Merge Concurrency TS atomic pointers into C++20 working draft

Abstract

This paper proposes merging section 4 of Concurrency TS1 [N4577] into the C++20 working draft.

1   Wording changes

1.1   Add new [atomic.smartptr] subclause

Create a new subclause in [atomic] with the following structure and contents:

> 32.x Atomic smart pointers [atomic.smartptr]
>
> 32.x.1 General [atomic.smartptr.general]
>
> [[same contents as N4577 section 4.1]]
>
> 32.x.2 Class template atomic_shared_ptr [atomic.shared_ptr]
>
> [[same contents as N4577 section 4.3, except remove "namespace experimental {" and "} // namespace experimental"]]
>
> 32.x.3 Class template atomic_weak_ptr [atomic.weak_ptr]
>
> [[same contents as N4577 section 4.4, except remove "namespace experimental {" and "} // namespace experimental"]]

1.2   Update synopsis [atomics.syn]

Update the synopsis subclause [atomics.syn], by adding the contents of N4577 4.2 with the following changes:

- remove "experimental/" from the heading
- remove "namespace experimental {" and "} // namespace experimental"
- before the line "} // namespace std" insert the line "using namespace concurrency_v1;"