

***INCLUDE_TRIM**

Purpose: This keyword is developed to reduce memory requirements and CPU time during trimming in sheet metal forming.

Card #1 is required.

Card Format (A80)

Card 1	1	2	3	4	5	6	7	8
--------	---	---	---	---	---	---	---	---

Variable	FILENAME
Type	A

<u>VARIABLE</u>	<u>DESCRIPTION</u>
FILENAME	File name of the part to be trimmed.

Remarks:

1. When option _TRIM is used, the name of the file should be included in a usual LS-DYNA input file for trimming. For example, a drawn panel from previous simulation can be included in a current trim input file as follows,

```
*INCLUDE_TRIM
Drawnpanel.dynain
```

No optional cards are necessary.

2. Referring to the table below (parts courtesy of Ford Motor Company), the new TRIM option reduces memory requirement for trimming by more than 50%. Levels of CPU time reductions vary, in some cases more than 50%.
3. This feature is available in LS-DYNA R5 Revision 62207 or later releases, where the output of strain tensors for the shells is included. Prior Revisions do not include strain tensors for the shells.

***INCLUDE**

***INCLUDE_TRIM**

	Roof	Hood Inr	B-Plr	Fender	BSA Otr	Door Otr	Wheel House (2 in 1)	Boxside Otr
#Element	410810	1021171	351007	189936	380988	315556	261702	1908369
CPU (old/new)	7m26s/ 4m	10m20s/ 9m18s	3m11s/ 2m56s	2m6s/ 1m22s	5m45s/ 4m54s	4m27s/ 3m35s	2m52s/ 2m30s	27m31s/ 13m59s
Memory (MW) (old/new)	282/ 112	616/ 383	221/ 117	119/ 50	233/ 130	217/ 114	157/ 75	1150/ 539