The C++ Alliance

2023 Q1 Summary of Activities

Sam Darwin - CTO

- Refactored & updated drone scripts in boostorg/boost-ci
- Reviewed PRs, reorganized scripts, noted pros/cons of changes
- Discussed Google Cloud billing and migration to Google in Q4 2022
- Upgraded Xcode on macOS servers; debugged C++ memory_resource libraries issue
- Provided gcovr output & scripts in cppalliance/ci-automation repo
- Debugged failing CI job; upgraded valgrind in boost-ci scripts
- Reinstalled drone runners for arm64 on m1 macs
- Submitted PRs to CPPAlliance repos; updated CI files to be passing/green
- Addressed issues/questions in boostorg/regression
- Redesigned launchctl service scripts on macOS for improved efficiency
- Rebuilt and updated s390x drone-runner-exec for jzmaddock
- Worked on drone-git upgrade/customization; faced sporadic errors
- Merged commits in release-tools upgrade project
- Launched 'ibmtest1' instance for Klemens to debug s390x CI test failures
- Assisted Vinnie with CI in http-io repository
- Transitioned boost mailing list gateway from mailgun to Amazon SES
- Upgraded and tested build_docs in boostorg/release_tools
- Added buffers repo Jenkins job for doc previews
- Wrote script to automatically update json benchmarks docs; considered new strategy
- Reviewed new revsys boost.org codebase; set up staging environment & tested deployments
- Added support for Drone caching; improved caching method and features
- Refactored forked drone codebases for easier upgrades
- Set up antorra Jenkins job for demo website
- Explored and tested Circle-lang compiler for potential Drone CI integration
- Improved drone.sh appearance in boostorg/url and boostorg/beast
- Backed up wowbagger and moved boost.org website documentation archives to S3
- Assisted with boostorg/release-tools fork and GHA version of CI deployments
- Upgraded json benchmark servers; dealt with hardware crash & replacement
- Studied Google Kubernetes Engine (GKE) and other Google Cloud services

Alan de Freitas - Staff engineer

- Worked on multiple website-related projects in Q1
- Set up CI workflow and fixed build scripts for MrDox
- Set up main Antora playbook project, AWS workflow for website updates
- Maintained cppalliance/boost mirror; adapted release process for Antora and AWS
- Documented all projects
- Started BoostServerTech project; created CMake layout, set up CI workflow for GHA and Drone
- Implemented caching strategy for CI in BoostServerTech, later reused in other library projects
- Implemented features and bug fixes in maintained/helped libraries
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- Boost.URL: moved to new layout, added support for disabling atomic operations, included fuzzing and Ada library tests, fixed bugs, improved performance
- Drone generator: added semver conjunctions, options for additional jobs, identified problematic compiler versions
- Boost.StaticString: added interoperability support for string_view types, fixed bugs, improved performance
- Assisted other Boost libraries: fixed Boost.Outcome issues in super-project, set up CI for Boost.Buffers

Christian Mazakas - Staff engineer

- track down bug in implementation of Unordered's test Compare predicate
- Implement unordered_node_[map|set]
- fix bug in unordered_flat_map where stack-locals weren't Allocator constructed, leading to subtle issues and bugs

Joaquín M López Muñoz - Staff Engineer

- PoC for a concurrent hash map: https://github.com/boostorg/boost_unordered_benchmarks/blob/parallel_hashmap_benchmark/cfoa.hpp
- API spec for boost::concurrent_hash_map: https://github.com/joaquintides/concurrent_hashmap_api/
- Documentation for boost::unordered_node_(map|set): https://github.com/boostorg/unordered/pull/182
- Improved iteration speed of open-addressing containers: https://github.com/boostorg/unordered/pull/187
- Boost::concurrent_flat_map : https://github.com/boostorg/unordered/tree/feature/cfoa
- Notable achievements: boost::unordered_node_(map|set)

Dmitry Arkhipov - Staff Engineer

- Boost.JSON docs fixes
- Boost release 1.82 preparation

- Minor Boost.JSON features and refactoring
- Contextual conversions feature for Boost.JSON (postponed until after 1.82 release)
- b2 dependency module
- b2 vcpkg support module

Matt Borland -Staff Engineer

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Klemens Morgenstern - Staff Engineer

- boost.beast maintenance & support
    - 1.82 release managment
- Boost.requests
    - simplification / de-templetization
    - pool redo
- boost.sam development (formerly asem)
- boost.sqlite development
- boost.async development

Evan Lenz - Staff Engineer

- Locally updated docca to produce AsciiDoc (instead of Quickbook) for sample Boost library (static_string)
- Navigation tree successfully generated for Antora (also for static_string)
- Updating the docca code base to include the AsciiDoc option
- Ongoing refinements to AsciiDoc generation, especially in the context of other libraries (like json)
- Fix issue with type aliases with template parameters being rendered incorrectly
- Integration of Saxon-JS into the Antora build
- This ongoing plugin project was put on hold to first focus on the XSLT that generates AsciiDoc
- Reviewed, provided feedback, and helped troubleshoot hdoc's XML output capabilities

Rubén Pérez Hidalgo - Staff Engineer

- Boost.MySQL first release (1.82), with compromise for long-term stability, which involved some API changes, integration into Boost, docs improvements and misc fixes.
- Multi-resultset: users can now use the stored procedure programming paradigm, as well as batched queries and a simplified generic execution interface.
- A connection pool prototype and example, which will be the basis for the code to include in BoostServerTech and will be used to prioritize further tasks.
- I'm currently working on parsing rows into compile-time known data structures, which makes code safer and more expressive.

Vinnie Falco - President

- Oversee creation of the Summer Boost Release twitter graphic
- Sketch new design and notes for website pages: News, Learn, Libraries
- Work with designer to finalize Learn and Libraries
- Deploy Antora for site docs, define how antora-enabled library docs work
- Deploy Antora-UI customization for Boost site docs and libraries
- "MrDox": New command line tool to build Asciidoc reference from C++ code
    - Similar to Doxygen
    - Based on clang/llvm's "libtooling"
    - Understands all constructs up to C++23 and approved experimental features

Louis Tatta - CEO

- Initiated new 401k plan; researched and compared cost-effective options with high-quality, low-cost investments
- Managed company books, payroll, vendor payments, and budget
- Addressed employee HR issues
- Facilitate new website development
- Hired and managed contractors
- Oversaw hiring and onboarding of new employees
- Ensure legal and regulatory compliance