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| Table 2. Ways to write C++ expressions | | | |
| Data Type | STL (Standard C++) | Rcpp | Armadillo |
| Integer Scalar | int i = 42; | Rcpp::IntegerVector i = 42; | N/A |
| Double Scalar | double d = 3.14; | Rcpp::NumericVector d = 3.14; | N/A |
| Char Scalar | char c = 'A'; | Rcpp::CharacterVector c = "A"; | N/A |
| Integer Vector | std::vector<int> v = {1, 18, 315}; | Rcpp::IntegerVector v = Rcpp::IntegerVector::create(1, 18, 315); | arma::ivec v = {1, 18, 315}; |
| Double Vector | std::vector<double> v = {1.1, 2.2, 3.3}; | Rcpp::NumericVector v = Rcpp::NumericVector::create(1.1, 2.2, 3.3); | arma::vec v = {1.1, 2.2, 3.3}; |
| Character Vector | std::vector<std::string> v = {"A", "B", "C"}; | Rcpp::CharacterVector v = Rcpp::CharacterVector::create("A", "B", "C"); | arma::field<std::string> v = {"A", "B", "C"}; |