

File Chapter Ideas

Deprecate

- Split-phase collective File I/O?
- Simplify collective I/O
  - Consider eliminating or making optional file views (and just use an offset + datatype pair)
  - Allow non-contiguous independent I/O

Make more File API calls non-blocking

- open, close, truncate, sync are high priorities for HDF5

Separate out MPI\_File\_sync into smaller ideas

- “flush”
  - Write cached data to a file
- “sync”
  - Ingest changes from file system
  - Filesystem metadata (e.g. file size) as well as file contents
- “update peers”
  - Pass information to other ranks in comm that opened the file, but don't touch the file system
  - Useful for caching

Other new API routines

- “punch”
- “append”

Possibly Speculative

- Consider how to perform I/O to/from accelerator memory
- Consider how to perform parallel (i.e. collective) I/O to object stores
  - DAOS, S3, etc.
- Ultra ethernet consortium storage ideas?

Consider moving File chapter to an “auxiliary” document that is outside the Standard proper

- But maybe it's similar to RMA?
- But still want Tools wrappers