

Configuration validation in the art event-processing framework

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One of the difficulties experimenters encounter when using a modular event-processing framework is determining the appropriate configuration for the workflow they intend to execute. A typical solution is to provide documentation external to the C++ code source that explains how a given component of the workflow is to be configured. This solution is fragile, because the documentation and the code will tend to diverge. A better solution is to implement a configuration-checking system that is embedded into the C++ code source itself. With modern C++ techniques, it is possible to cleanly (and concisely) implement a configuration-validation system that self-documents an allowed configuration and validates and provides access to a user-provided configuration. I will be presenting such a system as implemented in the art framework. The techniques used, however, can be applied to any system that represents a user-provided configuration as a C++ object.

Tertiary Keyword (Optional)

Secondary Keyword (Optional)

Software development process and tools

Primary Keyword (Mandatory)

Data processing workflows and frameworks/pipelines

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