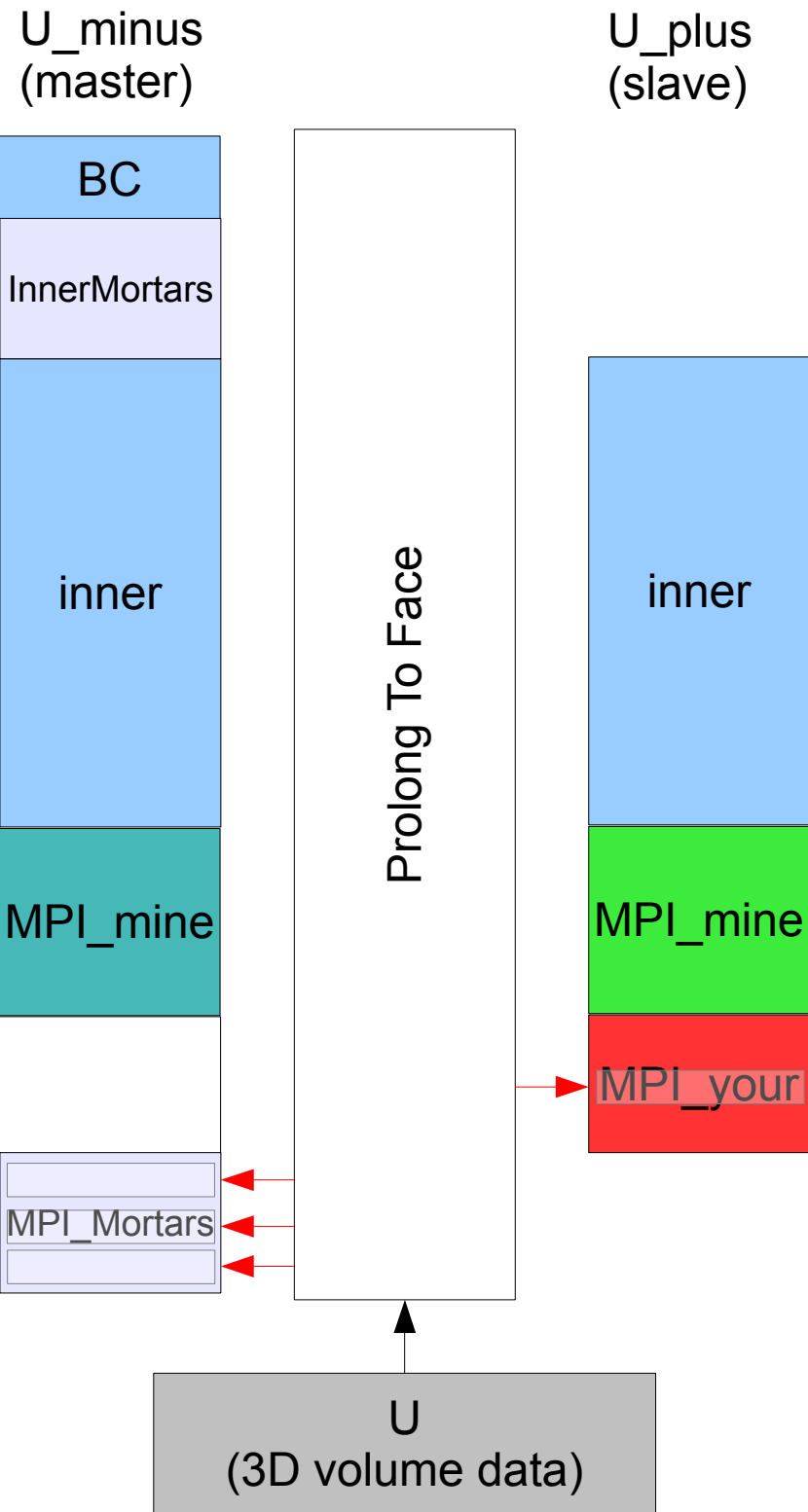
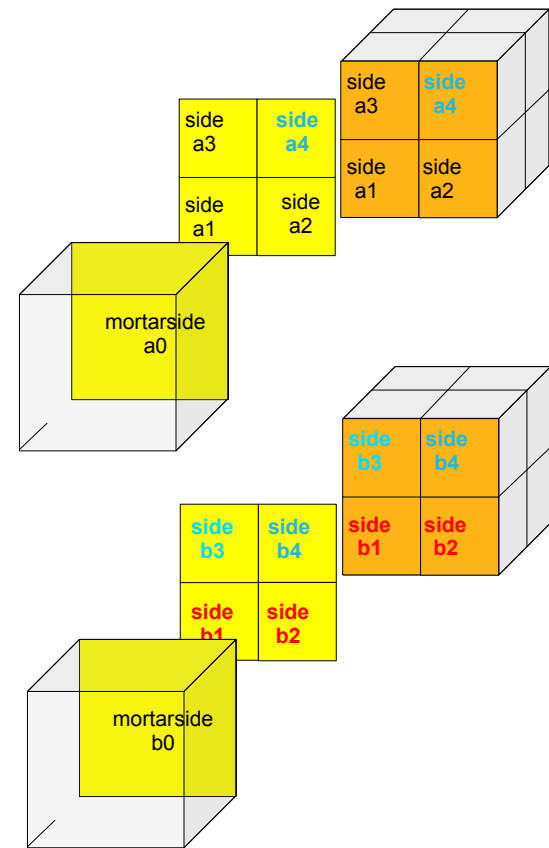


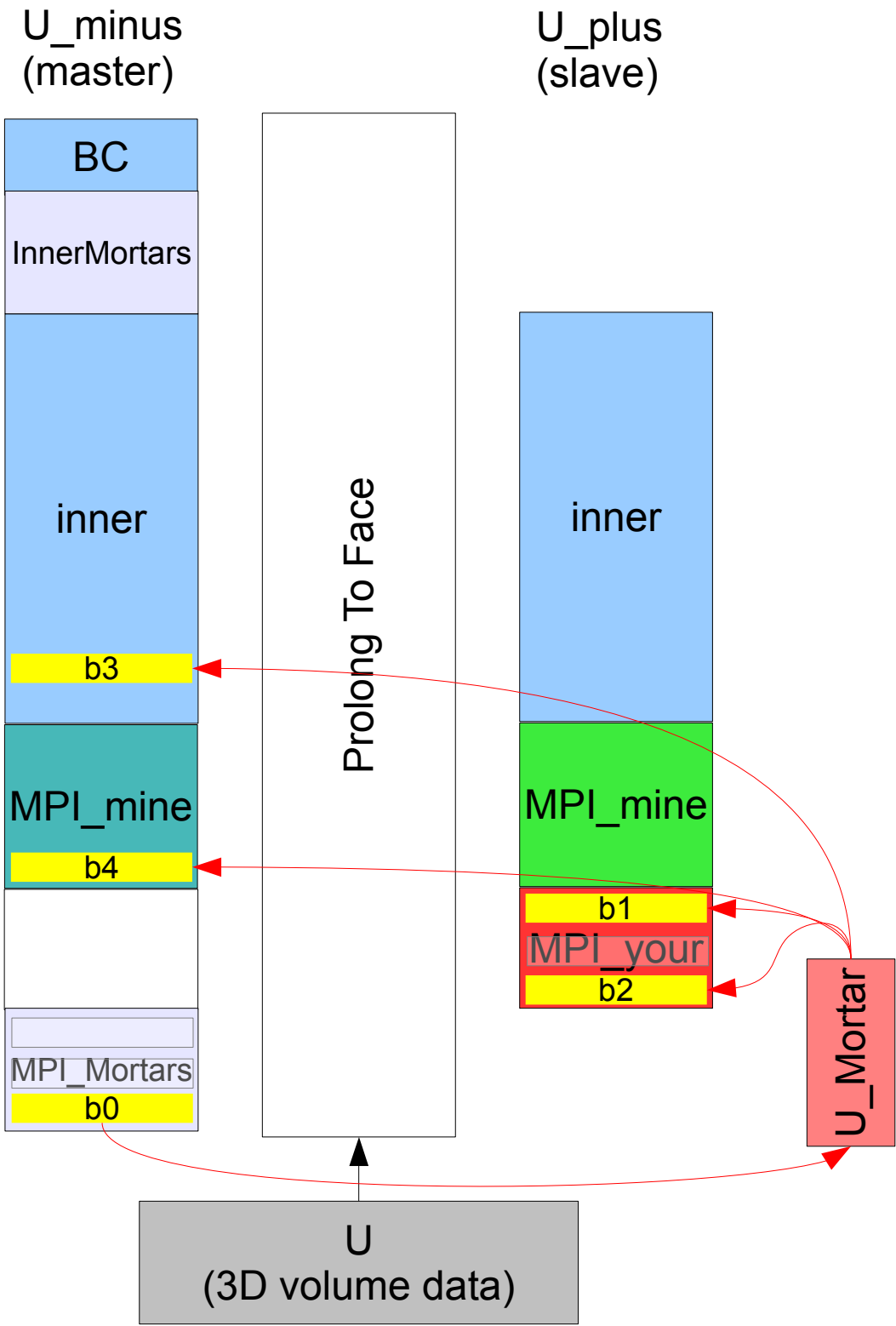
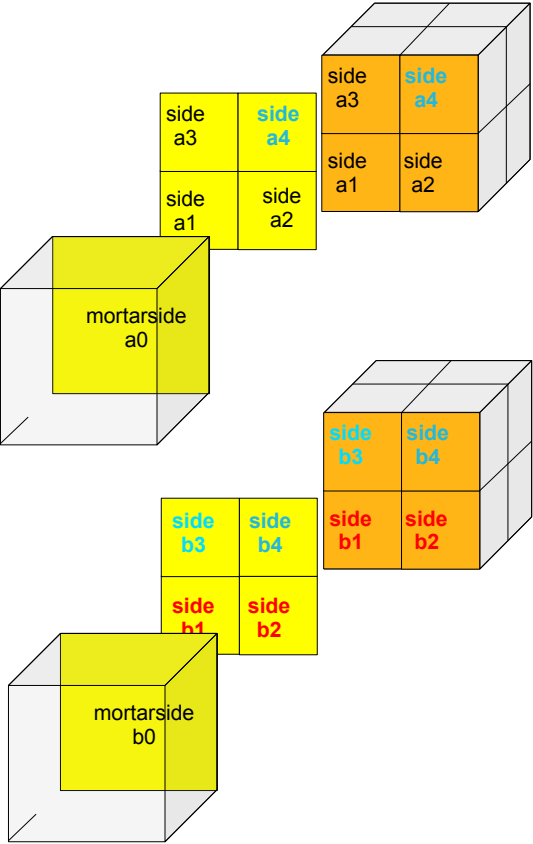
ProlongToFace for MPI sides

*MPI mortarside are not
communicated!
A MPI mortarside has
at least one small side
belonging to MPI_your*



**interpolate U
from MPI mortarsides
to small sides**

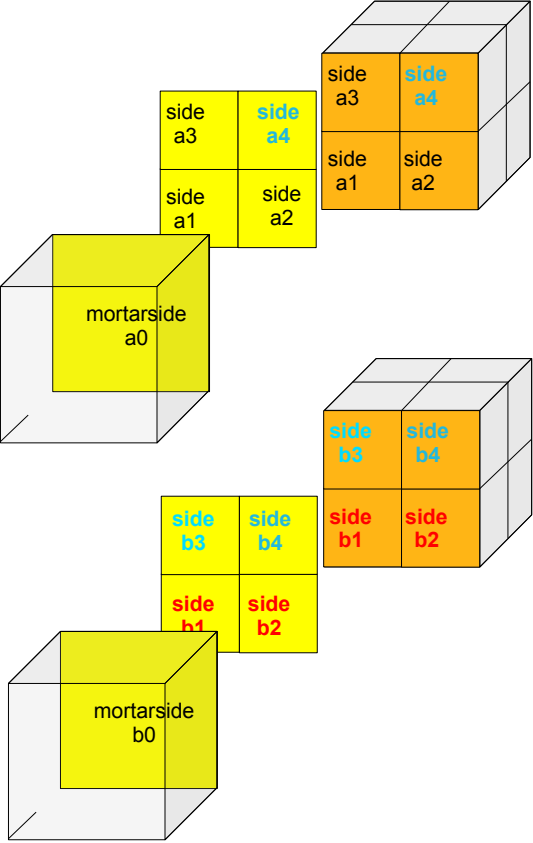
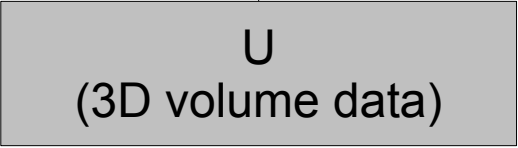
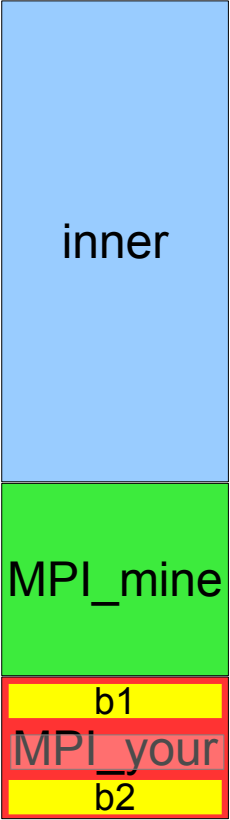
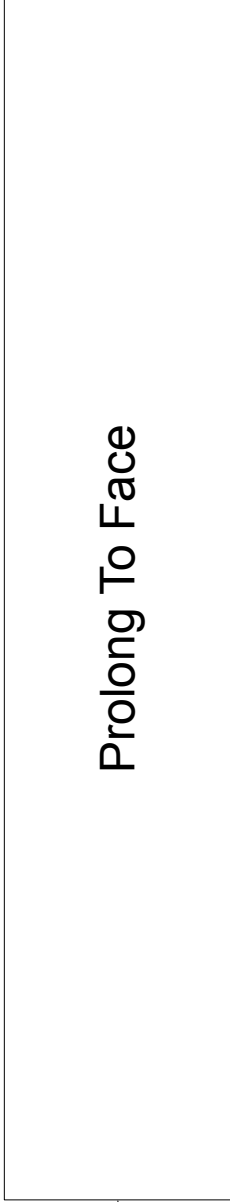
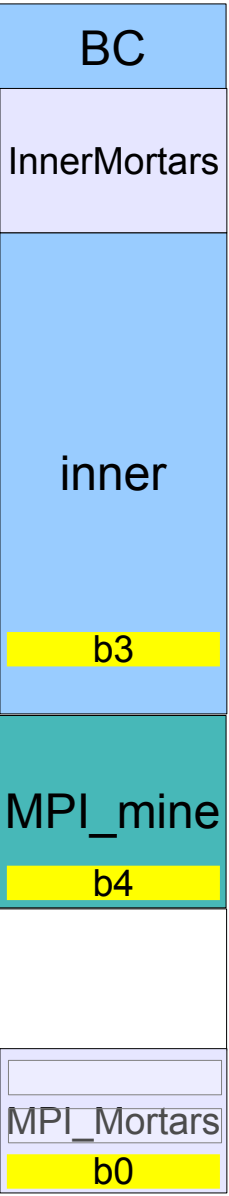
*A MPI mortarside has
at least one small side
belonging to MPI_your*



SEND data
U_plus(MPI_yours)

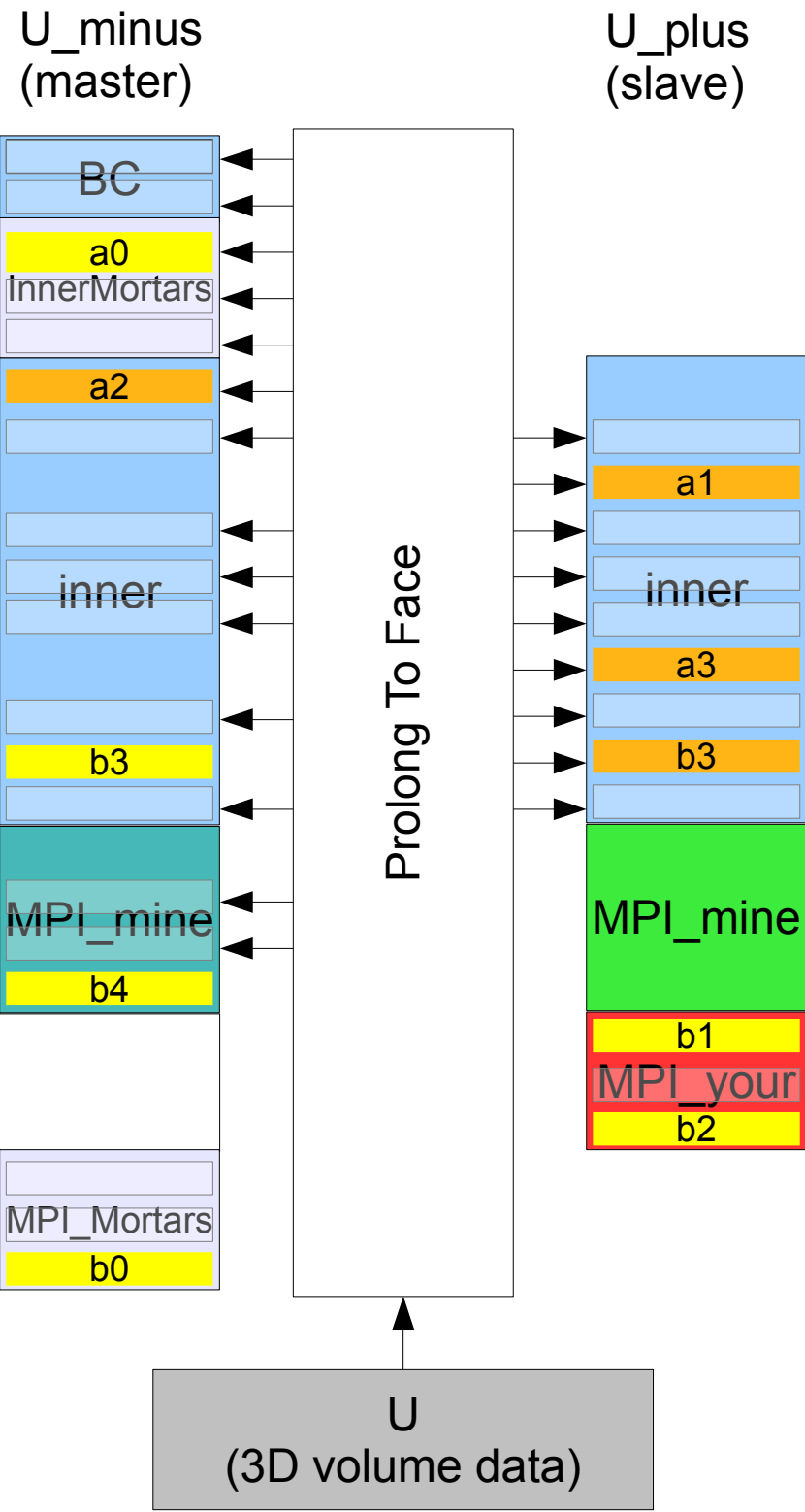
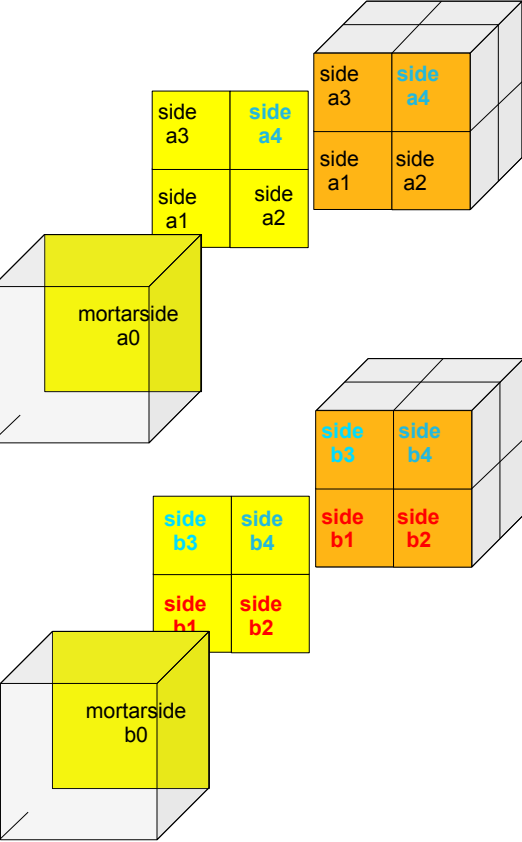
U_minus
(master)

U_plus
(slave)



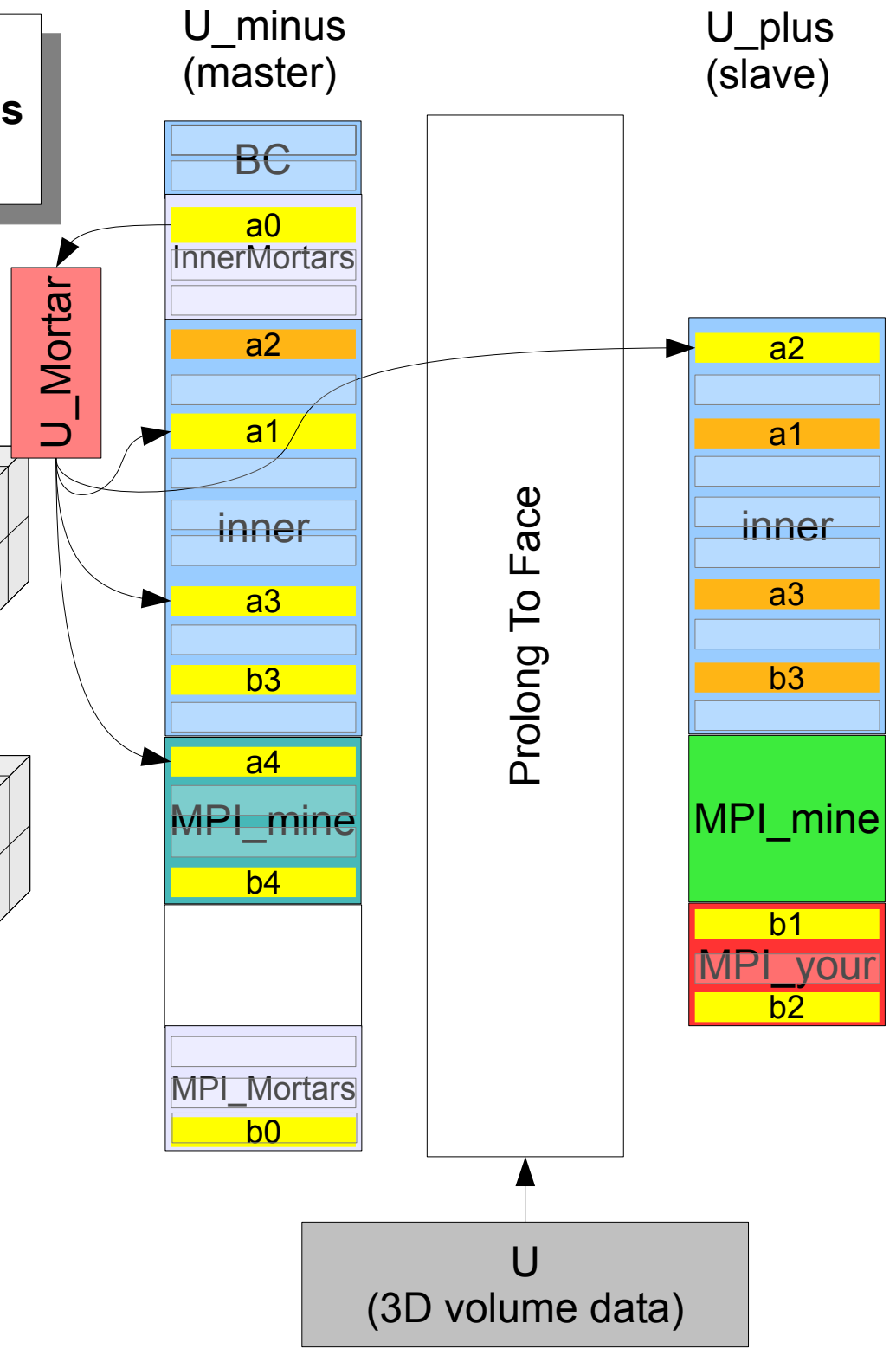
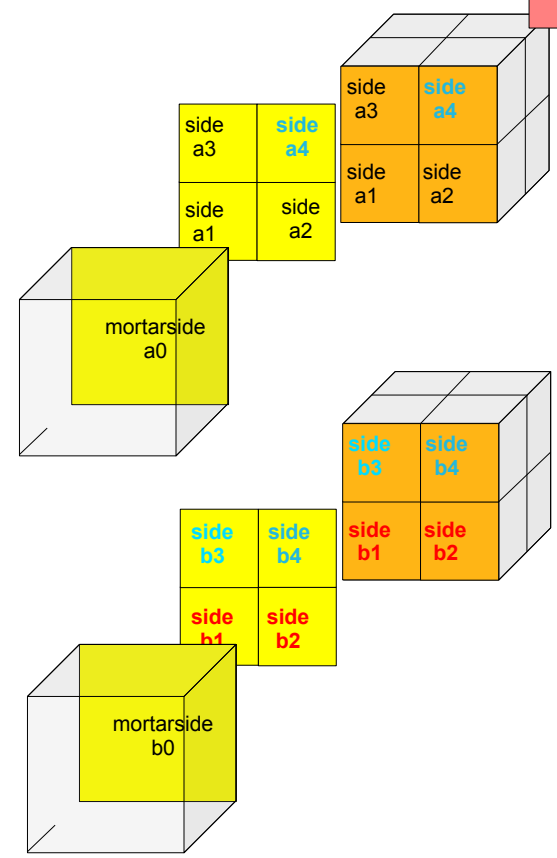
ProlongToFace
for BCs, inner mortar-
sides, innersides
and MPI_mine

*An inner mortarside has only
small sides not belonging
to MPI_your*



**interpolate U
from inner mortarsides
to small sides**

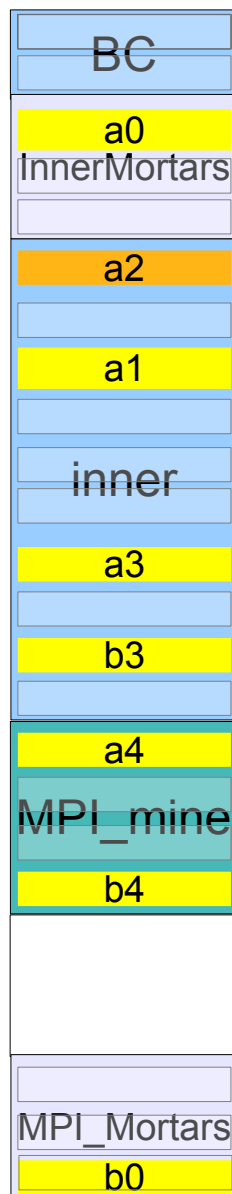
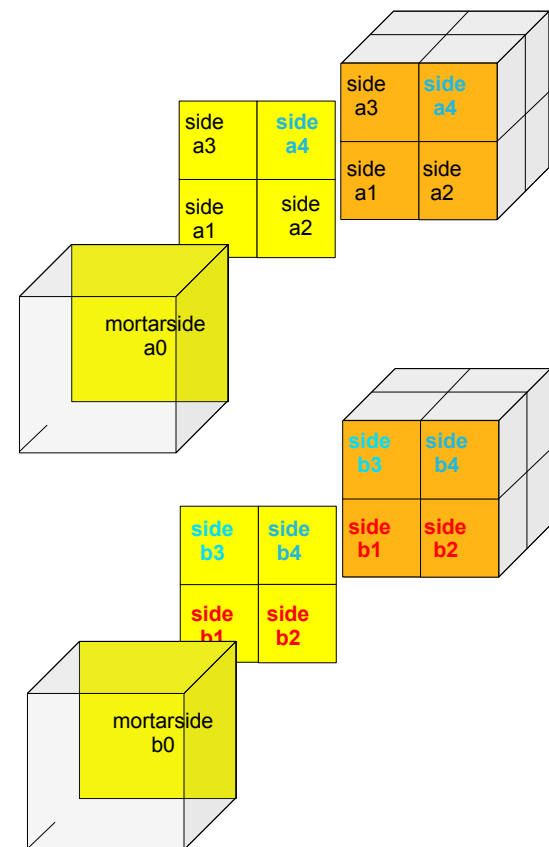
*An inner mortarside has only
small sides not belonging
to MPI_your*



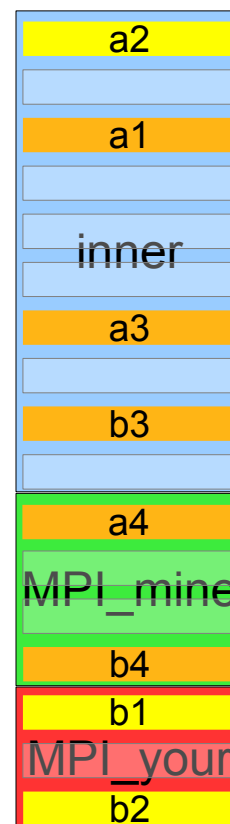
RECV data
U_plus(MPI_mine)

U_minus
(master)

U_plus
(slave)

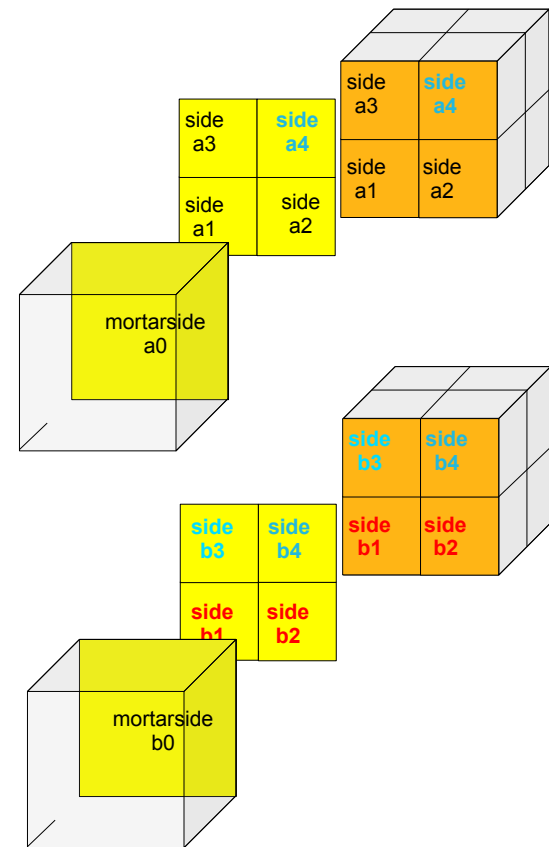


Prolong To Face

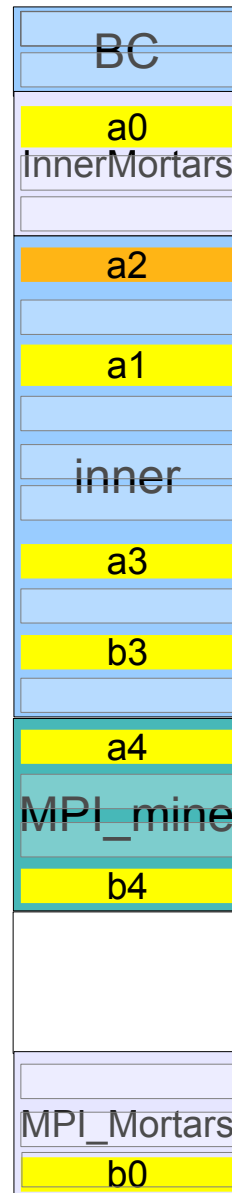


U
(3D volume data)

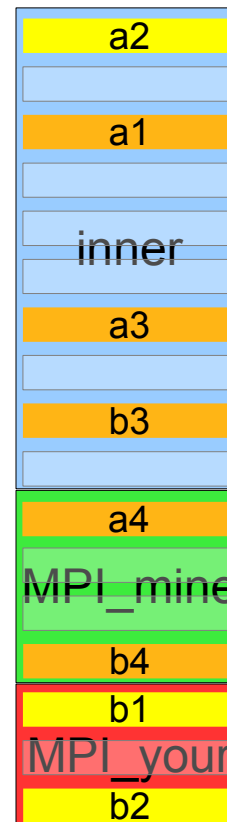
Fillflux for MPI sides



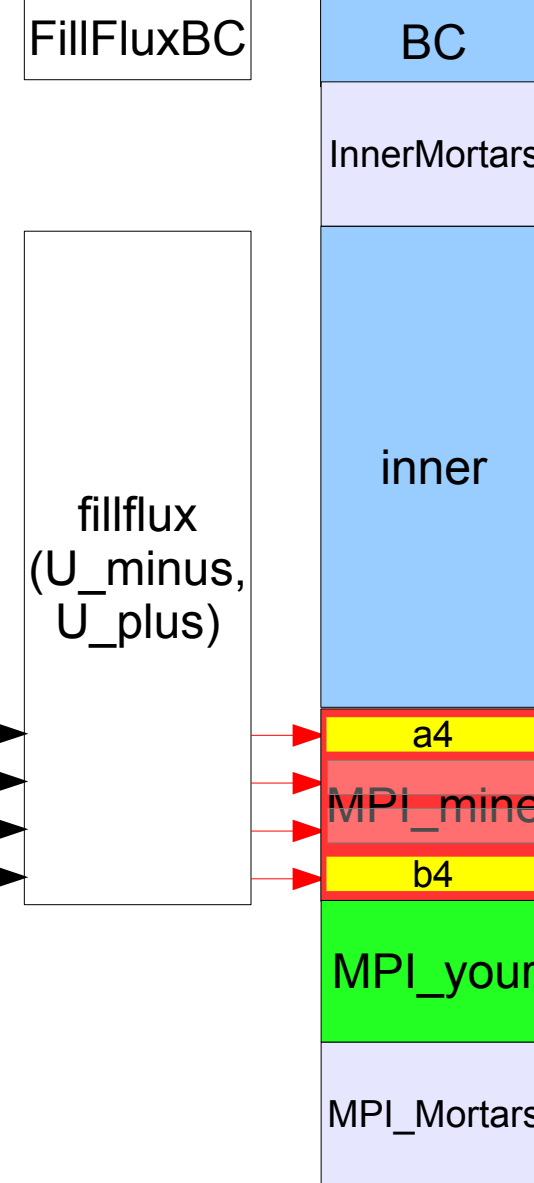
U_minus
(master)



U_plus
(slave)



Flux



Prolong To Face

U
(3D volume data)

SurfInt

Ut
(3D volume data)

Send Flux(MPI_mine)

U_minus
(master)

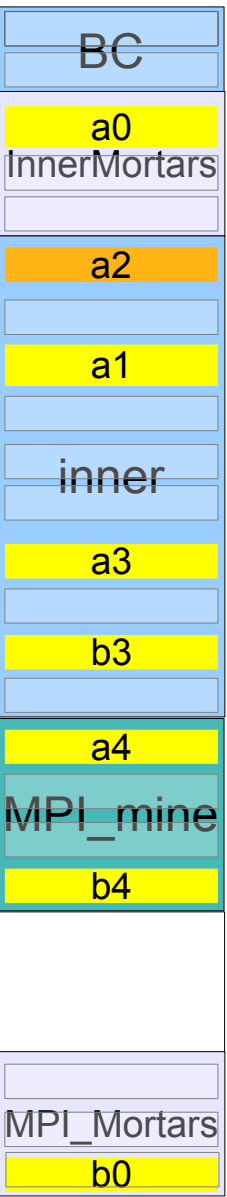
U_plus
(slave)

Flux

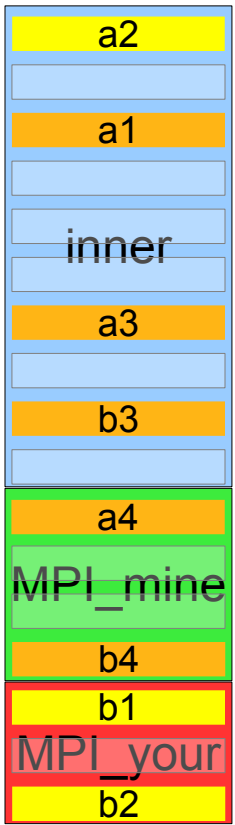
FillFluxBC

BC

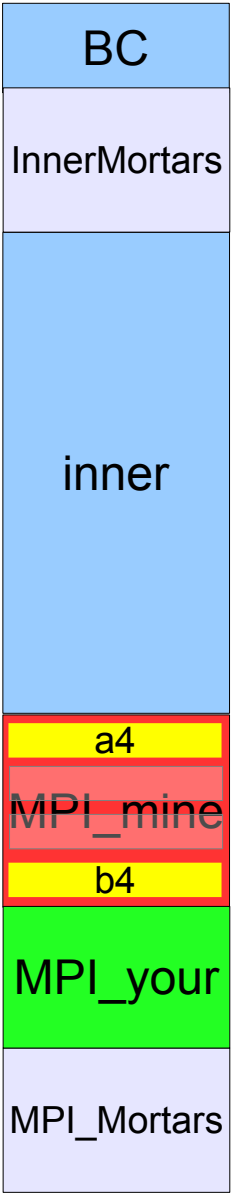
InnerMortars



Prolong To Face



fillflux
(U_minus,
U_plus)

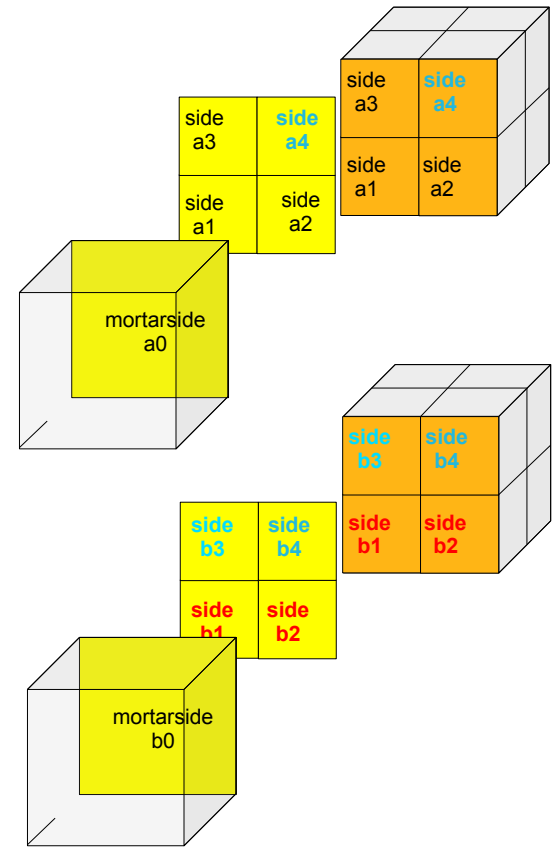


SEND F

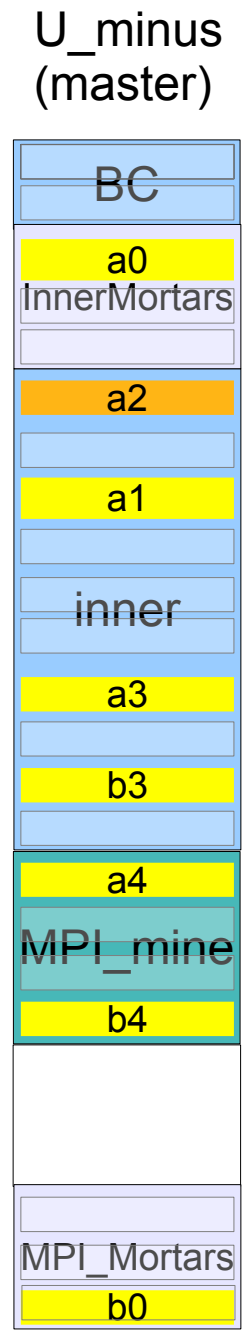
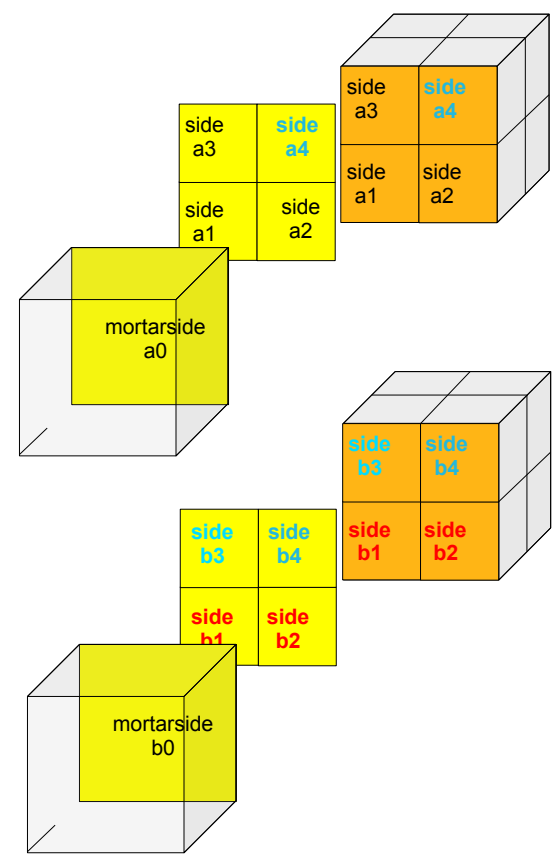
SurfInt

U
(3D volume data)

Ut
(3D volume data)

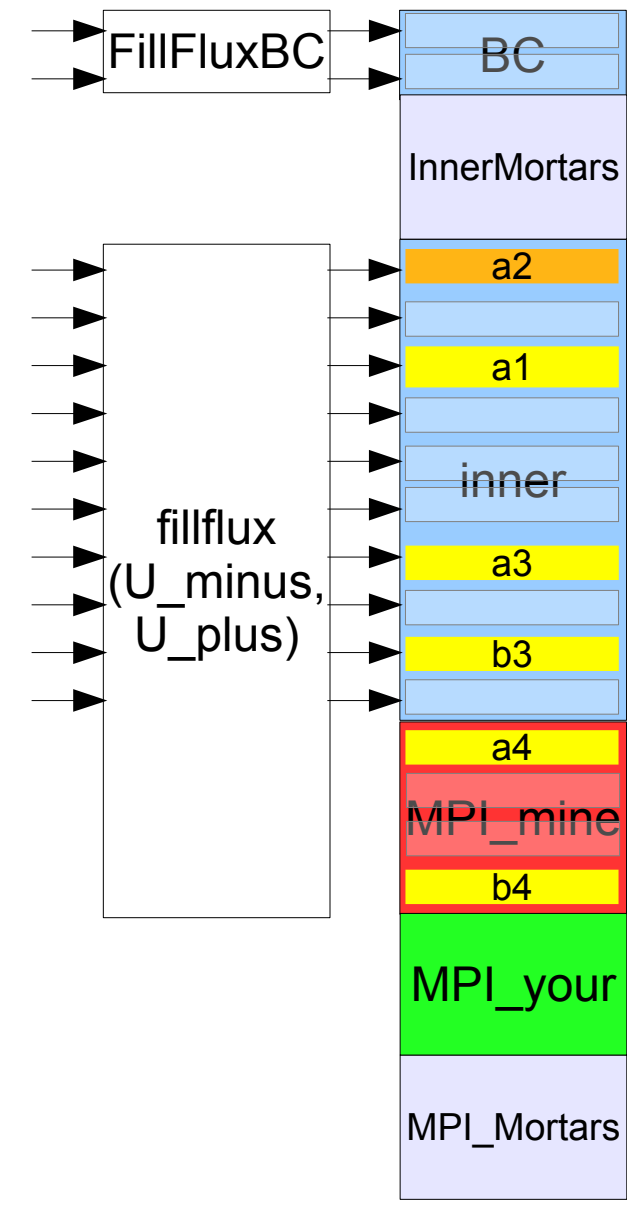
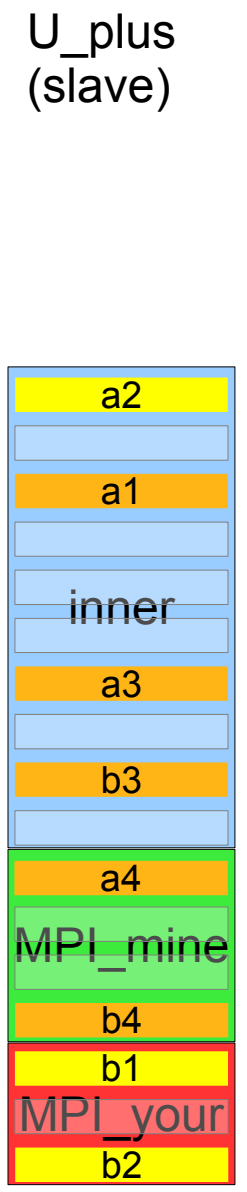


FillFlux for BCs and innersides



Prolong To Face

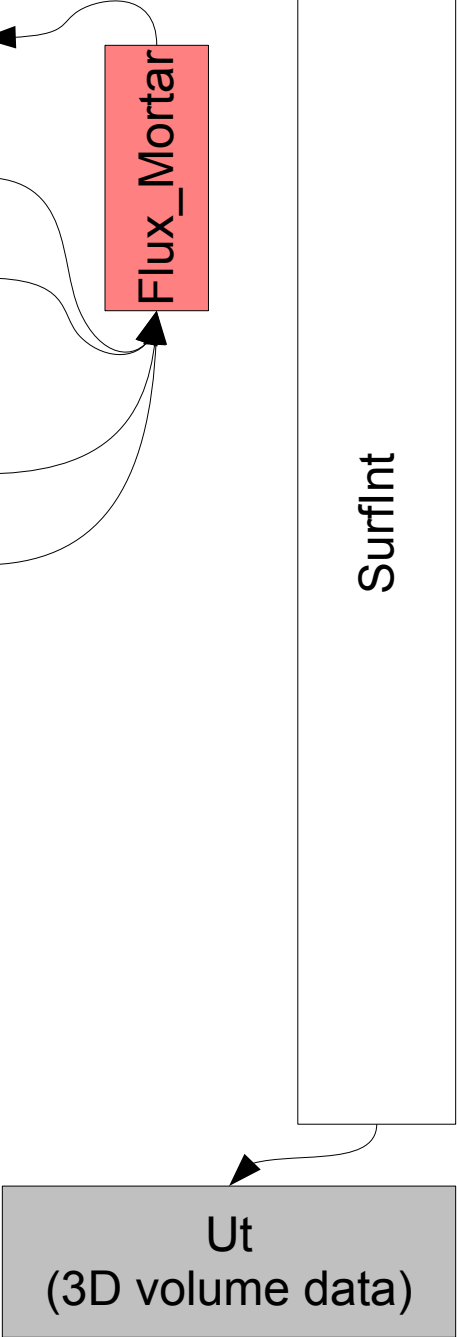
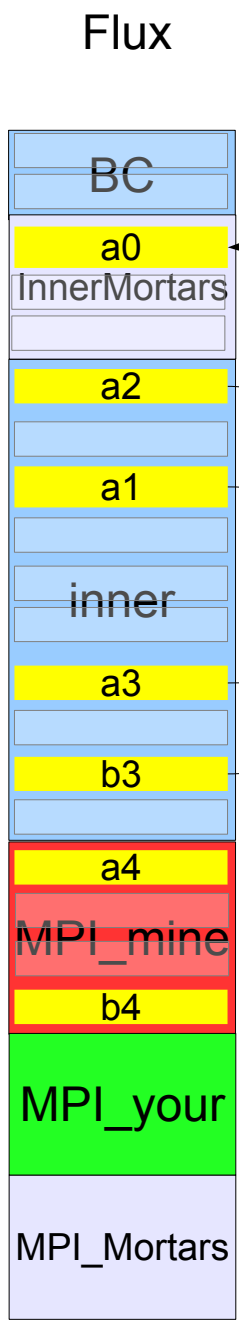
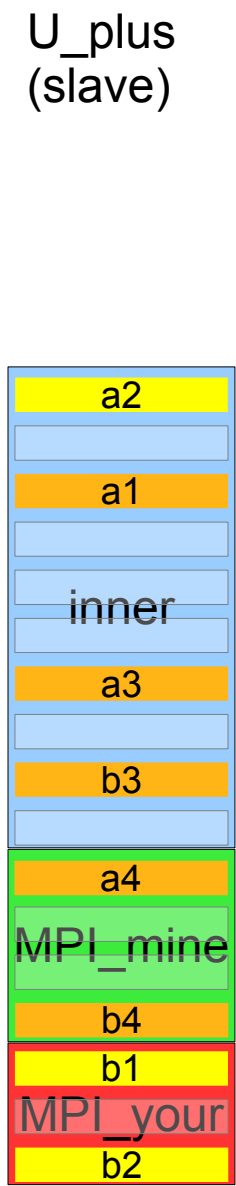
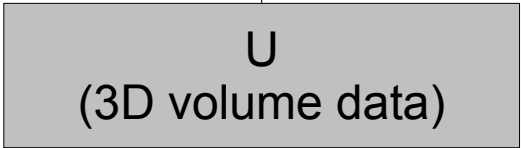
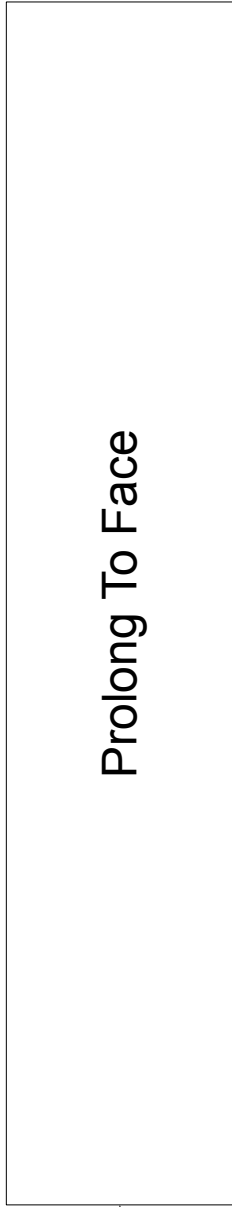
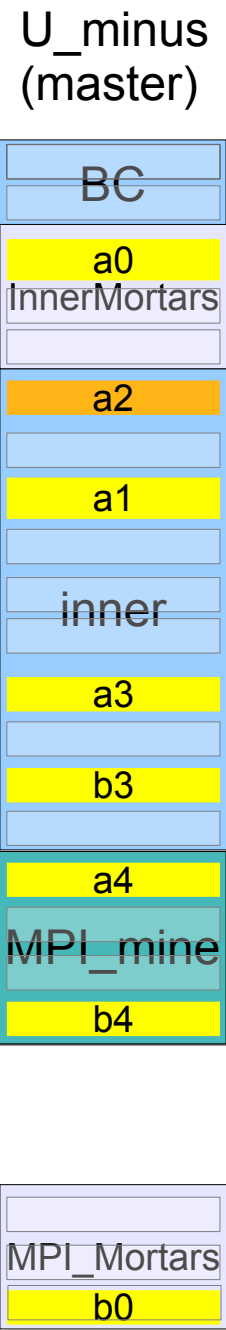
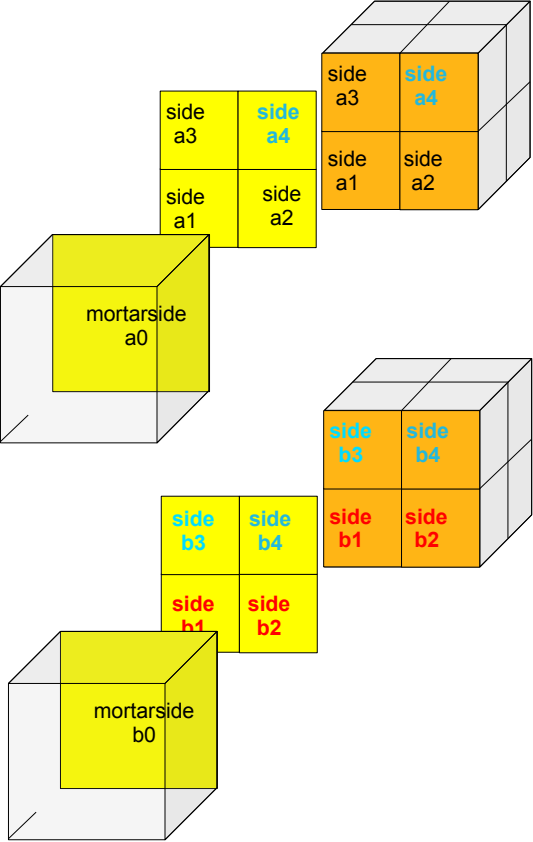
U
(3D volume data)



Ut
(3D volume data)

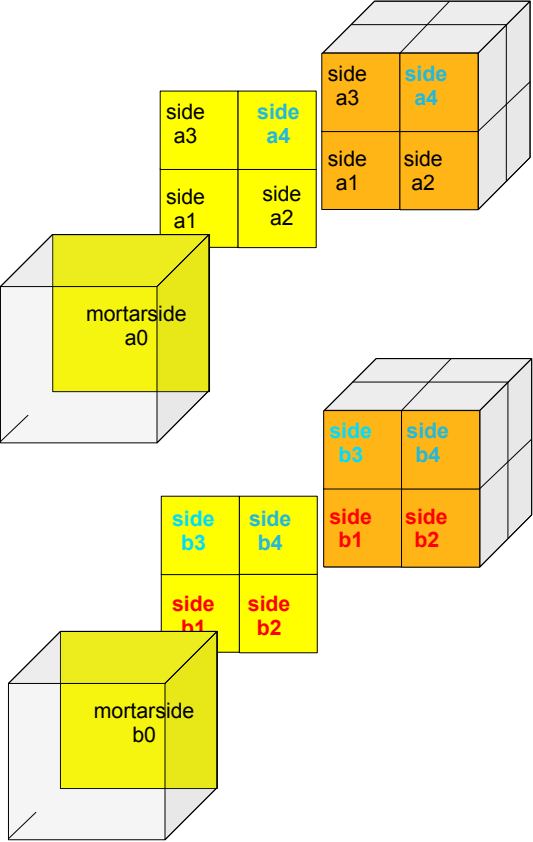
SurfInt

Project flux contributions to inner mortarsides



**Surface Integral
for BC, inner mortar-
sides, innersides
and MPI_mine**

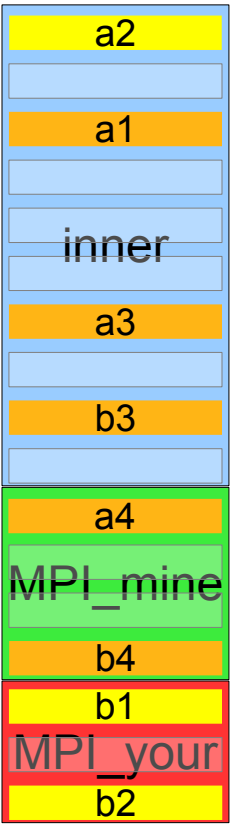
*fluxes of small sides
belonging to a mortarside
can also be added to the small
elements, MPI_mine belong
only to the mortarside*



U_minus
(master)



U_plus
(slave)



FillFluxBC

fillflux
(U_minus,
U_plus)

Flux

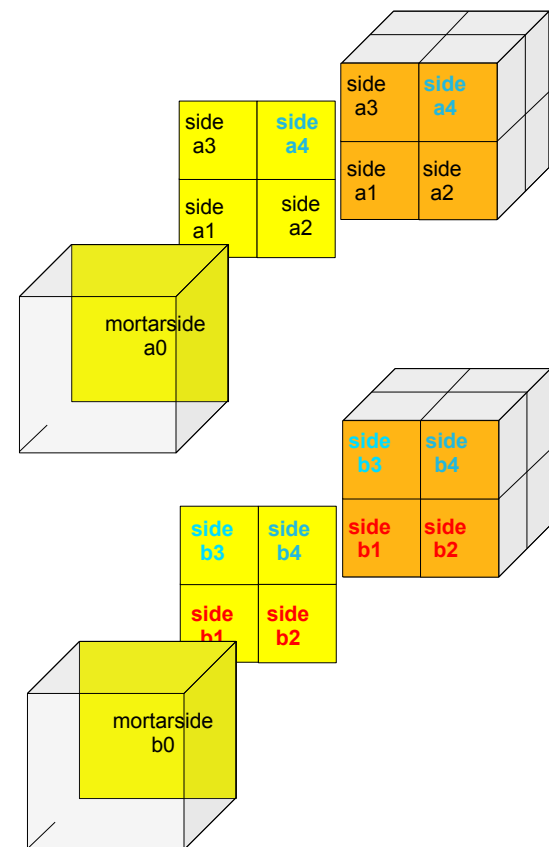


Surflnt

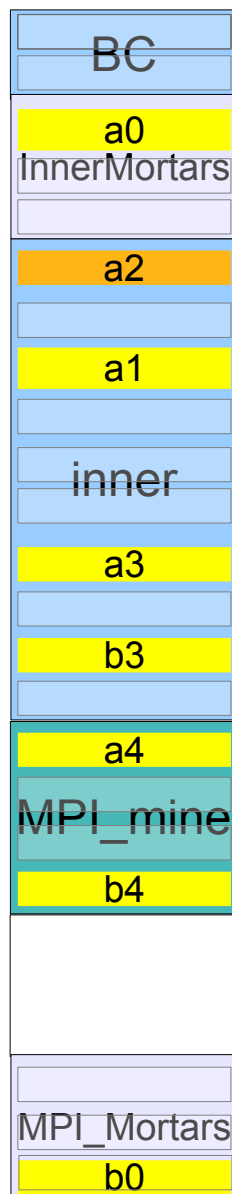
U
(3D volume data)

Ut
(3D volume data)

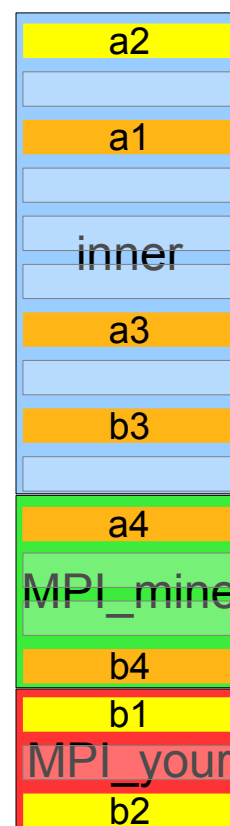
Receive Fluxes
in Flux(MPI_yours)



U_minus
(master)



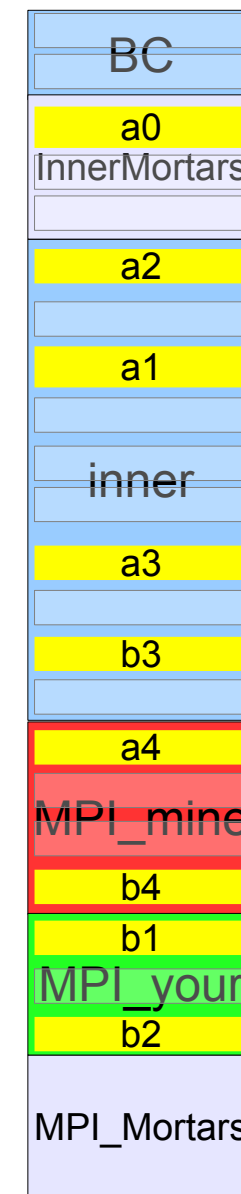
U_plus
(slave)



FillFluxBC

fillflux
(U_minus,
U_plus)

Flux



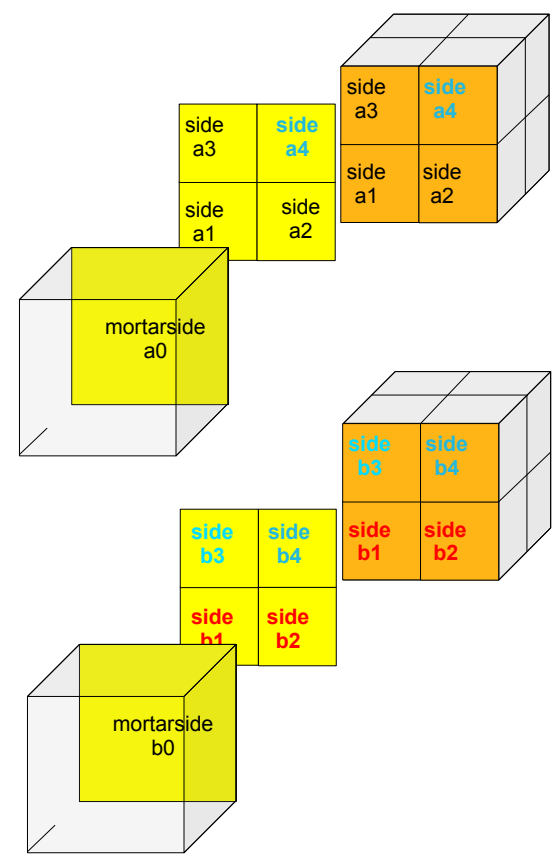
RECV F

SurfInt

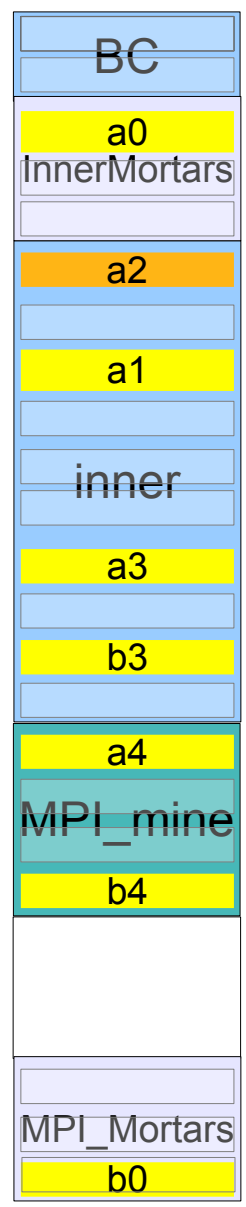
U
(3D volume data)

Ut
(3D volume data)

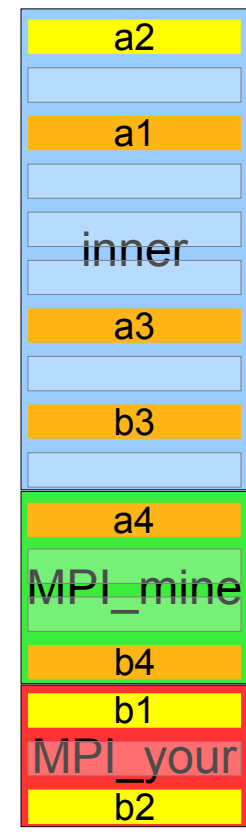
**Project flux
contributions to
MPI mortarsides**



U_minus
(master)



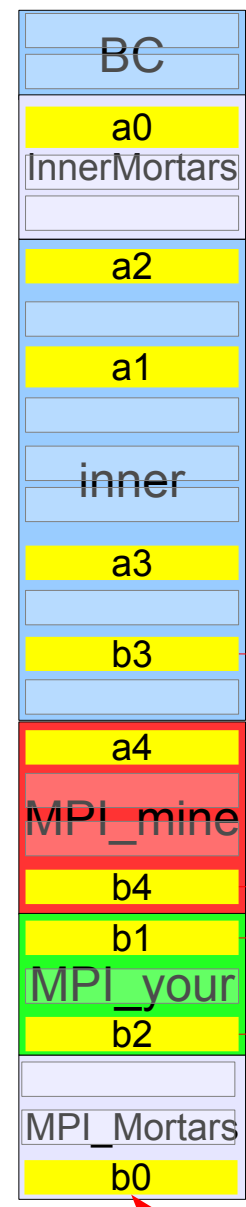
U_plus
(slave)



FillFluxBC

fillflux
(U_minus,
U_plus)

Flux



Flux_Mortar

SurfInt

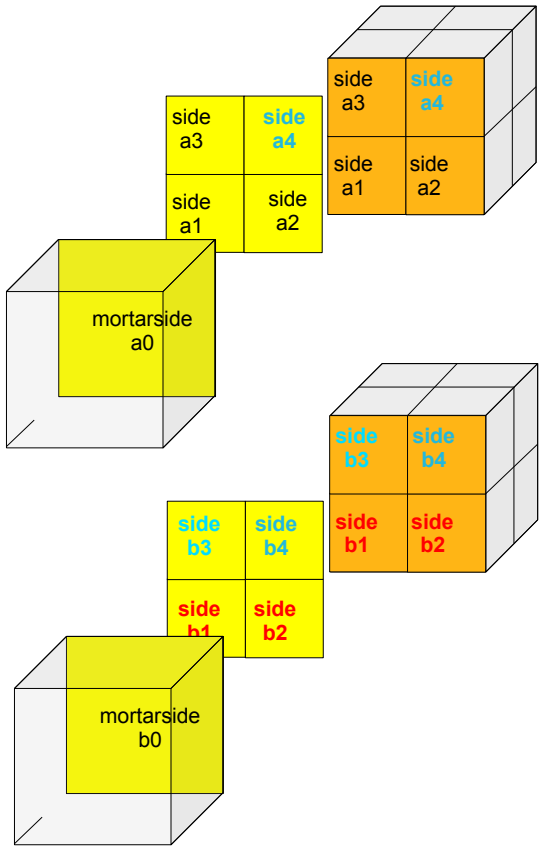
U
(3D volume data)

Ut
(3D volume data)

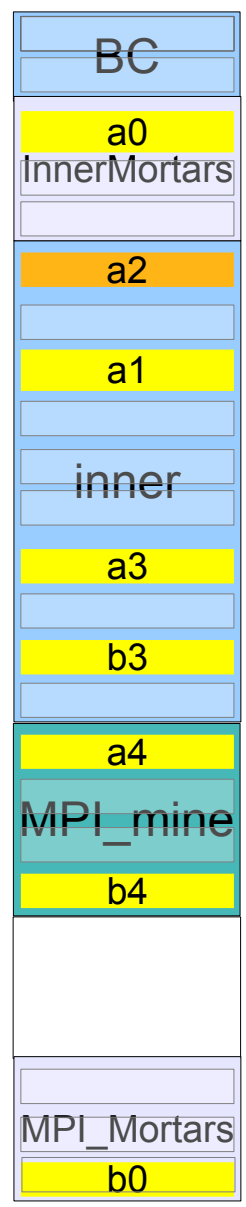
Prolong To Face

SurfInt

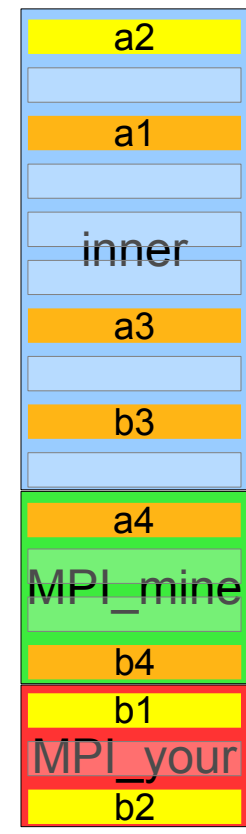
Surface Integral
for remaining
MPI sides and
MPI mortarsides



U_minus
(master)



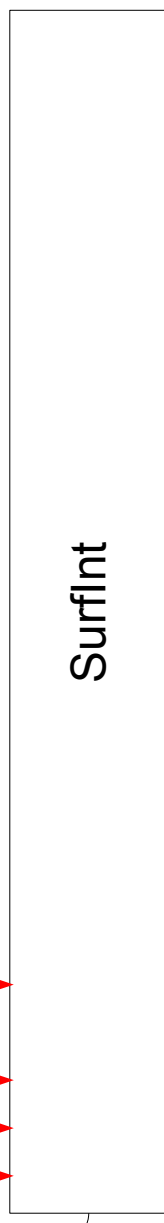
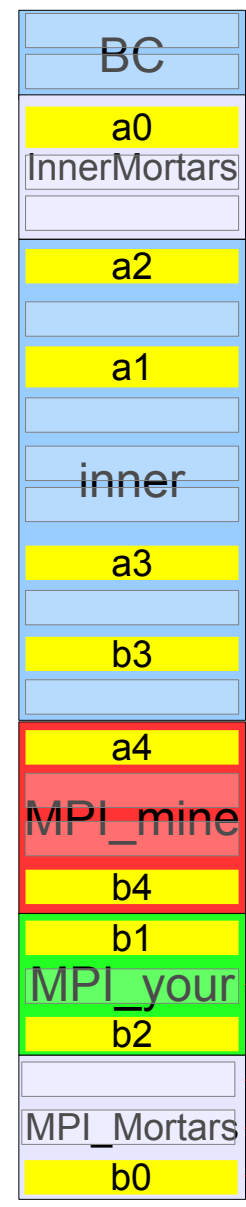
U_plus
(slave)



FillFluxBC

fillflux
(U_minus,
U_plus)

Flux



U
(3D volume data)

Ut
(3D volume data)

