

# Appendix B

## Predefine datatypes

<u>MPI datatype</u>	<u>C datatype</u>
MPI_CHAR .....	signed char
MPI_SIGNED_CHAR.....	signed char
MPI_UNSIGNED_CHAR.....	unsigned char
MPI_SHORT.....	signed short
MPI_UNSIGNED_SHORT.....	unsigned short
MPI_INT.....	signed int
MPI_UNSIGNED.....	unsigned int
MPI_LONG.....	signed long
MPI_UNSIGNED_LONG.....	unsigned long
MPI_FLOAT.....	float
MPI_DOUBLE.....	double
MPI_LONG_DOUBLE.....	long double
MPI_BYTE.....	none
MPI_PACKED.....	special datatype

<u>MPI datatype</u>	<u>Fortran datatype</u>
MPI_INTEGER.....	INTEGER
MPI_REAL.....	REAL
MPI_DOUBLE_PRECISION.....	DOUBLE PRECISION
MPI_COMPLEX.....	COMPLEX
MPI_LOGICAL.....	LOGICAL
MPI_CHARACTER.....	CHARACTER(1)
MPI_BYTE.....	none
MPI_PACKED.....	special datatype

<u>C++ bindings for MPI datatype</u>	<u>C++ datatype</u>
MPI::CHAR .....	signed char
MPI::SIGNED_CHAR.....	signed char
MPI::UNSIGNED_CHAR.....	unsigned char
MPI::SHORT.....	signed short
MPI::INT.....	signed int
MPI_LONG.....	signed long
MPI::UNSIGNED_SHORT.....	unsigned short
MPI::UNSIGNED.....	unsigned int
MPI::UNSIGNED_LONG.....	unsigned long
MPI::FLOAT.....	float
MPI::DOUBLE.....	double
MPI::LONG_DOUBLE.....	long double
MPI::BOOL.....	bool
MPI::COMPLEX.....	Complex<float>
MPI::DOUBLE_COMPLEX.....	Complex<double>
MPI::LONG_DOUBLE_COMPLEX.....	Complex<long double>
MPI::BYTE.....	none
MPI::PACKED.....	special datatype
MPI::INTEGER.....	(fortran)
MPI::REAL.....	(fortran)
MPI::DOUBLE_PRECISION.....	(fortran)
MPI::LOGICAL.....	(fortran)
MPI::CHARACTER.....	(fortran)
MPI::F_COMPLEX.....	(fortran)
MPI::F_DOUBLE_COMPLEX.....	(fortran)