Working Draft, Technical Specification for C++ Extensions for Transactional Memory

Note: this is an early draft. It's known to be incomplet and incorrekt, and it has lots of bad formatting.

Contents

1 General [intro]

1.1 Scope [intro.scope]

1 This Technical Specification describes extensions to the C++ Programming Language (1.2) that enable the specification of Transactional Memory. These extensions include new syntactic forms and modifications to existing language and library.

2 The International Standard, ISO/IEC 14882, provides important context and specification for this Technical Specification. This document is written as a set of changes against that specification. Instructions to modify or add paragraphs are written as explicit instructions. Modifications made directly to existing text from the International Standard use underlining to represent added text and ~~strikethrough~~ to represent deleted text.

3 This Technical Specification is non-normative. Some of the functionality described by this Technical Specification may be considered for standardization in a future version of C++, but it is not currently part of any C++ standard. Some of the functionality in this Technical Specification may never be standardized, and other functionality may be standardized in a substantially changed form.

4 The goal of this Technical Specification is to build widespread existing practice for Transactional Memory. It gives advice on extensions to those vendors who wish to provide them.

1.2 Normative references [intro.references]

1 The following referenced document is indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

— ISO/IEC 14882:2014, *Programming Languages - C++*

2 ISO/IEC 14882:2014 is herein after called the *C++ Standard*. The sections in this Technical Specification are numbered in accordance with those in the *C++ Standard*.

1.3 Implementation compliance [intro.compliance]

1 Conformance requirements for this specification are the same as those defined in C++ §1.4. [*Note:* Conformance is defined in terms of the behavior of programs. — *end note*]