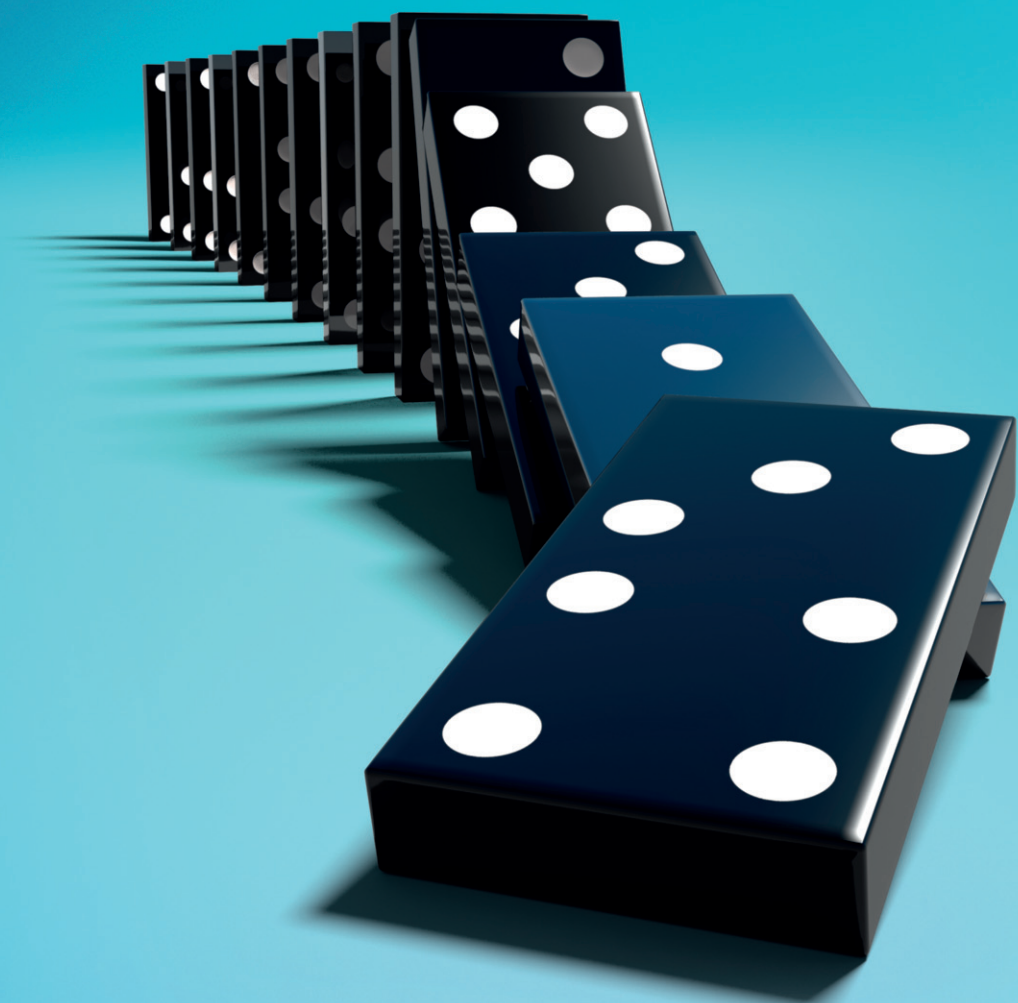# IT/Administrator

Das Magazin für professionelle System- und Netzwerkadministration

AppSphere
ScriptRunner 2018R2

AppSphere ScriptRunner 2018R2

Casing for the PowerShell

by Thomas Bär and Frank-Michael Schlede

For years scripting under Windows was considered a neglected appendage compared to Unix and hardly suitable for professional use. With Power-Shell, this has changed fundamentally and thanks to an extremely successful extension by AppSphere, even the hotline can conveniently access scripts and automate them even more.

Quelle: jalcaraz – 123RF

Fortunately, the days when administrators only saw Windows as an angry fruit salad interface for the end user are long gone. Even if it no longer does justice to the word "Windows", a core installation with minimal GUI is possible. Remote administration from a graphical interface is then the standard, as is the use of PowerShell for automation projects. Returning to the command line is sweetened by the capabilities of PowerShell. Its direct predecessor, the Windows Script Host, was more suited to developers than to ad hoc task management by administrators.

Since 2009, PowerShell, version 2.0 at that time, has been an integral part of Windows and since 2016, the further development under the MIT license has also been usable as open source across platforms for Linux and macOS, at least as an alpha candidate. In contrast with the fact that IT professionals today can solve virtually everything via Power-Shell in Windows, the technology is not used everywhere. Even more open-minded IT professionals and scripting fans often find the creation and maintenance of an extensive collection of scripts too time-consuming and complicated and requiring too much effort. This is exactly where ScriptRunner promises help.

Shell around the PowerShell

The German software company App-Sphere specializes in IT tools for administrators. In addition to solutions for cloud and virtualization applications and programs around to do with the Citrix product range, this also includes software for work in data centers. The ScriptRunner package, currently offered by the company in version 2018R2, is intended to support administrators with their daily work, providing scripts and simplifying their management, administration and delegation considerably.

The focus of the complete solution for PowerShell, which has been available on the market for several years, is the support of developers, administrators, IT managers and helpdesk staff. ScriptRunner automates processes via interfaces, allows easy integration into other solutions, such as PRTG, monitors processes and visualizes the results in dashboards. ScriptRunner logs the results, and the program also enables simplified delegation to other employees, for example in the help or service desk.

The software has proved also itself in the areas of organization, management and development. Finally, the software surrounds PowerShell and provides the framework necessary for day-to-day IT operations.

Slim download package

For our test we had build 4.1.4755.0 of ScriptRunner 2018R2 available. Over time, the manufacturer has adapted its edition concept several times. The software is currently available as a term-based license with a right of use for three to a maximum of five years. The license includes the specified number of user licenses. Additional connectors and Script-Runner host instances require additional licenses.

ScriptRunner 2018R2

Product
Graphical interface for scripting with the PowerShell.

Manufacturer
AppSphere AG
www.scriptrunner.com

Cost
The costs are around 45 euros per administrative user per month at the smallest scale for ten administrators or service desk employees.

System requirements
Commercially available PCs and servers running Windows 7 SP1 / 2008 SP2 and higher with .NET Framework 4.5 Client Profile, Windows PowerShell 3.0 or higher, and Internet Explorer 10 or higher. Internet Explorer 9 works with restrictions.
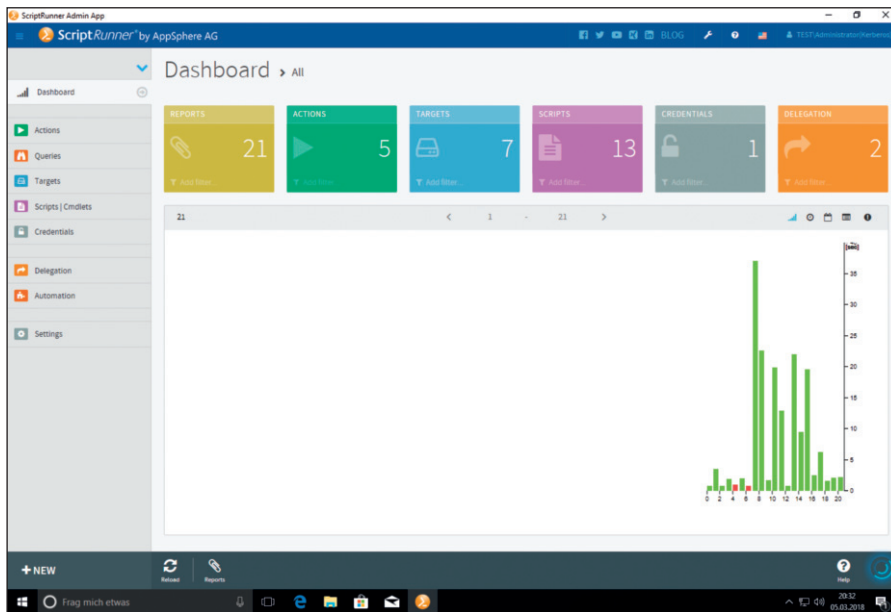

Image 1: Clearly arranged – at a glance the administrator sees in the ScriptRunner dashboard the number of successful or failed actions.

The test software was provided by AppSphere for download. The programs, which are only 36 MBytes, can be downloaded quickly and installed just as quickly. A demo version for a period of 30 days with a maximum of five users is available from the provider to interested parties. In return, the user must disclose name, company name, telephone number and e-mail contact data. The note "Our software is a B2B solution. So please understand that we do not send our trial version to 'disposable email addresses'." makes it clear that without a valid e-mail address it is rather difficult to have a look at the software.

Exemplary documentation
On the positive side, we would like to emphasize that all PDF documents, for installation, for the first steps and for the architecture, are of high quality. Each manual is self-contained, there are only references to other manuals in the appropriate places and in general the documentation describes the functions and background in the necessary technical depth.

Following the recommendation in the configuration guide, we installed the ScriptRunner service on Windows Server 2012 R2, a member server in a test domain. We have used the client applications on various test systems, both under Windows 10 and for test purposes on the

Windows 2012 server itself. In the documentation, the provider advises defining special user groups in the AD.

After installation on our test server, we double-clicked the administrator app and thanks to SSO we were immediately able to take a look at the modern and visually attractive interface. In most other programs, a wizard appears at this point, showing the most important buttons and configuration masks in the logically necessary order. This is not the case with

ScriptRunner – the PDF document "First Steps" is used instead.

In this manual, the new user learns about the most important functions and technical background that are necessary to use ScriptRunner. Due to potential sources of error, especially when executing PowerShell scripts remotely, a fully-formulated document makes much more sense than a software wizard which can easily be skipped through. Provided that all demo scripts from the document are properly executed – whereby the administrator learns how to add new target systems and accounts – it is also ensured that the software is fully operational. Target systems could be so-called containers or Office 365 services. However, the containers are not application container virtualization in the sense of the stylized blue whale, but simply a group of computers.

Logical action formulation
Ultimately, the administrator manages the various scripts and cmdlets in the interface as formatted, context-sensitive actions in configurable policies. These policies include the script, the parameters and the account under which the process is to be started, and the selected target systems. Parameter and target system selection is done either interactively or by programmable presetting.
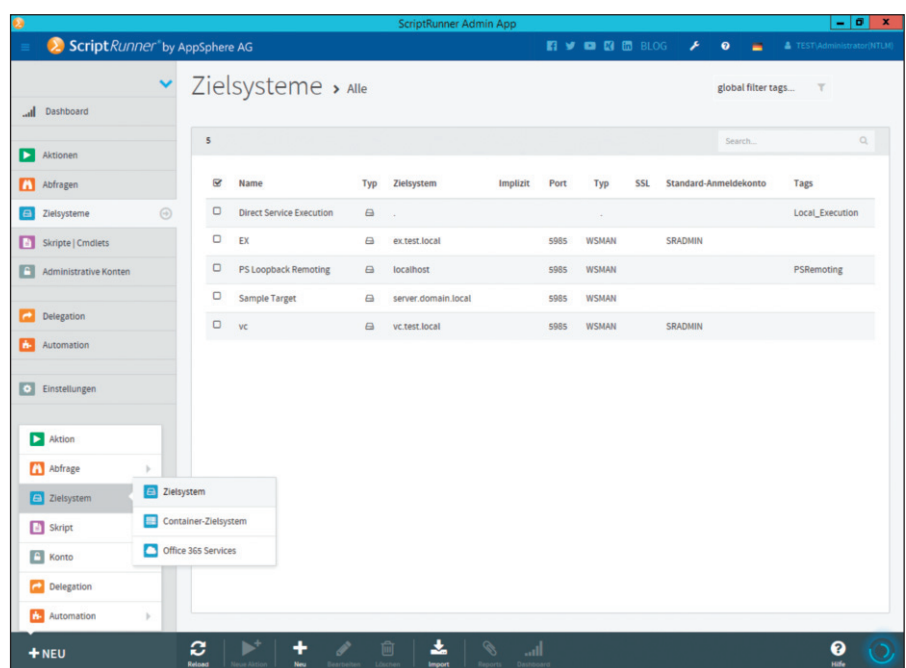

Image 2: With a few mouse clicks, the IT professional inserts additional target systems. In ScriptRunner's understanding, a container is a group of computers.
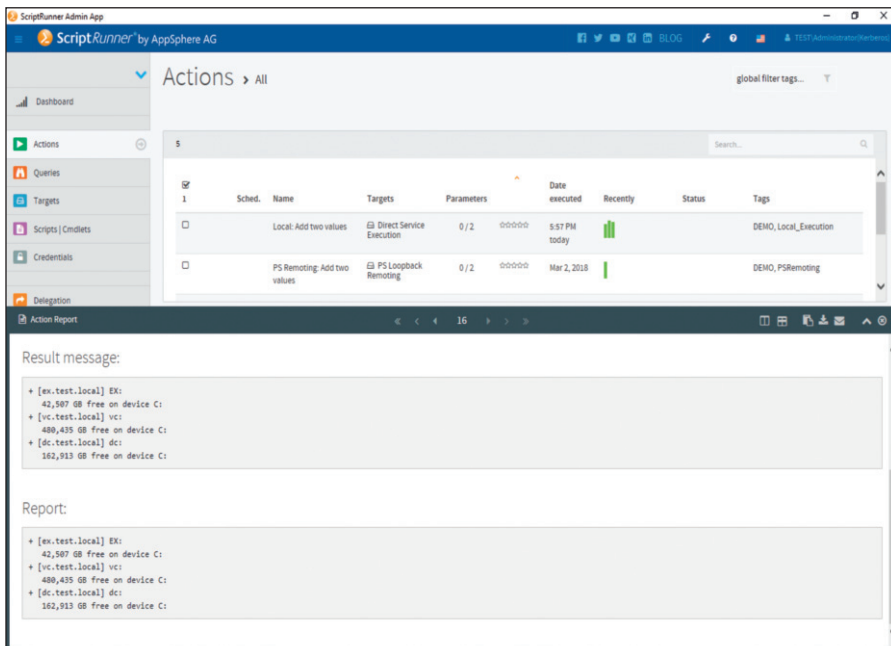
Image 3: The result displayed in ScriptRunner corresponds to the result of the PowerShell commands.

An intelligent step-by-step wizard assists the user in creating, changing and executing actions. The structure and the sequence of steps in the wizard are always identical, which makes training much easier. Depending on the configuration of an action, the software automatically detects whether the user has made all necessary settings for the policy. What exactly an action is, is defined in the script code.

Typical classics are reading system data, such as free disk space, creating or modifying objects and elements in the Active Directory or other things that can be changed or read using PowerShell. Due to the high level of development of PowerShell, this should be just about everything in Windows by now.

Two client applications to choose from

When installing the client applications, the administrator can decide whether he only wants to install the Administrator App or also the so-called Delegate App on his system. For both apps, the user can specify the address of the server on which the ScriptRunner service is active during installation. After that, the user only has to log in using his login data.

In earlier tests of versions 2014 and 2015, we already noticed that the Delegate App, which offers a specifically reduced scope of services for processing in non-IT departments, initially starts in English. By clicking on the US flag in the menu area, the user can switch to German language dialogs.

Unlike many other professional software tools for Windows, the appearance and style of the interface is fortunately not based on the MMC (Microsoft Management Console), but rather on the modern tile look of recent Windows versions. Therefore, this responsive design is also perfectly suited for touch use, which we were able to check during the test on an iOTA One Convertible under Windows 10.

Tools like Windows PowerShell ISE (Integrated Scripting Environment) are rarely used by many administrators because they see them primarily as development tools, but consider their own tasks much more in management and system control. Script Runner, too, initially gives the impression that it is another programming tool. But if you are interested in the software, you will soon realize that it is a thoroughbred administration tool.

Helpful sorting function

ScriptRunner is a modern software that also maintains some traditional elements. The help function - which, however, cannot be started using the usual Windows

F1 key - is context-sensitive and of the same high quality as the PDF documentation already mentioned. Users should pay special attention to the so-called "tags". These optional keywords support the organization with many scripts and help with filtering in the dashboard and other views.

If the administrator wants to apply PowerShell scripts directly from the admin app to different target systems, this is not a problem itself. In the classic Windows style, several systems can be selected by pressing the CTRL key with a simultaneous mouse click. The list works here as an intelligent list with a ranking that sorts according to the greatest possible correspondence of tags, actions and target systems. Calling a script for an OU or a group from the Active Directory is unfortunately not intended here.

Quick Start with Action Packs

ScriptRunner provides the administration with the necessary management capabilities for a collaborative interaction of script jobs and IT management. The tool documents who executed which script, how and where, whether the correct script version was used and whether errors occurred. For example, if the software could not establish a connection to a server, a red status entry is visible in the dashboard.

For script management, the solution provides a central library in which some PowerShell scripts are available as a demo after installation. The administrator has direct access to them via the "Scripts" button on the dashboard. By means of a filter function, the user is able to limit the selection by the various tags that are of particular interest to him. Customers can expand the software free of charge via so-called "Action Packs".

The Action Packs are also suitable for PowerShell beginners, who can use optimized scripts immediately or with only minor adjustments. The extensions delivered in the packs come from the development team of the manufacturer and are maintained and further developed there. Packages for Active Directory, Azure AD and Office 365 are available.

Execute remotely, delegate masterly

When executing scripts, an administrator can use ScriptRunner policies to control how scripts run, for example by directly specifying on which systems specific scripts are to be used. Using the button "Action" we were able to easily configure scripts according to our wishes in this way. It was then possible to monitor their execution directly in the dashboard.

Judgement of IT-Administrator

Setup and documentation   **8**

Action control   **8**

Means of delegation   **8**

Reporting   **7**

Visualization of results   **6**

Die Details unserer Testmethodik finden Sie unter www.it-administrator.de/testmethodik

This product is

ideal for companies with in-depth Power-Shell knowledge which want to have scripts executed by the hotline.

not primarily suited to organizations with low demands on automation projects.

not suitable for small companies where automation and Windows scripting are not an issue.

The software logs the processes and any errors that may occur. We liked the fact that the administrator immediately receives the necessary information about errors on the various log pages, such as a note that the user name and password for accessing a particular system are not correct. Using an integrated scheduler, the administrator is also able to regularly control PowerShell scripts without having to modify a line of code.

Using the "Delegate" function, the IT professional determines from the admin app which actions are to be available to the help desk, for example. This is useful for automating recurring tasks such as creating or deleting an user in Active Directory: A help desk employee only has to enter the name of the user who is to be created or deleted.

Conclusion

ScriptRunner is a real DevOps tool, but not just a development environment. System professionals and administrators, on the other hand, who want to automate their administration and support tasks in the network and rely on scripting, will find a powerful and professional tool here. Not only can they work with PowerShell, thanks to the software even supporting Visual Basic scripts or those on Unix/Linux systems. *(ln)* **IT**