

Evolution of Continuous Integration for CTA

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CTA's Continuous Integration (CI) system has been around since the inception of the project. However, numerous limitations had piled up: the CI setup was monolithic, developments outside of CTA were difficult to test (EOS, XRootD and dCache), the pipelines were slow and large parts of the CI system were not nicely structured. Over the past year, the CTA team has made significant improvements to the CI in the areas of simplicity, flexibility, performance and robustness. The most impactful change was the migration from plain Kubernetes manifest files to Helm, allowing us to decouple the configuration of CTA from the EOS disk system configuration and opening up opportunities to test other disk buffer systems such as dCache. The new setup allows us to handle complex testing scenarios and perform regression testing on various components independently. We will discuss the challenges we encountered with our CI, the improvements we implemented to address them, and what we hope to do in the future.

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