

Named Predefined Datatypes		C/C++ types
[ticket107.]C type: <b>MPI_Datatype</b>	C++ type: <b>MPI::Datatype</b>	
[ticket107.]Fortran type: <b>INTEGER</b>		
[ticket63.] <b>MPI_CHAR</b>	<b>MPI::CHAR</b>	<b>char</b> (treated as printable character)
<b>MPI_SHORT</b>	<b>MPI::SHORT</b>	<b>signed short int</b>
<b>MPI_INT</b>	<b>MPI::INT</b>	<b>signed int</b>
<b>MPI_LONG</b>	<b>MPI::LONG</b>	<b>signed long</b>
<b>MPI_LONG_LONG_INT</b>	<b>MPI::LONG_LONG_INT</b>	<b>signed long long</b>
<b>MPI_LONG_LONG</b>	<b>MPI::LONG_LONG</b>	<b>long long</b> (synonym)
<b>MPI_SIGNED_CHAR</b>	<b>MPI::SIGNED_CHAR</b>	<b>signed char</b> (treated as integral value)
<b>MPI_UNSIGNED_CHAR</b>	<b>MPI::UNSIGNED_CHAR</b>	<b>unsigned char</b> (treated as integral value)
<b>MPI_UNSIGNED_SHORT</b>	<b>MPI::UNSIGNED_SHORT</b>	<b>unsigned short</b>
<b>MPI_UNSIGNED</b>	<b>MPI::UNSIGNED</b>	<b>unsigned int</b>
<b>MPI_UNSIGNED_LONG</b>	<b>MPI::UNSIGNED_LONG</b>	<b>unsigned long</b>
<b>MPI_UNSIGNED_LONG_LONG</b>	<b>MPI::UNSIGNED_LONG_LONG</b>	<b>unsigned long long</b>
<b>MPI_FLOAT</b>	<b>MPI::FLOAT</b>	<b>float</b>
<b>MPI_DOUBLE</b>	<b>MPI::DOUBLE</b>	<b>double</b>
<b>MPI_LONG_DOUBLE</b>	<b>MPI::LONG_DOUBLE</b>	<b>long double</b>
<b>MPI_WCHAR</b>	<b>MPI::WCHAR</b>	<b>wchar_t</b> (defined in <stddef.h>) (treated as printable character)
[ticket18.] <b>MPI_C_BOOL</b>	[ticket18.](use C datatype handle)	[ticket18.] <b>_Bool</b>
[ticket18.] <b>MPI_INT8_T</b>	[ticket18.](use C datatype handle)	[ticket18.] <b>int8_t</b>
[ticket18.] <b>MPI_INT16_T</b>	[ticket18.](use C datatype handle)	[ticket18.] <b>int16_t</b>
[ticket18.] <b>MPI_INT32_T</b>	[ticket18.](use C datatype handle)	[ticket18.] <b>int32_t</b>
[ticket18.] <b>MPI_INT64_T</b>	[ticket18.](use C datatype handle)	[ticket18.] <b>int64_t</b>
[ticket18.] <b>MPI_UINT8_T</b>	[ticket18.](use C datatype handle)	[ticket18.] <b>uint8_t</b>
[ticket18.] <b>MPI_UINT16_T</b>	[ticket18.](use C datatype handle)	[ticket18.] <b>uint16_t</b>
[ticket18.] <b>MPI_UINT32_T</b>	[ticket18.](use C datatype handle)	[ticket18.] <b>uint32_t</b>
[ticket18.] <b>MPI_UINT64_T</b>	[ticket18.](use C datatype handle)	[ticket18.] <b>uint64_t</b>
[ticket18.] <b>MPI_AINT</b>	[ticket18.](use C datatype handle)	[ticket18.] <b>MPI_Aint</b>
[ticket18.] <b>MPI_OFFSET</b>	[ticket18.](use C datatype handle)	[ticket18.] <b>MPI_Offset</b>
[ticket18.] <b>MPI_C_COMPLEX</b>	[ticket18.](use C datatype handle)	[ticket18.] <b>float _Complex</b>
[ticket18.] <b>MPI_C_FLOAT_COMPLEX</b>	[ticket18.](use C datatype handle)	[ticket18.] <b>float _Complex</b>
[ticket18.] <b>MPI_C_DOUBLE_COMPLEX</b>	[ticket18.](use C datatype handle)	[ticket18.] <b>double _Complex</b>
[ticket18.] <b>MPI_C_LONG_DOUBLE_COMPLEX</b>	[ticket18.](use C datatype handle)	[ticket18.] <b>long double _Complex</b>
<b>MPI_BYTE</b>	<b>MPI::BYTE</b>	(any C/C++ type)
<b>MPI_PACKED</b>	<b>MPI::PACKED</b>	(any C/C++ type)

ticket4.

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### C and C++ (no Fortran) Named Predefined Datatypes | Fortran types

MPI-2.1 Review 33.d'

MPI\_Fint

MPI::Fint

INTEGER

MPI-2.1 Review 33.d'

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Named Predefined Datatypes		Fortran types
[ticket107.]C type: <b>MPI_Datatype</b>	C++ type: MPI::Datatype	
[ticket107.]Fortran type: <b>INTEGER</b>		
MPI_INTEGER	MPI::INTEGER	INTEGER
MPI_REAL	MPI::REAL	REAL
MPI_DOUBLE_PRECISION	MPI::DOUBLE_PRECISION	DOUBLE PRECISION
MPI_COMPLEX	MPI::F_COMPLEX	COMPLEX
MPI_LOGICAL	MPI::LOGICAL	LOGICAL
MPI_CHARACTER	MPI::CHARACTER	CHARACTER(1)
[ticket18.] <b>MPI_AINT</b>	[ticket18.](use C datatype handle)	[ticket18.] <b>INTEGER (KIND=MPI_ADDRESS)</b>
[ticket18.] <b>MPI_OFFSET</b>	[ticket18.](use C datatype handle)	[ticket18.] <b>INTEGER (KIND=MPI_OFFSET)</b>
MPI_BYTE	MPI::BYTE	(any Fortran type)
MPI_PACKED	MPI::PACKED	(any Fortran type)

C++-Only Named Predefined Datatypes	C++ types
C++ type: MPI::Datatype	
MPI::BOOL	bool
MPI::COMPLEX	Complex<float>
MPI::DOUBLE_COMPLEX	Complex<double>
MPI::LONG_DOUBLE_COMPLEX	Complex<long double>

Optional datatypes (Fortran)		Fortran types
[ticket107.]C type: <b>MPI_Datatype</b>	C++ type: MPI::Datatype	
[ticket107.]Fortran type: <b>INTEGER</b>		
MPI_DOUBLE_COMPLEX	[ticket40.] <b>MPI::F_DOUBLE_COMPLEX</b>	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
[ticket57.] <b>MPI_INTEGER16</b>	[ticket57.](use C datatype handle)	[ticket57.] <b>INTEGER*16</b>
MPI_REAL2	MPI::REAL2	REAL*2
MPI_REAL4	MPI::REAL4	REAL*4
MPI_REAL8	MPI::REAL8	REAL*8
[ticket57.] <b>MPI_REAL16</b>	[ticket57.](use C datatype handle)	[ticket57.] <b>REAL*16</b>
[ticket57.] <b>MPI_COMPLEX4</b>	[ticket57.](use C datatype handle)	[ticket57.] <b>COMPLEX*4</b>
[ticket57.] <b>MPI_COMPLEX8</b>	[ticket57.](use C datatype handle)	[ticket57.] <b>COMPLEX*8</b>
[ticket57.] <b>MPI_COMPLEX16</b>	[ticket57.](use C datatype handle)	[ticket57.] <b>COMPLEX*16</b>
[ticket57.] <b>MPI_COMPLEX32</b>	[ticket57.](use C datatype handle)	[ticket57.] <b>COMPLEX*32</b>