C++ as a service — rapid software development and dynamic interoperability with Python and beyond

Interactive C++: cling and clang-repl

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Status. Cling

- Continuing to rebase cling on top of llvm13, fixing Windows.
More progress on parsing statements on the global scope: D127284
Delivered shared memory remote execution facility is progressing: D127491, D130392
3 accepted lightning talks and 1 tutorial as part of our GSoC activities
   More details on the GSoC activities in the next monthly meetings

The goal is to provide better stability and robustness which can later cling can reuse.
Status. InterOp

- Working on a full surgery of cppyy where we split it into libInterOp
- Working on simplifying CallFunc and moving it in libInterOp: PR10850
- Initial version CallFunc moved to Cling.
Status. Clad

- Ran on a set of benchmarks, overall good results from the error estimation backend which will be submitted to the IPDPS conference
- Fixed the Hessian regression
- Fixed the Windows regression
- Preparing a release
Documentation

- Added initial PR for cling documentation using the read the docs setup.
Upstreaming Patches

- Spreadsheet tracking the progress here.
- Total amount of upstreamed cling patches 23 out of 52 upstreamable.
- The template resugaring work now has an godbolt entry
Open projects are tracked in our open projects page.
Next Meetings

- Monthly Meeting — 3rd Nov, 1700 CET/0800 PDT
  - Tentative talk by Sunho Kim on orcv2 jit-link infrastructure

If you want to share your knowledge/experience with interactive C++ we can include presentations at an upcoming next meeting
Thank you!