



A pyramid diagram representing a memory hierarchy, divided into seven horizontal layers. The layers are labeled from top to bottom: Register, Cache Memory, Main Memory, Non-volatile Memory, NVMe SSD, Hard Disk Drive, and Optical Disk / Magnetic Tapes. The colors of the layers transition from orange at the top to blue at the bottom.

Register

Cache
Memory

Main Memory

Non-volatile Memory

NVMe SSD

Hard Disk Drive

Optical Disk / Magnetic Tapes

計算ノード

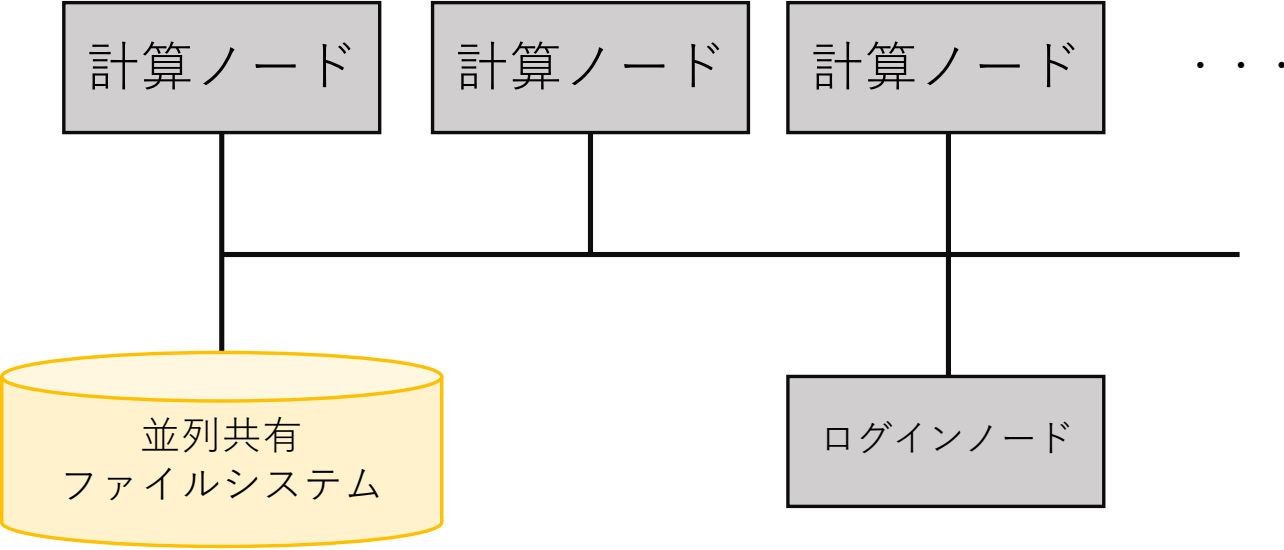
計算ノード

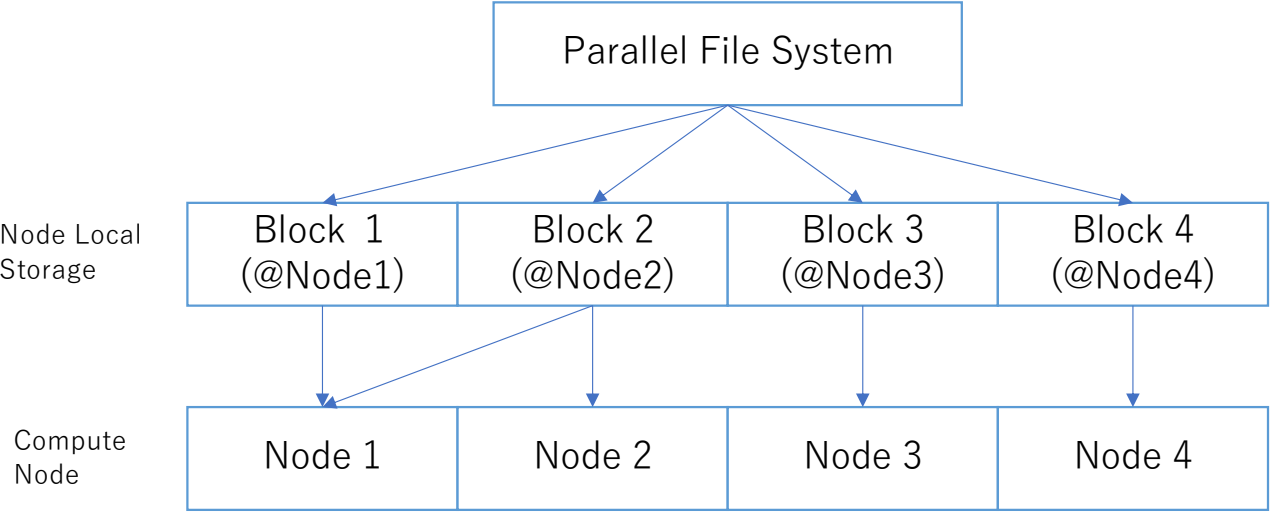
計算ノード

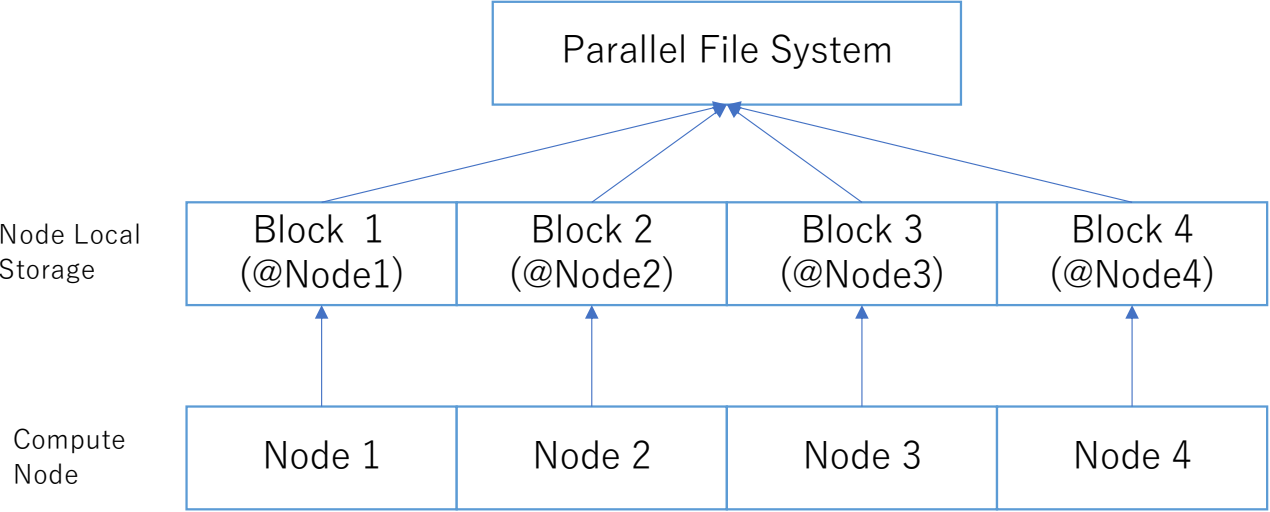
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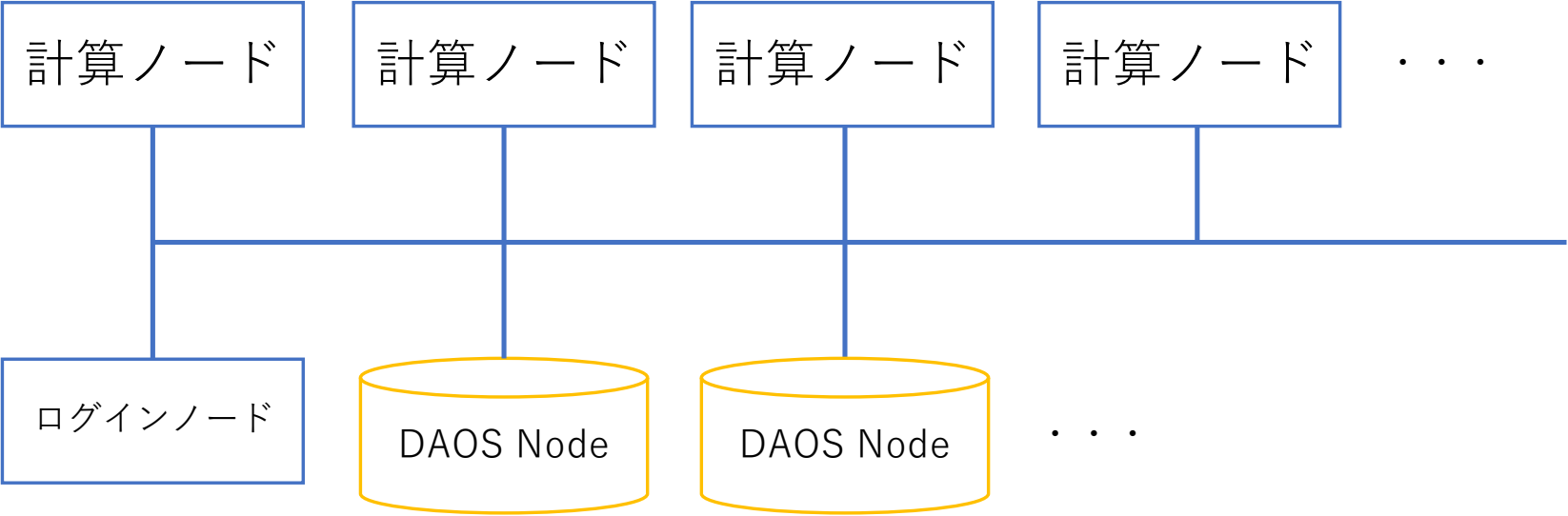
並列共有
ファイルシステム

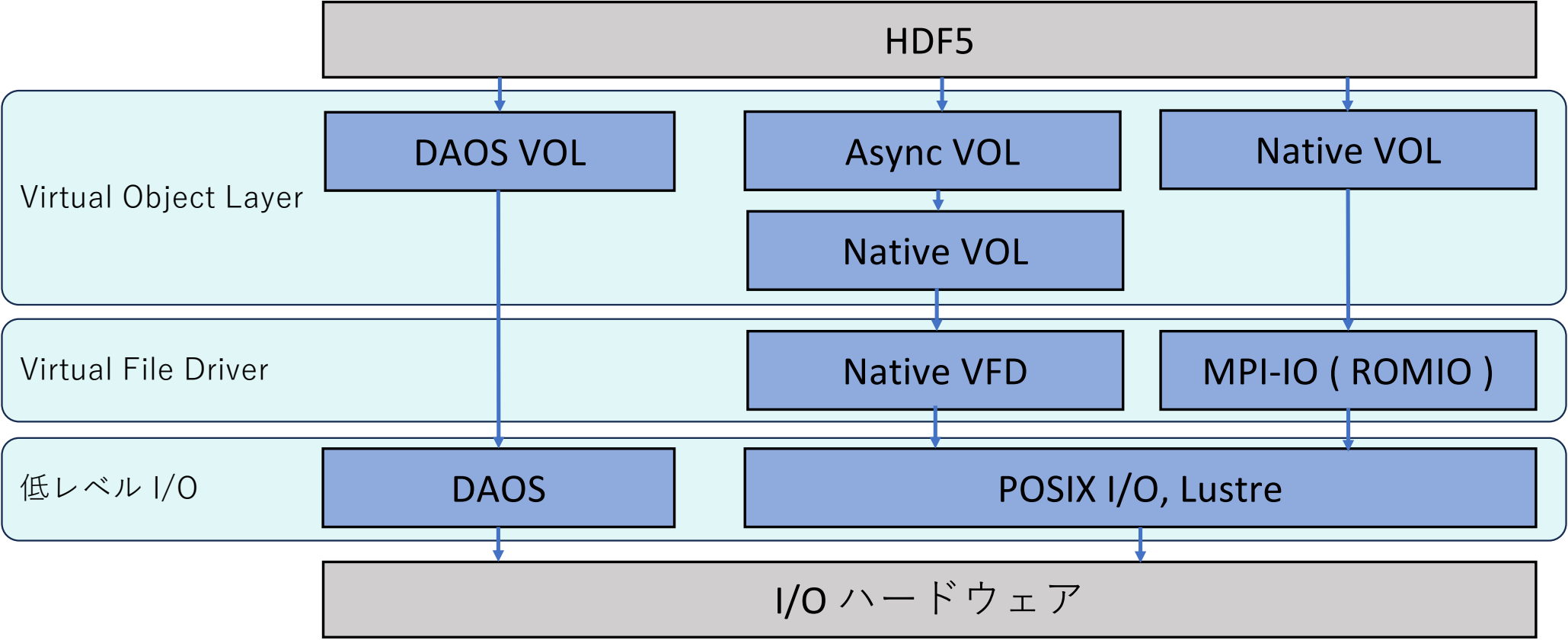
ログインノード

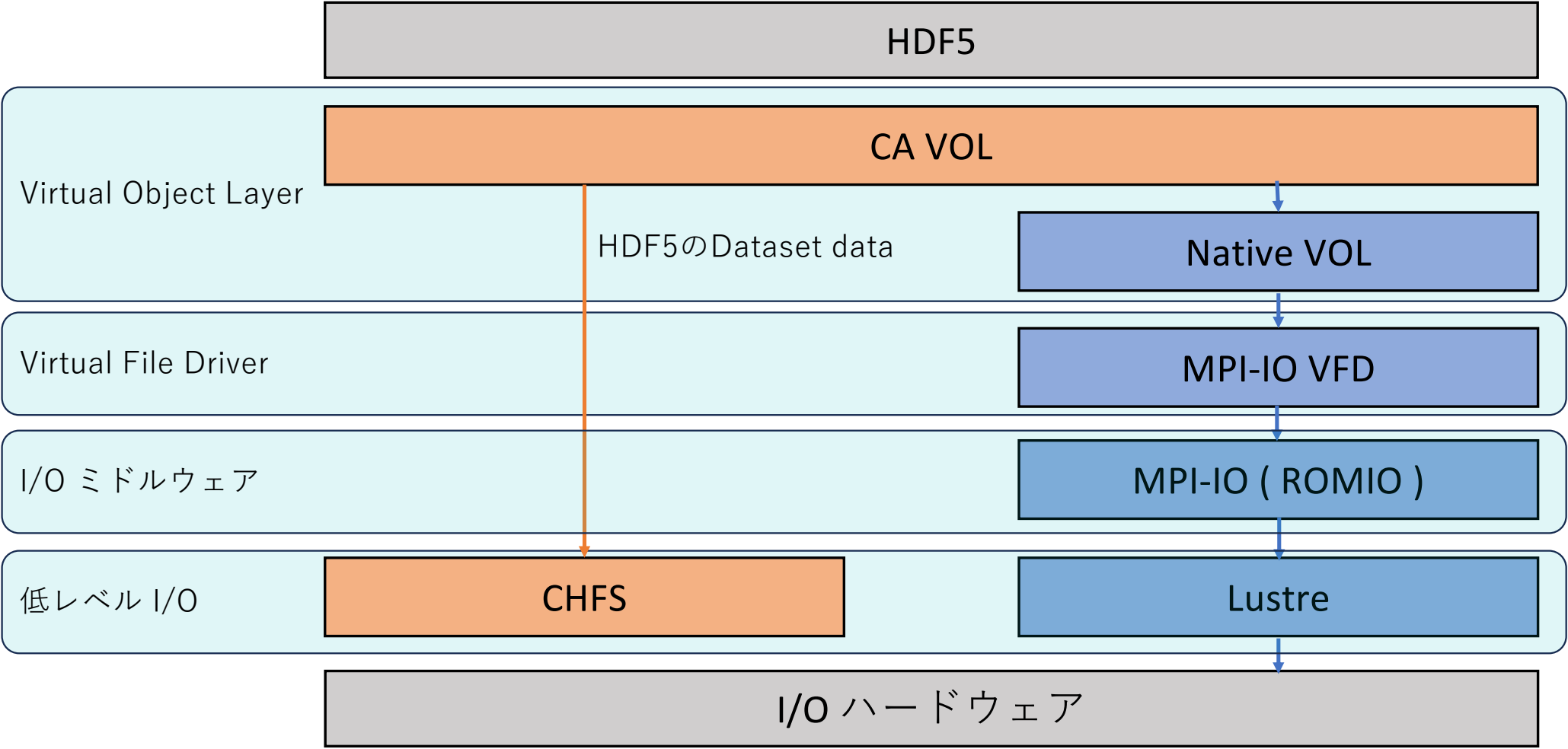








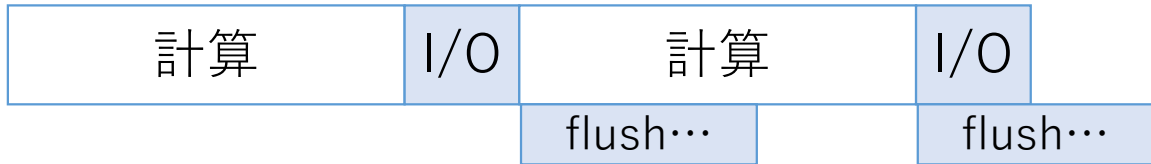
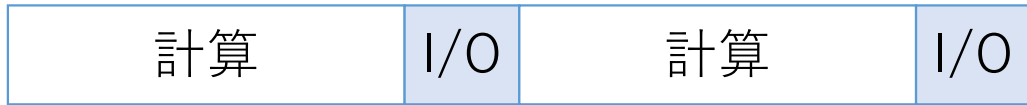


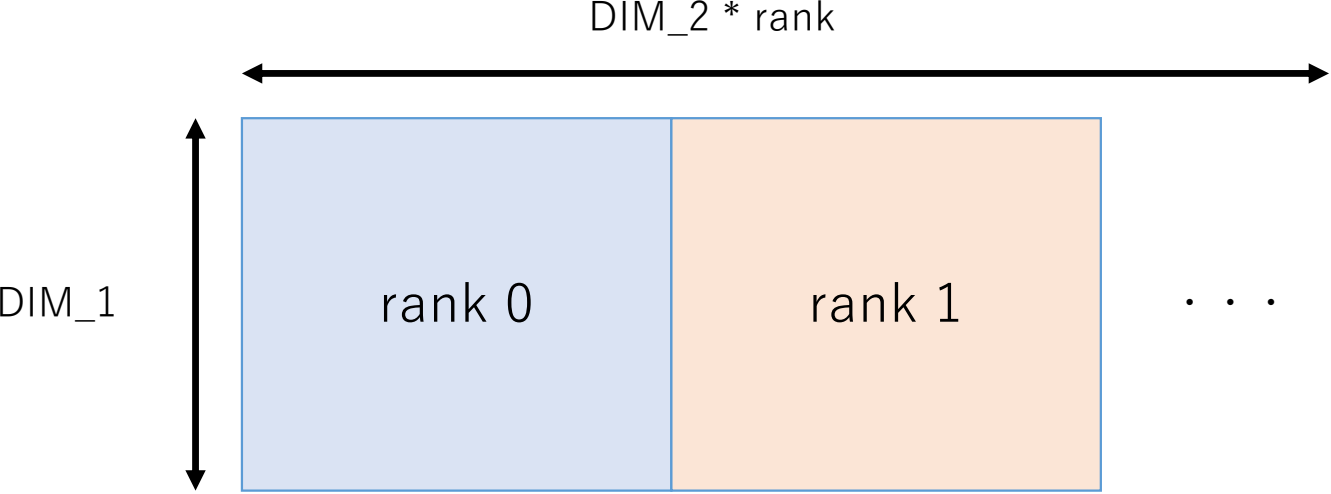


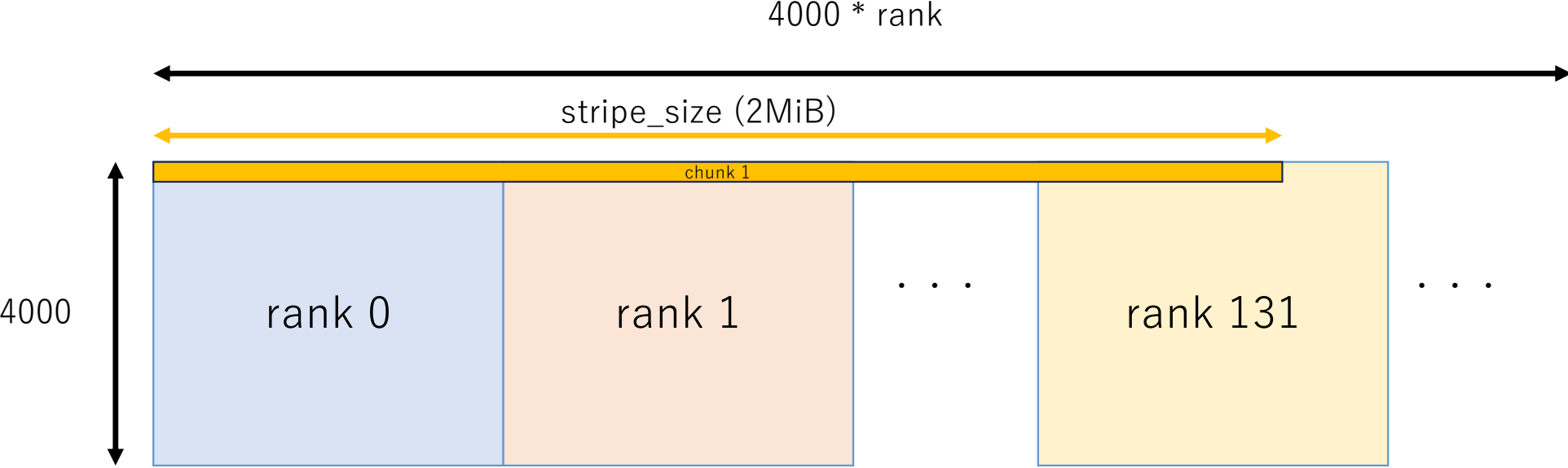
標準的なI/O

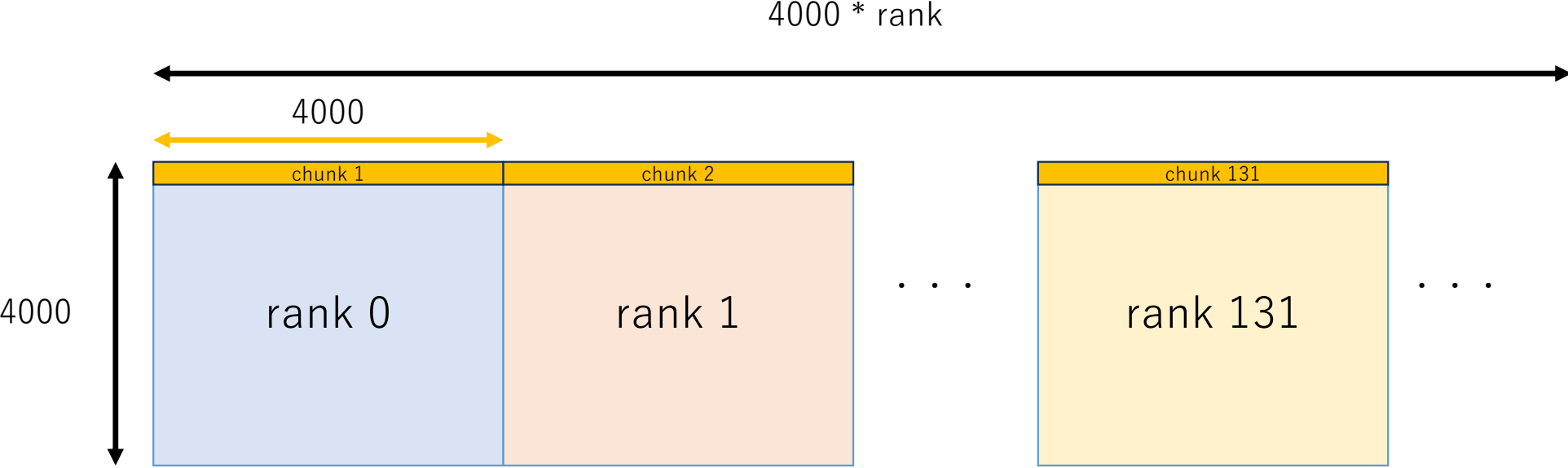


最適化導入

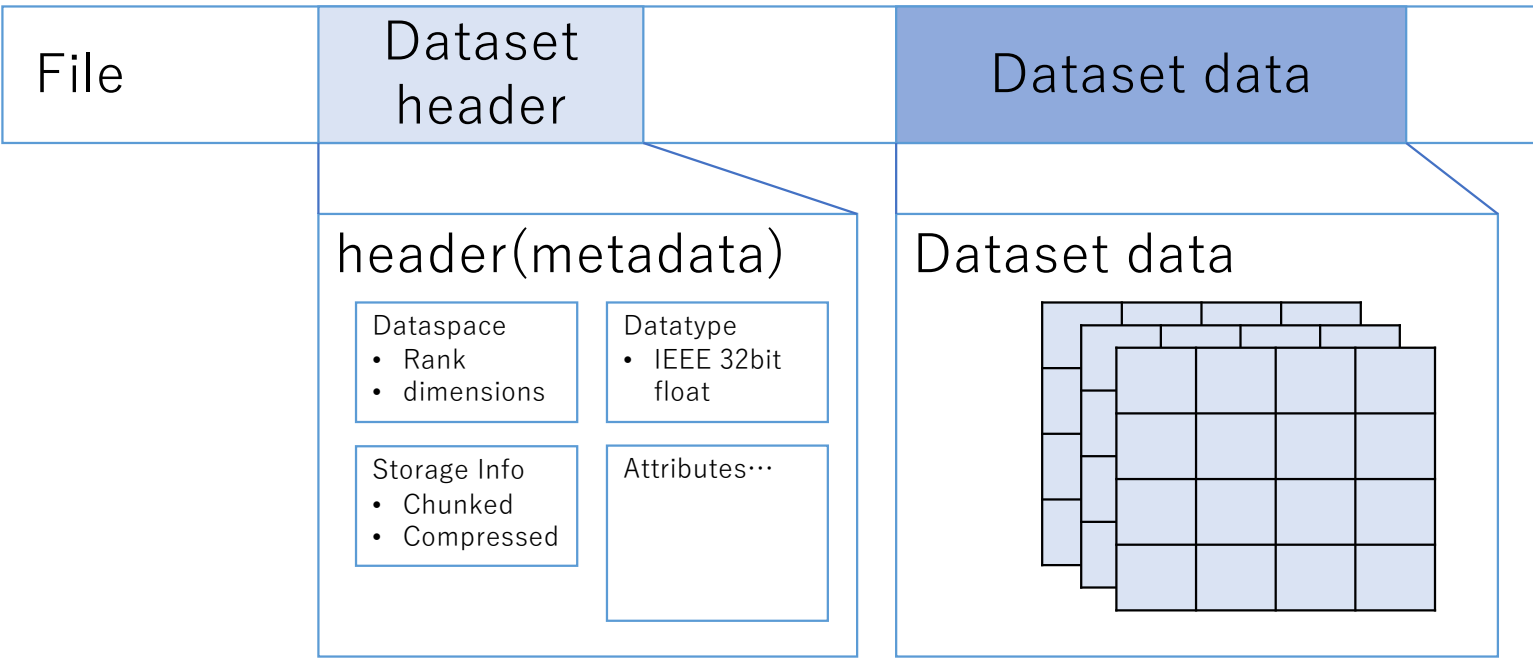








HDF5 File Layout



chunk size



chunk 0

Rank 0

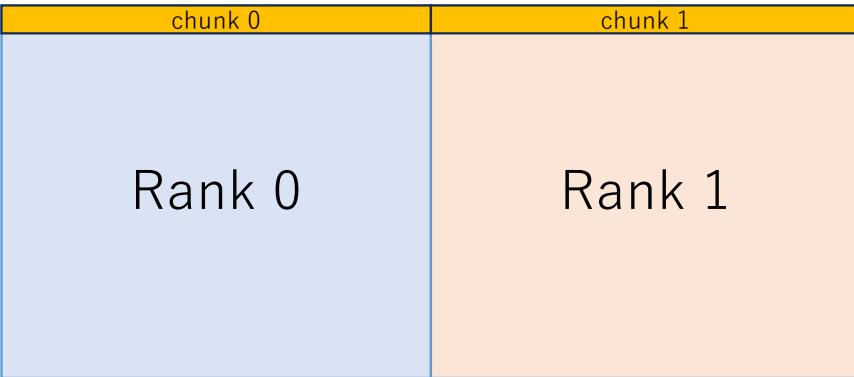
Rank 1

...

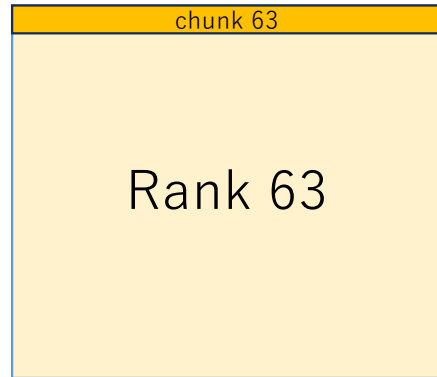
Rank 63

...

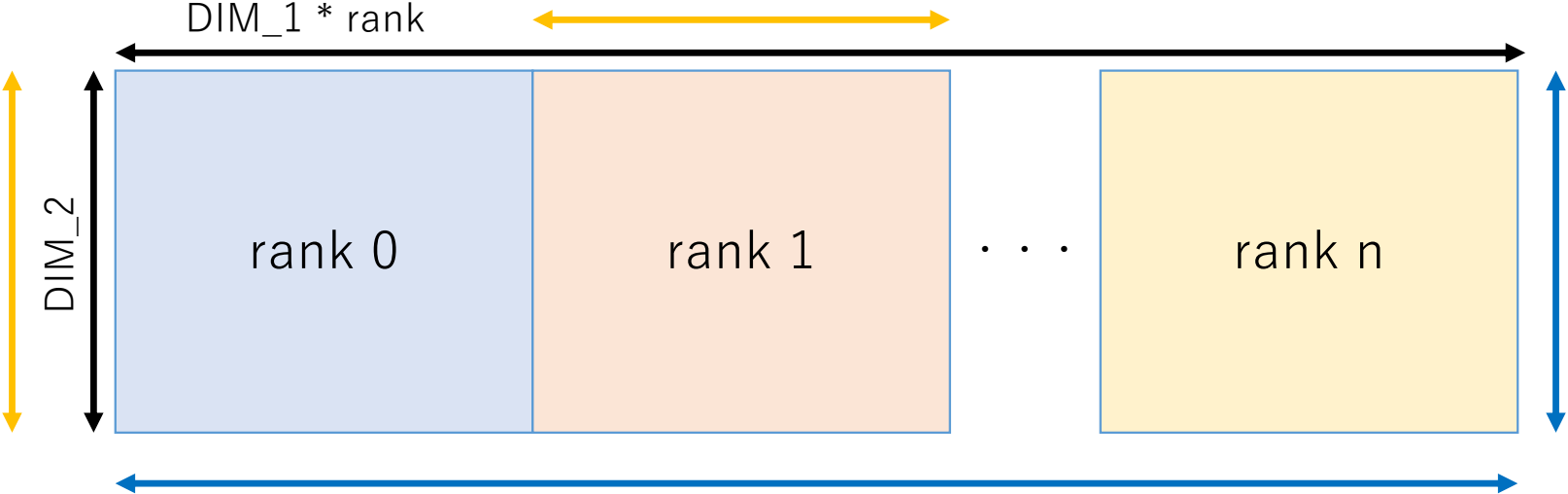
chunk size



...



...



H5Sget_select_bounds()

全体のレイアウトのうちどこか



H5Sget_simple_extent_dims()

全体のレイアウトの大きさ

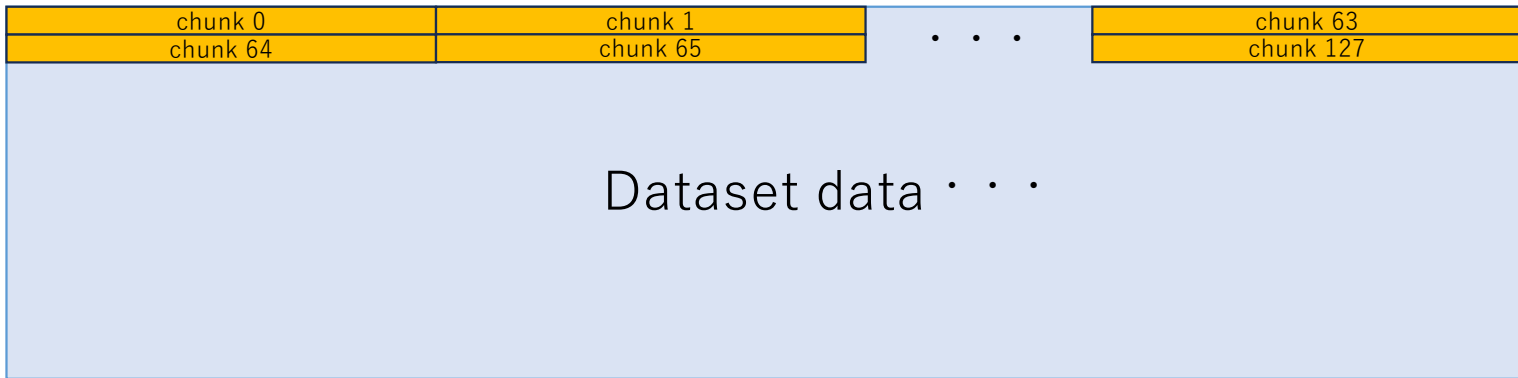
H5Sget_simple_extent_ndims()

次元数

H5Tget_size()

格納している値のサイズ

Memory Layout

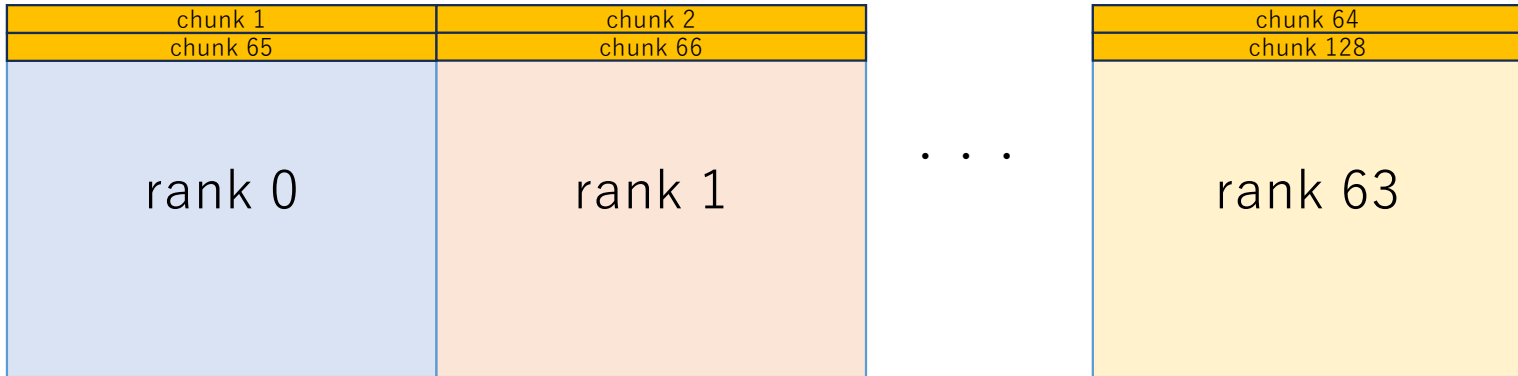


write data to hdf5

File Layout



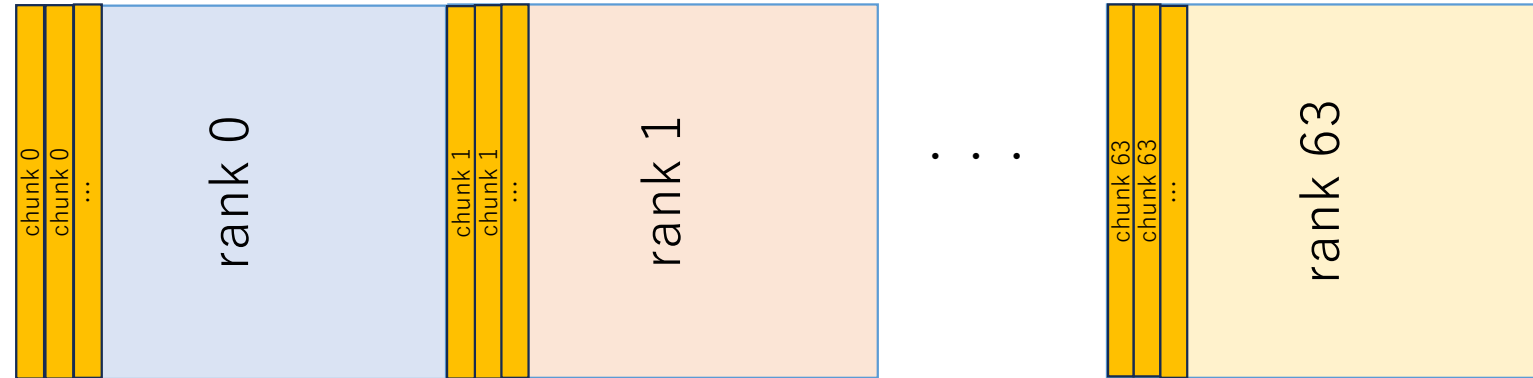
Memory Layout



File Layout



Memory Layout



File Layout

