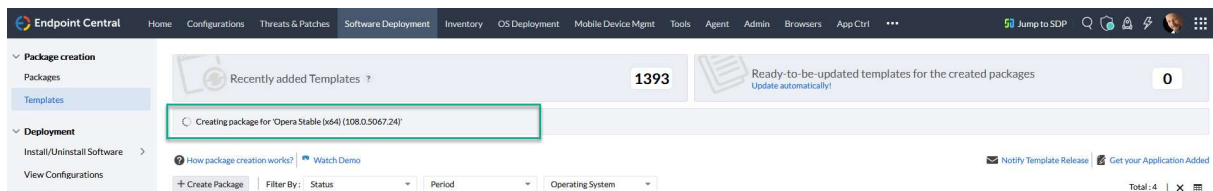
Here I can assign a policy to the package. An update policy gives me several great features. I can create a new one via Create/Modify Policy or display the details of the selected Auto Update Policy. The policy shown in the example only includes the creation of a new package when there is a new version and the automatic update of the package when it is assigned to a group in the Self Service Portal:

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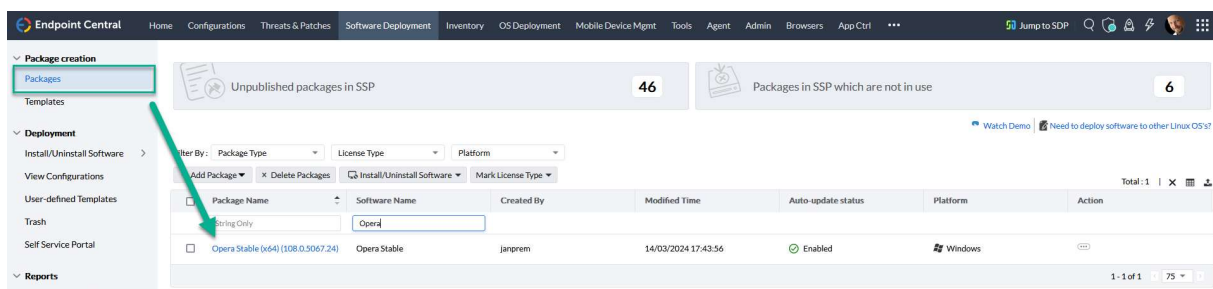


I can use Create/Modify Policy to create a new one with the option of updating the packages in templates that I have created. In addition to adopting the package description, I can also choose to customize pre/post deployment activities, which I can configure separately in a package - we will see these later.

I select the default policy and click on Create Package. This starts the download and package creation. In my example, it took just 5 seconds.

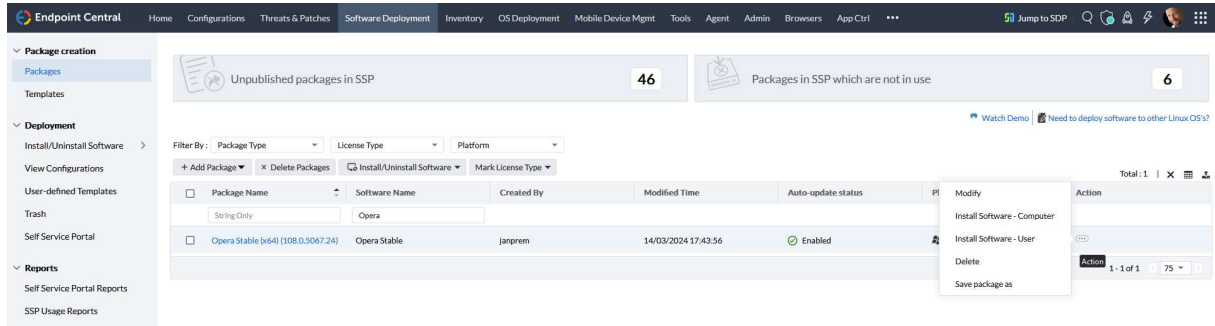


After switching to "Packages" in the left outer column, I get to my finished package. (I used the search, as I already have some packages in the list)

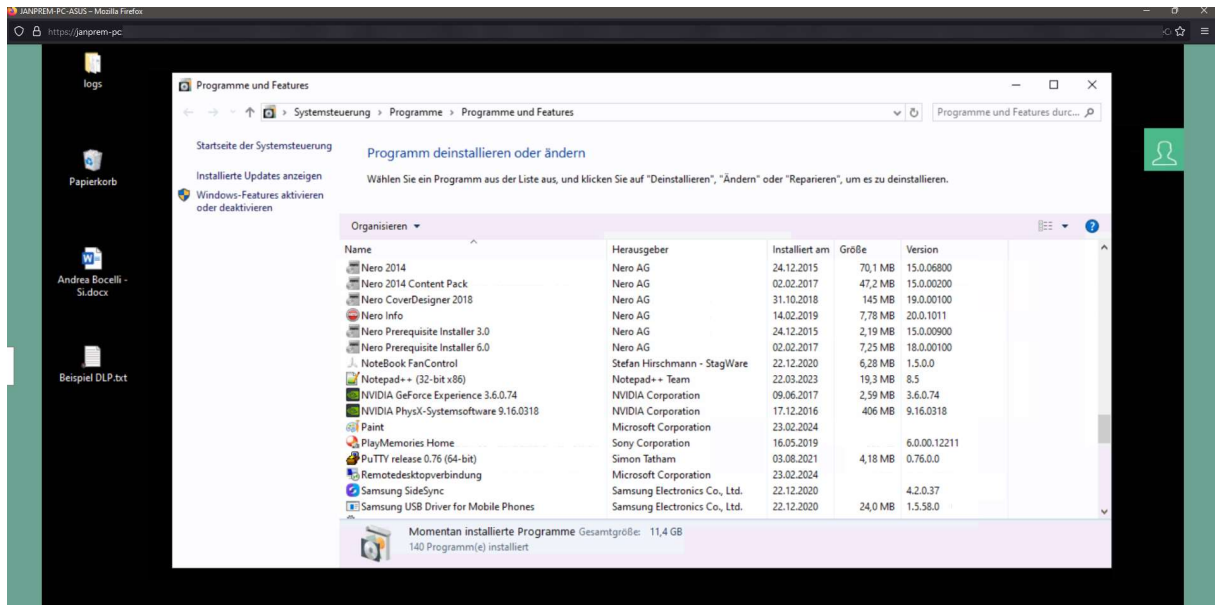


I can distribute the software directly via the "Action" button on the right (Install Software - Computer).

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The Opera browser is not yet installed on my test system (screenshot shows programs and features via Endpoint Central remote control):





## Software Deployment can be so easy! – from Jürgen Rinelli

So go to the step Install Software - Computer and fill in the configuration:

The screenshot shows the 'Install/Uninstall Windows Software (Computer)' configuration page in the Endpoint Central interface. The page is divided into several sections:

- Name and Description:** The 'Name' field is set to 'Opera Test-Installation'. There is an 'Add Description' link.
- Package Settings:** The 'Operation Type' is set to 'Install'. The 'Package Name' is 'Opera Stable (x64) (108.0.5067.24)'. There is a 'Modify Package' link.
- Deployment Settings:** The 'Apply Deployment Policy' is set to 'Deploy any time at the earliest'. There are links for 'View Details' and 'Create/Modify/Save As Policy'.
- Define Target:** The 'Remote Office/Domain' is 'RINELICORP'. The 'Filter Computers based on' is 'Computer' with the value 'JANPREM-PC'. The 'Exclude Target' is 'Remote Office' with a 'Select' dropdown.
- Execution Settings: [Optional]:** There are checkboxes for 'Apply this configuration at every Startup', 'Apply this configuration during every Refresh Cycle', and 'Retry this configuration on failed targets'. The 'Retry' section has three dropdowns: 'Retry for' (2), 'time(s) out of which retry', 'time(s) during startup' (1), and 'time(s) during refresh' (1). There is also an 'Enable Notification' checkbox and a 'Scheduler Settings' section with 'Install After' and 'Do not apply this configuration after the time specified below' options.

At the bottom of the page, there are buttons for 'Deploy', 'Deploy Immediately', 'Save As', and 'Cancel'. A copyright notice '© 2024 Zoho Corporation Private Limited. All rights reserved.' is visible at the bottom center, and a 'Watch Demo' link is in the top right corner.

I simply enter a name for the deployment here - if I don't want the automatically generated one, I enter a deployment policy and define the target. Apart from clicking on the blue "Deploy" button, I don't need to do anything else. The details of the deployment policies that explain the 'how and when' of a deployment are shown in detail in the first e-book in this series, entitled "Patch management is no longer rocket science".

I can now see the overview of my configuration with the progress. A refresh can be carried out using the button on the right-hand side above the yellow circle.

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Opera Test-Installation

**Immediate Deployment - Execution Status**  
To get current status please click **Refresh Status** button.  
It will not work for computers that are currently down. Deployment to these computers will happen during regular refresh cycles.

Is the deployed configuration status always in "Ready to Execute"?  
Configuration status for computer/user remains in "Yet To Apply" due to one or more reasons, refer to the [Learn More](#)

Modify | Suspend | Move to Trash | Save as Template | Save As New | Refresh

Summary | Configuration Details | Execution Status | Replication Details

Configuration Details	
Name	: Opera Test-Installation
Description	: ..
Category	: Install/Uninstall Windows Software
Current Status	: <span style="color: green;">✔</span> Ready To Execute
Platform	: windows
Type	: Computer
Created Time	: 14/03/2024 18:09:39
Created By	: janprem
Modified Time	: 14/03/2024 18:09:39
Modified By	: janprem
Enable Notification	: No
Enable Retry	: Yes
Total Retry Count	: 2

Target Scope	Apply To	Excluded Items
Domain : RINELLICORP	Computer : RINELLICORP.JANPREM-PC	-

**Execution Summary**  

1

- Yet To Apply
- Succeeded
- In Progress
- Failed
- Not Applicable
- Retry In Progress
- In Progress (Failed)

Less than a minute later I have the following picture:

Opera Test-Installation

Modify | Suspend | Move to Trash | Save as Template | Save As New | Refresh

Summary | Configuration Details | Execution Status | Replication Details

Configuration Details	
Name	: Opera Test-Installation
Description	: ..
Category	: Install/Uninstall Windows Software
Current Status	: <span style="color: green;">✔</span> Executed
Platform	: windows
Type	: Computer
Created Time	: 14/03/2024 18:09:39
Created By	: janprem
Modified Time	: 14/03/2024 18:09:39
Modified By	: janprem
Enable Notification	: No
Enable Retry	: Yes
Total Retry Count	: 2

Target Scope	Apply To	Excluded Items
Domain : RINELLICORP	Computer : RINELLICORP.JANPREM-PC	-

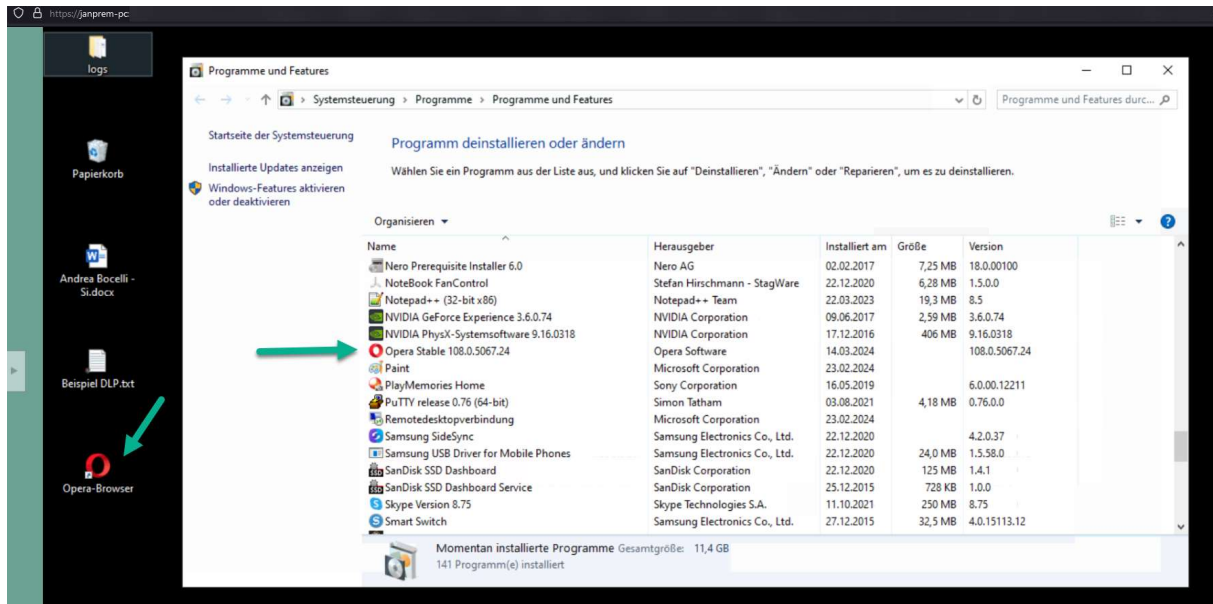
**Execution Summary**  

1

- Yet To Apply
- Succeeded
- In Progress
- Failed
- Not Applicable
- Retry In Progress
- In Progress (Failed)

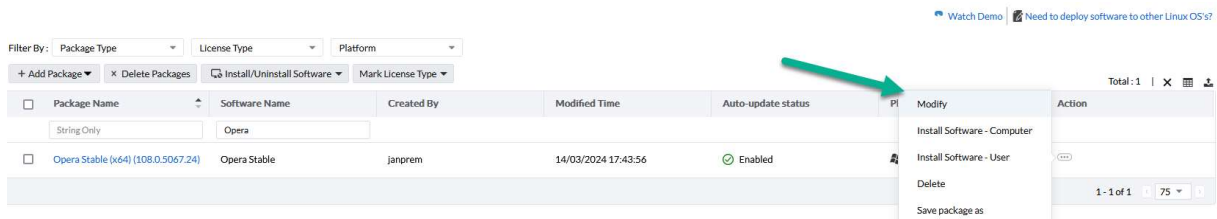
Is that really the case? Let's go to my test system and have a look ...

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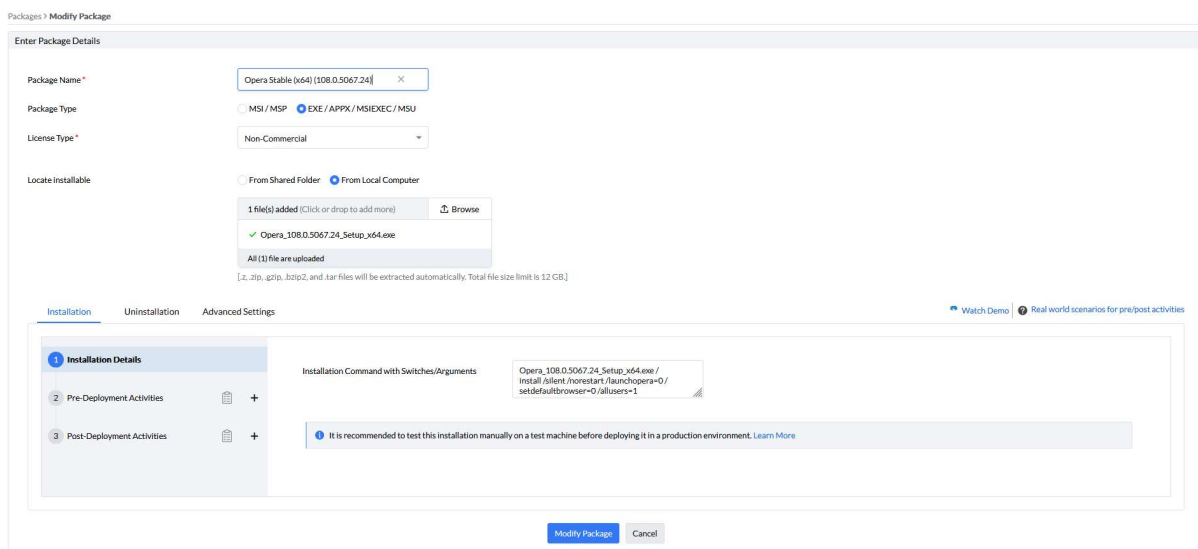


Since I know where to click ... I need just three minutes for the first successful installation. From the template, to the package, to the finished installation. If you have done it two or three times you can do it in the same time. Let's be honest - an silent installation isn't finished that quickly manually, is it?

Of course, it may be necessary to add one or two things to the software. In other words, to customize the package. To do this, I simply click on "Modify".

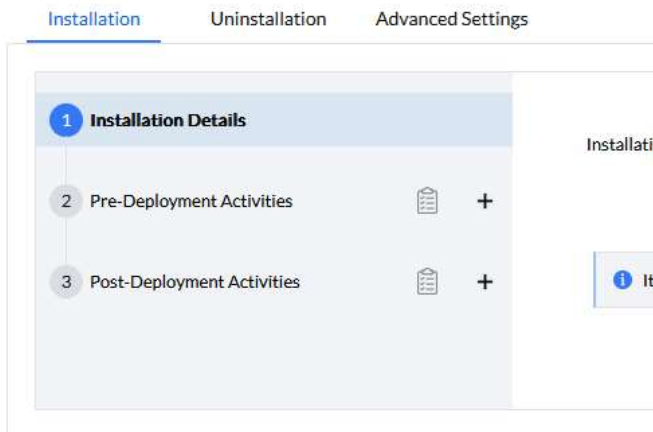


I receive the package details, which are already filled in by the template.

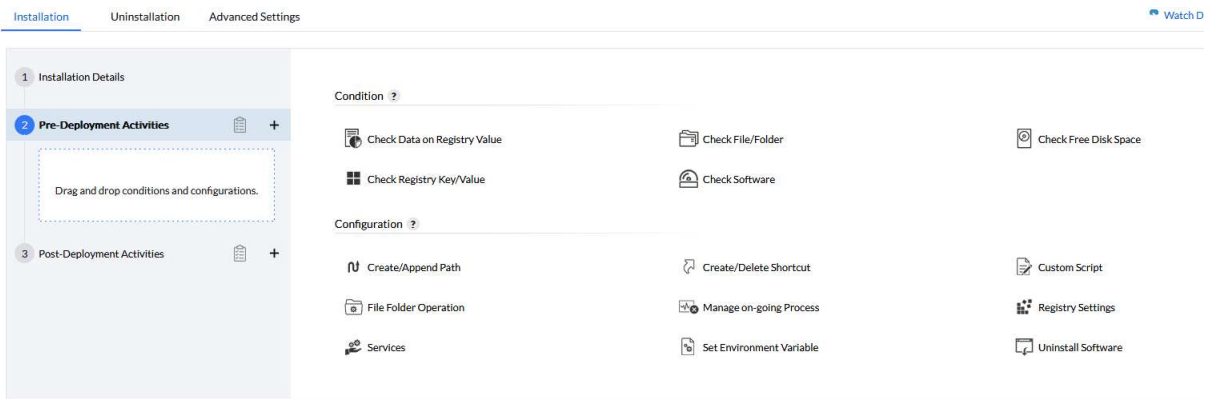


## Software Deployment can be so easy! – from Jürgen Rinelli

I am only interested in the area in the gray box at the bottom left.

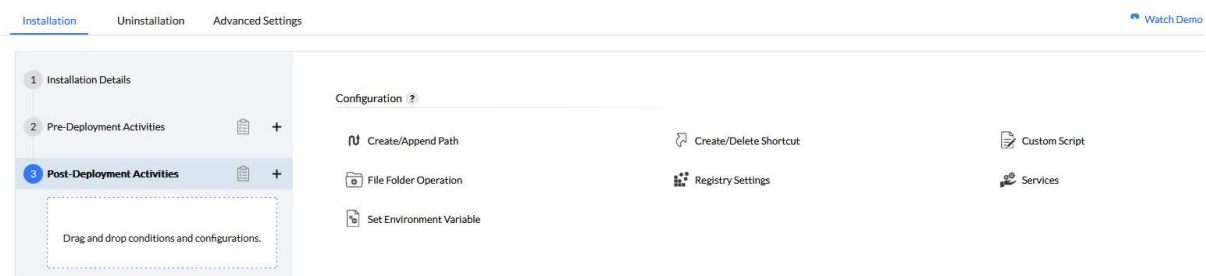


Let's take a look at no. 2, the pre-deployment activities:



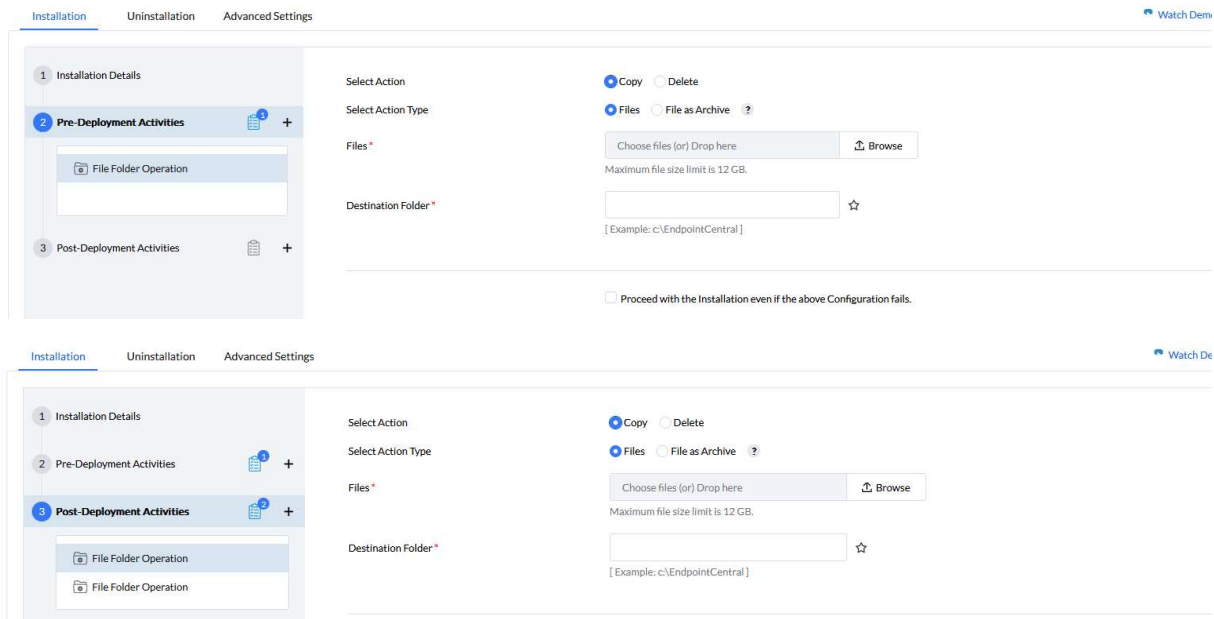
Here I can carry out condition checks and create configurations. Checks such as the presence of registry keys, existing software or free hard disk space. Configurations such as scripts, registry keys, handling running processes or services, uninstalling software and much more.

In No. 3 of the list, the post-deployment activities, I find configurations that I can carry out after installing the software:



An example I always like to give for these pre- and post-activities are the file folder operations. When we have software that the user can customize. Such as columns in different colors, sorting and the like. Then it can happen that these customizations are overwritten after an update. These customizations are usually stored in a local file. I can copy these to a temp directory before the installation and then copy them back to the correct directory after the installation. The second file folder operation shown in the screenshot is then used to clean up the temp directory. In other words, to delete the file again.

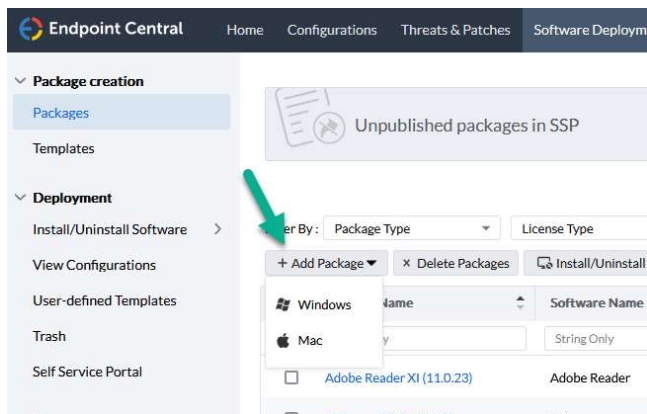
## Software Deployment can be so easy! – from Jürgen Rinelli



### 3. Create your own software packages

The template database is already very powerful, but there is much more software out there and I may also have my own developments in the company. What do I do with them? Is that possible? Logically - otherwise I wouldn't have mentioned it 😊

I can create my own packages for Windows and Mac via "Add Package". I just have to enter all the parameters myself. If I have these to hand and also the installer - I'm done in a minute.



## Software Deployment can be so easy! – from Jürgen Rinelli

Packages > Windows Package Creation

Enter Package Details

Package Name\*

Package Type  MSI / MSP  EXE / APPX / MSIXEXEC / MSU

License Type\*

Locate installable  From Shared Folder  From Local Computer

[.z, .zip, .gzip, .bzip2, and .tar files will be extracted automatically. Total file size limit is 12 GB.]

Installation Uninstallation Advanced Settings

**1 Installation Details**

2 Pre-Deployment Activities

3 Post-Deployment Activities

Installation Command with Switches/Arguments

**i** It is recommended to test this installation manually on a test machine before deploying it in a production environment. [Learn More](#)

The dialog is the same as earlier when we edited the package with the pre- and post-deployment activities. For a new package, I only have to specify the name, the type of installer, the license type and the installation switches/arguments. I can copy the installers into the dialog via the console using drag and drop or browse. Of course, I can also specify a network drive. Complete the uninstallation in the same way as the installation. The Advanced Settings then finally complete the package.

Installation Uninstallation Advanced Settings

**1 Uninstallation Details**

2 Pre-Deployment Activities

3 Post-Deployment Activities

Uninstallation Command with Switches/Arguments

Software Deployment can be so easy! – from Jürgen Rinelli

Installation   Uninstallation   Advanced Settings

---

**Advanced Options**

Exit code

Architecture

Maximum Time Limit for Installation (Hours)

**Package Properties**

Application Name  ?

Version

Vendor

Language

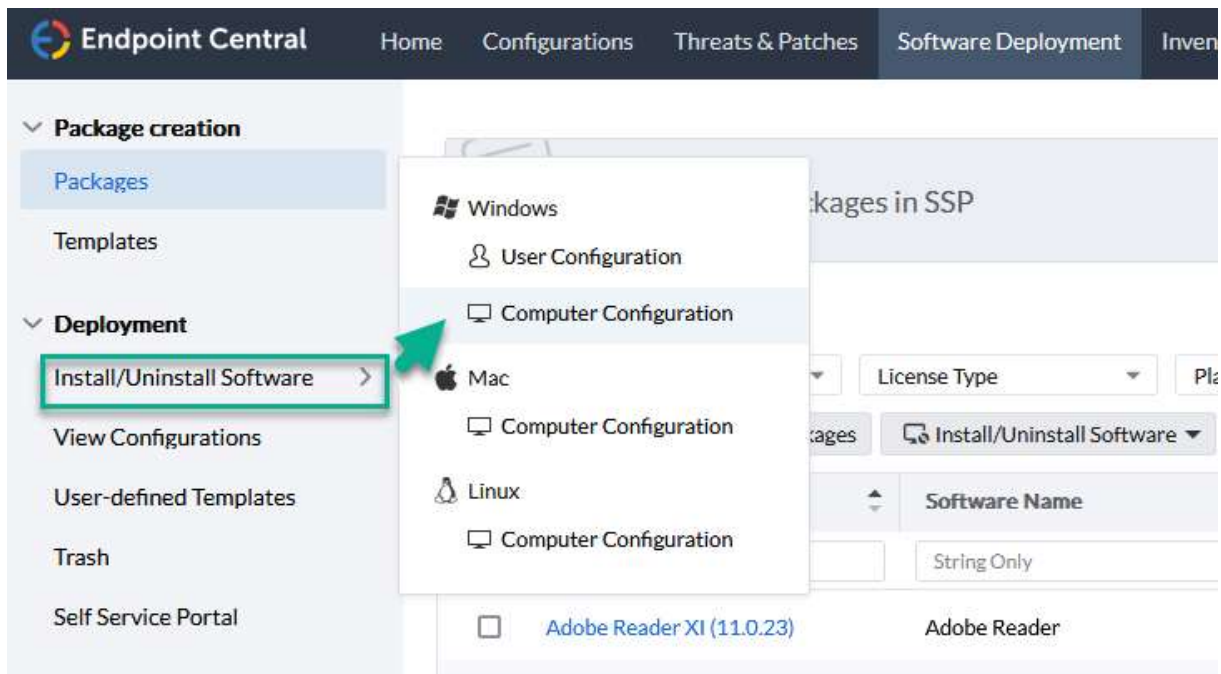
Package Description

And our own package is ready.

## 4. Create software bundles

For me, software bundles are task sequences. In other words, more than one piece of software that I want to install in a configuration in a certain order. On the one hand software that has prerequisites and on the other hand standard software that I want to install in one go on newly refueled systems.

To do this, I create a computer configuration via Install/Uninstall Software:



The next dialog is one we are already familiar with. Here I enter the name - in this example "Standard software". Add the packages via point 2 "Add More Packages", select the deployment policy via point 3 and the targets via point 4. You could use a special OU as the target. I like to use a "New Computers" OU as an example. I put all new computers in there and without having to configure anything else, all computers that end up there automatically receive this software. Practical, isn't it?



## Software Deployment can be so easy! – from Jürgen Rinelli

Install/Uninstall Windows Software (Computer)

Name and Description

Name\* **1** Standardsoftware [Add Description](#)

Install/Uninstall Windows Software

Package Settings

Packages

Package Name	Run As	Operation Type	Copy Option	Actions
Adobe Reader XI (11.0.23)	--	Install	None	...
Google Chrome (x64) (122.0.6261.128, 122.0.6261.129)	--	Install	None	...
Notepad++ (x64) (8.6.4)	--	Install	None	...
WinRAR (x64) (7.00)	--	Install	None	...

Operation Type  Install  Uninstall

Package Name\*  [Add More Packages](#) **2**

Deployment Settings

Apply Deployment Policy\* **3**  [Create/Modify/Save As Policy](#)

Define Target

Target 1 Remote Office/Domain  **4**

## 5. Self Service Portal

The Self Service Portal gives me the freedom to make software available to employees for installation, repair and uninstallation.

On the one hand, I can make special software that differs from the standard software available to the relevant employees. On the other hand, I can make life even easier for myself by only installing the mail program on the new systems. The employees can install the rest themselves. Depending on what they need. Another advantage is that if the software malfunctions, the employees can initiate a repair - before they contact me in support.

The biggest advantage for me, however, is that not every system needs every piece of software, which reduces unnecessary security vulnerabilities. Let's say I have 100 systems and roll out Acrobat Reader on each of them, for example. However, it is actually only needed by 20 employees. Then I have 80 systems with software that is never used, but which I have to patch diligently. If an agent is not accessible or the system is not updated for a long time, then there is an unnecessary security risk here.

Configuring the Self Service Portal is very easy. Simply go to "Publish Software Packages".

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Endpoint Central Home Configurations Threats & Patches Software Deployment Inventory OS Deployment Mobile Device

Package creation  
Packages  
Templates

Deployment  
Install/Uninstall Software  
View Configurations  
User-defined Templates  
Trash  
Self Service Portal  
Reports

Publish software packages to the users/computers and allow them to get it installed by themselves.

- Self Service Portal is supported for both **Windows and Mac OS**.
- Users with non-admin privilege can now install software from Self Service Portal for Windows.
- Choose to publish software, which requires approval for installation. These software requests will be approved using Service

+ Publish Software Packages Filter By: Types

Type	Created By	Creation Time
Computer	janprem	02/03/2023 19:0

Then select the group at the top or create a new one. Then simply select the software you want to make available in the lower area. I then complete the whole process with "Publish".

Self Service Portal

Select the Custom Group\* 64-Bit-Systeme Create Custom Group

Available Software

- Adobe Reader XI (11.0.23)
- CCleaner (6.13.10517)
- CCleaner (6.14.10584)
- CCleaner (6.15.10623)
- CCleaner (6.17.10746)
- CCleaner (6.18.10824)
- CCleaner (6.18.10838)

Selected Software

Installs without approval

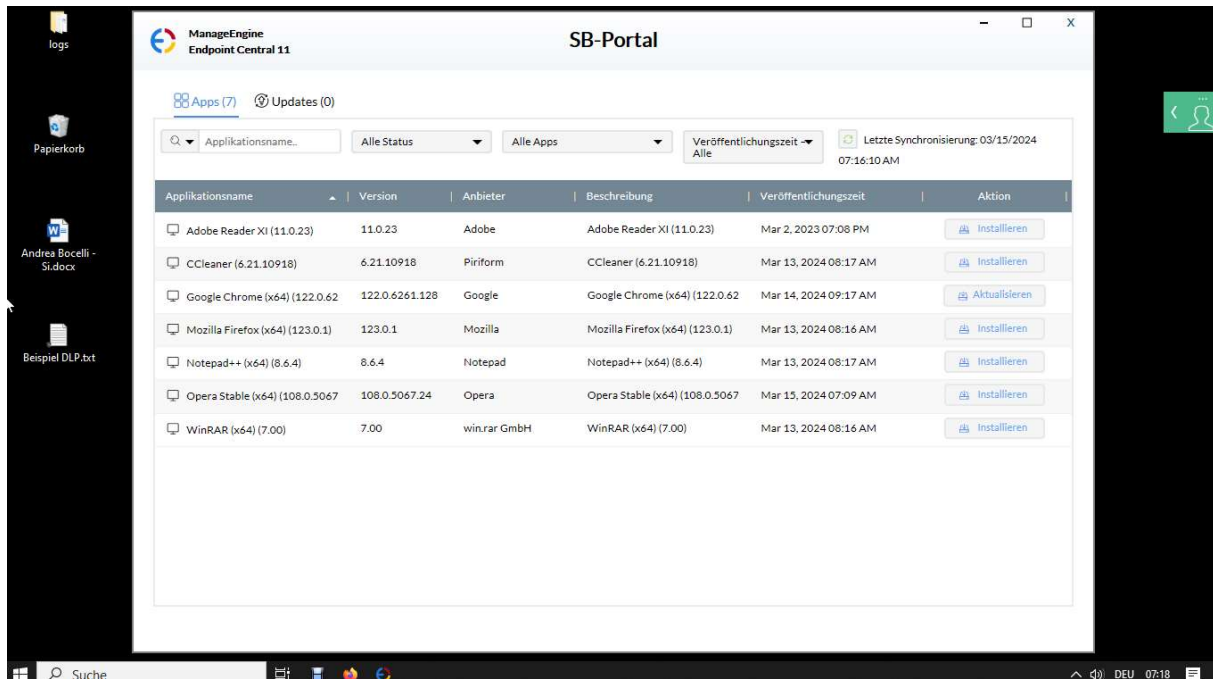
No Software Selected

Note: [Click here](#) to configure Self Service Portal Settings.

Publish Cancel

Software Deployment can be so easy! – from Jürgen Rinelli

On my test system, the Self Service Portal looks like this:



## 6. Closing words

I hope I have been able to give you an insight into the simplicity with which software can - and should - be distributed today. My preferred solution, Endpoint Central, offers a lot here. The templates give me a huge database of easy-to-create packages - without the need for extensive training or external consultants.

That's how it should be and how we love it 😊

## 7. About the Author

MCITP, MCTS, MCP, MOS, Enterprise Administrator, Senior Software Consultant, SCCM Specialist, Author, Coach, Reiki Teacher ...

Jürgen Rinelli was born in Germany in 1970. In his eventful and often adventurous life, he has lived and worked in many countries. Whether as a businessman, manager, mechanic, trainer, diver or IT expert, he always finds a way to pursue his dreams.

