



Prescribed Structures Motion Tengkey Software



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PRODUCT DESCRIPTION

TK-PSM is a structure motion program for safety simulation in frontal or side impact load cases. Especially used for sub-system occupant response simulation the software allows to define the vehicle structure intrusion as prescribed boundary condition by **Prescribed Structure Motion (PSM)** method in side impact.

For example, TK-PSM enables you to generate *BOUNDARY_PRESCRIBED_MOTION file out of d3plot or any other PSM file for a given LS-Dyna input key file which includes the prescribed *node and *Element cards.

Input format: LS-DYNA, MADYMO, Time History file, Animation file, etc.

Output format: LS-DYNA, MADYMO

Any other input/output files such as Radioss, Abaqus, PamCrash upon request

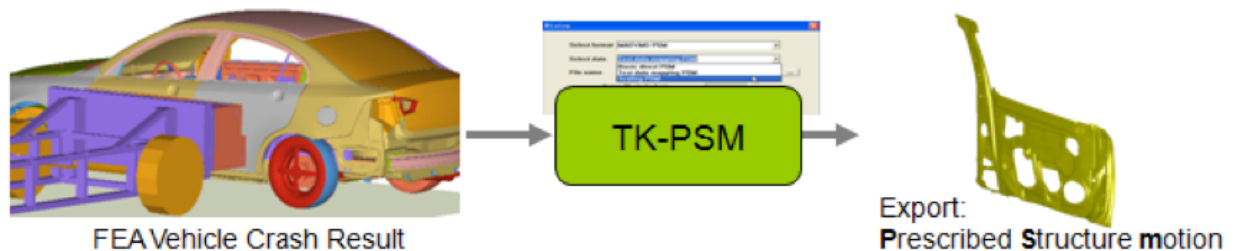
Used for parametric studies, TK-PSM allows saving more than 50% of CPU time in FE simulation included sub-structure intrusion data, intrusion and shape effect on injury criteria's (dummy response) etc.



PSM BASIC

The PSM file is generated out of d3plot result data, then the PSM file can be included into occupant restraint system simulation model as prescribed structure boundary condition (structure intrusion).

All structures motion can be input and output as included motion file, for example: side intrusion, MDB barrier motion, etc.





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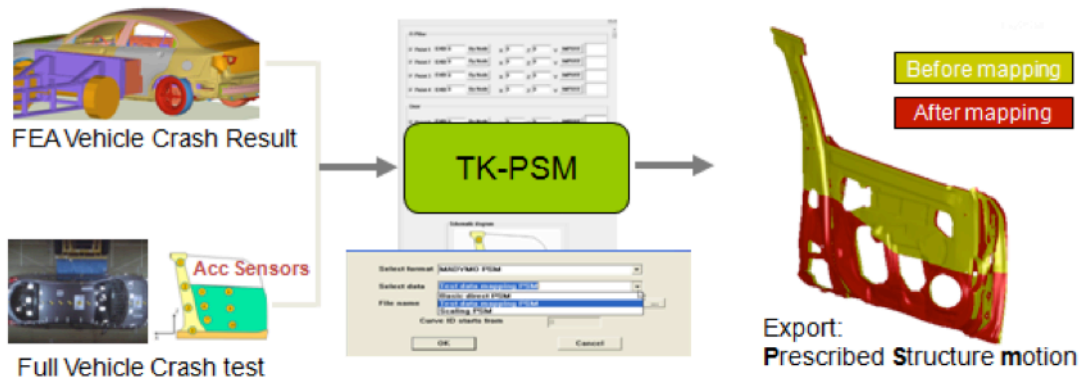


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PSM MAPPING

PSM Software allows mapping time history data such as accelerometers from full vehicle crash test into CAE simulation result to run and improve the FE structure correlation as well as better result efficiency.

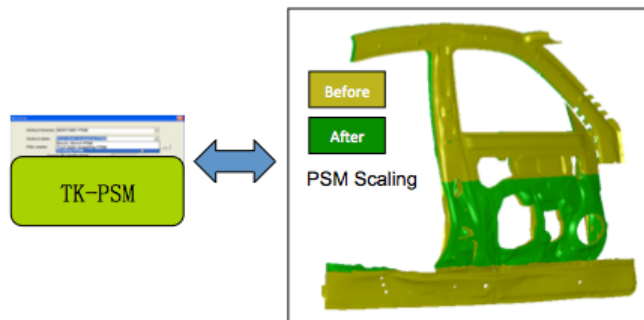
PSM exports files to make sure the correction of side structure restricts the intrusion.



PSM SCALING

Parameterize the side structure and scale the input sub-structure intrusion data's used for studying different intrusion shape to:

- Optimization, DOE, etc.
- Scale the MDB barrier, Pole cases, etc.
- Study the intrusion difference and its effect on dummy response (injury criterias)



CONTACTS

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