Abstract

2011 will see the release of the new C++ standard – often referred to as C++0x. As a language, C++ plays a particularly important role in High Performance Computing and systems programming. Being close to the physical hardware, C++ can provide unrivalled performance, but has also to abide by stricter rules than are common for semi-interpreted languages. In the past, this has led to a very conservative development style – the last official update to the C++ Standard dates back to 2003. With the new standard, many of the more daunting limitations will be removed. Users will benefit from increased performance as well as a wide array of new capabilities, both on the core language side of C++0x and on the side of the standard library.

This presentation will introduce the new standard using specific code examples, including a discussion of limitations that still remain. A particular focus will lie on C++0x’s new features related to concurrency. Possible migration paths for existing projects will be discussed, and the presentation will give an insight into the standards process itself and introduce the people and organizations behind the C++ standard.