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## **From design to production: State-of-the art web user interfaces to operate ALICE offline and online system**

**Abstract.** The ALICE Experiment at CERN's Large Hadron Collider is undertaking a major upgrade during Long Shutdown 2 in 2019-2021, which includes a new Online-Offline computing system. To ensure the efficient operation of the upgraded experiment, and of its newly designed computing system, a new set of reliable and performant graphical interfaces is needed. These are to be used 24h/365d in the control room by the shift crew and remotely by the detector experts and on-calls.

The new user interfaces are built based on modern web technologies to ensure support for both Runs 3 and 4 of the experiment, and on a common in-house developed library with the goal to provide the core functionalities and building blocks.

Such an approach secures a common and intuitive experience for the users when moving from one tool or operating system to another, enhancing the productivity but also reducing the chances of user errors.

Moreover, in order to guarantee the stability of the platforms, state of the art technologies and practices were applied to build a continuous-integration/continuous-deployment environment which ensures high quality code, faster releases and reduced mean time to resolution.

This paper provides an in-depth look at the newly developed web-based components including their features and architecture as well as the automated deployment workflow used for software quality assurance.

### **Significance**

### **References**

### **Speaker time zone**

No preference

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