PowerShell Conference Europe

What is new in Pester

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PRAGUE23

Many thanks to our sponsors:

Centino systems

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ScriptRunner®
The #1 for PowerShell Management

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Jakub Jareš

Pester owner and maintainer. Author of Assert module, and Profiler module. Senior software engineer at Microsoft, developing VSTest and MSTest. I don’t represent Microsoft here.

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@pspester

Need info about Prague, ask me.

Raffle !

https://rb.gy/w9blc

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Thank you community!

- Thanks to all new contributors.
- Thanks especially to fflaten and bravo-kernel.

Frode Flaten
fflaten · he/him

bravo-kernel

Output

Colored output in CI

- Colored output using ANSI.
- Optionally use the Console.Colors.
- Or no coloring at all.

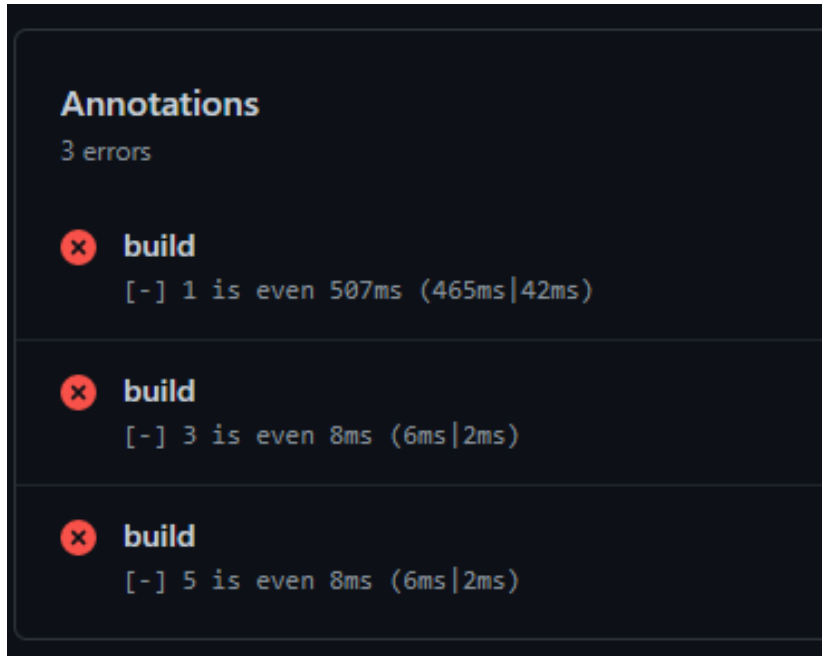
```
$c = New-PesterConfiguration
$c.Output.RenderMode = Auto | Ansi | ConsoleColor | Plaintext
Invoke-Pester -Configuration $c
```

[Pipelines - Run 20230518.4 logs (visualstudio.com)]

CI Format

Formatting specific to your CI provider.

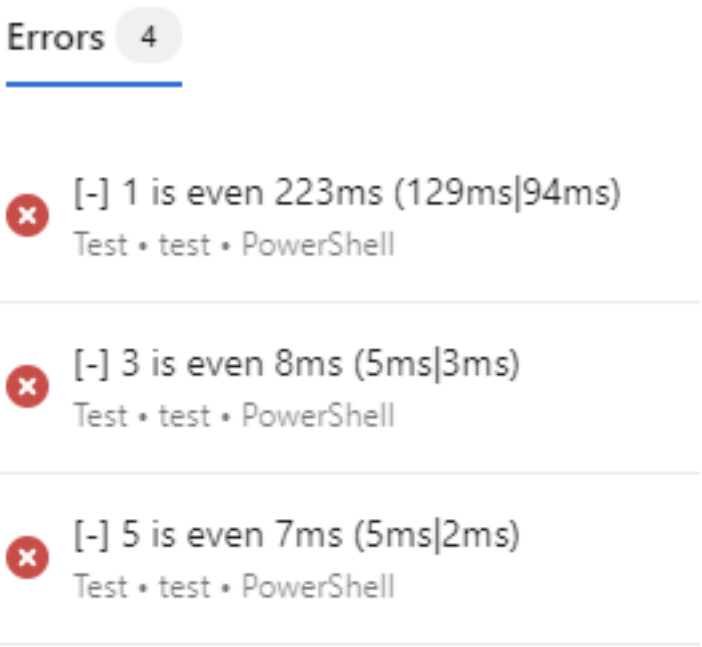
$c.Output.CIFormat = Auto | AzureDevops | GithubActions | None



CI Log Level

Report failed tests as errors or warnings to the CI.

$c.Output.CILogLevel = Error | Warning



NUnit 3 output

$c.TestResult.OutputFormat = NUnitXml | NUnit2.5 | **NUnit3** | JUnitXml

- Has a known and modern schema.
- Adds Data as properties.
- Can distinguish suite and test failures.
- Can distinguish Describe and Context in output.

- Demo.

Should

Should -HaveParameter

- Checking for mutliple aliases.
- Fixes for parameter format.

```
Should
-HaveParameter -ParameterName -Type
-DefaultValue -Mandatory
-InParameterSet -HasArgumentCompleter
-Alias
-Not -Because
```

Demo.

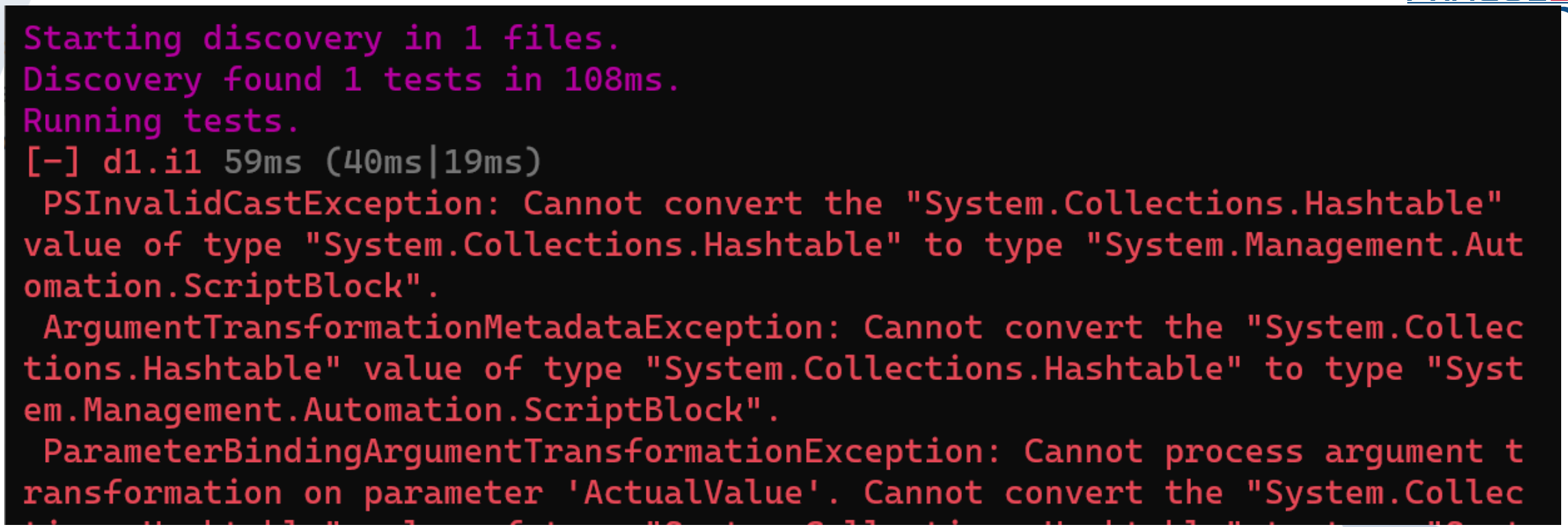
Should -Invoke has because

- Should -Invoke -Because

```
Should -Invoke -CommandName -Times -Exactly
-ParameterFilter -ModuleName
-Scope -Not -Because
```

Demo.

Should -Throw



Demo.

Mock

- Mocking manifest Modules.

Execution

Original path is restored

- Invoke-Pester restores original path.

demo.

BeforeAll / AfterAll are user duration

- demo.

Pester-in-Pester TestDrive is restored

- Invoking Pester in Pester is not clearing TestDrive anymore.
- Parent test drive is restored.

- demo.

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Performance

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Profiler v4 can profile Pester

- Profiling your tests is a great way to find slow code in your module. (Or in our module.)

- demo.

Raffle reminder !

https://rb.gy/w9blc

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Slow Get-Help on Import

- We removed recent regression that loaded help on Import-Module, and made it take ~4 seconds.
- Discovered by dbachecks.

- Wednesday 14:00, Jakub: Going past Profiler, profiling PowerShell code using PerfView.
- Wednesday 9:00, Rob + Jess: The rollercoaster of upgrading dbachecks to Pester v5 and Sampler and teamwork

Mock cleanup perf

- on every Invoke-Pester we inspect script and all module scopes and remove orphaned mocks.

  Previously we did Get-Command -Name PesterMock_*, but this inspect all available modules over and over again.

  Now we use $Get_ChildItem -Name "function:/PesterMock_*"

  Speed: https://github.com/pester/Pester/pull/2332#issuecomment-1492876882

Code coverage perf

- In next release of PowerShell 7, you can have thousands of breakpoints with very little overhead.

- Code coverage speed should increase tenfold.

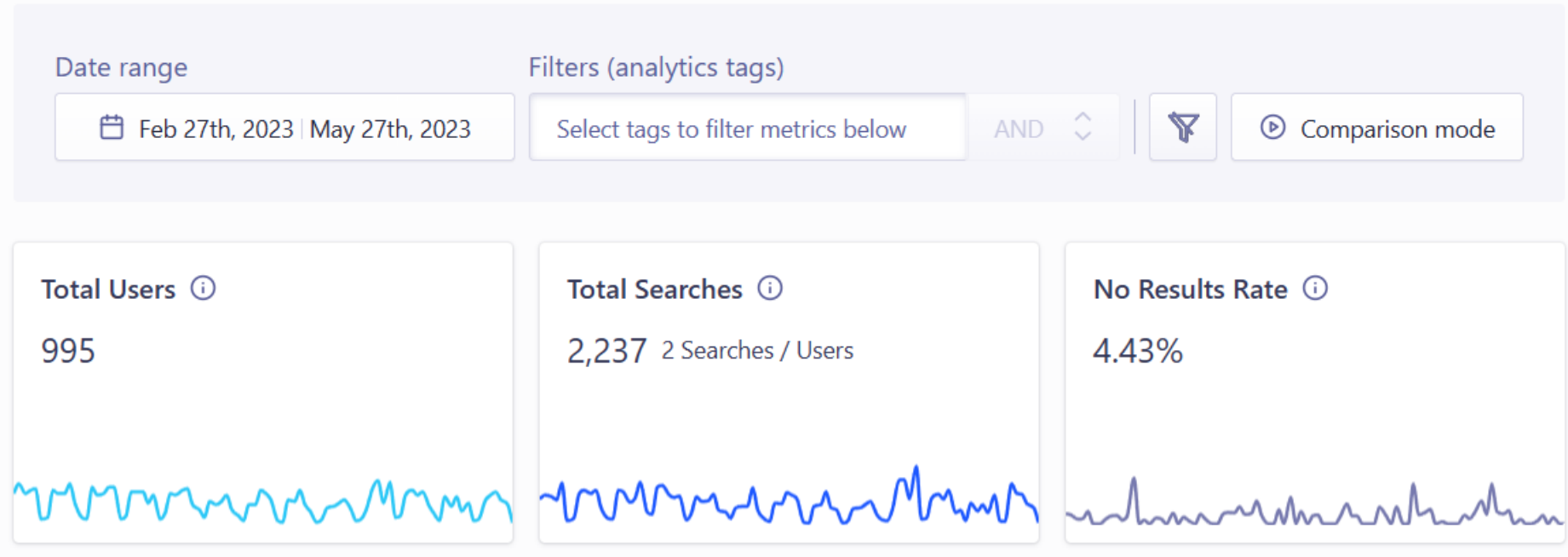
- https://github.com/PowerShell/PowerShell/pull/14953#issuecomment-792283642

Docs

Every new feature needs docs

- https://pester.dev/
- is constantly updated, and maintained by bravo-kernel, and Frode. So we can have cool things like this:
- Discovery and Run | Pester

Algolia gives great statistics



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Most searched terms

	Query	Count	% Total Searches
1	should	62	2.77%
2	mock	38	1.70%
3	foreach	37	1.65%
4	beforeall	32	1.43%
5	context	30	1.34%
6	throw	28	1.25%
7	skip	27	1.21%
8	before	27	1.21%
9	invoke-pester	26	1.16%
10	it	22	0.98%

That's it!

Raffle time!

Pester - Google Forms


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Q&A

15 minutes

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