

| Optional datatypes (Fortran)          |                       | Fortran types  |
|---------------------------------------|-----------------------|----------------|
| C++ type: MPI:: <datatype></datatype> |                       |                |
| MPI_DOUBLE_COMPLEX                    | MPI::F_DOUBLE_COMPLEX | DOUBLE COMPLEX |
| MPI_INTEGER1                          | MPI::INTEGER1         | INTEGER*1      |
| MPI_INTEGER2                          | MPI::INTEGER2         | INTEGER*8      |
| MPI_INTEGER4                          | MPI::INTEGER4         | INTEGER*4      |
| MPI_INTEGER8                          | MPI::INTEGER8         | INTEGER*8      |
| MPI_REAL2                             | MPI::REAL2            | REAL*2         |
| MPI_REAL4                             | MPI::REAL4            | REAL*4         |
| MPI_REAL8                             | MPI::REAL8            | REAL*8         |

### Datatypes for reduction functions (C and C++)

| C++ type: MPI:: <datatype></datatype> |                      |
|---------------------------------------|----------------------|
| MPI_FLOAT_INT                         | MPI::FLOAT_INT       |
| MPI_DOUBLE_INT                        | MPI::DOUBLE_INT      |
| MPI_LONG_INT                          | MPI::LONG_INT        |
| MPI_2INT                              | MPI::TWOINT          |
| MPI_SHORT_INT                         | MPI::SHORT_INT       |
| MPI_LONG_DOUBLE_INT                   | MPI::LONG_DOUBLE_INT |

### Datatypes for reduction functions (Fortran)

| C++ type: MPI:: <datatype></datatype> |                          |
|---------------------------------------|--------------------------|
| MPI_2REAL                             | MPI::TWOREAL             |
| MPI_2DOUBLE_PRECISION                 | MPI::TWODOUBLE_PRECISION |
| MPI_2INTEGER                          | MPI::TWOINTEGER          |

### Special datatypes for constructing derived datatypes

| C++ type: MPI:: <datatype></datatype> |         |
|---------------------------------------|---------|
| MPI_UB                                | MPI::UB |
| MPI_LB                                | MPI::LB |

### Reserved communicators

| C++ type: MPI:: <intracomm></intracomm> |                 |
|---|-----------------|
| MPI_COMM_WORLD                          | MPI::COMM_WORLD |
| MPI_COMM_SELF                           | MPI::COMM_SELF  |

### Results of communicator and group comparisons

| C++ type: const int<br>(or unnamed enum) |                |
|--|----------------|
| MPI_IDENT                                | MPI::IDENT     |
| MPI_CONGRUENT                            | MPI::CONGRUENT |
| MPI_SIMILAR                              | MPI::SIMILAR   |
| MPI_UNEQUAL                              | MPI::UNEQUAL   |