

# Bill of Materials (BOM)



# What is the Bill of Materials function?

- The Bill of Materials feature in PRIMER enables you input and output part information to and from your model.
- Part information (such as material, thickness, NIP, elform) can be read from a delimited text file.
- Part information can be checked against a reference delimited text file.
- Part information can be written to a text file or an Excel file (which can optionally contain images of the parts).



# Bill of Materials

- PRIMER can read any type of delimited file (e.g. CSV file from Excel).
  - The user selects the field type from the popup menu (Model PID, thickness, material, element formulation, etc.)
  - Data is then read and applied to the CAE model.

The screenshot shows the PRIMER software interface with the 'BILL OF MATERIALS' tool active. The 'Tools' menu on the left has 'BOM' highlighted. The main dialog box, titled 'BILL OF MATERIALS', contains a 'Field type' dropdown menu with 'PID' selected. Below this, there's a table of BOM data. The 'Read or write Bill of materials file?' section at the bottom has the 'Read' button highlighted.

Field	A	C	D	E	F	G	H	I	J
1	Primer Bill of								
2	\$ -----								
3	\$								
4	\$ Created on: Thu								
5	\$								
6	\$ from model: ""								
7	\$								
8	Part ID								
9	\$								
10	100000								

# Reading a Bill of Materials file

- During import, first 50 lines of the file will be shown to help answer questions that PRIMER will ask regarding the format of the file.
- The user can specify how comment lines are defined during this process.
- It is also required for the user to define what the delimiter is within the file so PRIMER can correctly interpret the data.



# Comparing BOM data to model.

- Select parts from BOM file to update:** By default PRIMER will update all parts referenced in the CSV file (“All in file”). The “Subset” option will allow the user to select a subset of the referenced parts and will then only update those parts.
- Which parts will be modified? – Sketch:** These options allow the user to “Sketch” or “Only” the parts that will be modified by applying the CSV file.

BILL OF MATERIALS

Cancel < Prev Apply Help

Define the fields in the file

None of the parts in BOM file have differing information, therefore no PART(s) will be updated

Select fields in Bill of Materials

Select parts from BOM file to update:

☒ All in file ☐ Subset

Select PART(s)

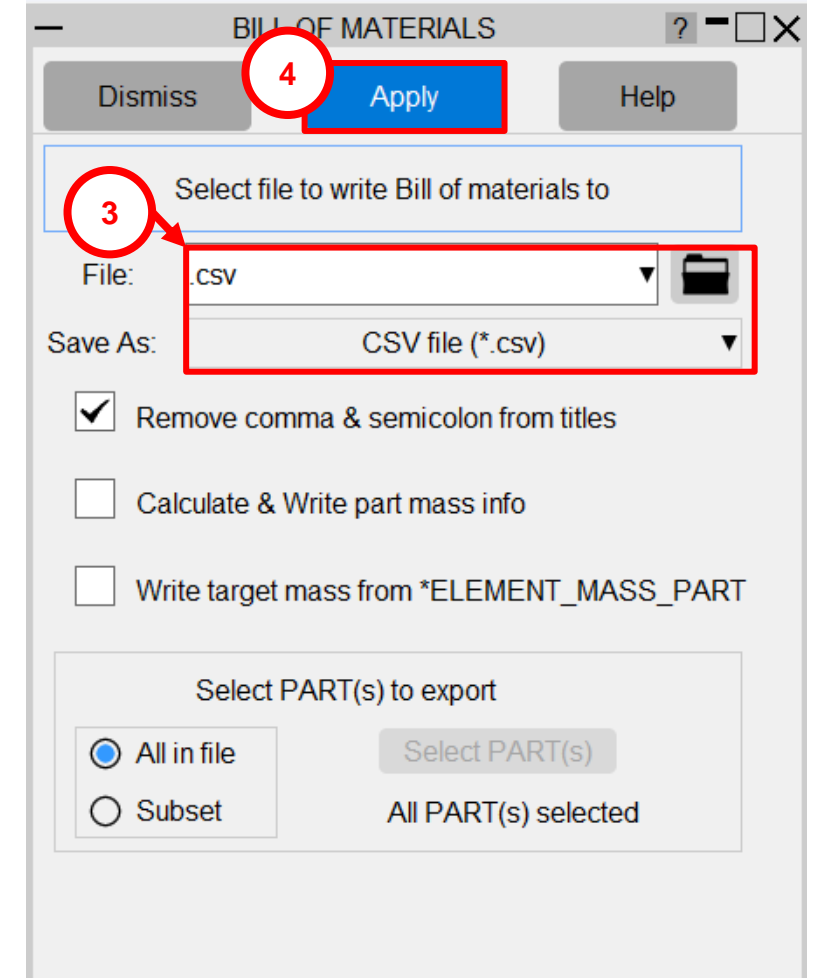
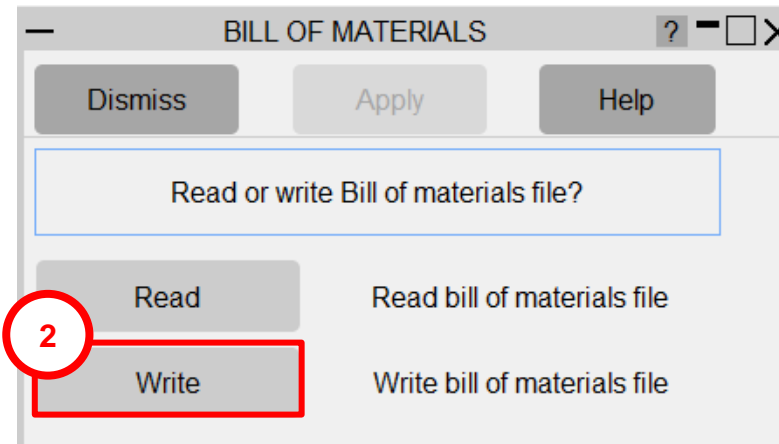
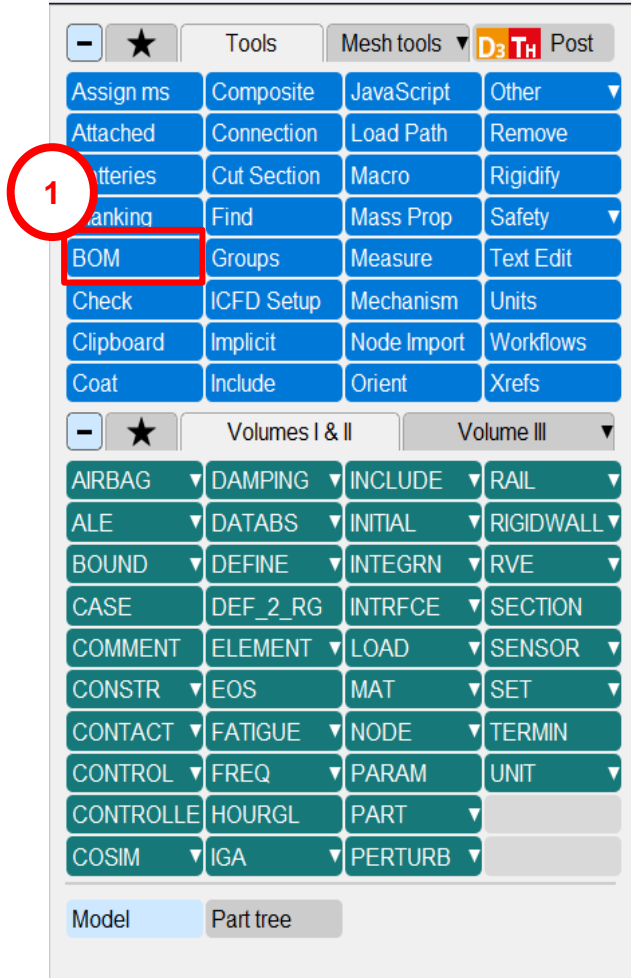
All in file

Which parts will be modified?

☒ Sketch ☐ Only Explain

	A	B	C	D	E	F	G	H	I	J
Field	PID	CAD part no.	Part description	Material ID	Section ID	Hourglass ID	Skip field	Section title	Gauge	Hourglass type
1	\$ Primer Bill of									
2	\$									
3	\$									
4	\$									
5	101									
6	104									
7	113									
8	200	CAD Part No	Title	Material ID	Section ID	Hourglass ID	Material name	Section name	Gauge	HG type
9	202									
10	203		27	2100029	100000	0	DP 350-600 with f	27	1.8	

# Writing a BOM to a CSV file




# Ability to export BOM part images in spreadsheet

Note the BOM information can also be written directly to an XLSX file. Optionally, the user can select to export an image of the parts being written to the XLSX file as well.

**BILL OF MATERIALS** ? - □ ×

Dismiss Apply Help

Select file to write Bill of materials to

File:  

Save As:  ▼

☒ Remove comma & semicolon from titles

☐ Calculate & Write part mass info

☐ Write target mass from \*ELEMENT\_MASS\_PART

Select PART(s) to export

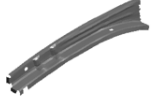





☒ All in file

☐ Subset

☒ White Background

Image Width(in pixels) :

Image Height(in pixels) :

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	
1	Part Image	Part ID	CAD Part No	Title	Material ID	Section ID	Hourglass ID	Material name	Section name	Gauge	HG type	HG coeff	Elform	Nip	Lower id	Upper id	numel	
2		21000		BIW - upper wheel well - L - I	20578	21000	21000	MATL24_4000240	SectShll_2000001	1.28	8	0	16	3	2645312	3002018	1347	
3		21001		BIW - wheel well- L - F	20578	21001	21000	MATL24_4000240	SectShll_2000002	0.86	8	0	16	3	2646979	3003777	1273	
4		21002		BIW - shock housing - L	20577	21002	21000	MATL24_4000210	SectShll_2000003	1.42	8	0	16	3	2647010	3005669	1812	
5		21003		BIW - rail plate 1 - L	20580	21003	21000	MATL24_4000340	SectShll_2000004	2.51	8	0	16	3	2651452	3007182	408	
6		21006		BIW - rail plate 2 - L	21010	21006	0	MATL24_4000300	SectShll_2000007	1.52				2	3	2655867	3011703	547
7		21007		BIW - shock housing top - L	21010	21007	0	MATL24_4000300	SectShll_2000008	2.07				2	3	2655877	3011770	238

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