

ANSA / META for Occupant safety simulation and dummy handling

Training	ANSA / META for Occupant safety simulation and dummy handling
Duration	half day (4 hours)
Level	Advanced
Who should attend	CAE analysts who work in crash domain, develop BIW and safety restraint systems for vehicles, or handle dummies.
Training description and objectives	<p>This course introduces participants to the fundamentals of pre-processing for occupant safety, dummy handling and restraining and the relative ANSA tools for preparing crash test files, with dummies included, and calculate and evaluate crash and dummy results with META.</p> <p>Upon course completion participants will be able to :</p> <ul style="list-style-type: none"> – Create the entities that describe the motion of a complex kinematic mechanism (e.g. seat) and connect it with the BIW, – create the kinematic configurations, – position and restrain the dummy, – set up a load case, – output files with various dummy positions, – calculate and plot crash criteria (HIC, NIJ, CLIP3ms, Tibia, OLC), – extract occupant injury results, – calculate and handle dummy and user defined results.
Prerequisites	Basic principles of occupant safety, ANSA, and META are required.



Suggestions	This course can be combined with any of the crash trainings: <ul style="list-style-type: none">– ANSA for Crash simulation pre-processing– ANSA / META for Interior safety simulation pre- and post- processing– ANSA / META for Pedestrian safety simulation pre- and post- processing
Language	English, German, Swedish <i>*ask for more languages</i>

Suggested topics
<p>ANSA session</p> <ul style="list-style-type: none">– Introduction– Kinematic mechanism creation– Joints creation– Position the mechanism– Save and export new positions– Dummy insertion– Dummy positioning– Dummy coupling– Seat belt creation– Final positioning– Seat depenetration– Contact definition– Material definition– Set-up of solution controls– Model output <p>META session</p> <ul style="list-style-type: none">– Calculation of crash analysis criteria– Automated extraction of occupant injury results<ol style="list-style-type: none">a) Creation of all dummy resultsb) Results handlingc) User defined results

*Course content is subject to change without notice.
Course content may be adjusted to audience requirements or background.*