

STAR-Tutor Sessions

Session	Description (see note 1)	Session Duration	Pre-requisites (see note 2)	Training credits required (see note 3)	Reference Code
PRODUCT QUICKSTART SESSIONS					
CFD 101: Best practices	Introduction to the fundamentals of CFD and problem set-up. Provides a guideline in meshing, boundary condition selection and convergence check to ensure reliable solutions.	1 hour	None	5	CFD101
Running start with STAR-CCM+	High-level overview of setting up and running a simple flow problem in STAR-CCM+.	1 hour	None	3	RSCCM+
Running start with STAR-Design	High-level overview of setting up and running a simple flow problem in STAR-Design	1 hour	None	3	RSSDN
Running start with STAR-Works	High-level overview of setting up and running a simple flow problem in STAR-Works	1 hour	None	3	RSSWKS
Running start with STAR-Pro/E	High-level overview of setting up and running a simple flow problem in STAR-Pro/E	1 hour	None	3	RSSPRO
Running start with STAR-CAT5	High-level overview of setting up and running a simple flow problem in STAR-CAT5	1 hour	None	3	RSSCAT
Running start with STAR-NX	High-level overview of setting up and running a simple flow problem in STAR-NX	1 hour	None	3	RSSNX
APPLICATION SPECIFIC					
Underhood and engine compartment thermal management	Overview on best practices for modeling vehicle/engine compartment thermal simulations.	2 hours	Basic	5	ITMGMT
External aerodynamic modeling	Overview of best practices for modeling vehicle external aerodynamics drag and lift coefficient prediction	2 hours	Basic	5	EXTAERO
Internal Combustion Engine modeling	Best practices for ICE modeling of sprays and combustion	2 hours	Advanced	5	ICE
Turbomachinery	Best practices in modeling turbomachinery problems	1 hour	Basic	5	TURBMAC
PREPROCESSING RELATED					
CAD clean-up	CAD preparation and Surface Wrapping in STAR-CCM+ to prepare and clean CAD surface prior to volume meshing	1 hour	None	3	CADPRP
Parametric modeling using STAR-Design	A guide to set up and use of STAR-Design's advanced scripting for parametric studies	2 hours	Basic	5	PARAMOD
Advanced meshing	Different meshing approaches and best application fit for each mesh type including; tetrahedral, polyhedral, advanced hexahedral meshing and intelligent mesh design.	2 hour	Basic	5	ADVMSH
Meshing solid/fluid multi-domains in STAR-CCM+	How to mesh multi domains in STAR-CCM+ for conjugate heat transfer problems	1 hour	Basic	3	CHTCCM
Rotating reference frames in STAR-CCM+	Overview on meshing and set up of rotating reference frame problem in STAR-CCM+	1 hours	Basic	3	RRFCCM
PHYSICAL MODEL RELATED					
Turbulence modeling	High-level overview of available turbulence models, best-fit, guidelines in use and application of the major turbulence models, along with pit-falls to avoid.	2 hours	Advanced	5	TURBMOD
Heat transfer	Best practices: modeling heat transfer problems involving conjugate heat transfer, convection and radiation	2 hours	Basic	5	HTRNS

Heat exchanger packaging simulation	Overview on the set up and running of STAR-CD's heat exchanger routines	2 hours	Advanced	5	HXRSTS
Cavitation	Guideline to set up and modeling of cavitation using STAR-CD.	2 hours	Advanced	5	CAV
Sprays	Overview on different spray models available in STAR-CD, theory and set-up guidelines.	2 hours	Advanced	5	SPRY
Multiphase flows	Guideline to setting up and modeling Langrangian and Eulerian Two-Phase Flow problems in STAR-CD	2 hours	Advanced	5	MPFLOW
LES/DES	Overview on setting up LES/DES type problems in STAR-CD	2 hours	Advanced	5	LESDES
ECFM	A three-part session, covering set-up and use of ECFM combustion model for engine simulations.	2 hours (per session)	Advanced	15	ECFM
Free surface flows in STAR-CCM+	A guide to setting up and running free surface flow problems using VOF in STAR-CCM+	1 hour	Basic	3	VOFCCM
POSTPROCESSING RELATED					
Advanced post processing in pro-STAR	Post-processing tips to create impressive high quality pictures in pro-STAR.	2 hours	Basic	5	ADVPOST1
Advanced post processing in STAR-CCM+	Post-processing tips to create high quality pictures in STAR-CCM+.	2 hours	Basic	5	ADVPOST2
Post-processing user coding	User coding for post-processing in pro-STAR.	2 hours	Basic	5	POSTUSR
MISC					
Using JAVA scripting in STAR-CCM+	Introduction on use of JAVA scripting to drive STAR-CCM+ simulations	1 hour	Basic	3	JAVACCM
Field functions in STAR-CCM+	Introduction to field functions in STAR-CCM+	1 hour	Basic	3	FFCCM
Overview of user coding in STAR-CD	Introduction to user coding in STAR-CD	1 hour	Advanced	3	USERCODE

Note 1: Confirm session availability

Note 2: Prerequisites

Basic: User will have had new user/foundation training of STAR-CD, STAR-CCM+

Advanced: User should be proficient in the use of STAR-CD, STAR-CCM+

Note 3: One-on-one cost and restrictions

Training credits applicable for one-on-one sessions only. Maximum attendee per private session is 6 users. Speak to your Account Manager for details of Training Credits.

Technical sessions listed are overview sessions only and supplement rather than replace the regular training classes provided by CD-adapco.