

FESA Quality Assurance

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FESA is a framework used by 100+ developers at CERN to design and implement the real-time software used to control the accelerators.

Each new version must be tested and qualified to ensure that no backward compatibility issues have been introduced and that there is no major bug which might prevent accelerator operations.

Our quality assurance approach is based on code review and a two-level testing process. The first level is made of unit-test (Python unittest & Google tests for C++). The second level consists of integration tests running on an isolated test environment. We also use a continuous integration service (Bamboo) to ensure the tests are executed periodically and the bugs caught early.

In the presentation, we will explain the reasons why we took this approach, the results and some thoughts on the pros and cons.

Availability

Both days

Will you need the training center (Workshops)?

No

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