

28. Section 16.1.6 on page 453.  
New C++ versions of the Fortran specified-length complex types must be defined and implemented.
29. Section 16.3.7 on page 486.  
**!!!TODO!!! See Ticket – proposed text:** The description was modified that it only describes how an MPI implementation behaves, but not how it must be implemented internally. The erroneous MPI-2.1 Example 16.17 was replaced with three new examples [...insert reference to example numbers...] on page [...pageref...] explicitly detailing cross-language attribute behavior. Implementations that matched the behavior of the old example will need to be updated.
30. Annex A.1.1 on page 490.  
Removed type MPI::Fint (compare MPI\_Fint in Section A.1.2 on page 498).
31. Annex A.1.1 on page 490. Table *Named Predefined Datatypes*.  
Added MPI\_(U)INT{8,16,32,64}\_T, MPI\_AINT, MPI\_OFFSET, MPI\_C\_BOOL, MPI\_C\_FLOAT\_COMPLEX, MPI\_C\_COMPLEX, MPI\_C\_DOUBLE\_COMPLEX, and MPI\_C\_LONG\_DOUBLE\_COMPLEX are added as predefined datatypes.

## 2.2 Changes from Version 2.0 to Version 2.1

1. Section 3.2.2 on page 27, Section 16.1.6 on page 453, and Annex A.1 on page 490.  
In addition, the MPI\_LONG\_LONG should be added as an optional type; it is a synonym for MPI\_LONG\_LONG\_INT.
2. Section 3.2.2 on page 27, Section 16.1.6 on page 453, and Annex A.1 on page 490.  
MPI\_LONG\_LONG\_INT, MPI\_LONG\_LONG (as synonym), MPI\_UNSIGNED\_LONG\_LONG, MPI\_SIGNED\_CHAR, and MPI\_WCHAR are moved from optional to official and they are therefore defined for all three language bindings.
3. Section 3.2.5 on page 31.  
MPI\_GET\_COUNT with zero-length datatypes: The value returned as the count argument of MPI\_GET\_COUNT for a datatype of length zero where zero bytes have been transferred is zero. If the number of bytes transferred is greater than zero, MPI\_UNDEFINED is returned.
4. Section 4.1 on page 77.  
General rule about derived datatypes: Most datatype constructors have replication count or block length arguments. Allowed values are **non-negative** integers. If the value is zero, no elements are generated in the type map and there is no effect on datatype bounds or extent.
5. Section 4.3 on page 127.  
MPI\_BYTE should be used to send and receive data that is packed using MPI\_PACK\_EXTERNAL.
6. Section 5.9.6 on page 171.  
If comm is an intercommunicator in MPI\_ALLREDUCE, then both groups should