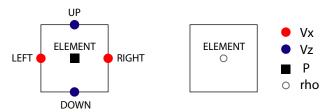
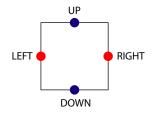
DMStag (2D) - Nonlinear



dmSol (0,1,1) dmCoeff (0,0,1)

*dof (A per vertex, B per edge, C per face/element)

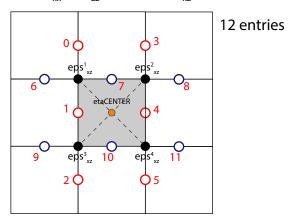
1) Continuity equation (residual) 4 entries



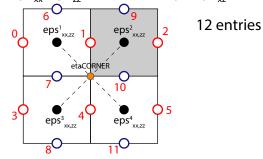
Effective viscosity and second invariant of strain rate

$$epsII = ((eps_{xx}^2 + eps_{zz}^2 + 2*eps_{xz}^2)*0.5)^{0.5}$$

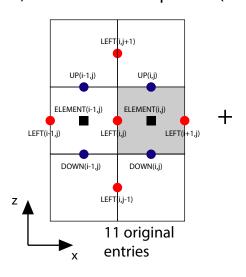
a) etaCENTER: $\operatorname{eps}_{xx'} \operatorname{eps}_{zz}$ - center , eps_{xz} - corner (interp)

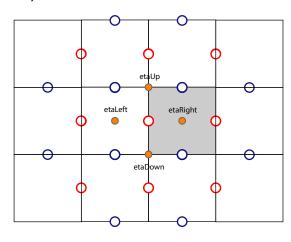


b) etaCORNER: $eps_{xx'} eps_{zz}$ - center (interp), eps_{xz} - corner



2) X-momentum equation (residual)





21 entries + 2 Pressure

3) Z-momentum equation

