

Nastran Bulk Data Import for Poseidon

Berthold Höllmann

October 7, 2015

1 BDF Cards supported

	Name	Description	Done
General	MAT1	Material definition	✓
	GRID	Grid nodes	✓
Elements	CTRIA3	3 node shaped shell elements	✓
	CQUAD4	4 node shaped shell elements	✓
	CBEAM	Complex beams	✓
	CBAR	Simple beams	✓
	CROD	Trusses	✓
	properties		
Element	PSHELL	Properties for CTRIA3, and CQUAD4	✓
	PBEAM	Integral properties for CBEAM	✓
	PBEAML	Properties for CBEAM describing cross section	✓
	PBAR	Integral properties for CBAR	✓
	PBARL	Properties for CBAR describing cross section	✓
	PROD	Properties for CROD	✓
Misc			
	ENDDATA	Marker for end of input file	✓

2 Writing support for Poseidon

	Entry	Description	Done
Properties	beam properties	This is probably quite tricky, because in general the beam cross section information in BDF files is given as description of the cross section geometry which probably has to be converted to integral values.	✓
	group information		✓
Elements	Shell		✓
	PSE		✓
	Truss		✓
	Beam		✓
	Boundary Elements		
Group Info.	NAPA CSV file	contains also yield stress informaton	✓
	Patran session file	does not contain yield stress information	