

Master Matrices and Associated Metrics

Matrix	Metric	Matrix	Metric
A200k	1	A3000k	1
A201k	0	A3001k	0
A210k	0	A3010k	0
A211k	-1	A3100k	0
		A3011k	-1
		A3101k	-1
		A3110k	-1

Conventional ME422 LHS Square Matrix Names

$$\int_{\Omega_e} a_e \{N_k\} \{N_k\}^T d\bar{x} \{Q\}_e \equiv [\text{MASSQ}]_e \{Q\}_e$$

$$\int_{\Omega_e} a_e \{N_k\} \frac{d\{N_k\}^T}{dx} d\bar{x} \{Q\}_e \equiv [\text{CONVQ}]_e \{Q\}_e$$

$$\int_{\Omega_e} a_e \frac{d\{N_k\}}{dx} \frac{d\{N_k\}^T}{dx} d\bar{x} \{Q\}_e \equiv [\text{DIFFQ}]_e \{Q\}_e$$

where a_e is distributed data: global constant, element averaged, or element interpolated