RInside

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Install

```
install.packages(c("Rcpp", "RInside"))
```

If it doesn't work, try building from source or asking on Stack Overflow.

C++ to R

```
R["a"] = x;
R.assign(x, "a");
```

- a is the variable we want to create in R and assign value x
- x can be all C++ basic types (e.g. int, double, boolean, string), STL containers (e.g. vector, map, set) or Rcpp containers (e.g. NumericVector, NumericMatrix)

R to C++

- R.parseEvalQ() evaluates string, ignoring any returns
- R.parseEvalQNT() evaluates string without throwing exceptions, ignoring any returns
- R.parseEval() evalulates string, then return the value of the last assignment
- R.parseEvalNT() evalulates string without throwing exceptions

```
R.parseEvalQ(cmd);
type x = Rcpp::as<type>(R.parseEval(cmd));
Rcpp::type x((SEXP) R.parseEval(cmd));
type x = Rcpp::as<type>R["a"];
```

How to use?

- write cpp file
- write Makefile
- build and execute