

# Marcos Freccia

SQL Server DBA | Data Platform MVP



## My 10 favourite PowerShell Commands

# Who Am I?

**SQL Server DBA at Zalando SE**

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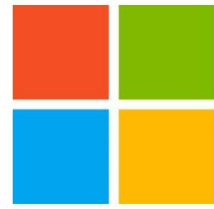
<http://www.marcosfreccia.com>

<https://www.linkedin.com/in/marcosfreccia/>

<https://github.com/marcosfreccia>



# Our Partners



# Microsoft

Platinum



Gold



Bronze



# Agenda

- Why Am I speaking about it?
- What tools are we going to use it?
- Looking for resources?





# Where are the instructions?

<https://aka.ms/ms-docs>



- [docs.microsoft.com](https://docs.microsoft.com) is the platform hosting Microsoft technical documentation
- Content is Open Source(\*), Hosted on GitHub, Community-enabled + in your own language!
- So YOU can help the community of users worldwide to get a better experience by improving the Docs, and grow your reputation online!!

Discover how here <https://aka.ms/intldocs>





# Do you like Open Source?

<https://aka.ms/msossloc>



VS Code



SQL on Linux



Team Explorer Everywhere

... and more!

Help the Community to get them in your language today!





Watch 54 Star 170 Fork 923

- Code
- Issues 8
- Pull requests 30**
- Projects 0
- Insights

Filters is:pr author:marcosfreccia is:closed

Labels Milestones

New pull request

Clear current search query, filters, and sorts

0 Open ✓ 2 Closed Author Labels Projects Milestones Reviews Assignee Sort

Updating blog url for SSISDB on AG ✓ Change sent to author ready-to-merge sql/prod 2  
#1015 by marcosfreccia was merged on Oct 1

Update on TSQL for Rename a Database ✓ Change sent to author do-not-merge sql/prod 5  
#1008 by marcosfreccia was closed on Oct 5

# Why Am I speaking about it?

- PowerShell is cool and you should know it!
- Scripts using a single line of code is all that we wanted.
- You don't need to be a Senior DBA to do it.
- Every DBA should have a minimum understanding about it.





# What tools are going to use it?

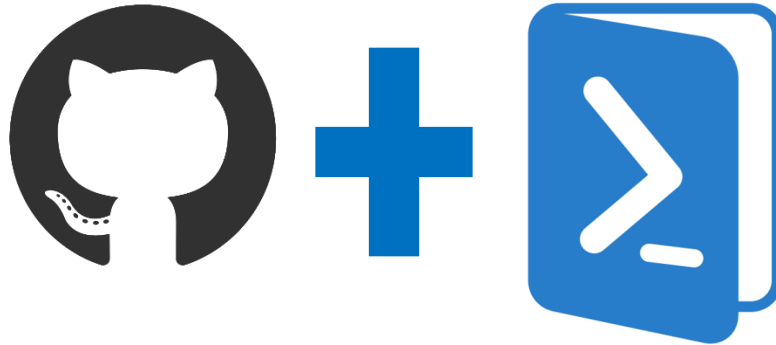


**dbatools**



# What tools are going to use it?

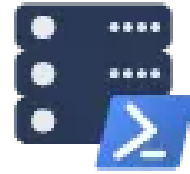
- Built on the top of .NET Framework. Task-based command line shell and scripting language
- Designed to System Admins and Power Users to manage (automate) various tasks.
- Modules are available to almost every Microsoft Product
  - SQL Server
  - Active Directory
  - Windows Server
  - And so on..
- You can design and create your own modules!
- It is Open Source!!



# What tools are going to use it?

- DBATools

- An Open Source PowerShell Module for SQL Server



**dbatools**

- Currently more than 500 commands!
- Firstly created by Chrissy LeMaire (@cl) PowerShell and Data Platform MVP
- Now maintained by more than 40 members of the community
- <http://dbatools.io>



# Dbatools



C:\> Administrator: Command Prompt - powershell

```
Microsoft Windows [Version 10.0.14393]
(c) 2016 Microsoft Corporation. All rights reserved.

C:\Windows\system32>powershell
Windows PowerShell
Copyright (C) 2016 Microsoft Corporation. All rights reserved.

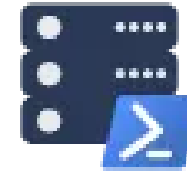
PS C:\Windows\system32> (Get-Command -Module dbatools -Type Function).Count
521
```



# Dbatools

```
Administrator: C:\Windows\System32\cmd.exe - powershell
PS C:\Windows\system32> Find-DbaCommand -Tag "Backup"

CommandName      Synopsis
-----
Backup-DbaDatabase      Backup one or more SQL Sever databases from a...
Copy-DbaBackupDevice    Copies backup devices one by one. Copies both...
Copy-DbaDatabase        Migrates SQL Server databases from one SQL Se...
Expand-DbaDbLogFile     This command will help you to automatically g...
Export-DbaScript        Exports scripts from SQL Management Objects (...
Find-DbaBackup          Finds SQL Server backups on disk.
Format-DbaBackupInformation  Transforms the data in a dbatools BackupHisto...
Get-DbaBackupDevice     Gets SQL Backup Device information for each i...
Get-DbaBackupHistory    Returns backup history details for databases ...
Get-DbaBackupInformation  Scan backup files and creates a set, compatib...
Get-DbaDbExtentDiff     What percentage of a database has changed sin...
Get-DbaDbRestoreHistory  Returns restore history details for databases...
Get-DbaLastBackup       Get date/time for last known backups of datab...
Get-DbaSchemaChangeHistory  Gets DDL changes logged in the system trace.
Invoke-DbaAdvancedRestore  Allows the restore of modified BackupHistory ...
Measure-DbaBackupThroughput  Determines how quickly SQL Server is backing ...
New-DbaScriptingOption   Creates a new Microsoft.SqlServer.Management...
Read-DbaBackupHeader     Reads and displays detailed information about...
Remove-DbaBackup        Removes SQL Server backups from disk.
Restore-DbaBackupFromDirectory  Please use `Get-ChildItem | Restore-DbaDataba...
Restore-DbaDatabase      Restores a SQL Server Database from a set of ...
Restore-DbaDbSnapshot    Restores databases from snapshots
Select-DbaBackupInformation  Select a subset of backups from a dbatools ba...
Test-DbaBackupInformation  Tests a dbatools backup history object is cor...
Test-DbaDbRecoveryModel  Find if database is really a specific recover...
Test-DbaLastBackup       Quickly and easily tests the last set of full...
```



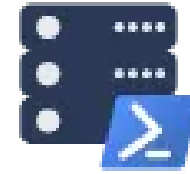
dbatools



# Dbatools

```
PS C:\Windows\system32> Find-Dbatool -Tag HA

CommandName      Synopsis
-----
Add-DbatoolDatabase Adds a database to an availability group on a SQL...
Add-DbatoolListener Adds a listener to an availability group on a SQL...
Add-DbatoolReplica Adds a replica to an availability group on a SQL...
Add-DbatoolDbMirrorMonitor Creates a database mirroring monitor job that pe...
Enable-DbatoolHadr Enables the Hadr service setting on the specifie...
Export-DbatoolAvailabilityGroup Exports SQL Server Availability Groups to a T-SQ...
Get-DbatoolDatabase Gets availability group databases from a SQL Ser...
Get-DbatoolHadr Gets the Hadr service setting on the specified S...
Get-DbatoolListener Returns availability group listeners.
Get-DbatoolReplica Returns the availability group replica object fo...
Get-DbatoolAvailabilityGroup Returns availability group objects from a SQL Se...
Get-DbatoolDbMirror Gets properties of database mirrors and mirror w...
Get-DbatoolDbMirrorMonitor Returns status rows for a monitored database fro...
Get-DbatoolSfcAvailableDisk Gets information about the disks that can suppor...
Get-DbatoolSfcCluster Gets information about one or more failover clus...
Get-DbatoolSfcDisk Gets information about the clustered disks on on...
Get-DbatoolSfcNetwork Gets information about one or more networks in a...
Get-DbatoolSfcNetworkInterface Gets information about one or more network adapt...
Get-DbatoolSfcNode Gets information about one or more nodes, or ser...
Get-DbatoolSfcResource Gets information about one or more resources in ...
Get-DbatoolSfcResourceType Gets information about one or more resource type...
Get-DbatoolSfcRole Gets information about one or more clustered rol...
Get-DbatoolSfcSharedVolume Gets information about Cluster Shared Volumes in...
Grant-DbatoolAgPermission Grants endpoint and availability group permissio...
Invoke-DbatoolAgFailover Failover an availability group.
Invoke-DbatoolDbMirrorFailover Failover a mirrored database
Invoke-DbatoolDbMirroring Automates the creation of database mirrors.
Join-DbatoolAvailabilityGroup Joins a secondary replica to an availability gro...
New-DbatoolAvailabilityGroup Automates the creation of availability groups.
Remove-DbatoolDatabase Removes a database from an availability group on...
Remove-DbatoolListener Removes a listener from an availability group on...
Remove-DbatoolReplica Removes availability group replicas from availab...
Remove-DbatoolAvailabilityGroup Removes availability groups on a SQL Server inst...
Remove-DbatoolDbMirror Removes database mirrors.
Remove-DbatoolDbMirrorMonitor Stops and deletes the mirroring monitor job for ...
Repair-DbatoolDbMirror Attempts to repair a suspended or paused mirrori...
Resume-DbatoolAgDbDataMovement Resumes data movement for an availability group ...
Revoke-DbatoolAgPermission Revokes endpoint and availability group permissi...
Set-DbatoolListener Sets a listener property for an availability gro...
Set-DbatoolReplica Sets the properties for a replica to an availabi...
Set-DbatoolAvailabilityGroup Sets availability group properties on a SQL Serv...
Set-DbatoolDbMirror Sets properties of database mirrors.
Suspend-DbatoolAgDbDataMovement Suspends data movement for an availability group...
Sync-DbatoolAvailabilityGroup Syncs dependent objects such as jobs, logins an...
```



dbatools



# Demo Time!



# Resources

- <https://github.com/PowerShell/PowerShell>
- <http://dbatools.io>
- <https://marcosfreccia.com/category/powershell/>





# Next steps for you

DBATools:

<https://dbatools.io/>



# Thank you!

Please give feedback!

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Blog: <http://marcosfreccia.com>

GitHub: <https://github.com/marcosfreccia/>

