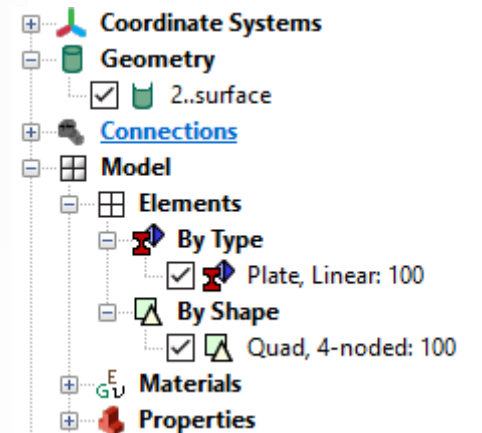
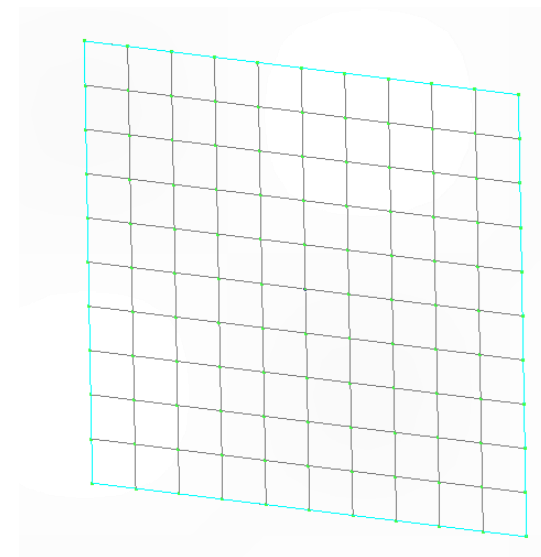
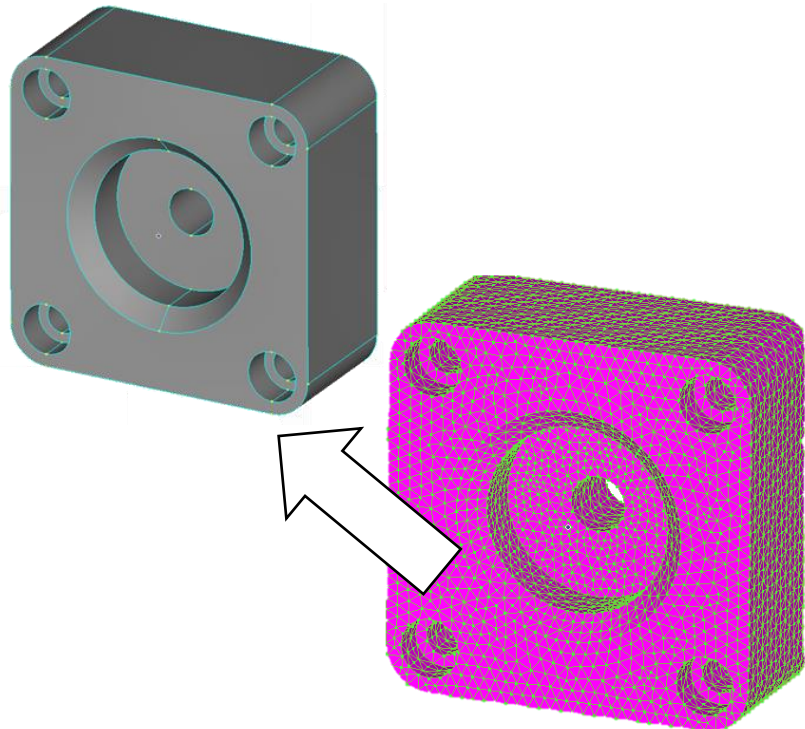


Associating and Reassociating a mesh with Geometry

Laurence Marks

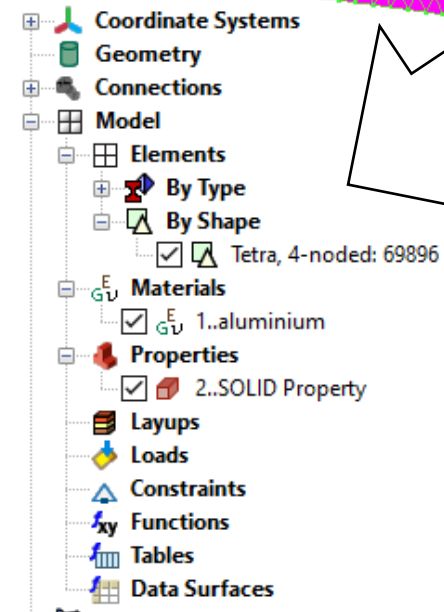
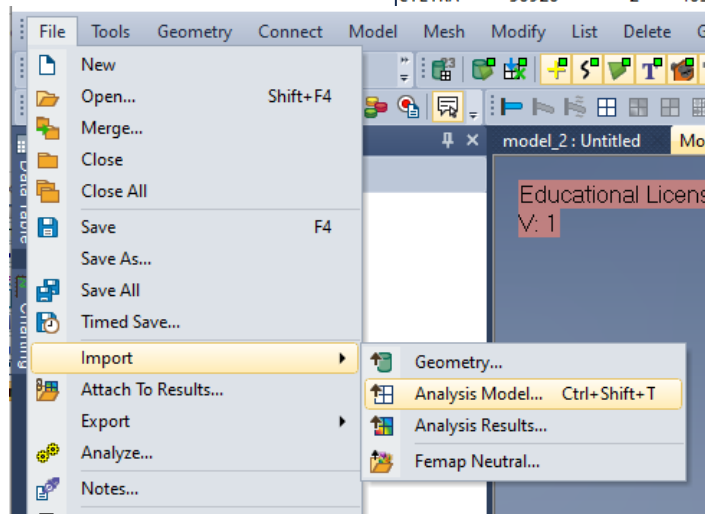
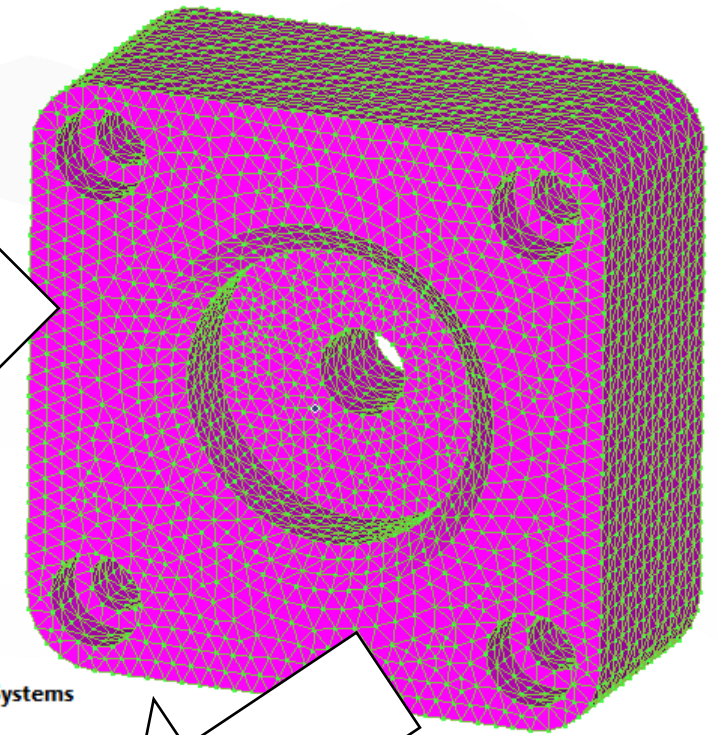
Feb 2024



Orphan mesh..

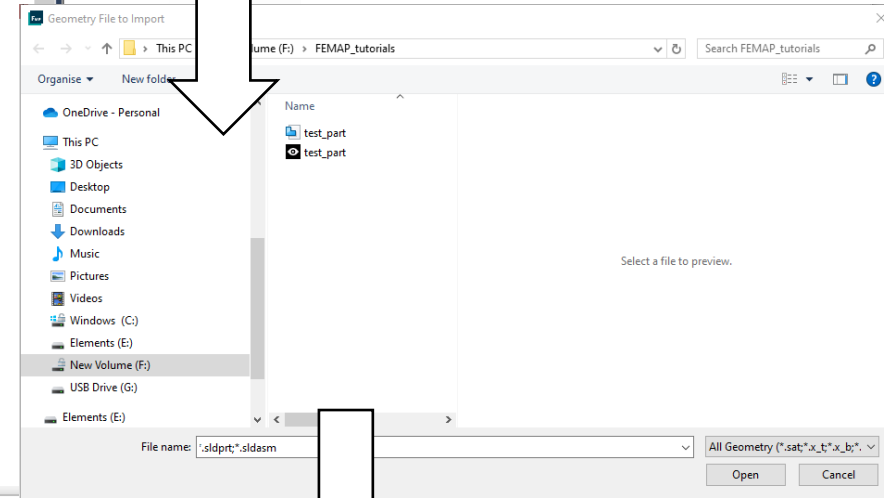
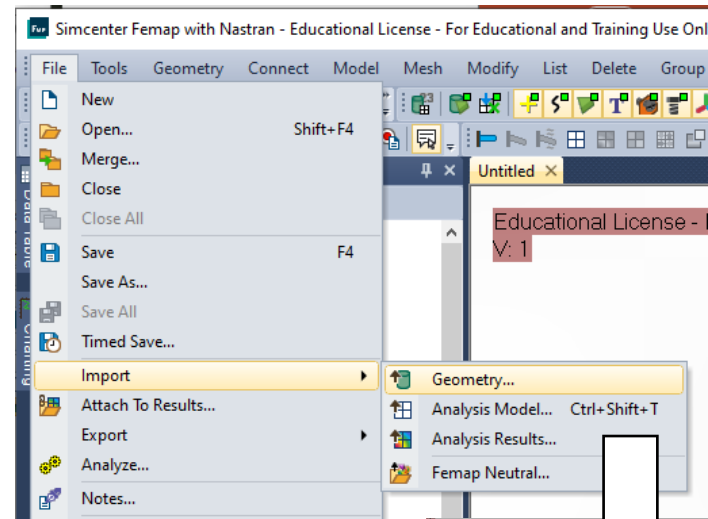
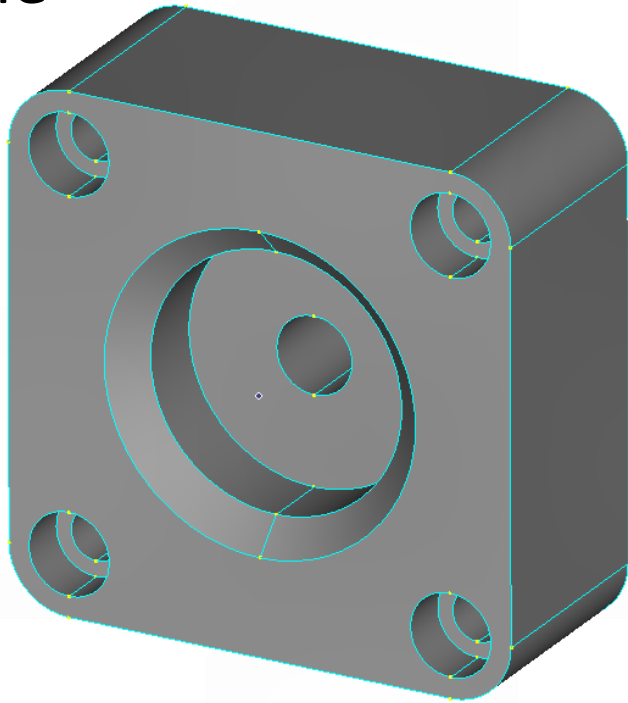
- This model has no underlying geometry. It's just comprised of nodes and elements
- Read in from Nastran mesh file

GRID	23	0	-20.7867	-20.	-13.8893	0
GRID	24	0	-19.3253	-20.	-15.8598	0
GRID	25	0	-17.6777	-20.	-17.6777	0
GRID	26	0	-15.8598	-20.	-19.3253	0
GRID	27	0	-13.8893	-20.	-20.7867	0
GRID	28	0	-11.7849	-20.	-22.048	0
GRID	29	0	-9.56709	-20.	-23.097	0
GRID	30	0	-7.25712	-20.	-23.9235	0
GRID	31	0	-4.87726	-20.	-24.5196	0
GRID	32	0	-2.45043	-20.	-24.8796	0
GRID	33	0	0.	-20.	-25.	0
GRID	34	0	0.	-17.2	-25.	0
GRID	35	0	0.	-14.4	-25.	0
GRID	36	0	0.	-11.6	-25.	0
GRID	37	0	0.	-8.8	-25.	0
GRID	38	0	0.	-6.	-25.	0
GRID	39	0	-2.45043	-6.	-24.8796	0
GRID	40	0	-4.87726	-6.	-24.5196	0
GRID	41	0	-7.25712	-6.	-23.9235	0
GRID	42	0	-9.56709	-6.	-23.097	0
GRID	43	0	-11.7849	-6.	-22.048	0
GRID	50906	2	7706	12151	10169	13732
GRID	50907	2	3536	11234	7706	13732
GRID	50908	2	11234	13506	12151	13732
GRID	50909	2	3536	7706	10169	13732
GRID	50910	2	6428	14129	8704	14193
GRID	50911	2	11196	12018	12019	12028
GRID	50912	2	3756	8057	7594	11237
GRID	50913	2	3051	10121	3628	11364
GRID	50914	2	2917	3052	7770	10121
GRID	50915	2	4655	9541	6118	12448
GRID	50916	2	8885	8887	11395	12906
GRID	50917	2	4631	8414	11596	12448
GRID	50918	2	4654	10751	9541	12448
GRID	50919	2	4630	11596	10751	12448
GRID	50920	2	4630	10751	4654	12448
CTETRA	50906	2	7706	12151	10169	13732
CTETRA	50907	2	3536	11234	7706	13732
CTETRA	50908	2	11234	13506	12151	13732
CTETRA	50909	2	3536	7706	10169	13732
CTETRA	50910	2	6428	14129	8704	14193
CTETRA	50911	2	11196	12018	12019	12028
CTETRA	50912	2	3756	8057	7594	11237
CTETRA	50913	2	3051	10121	3628	11364
CTETRA	50914	2	2917	3052	7770	10121
CTETRA	50915	2	4655	9541	6118	12448
CTETRA	50916	2	8885	8887	11395	12906
CTETRA	50917	2	4631	8414	11596	12448
CTETRA	50918	2	4654	10751	9541	12448
CTETRA	50919	2	4630	11596	10751	12448
CTETRA	50920	2	4630	10751	4654	12448
CTETRA	50921	2	10362	6535	10366	10366
CTETRA	50922	2	6533	8999	12671	12671
CTETRA	50923	2	6535	7154	10366	10366
CTETRA	50924	2	256	257	6727	6727
CTETRA	50925	2	11817	6533	12671	12671
CTETRA	50926	2	6727	261	9444	9444
CTETRA	50927	2	8820	1192	10362	10362
CTETRA	50928	2	12729	12742	13118	13118
CTETRA	50929	2	11451	12271	12379	12379
CTETRA	50930	2	173	172	10857	10857
CTETRA	50931	2	9747	7816	10015	10015
CTETRA	50932	2	6563	140	10868	10868
CTETRA	50933	2	5292	6563	10251	10251
CTETRA	50934	2	10868	110	12269	12269
CTETRA	50935	2	8913	11433	12269	12269
CTETRA	50936	2	8017	6592	8018	8018
CTETRA	50937	2	109	6460	6563	6563
CTETRA	50938	2	8037	7803	13063	13063

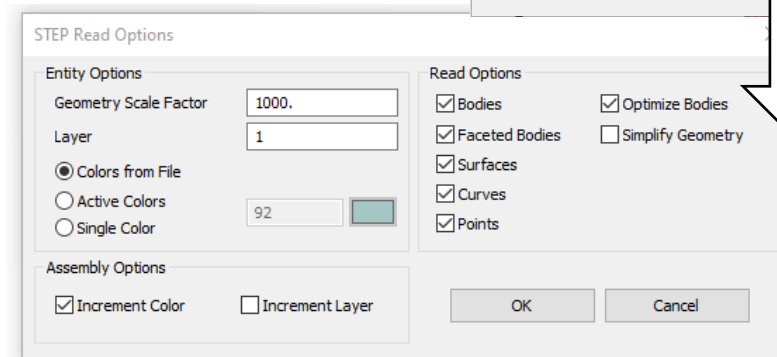
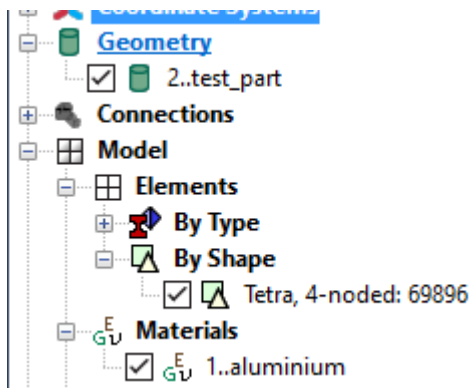


Read in CAD geometry

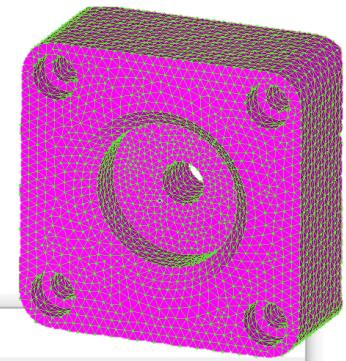
- Read in step file of geometry



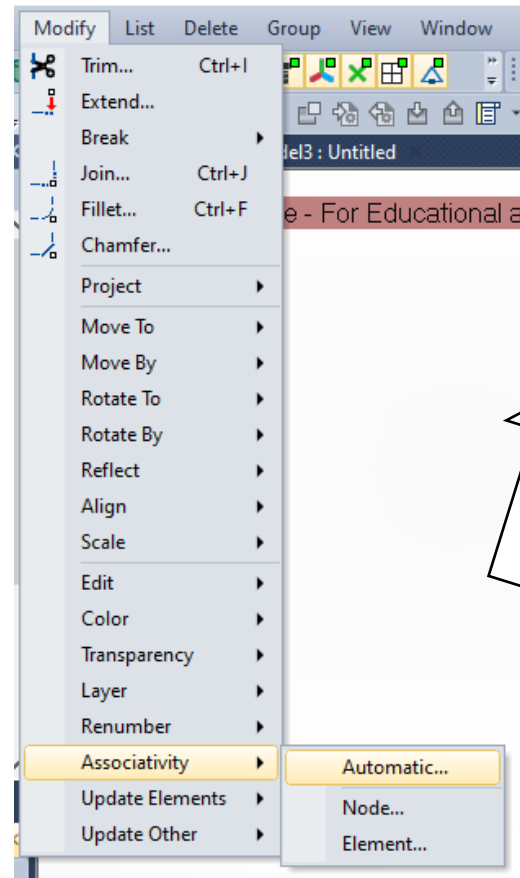
We now have geometry and mesh in the same model but they are unconnected



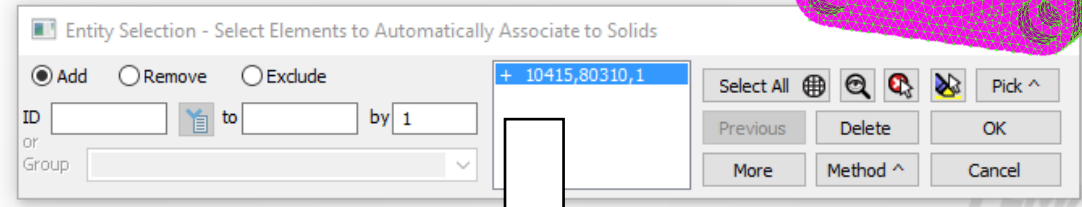
Automatically associate mesh to geometry



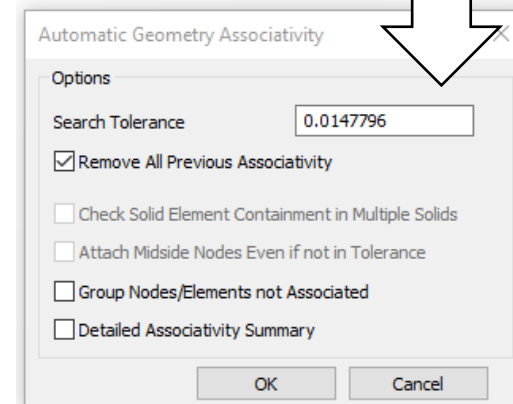
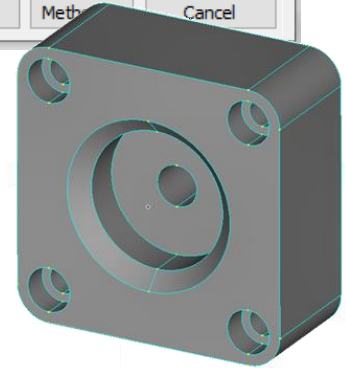
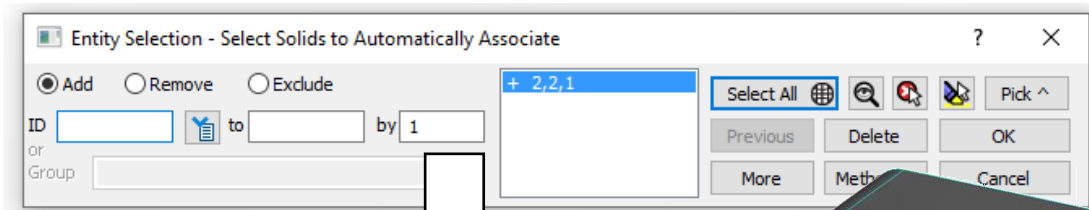
- We are going to automatically associate the mesh to the solid geometry.



Select the mesh you want to associate



Select the geometry you want to target

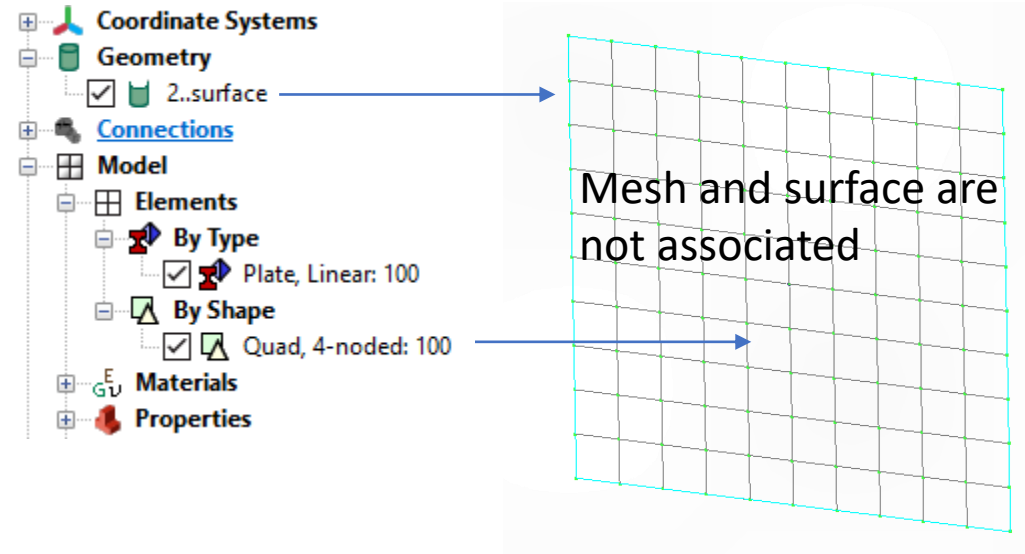


We can now use the geometry to apply loads, BC's, contacts etc

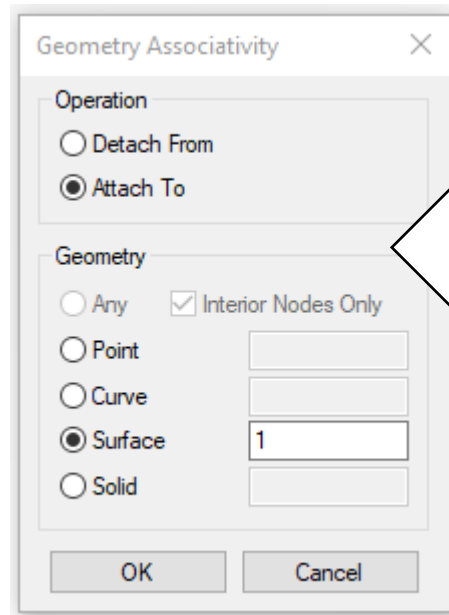
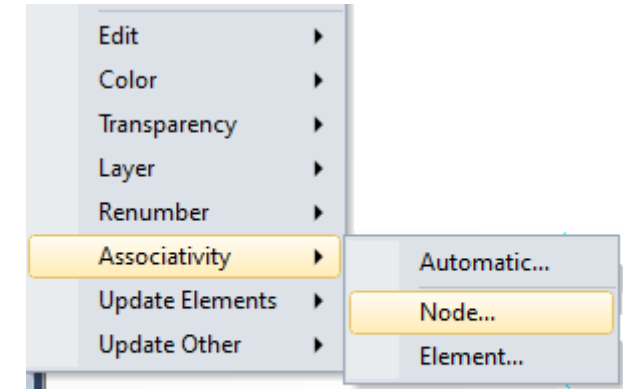
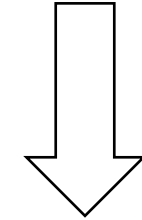


Manually associate mesh to geometry

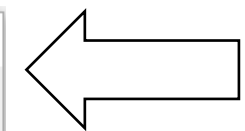
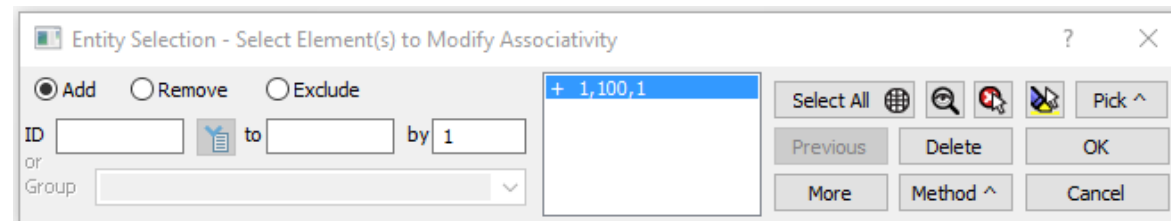
- We can manually associate mesh and geometry



Manually
associate mesh
to geometry



Select the elements you want to associate



Select the
geometry
you want
to use

