



MPI Forum 2020/07/12
Virtual Meeting

Groups, Contexts, Communicators and Caching

Chapter Diff

Two types of changes

- Limited (formal) changes
 - No semantics modifications
 - The tex file is modified, but the pdf is not necessarily
- More substantial changes
 - New features introduced
 - Modification of existing features

Limited (formal) changes

- Pythonization for all bindings (not so limited ...)
- Consistent use of
 - Inter-communicator(s)/Inter-Communicator(s)
 - Intra-communicator(s)/Intra-Communicator(s)
- Replacement of “-” with `\hyphen/` command
- Process → MPI process
- Replacement of offensive language
- Better formatting
 - e.g., `\mpiarg` → `\const`
- Added index references for missing constants and functions
 - e.g., `\const` → `\constmain`, etc.
- Examples description
- Typos corrections, whitespace removal, etc.

Substantial changes (1)

- Changes dealing with **Sessions**
 - spm/wpm text added when necessary
 - New function: `MPI_Group_from_session_pset`
 - New function: `MPI_Comm_create_from_group`
 - New function: `MPI_Intercomm_create_from_group`

Substantial changes (2)

- Changes dealing with **HW topologies**
 - Two new `split_type` values:
 - `MPI_COMM_TYPE_HW_GUIDED`
 - Prototype modified for `MPI_Comm_split_type`: `info` argument is now `INOUT` instead of `IN`
 - `MPI_COMM_TYPE_HW_UNGUIDED`
 - 2 new code examples, 1 new figure and 2 new references
 - Clarifications for both:
 - `MPI_Comm_split_type`
 - `MPI_COMM_TYPE_SHARED`: clear reference to `MPI_Win_allocate_shared`

Substantial changes (3)

- MPI_Comm_dup clarifications w.r.t:
 - Keyvalues
 - Info hints
 - Topology information
- MPI_Comm_idup clarifications
- New function: MPI_Comm_idup_with_info
- New info keys:
 - mpi_assert_no_any_tag
 - mpi_assert_no_any_source
 - mpi_assert_exact_length
 - ...
- Changes dealing **Communicator info management**
 - MPI_Comm_get/set_info clarifications
 - New advice to users
 - One advice removed