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## CERNLIB status

*Tuesday, 25 October 2022 11:00 (30 minutes)*

We present a revived version of the CERNLIB, the basis for software ecosystems of most of the pre-LHC HEP experiments. The efforts to consolidate the CERNLIB are part of the activities of the Data Preservation for High Energy Physics collaboration to preserve data and software of the past HEP experiments.

The presented version is based on the CERNLIB version 2006 with numerous patches made for the compatibility with modern compilers and operating systems. The code is available publicly in the CERN GitLab repository with all the development history starting from the early 1990s. The updates also include a re-implementation of the build system in cmake to make CERNLIB compliant with the current best practices and to increase the chances of preserving the code in a compilable state for the decades to come.

The revived CERNLIB project also includes an updated documentation, which we believe is a cornerstone for any preserved software depending on it.

### Significance

CERNLIB has top importance for the Data Preservation in High Energy Physics as it is the basis software for the most of the pre-LHC HEP experiments.

The revival of the CERNLIB after more than 15 years of absence of maintenance is an example of the scientific software preservation and a source of lessons to learn for the benefits of ongoing software development and related physics experiments.

### References

### Experiment context, if any

Data Preservation for High Energy Physics (DPHEP), ALEPH, OPAL, L3, DELPHI, JADE, H1

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