Contribution ID: **308** Type: **not specified**

The singularity is here for testing: genai advancements on kdevops

The kdevops project automates complex Linux kernel development subsystem testing. Around Q3 we started evaluating advances in generative AI. The experimentation on kdevops shows project significantly enhances the speed and accuracy of generative AI for extending its features and adding new workflows. This capability was a core design principle. While generative AI may not yet be optimal for all Linux kernel development, we lower the barrier to its use on kdevops by adopting a structured, declarative approach to defining and implementing Linux workflows.

The kdevops project fundamentally acts as a Software 3.0 enabler for Linux kernel development. New workflows are now being added with generative AI, and the entire kdevops dashboard is fully generated by generative AI. Recent efforts also enable CI integration without developers needing to touch any CI files, which was a deliberate design choice given the inherent complexity and debugging challenges of continuous integration configurations.

We will review the lessons learned so far, our progress, and why we can verify that the singularity is here, at least for complex testing.

Primary author: CHAMBERLAIN, Luis (Samsung)

Presenter: CHAMBERLAIN, Luis (Samsung)

Session Classification: Kernel Testing & Dependability MC

Track Classification: Kernel Testing & Dependability MC