

# OpenJS World 2021

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## Node.js Diagnostic Best Practices

Node.js Diagnostics Working group

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## Agenda

- Node.js community
- Diagnostics Working group
- The user journey philosophy
- Diagnostic Best Practices documentation
- Diagnostics Tool tiers
- Current status, Challenges, Call for Action

## Node.js community

- Node.js: open source, cross-platform JS runtime environment
- Node.js: Simply put, JavaScript in the backend
- Node.js: Top runtime in modern workload
- Community: governed under OpenJS foundation
- Community: highly active with many working groups
- Community: Keeps high standards on openness, diversity and inclusivity

#### Diagnostics Working group

- Started in 2015 as two separate working groups
  - tracing WG and postmortem WG
- Merged into Diagnostics WG in 2017
- Critical in shaping up many features
  - async\_hooks, profiling, tracing, dump debug, report
- Operational model: work asynchronously, meet biweekly

#### Diagnostics User journey

- Philosophy: shift focus from tools, to user journeys
- Define supported workloads and deployment models
- Define Long-Term-Supported use cases
- Align tools with the use cases, not the other way around
- Identify tooling gaps
- Document user journey content and process
- Drive user-journey to define guides that go into nodejs.dev

#### **Best Practices documentation**

- Step-by-step procedures for Node.js debugging
- Aligned to the user journeys
- Explains best practices for production deployments
  - setup, tool selection, debugging, methodologies
- Loaded with case studies
  - Usage of different tools on similar issues

#### **Diagnostics Tool tiers**

- Assessed classification of supported tools
- Classification based on efficiency, maturity, adoption, and maintenance
- Helps Node.js releases and tool maintenance
- Helps contributing to the tooling improvements

#### **Best Practices Current status**

- Structure defined
- Already in-use doc for memory, profiling, program aborts
- Work in progress for crash, hang, CPU profiling, tracing
- More Case studies to be added
- More Tool usages to be introduced

#### Deep dive documents #439



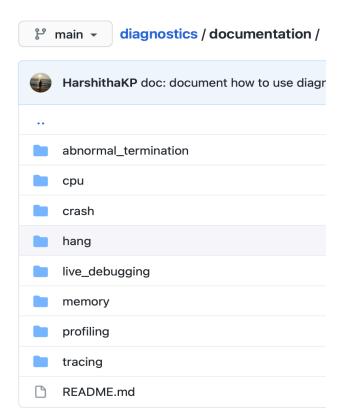
mmarchini opened this issue on Nov 3, 2020 · 1 comment



mmarchini commented on Nov 3, 2020

- Memory Leak
- Process Crash
- Performance
- Unexpected Behavior





## Major challenges

- Slow progress / bandwidth issues
- Lack of real-world stories in some cases
- Lack of broader community engagement

#### Call for Action

- Participate in the WG meetings!
- Review the user journey document
- Review the best practice documentation
- Pick up work items!
- Bring-in real world stories!
- Join the working group!



## THANK YOU!!!

Node.js Diagnostics Working group

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