PowerShell Conference Europe 2019

Hannover, Germany

June 4-7, 2019

PowerShell on RaspberryPi - Let's open a door for your PowerShell ideas

DANIEL SILVA

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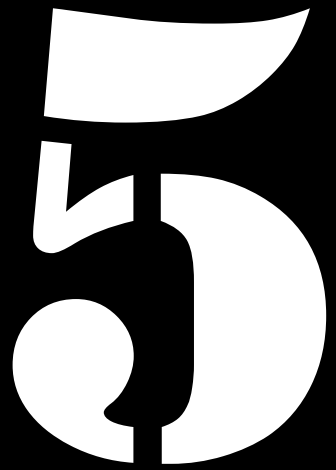

Video operator, did you start the recording?

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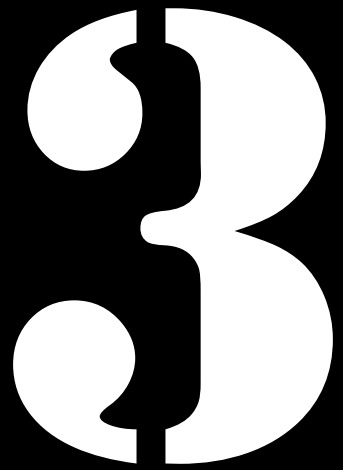

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about_Speaker

- Software developer
  - .NET Core and EF Core;
- DYI and IoT enthusiast;
- RaspberryPi fan;
- Always taking new challenges;
- Always ready to learn;

@DanielSilv9

This Session

You will:

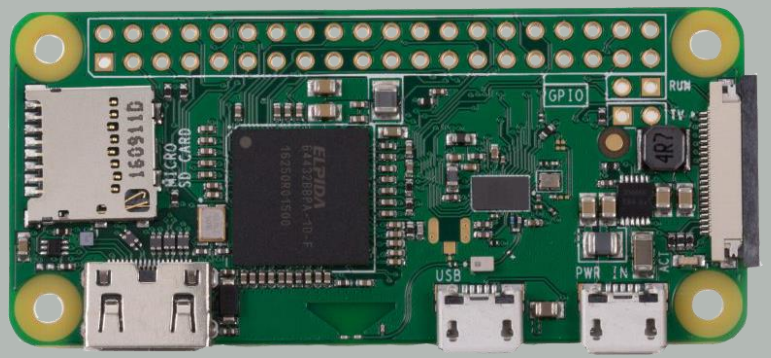
- Learn more about the Raspberry Pi (RPi);
- Understand how it is able to run PowerShell;
- Learn how to install PowerShell on it;
- Learn how to set up remote sessions;
- Learn how to debug a script that's running on the RPi;

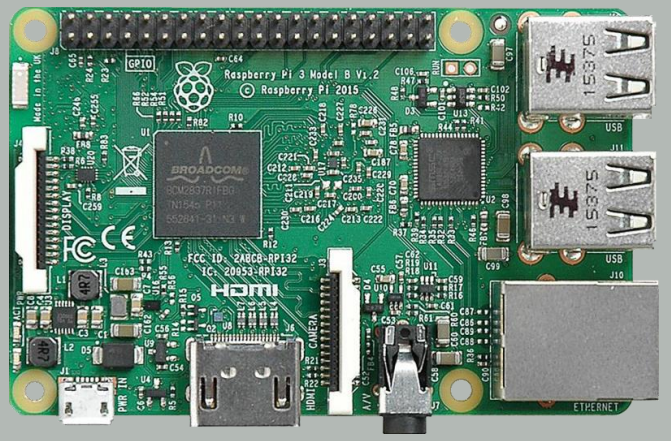
Agenda

- What's a Raspberry Pi and what are its' specifications?;
  - Comparison between RPi3b and RPi Zero W
- Why Am I spending time doing this?;
- How is it possible?;
- How easy it is to setup PowerShell on it?;
- Microsoft.PowerShell.IoT
- Debug a script running on the RPi;
  - Configure the SSHServer;
- What's next?

What's a Raspberry Pi ?

- Single Board Computer (SBC);
- Developed in the UK, by the Raspberry Pi Foundation;
- Designed to teach young people and help people to get access to digital content;
- By March 14th 2018, 19 million units were sold (9 million of them were RPi 3b)[1]





[1] https://www.raspberrypi.org/blog/raspberry-pi-3-model-bplus-sale-now-35/

RPi 3b specifications

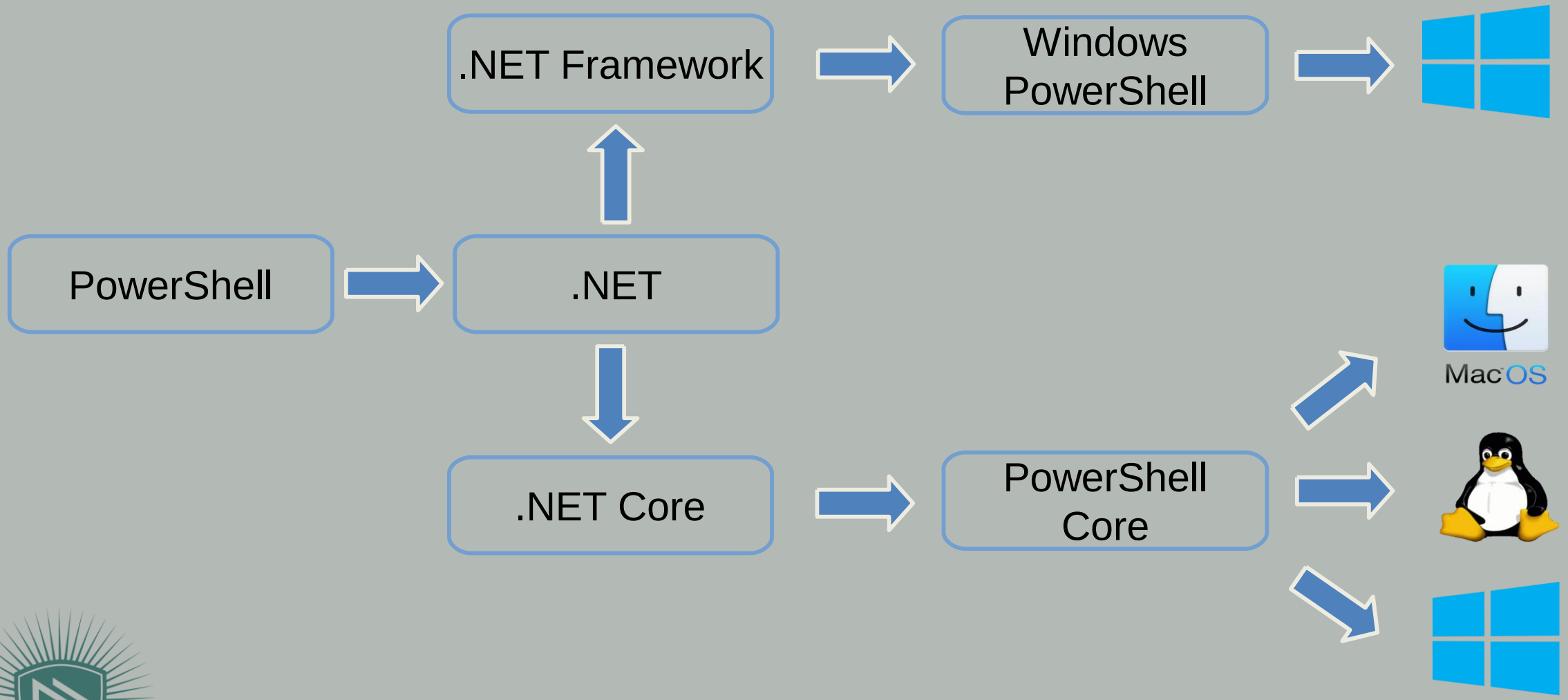
SoC: Broadcom BCM2837
CPU: 4× ARM Cortex-A53, 1.2GHz
GPU: Broadcom VideoCore IV
RAM: 1GB LPDDR2 (900 MHz)
Networking: 10/100 Ethernet, 2.4GHz 802.11n wireless
Bluetooth: Bluetooth 4.1 Classic, Bluetooth Low Energy
Storage: microSD
GPIO: 40-pin header, populated
Ports: HDMI, 3.5mm analogue audio-video jack, 4× USB 2.0, Ethernet, Camera Serial Interface (CSI), Display Serial Interface (DSI)

Taken from https://www.raspberrypi.org/magpi/raspberry-pi-3-specs-benchmarks/

Why am I spending time doing this?

- Learn more about PowerShell;
- Learn about different environments;
- Ask questions about things I don't know;
- Find bugs;
- Empower other developers, by sharing what I've learned and showing what can be done;
- PowerShell and .NET are "small" on the Pi community, compared to other languages

How is it possible?



DEMO

Let’s install PowerShell!
(and do almost everything else)

What's next?

- Incoming migration
- Azure SQL Database Edge

Summary

- How can this tiny computer run PowerShell;
- How to install PowerShell;
- Introduction to PowerShell IoT
- Configure the SSHServer to allow remote;
- Debug a script that's running on the Raspberry

Slides and demo code

```
Start-Process -FilePath https://github.com/psconfeu/2019
```

@DanielSilv9

Questions?

Use the conference app to vote for this session:
https://my.eventraft.com/psconfeu

@DanielSilv9