Rcpp11

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Extending R with compiled code is a great way to achieve good performance. Using C++ to rewrite critical parts has become a popular approach in R package development. For years, **Rcpp** [1] has defined the best bridge between *R* and *C++*.

In 2011, the *C++* standards committee released the *C++11* standard [2]. In 2013, major compilers (gcc, clang) have shipped versions of their tools that are feature complete. In April 2014, *R* version 3.1.0 was released with some special support for *C++11*. It is time to start using it. *C++11* is a major update over the previous version of the *C++* standard. It is a combination of various features that make *C++* a much better, more expressive language [3].

Rcpp11 is a complete rewrite of the Rcpp library, it takes advantage of *C++11* to make the user experience of combining *R* and *C++* even better and more future proof. **Rcpp11** was also an opportunity to review the code base of **Rcpp**, identify mistakes and fix them. **Rcpp11** is a smaller, cleaner implementation of the **Rcpp** api, written with *C++11* in mind.

During this talk, I will introduce **Rcpp11** with a few simple examples.

References

[1] Eddelbuettel, D. and R. François (2014). *Rcpp: Seamless R and C++ Integration*. R package version 0.11.1.

[2] ISO/IEC (2011). C++ 2011 standard document 14882:2011. ISO/IEC Standard Group for Information Technology / Programming Languages / C++.

[3] Stroustrup, B. (2013). *The C++ Programming Language* (4th ed.). Addison-Wesley.