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## C++ Software Quality in the ATLAS experiment: Tools and Experience

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The ATLAS experiment at CERN uses about six million lines of code and currently has about 420 developers whose background is largely from physics. In this paper we explain how the C++ code quality is managed using a range of tools from compile-time through to run time testing and reflect on the great progress made in the last year largely through the use of static analysis tools such as *Coverity*<sup>®</sup>, an industry-standard tool which enables quality comparison with general open source C++ code. Other tools including *cppcheck*, *Include-What-You-Use* and run-time ‘sanitizers’ are also discussed.

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