

Thorsten Butz

The X files, Swiss Edition

09. November 2018,

Pathé Dietlikon



geekmania
2018

Gold-Sponsor:



Silver-Sponsor:

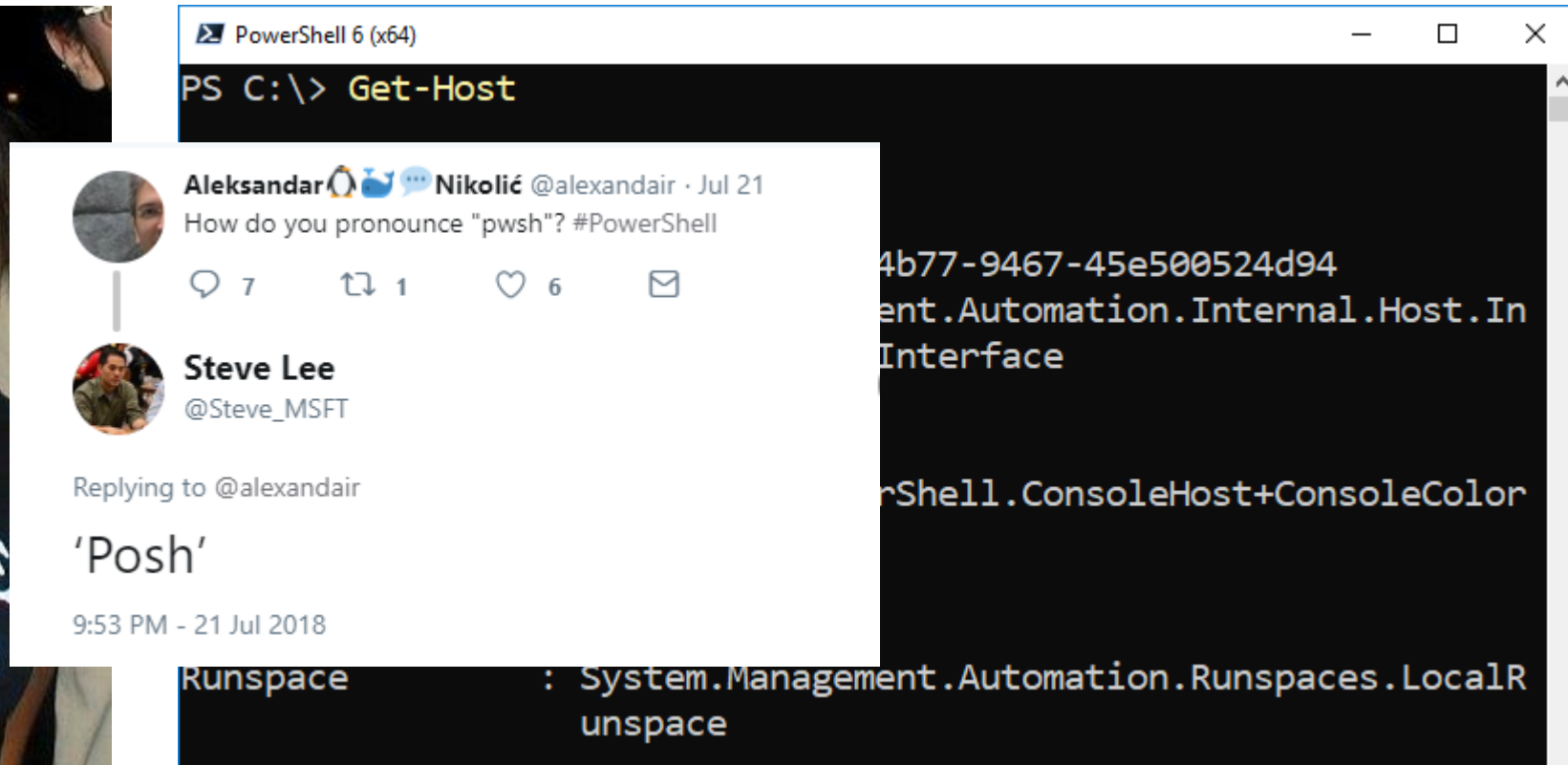


Thank You
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2018

Separated at birth



Posh Spice



Posh Core

Get-Content

- PowerShell Core 6
- `$isLinux = $true`
- PSRP interop
- Win32-OpenSSH on Windows and *nix
- Implicit remoting / "rModule"

```
PS /root> cat /etc/os-release | grep PRETTY
PRETTY_NAME="Raspbian GNU/Linux 9 (stretch)"
PS /root> uname -a
Linux pi3 4.14.71-v7+ #1145 SMP Fri Sep 21 15:38:35 BST 2018 armv7l GNU/Linux
PS /root> $PSVersionTable
```

Name	Value
----	-----
PSVersion	6.1.0
PSEdition	Core
GitCommitId	6.1.0
OS	Linux 4.14.71-v7+ #1145 SMP Fri Sep 21 15:38:35 BST 2018
Platform	Unix
PSCompatibleVersions	{1.0, 2.0, 3.0, 4.0...}
PSRemotingProtocolVersion	2.3
SerializationVersion	1.1.0.1
WSManStackVersion	3.0

```
PS /root> /public/Get-KrakenExchangeRates.ps1
```

Currency	High	Low	Weighted_price	Volume
-----	----	---	-----	-----
EUR	5564.8	5531.6	5550.1	1131.12
USD	6356.5	6312.1	6331.28	706.78
CAD	8360	8295.7	8326.7	28.96
JPY	721396	713294	719444.42	1.9

PoSh Core 6.1

- 1st version of PoSh Core:
WS 2016 NANO
- Support for Windows 7+
- Support for LOTS of Linux
distros/releases
- Support for MacOS 10.12+
- Supports Unzip/Copy/Paste
installations + multiple versions
side-by-side
- Comes with .NET Core 2.1
"attached", no side effects on
existing installations

Mind the gap: Windows vs. *nix

- "Same" CmdLets with different capabilities: Invoke-Command,
- NO RSAT for *nix
- Case sensitivity

ConvertTo-Json, ...

- Less Built-In CmdLets
- Missing aliases:
ls, ps, wget, curl ...

```
PS /> function HelloWorld { 'Hello World!' }
PS /> helloworld
Hello World!
PS /> /public/HelloWorld.ps1
Hello World!
PS /> /public/helloworld.ps1
/public/helloworld.ps1 : The term '/public/helloworld.ps1' is not recognized as the
name of a cmdlet, function, script file, or operable program.
Check the spelling of the name, or if a path was included, verify that the path is c
orrect and try again.
At line:1 char:1
+ /public/helloworld.ps1
+ ~~~~~
+ CategoryInfo          : ObjectNotFound: (/public/helloworld.ps1:String) [], Comman
dNotFoundException
+ FullyQualifiedErrorId : CommandNotFoundException
```

Ubuntu 18.04: Snaps

Featured Server Snaps

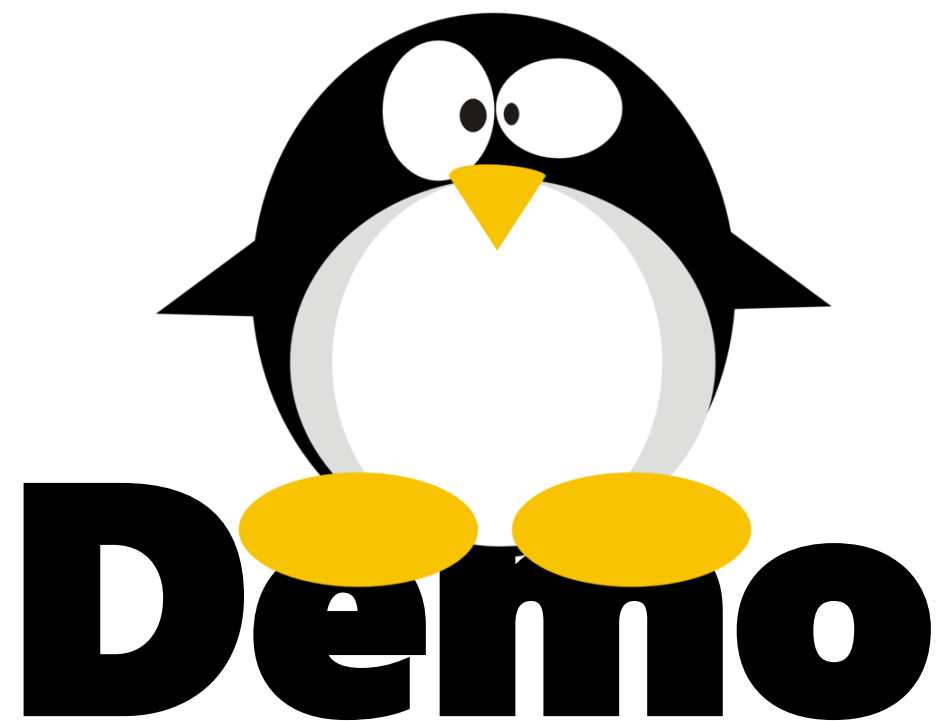
These are popular snaps in server environments. Select or deselect with SPACE, press ENTER to see more details of the package, publisher and versions available.

rocketchat-server	rocketchat	Group chat server for 100s, installed in seconds.
nextcloud	nextcloud	Nextcloud Server - A safe home for all your data
_ powershell	microsoft-powershell	PowerShell for every system!
lxd	canonical	System container manager and API
canonical-livepatch	canonical	Canonical Livepatch Client
aws-cli	aws	Universal Command Line Interface for Amazon Web Services
doctl	digitalocean	Digital Ocean command line tool
conjure-up	canonical	Package runtime for conjure-up spells
google-cloud-sdk	google-cloud-sdk	Command-line interface for Google Cloud Platform products and services
postgres10	cmd	PostgreSQL is a powerful, open source object-relational database system
heroku	heroku	CLI client for Heroku
keepalived	sabdf1	High availability VRRP and load-balancing for Linux
amazon-ssm-agent	aws	Agent to enable remote management of your Amazon EC2 instance configuration
etcd	tvansteenburgh	Resilient key-value store by CoreOS
docker	docker-inc	The docker app deployment mechanism
prometheus	jacek	The Prometheus monitoring system and time series database
juju	canonical	juju client
wekan	xet7	The open-source kanban
wormhole	snappycrafters	get things from one computer to another, safely
minidlna-escoand	escoand	server software with the aim of being fully compliant with DLNA/UPnP c

[Done]

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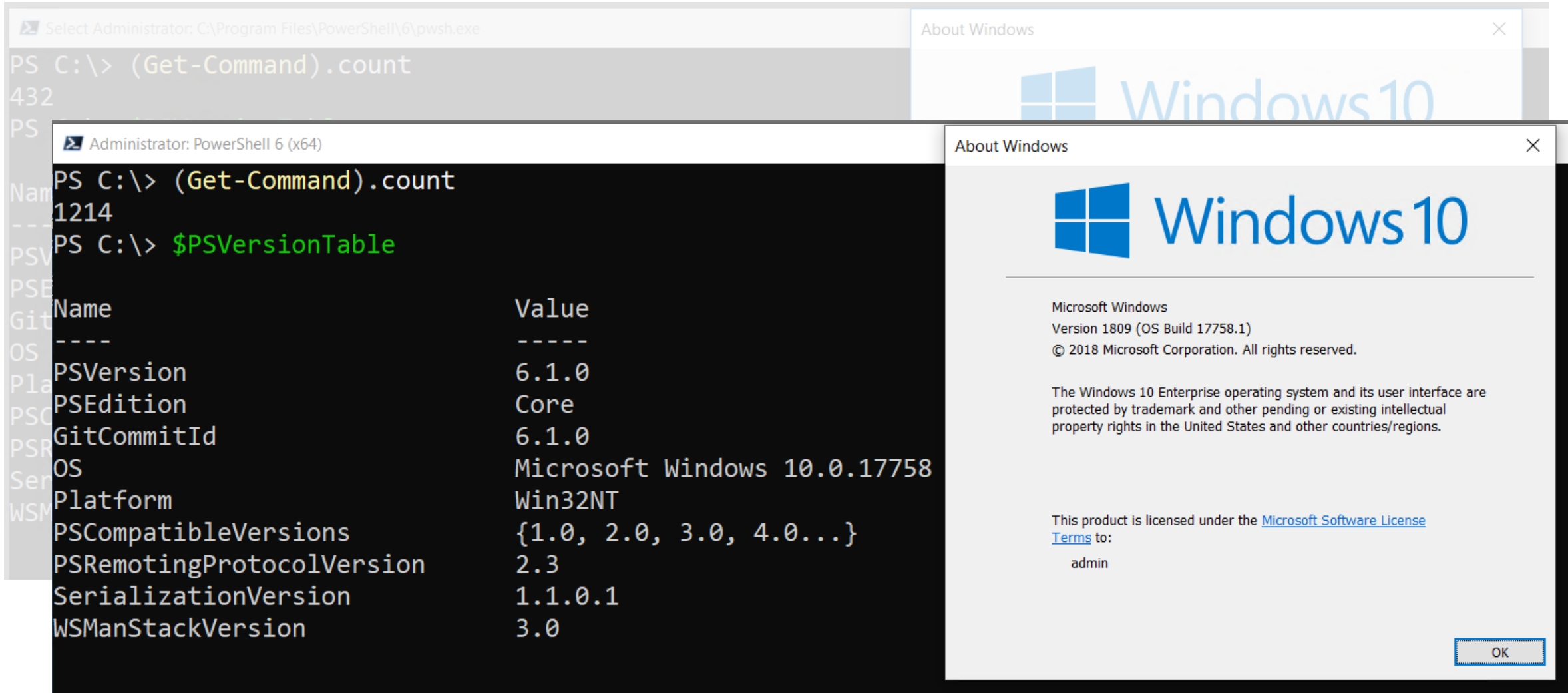
Install in progress: acquiring and extracting image from cp:///media/filesystem



Demo



PwSh 6.1 & Windows 10



Select Administrator: C:\Program Files\PowerShell\6\pwsh.exe

PS C:\> (Get-Command).count

432

PS C:\> (Get-Command).count

1214

PS C:\> \$PSVersionTable

Name	Value
PSVersion	6.1.0
PSEdition	Core
GitCommitId	6.1.0
OS	Microsoft Windows 10.0.17758
Platform	Win32NT
PSCompatibleVersions	{1.0, 2.0, 3.0, 4.0...}
PSRemotingProtocolVersion	2.3
SerializationVersion	1.1.0.1
WSManStackVersion	3.0

About Windows

Windows 10

Microsoft Windows
Version 1809 (OS Build 17758.1)
© 2018 Microsoft Corporation. All rights reserved.

The Windows 10 Enterprise operating system and its user interface are protected by trademark and other pending or existing intellectual property rights in the United States and other countries/regions.

This product is licensed under the [Microsoft Software License Terms](#) to:
admin

OK

Azure Cloud Shell

```
Bash  v | [power] [help] [settings] [refresh] [copy]
Requesting a Cloud Shell.Succeeded.
Connecting terminal...

Welcome to Azure Cloud Shell

Type "az" to use Azure CLI 2.0
Type "help" to learn about Cloud Shell

t@Azure:~$ uname -a
Linux cc-ad10-b4b95bdb-2651052326-jf5nm 4.4.0-119-generic #143-Ubuntu SMP Mon Apr 2 16:08:24 UTC 2018 x86_64 x86_64 x86_64 GNU/Linux
t@Azure:~$ cat /etc/os-release
NAME="Ubuntu"
VERSION="16.04.4 LTS (Xenial Xerus)"
ID=ubuntu
ID_LIKE=debian
PRETTY_NAME="Ubuntu 16.04.4 LTS"
VERSION_ID="16.04"
HOME_URL="http://www.ubuntu.com/"
SUPPORT_URL="http://help.ubuntu.com/"
BUG_REPORT_URL="http://bugs.launchpad.net/ubuntu/"
VERSION_CODENAME=xenial
UBUNTU_CODENAME=xenial
t@Azure:~$
```

Azure Sphere (OS) for IoT devices

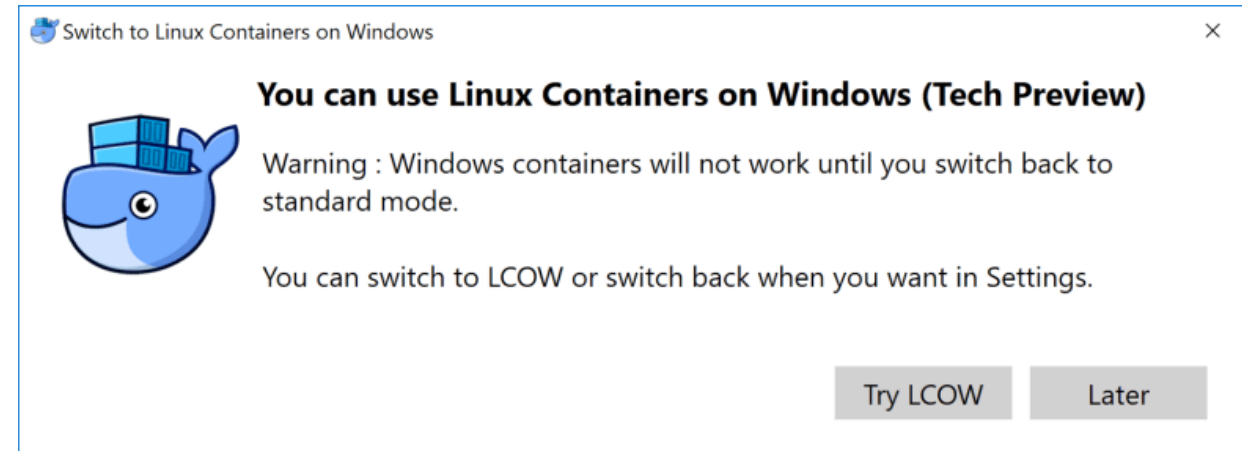


- A new system for securing the tiny processors that power smart appliances, connected toys, and other gadgets.
- Powered in large part by Linux,
- Announced by Brad Smith *

* Microsoft's president and chief legal officer

LinuxKit / LCOW

- LinuxKit
 - A toolkit for building custom minimal, immutable Linux distributions
 - < 40 MB
- LCOW
 - LinuxKit images and utilities for Microsoft's Linux Containers on Windows.
 - Requires Hyper-V Containers
<https://github.com/linuxkit/lcow>



Wrap up!

PoSh + Win32_OpenSSH

- partially BETA quality
- rapid deployment
- community driven
- `$isConfusing = $true`

Questions?

Podcast: Sliding Windows

 www.slidingwindows.de/?feed=slw-mp3

Get-Guest

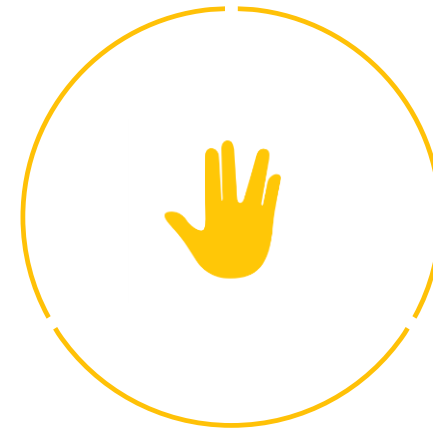
- Jeffrey Snover
- Bruce Payette
- Bartek Bielawski, Joey Aiello
- Rolf Masuch
- (..)



Gold-Sponsor:



Silver-Sponsor:



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about_Speaker

- **Thorsten Butz**

thorsten-butz.de

@thorstenbutz



Get-Content | more

- What's new in PowerShell - BRK3069

<https://youtu.be/9fFAND6OCKU>

- What's New in PowerShell Core 6.1

<https://docs.microsoft.com/en-us/powershell/scripting/whats-new/what-s-new-in-powershell-core-61>

- PowerShell unplugged with Jeffrey Snover and Jason Helmick - BRK2051

<https://youtu.be/DPICqEiz3m4>