

Username: Pralay Patoria **Book:** The C++ Standard Library: A Tutorial and Reference, Second Edition. No part of any chapter or book may be reproduced or transmitted in any form by any means without the prior written permission for reprints and excerpts from the publisher of the book or chapter. Redistribution or other use that violates the fair use privilege under U.S. copyright laws (see 17 USC107) or that otherwise violates these Terms of Service is strictly prohibited. Violators will be prosecuted to the full extent of U.S. Federal and Massachusetts laws.

Chapter 3. New Language Features

The core language and the library of C++ are usually standardized in parallel. In this way, the library can benefit from improvements in the language, and the language can benefit from experiences of library implementation. As a result, a C++ standard library always uses specific language features, which might not be available with previous versions of the standard.

Thus, C++11 is not the same language as C++98/C++03, and C++98/C++03 differs from C++ before it was standardized. If you didn't follow its evolution, you may be surprised by the new language features the library uses. This chapter gives you a brief overview of the new features of C++11, which are important for the design, understanding, or application of the C++11 standard library. The end of this chapter covers some of the features that were available before C++11 but are still not widely known.

While I was writing this book (in 2010 and 2011), not all compilers were able to provide all the new language features of C++11. I expect that this will soon change because all major C++ compiler vendors were part of the standardization process. But for some period of time, you may be restricted in your use of the library. Throughout the book I'll use footnotes to mention any restrictions that are typical and important.