Microsoft

PowerShell 7

PowerShell 7 is a scripting language, automation engine, and cross-platform shell built to handle the growing complexity of the IT management and development landscape.

Building off its legacy of providing a single management interface for Windows, PowerShell 7 continues to manage the growing complexity of digital transformation. Easily manage Windows, macOS, and Linux on-premises, in the cloud, or in a hybrid environment. Improved support for REST and JSON makes automating against REST APIs a snap, and remotely managing machines is easier than ever with support for both SSH and WinRM remoting.

We've also improved performance in starting up PowerShell, leveraging particularly large objects, and by adding the ability to parallelize pipelines.

IT Pros

Remotely manage your on-premises servers and workstations as you always have with Windows PowerShell va**aka.ms/PS7onWindows**

Native Windows module compatibility
Over 85% of inbox Windows modules are now natively compatible with PowerShell 7, including Active Directory, Hyper-V, networking, and storage modules.

Windows PowerShell Compatibility Wrapper
For those modules that don't yet work with PowerShell 7 introduces the ability to automatically call out to Windows PowerShell from within your scripts.

Tooling

PowerShell 7 has first-class support in Visual Studio Code, enabling you to write scripts and modules with best-in-class debugging, inline suggestions from PowerShell Script Analyzer, and a massive ecosystem of other extensions. – **aka.ms/PSVSCode**

Thanks to the modularity of the open-source PowerShell Editor Services, you can enjoy community PowerShell integration in another of your favorite editors, like Visual Studio, Vim, or IntelliJ.

DBAs

PowerShell 7 is fantastic for Databasever Administrators looking to automate querying, collating, and analyzing data from Azure SQL, Microsoft SQL Server, and more using the SqlServer PowerShell module.
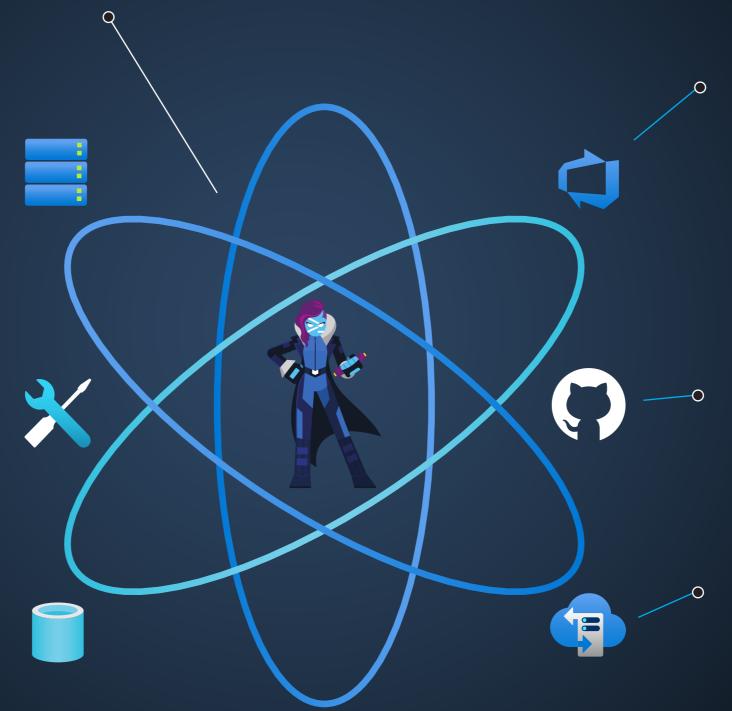
And once you're ready to bring your data into a PowerBI dashboard, you can use the PowerBIMgmt modules to present the data you've collected – **aka.ms/powerbi**

Azure SQL
Deploy and manage high-performance, reliable, and secure relational databases for data-driven applications without needing to manage infrastructure – **aka.ms/AzureSQL**

Azure Data Studio
Enjoy full support for PowerShell Editor Services within this lightweight, database-focused text editor, allowing you to use the SqlServer module in conjunction with your notebooks and database automation – **aka.ms/AzureDataStudio**

DevOps

Define your environment configurations and automate your testing and development all using PowerShell 7. Whether you're an operator defining your environment configurations as code, or an application developer looking to improve the consistency of your automated testing and deployment, PowerShell 7 works great in Azure Pipelines

Azure Pipelines for CI / CD
Use Azure Pipelines with PowerShell to continuously test and deploy server infrastructure, applications, and cloud resources – 1vv**aka.ms/azuredevops**

GitHub Actions
Automate, customize, and execute your software development workflows right in your GitHub repository with GitHub Actions and PowerShell – **github.com/actions**

Open Source

Developed entirely as an open-source project on GitHub, PowerShell 7 includes contributions from many developers outside of Microsoft.

Special thanks to everyone that's contributed features, bugfixes, tests, and documentation to make PowerShell as great as it can be for all of us.

– **github.com/PowerShell/PowerShell**

Hybrid

Manage all your machines through PowerShell regardless of where they run or what platform they run on.

Azure Automation
Manage your cloud and on-premises machines using PowerShell runbooks, Desired State Configuration (DSC), and a built-in credential and secrets manager. – **aka.ms/AzureAutomation**

Azure Stack
Manage and automate your Azure Stack infrastructure and workloads with PowerShell whether you're on the edge, on-premises, or connecting up to the cloud. – **aka.ms/AzureStack**

Cloud Native

Take your PowerShell skill set to the cloud by using PowerShell 7 to manage your VMs, containers, functions, and other cloud resources.

Docker containers
Run PowerShell 7 in the Docker container of your choice to bring your automation and configuration toolkit into your cloud environment. – **aka.ms/PSDocker**

Azure Functions
Run code in response to a variety of events, without having to provision or manage infrastructure, in PowerShell. Build rich serverless scenarios by integrating multiple Azure services. – **aka.ms/AzFunctions**

Azure PowerShell
Manage your Azure resources directly from the PowerShell command line using the Az module. Then write scripts using the Azure PowerShell cmdlets to automate your cloud management. – **aka.ms/AzPS**

Azure Cloud Shell
Azure Cloud Shell is an interactive, browser-accessible shell for managing your cloud resources. Cloud Shell is managed by Microsoft, so it comes with popular command-line tools & language support, and it securely authenticates automatically for instant access to your resources through the Azure CLI or Azure PowerShell cmdlets. – **aka.ms/CloudShell**