3D EduWorks
3D EduWorks www.3dEduWorks.de Vertriebspartner für SOLIDWORKS
Rumfordstr. 9 Tel. 089 41 777 686 **3D**EXPERIENCE, SolidCAM,
80469 München info@3dEduWorks.de SolidSteel und SimLab Composer

3DEXPERIENCE WORKS STRUCTURAL SIMULATION PORTFOLIO

KEY CAPABILITIES	STRUCTURAL DESIGNER	STRUCTURAL ENGINEER	STRUCTURAL PERFORMANCE ENGINEER	DURABILITY PERFORMANCE ENGINEER	STRUCTURAL MECHANICS ENGINEER	DURABILITY AND MECHANICS ENGINEER
INTEGRATION WORKFLOW						
SOLIDWORKS® Connector Save SOLIDWORKS data on the cloud-based **3D**EXPERIENCE® platform directly from SOLIDWORKS	*	*	*	*	*	*
Full Design Associativity Enable efficient what-if scenarios that update your simulation model for any change made with a CAD application connected to the platform	●	●	●	●	●	●
USER INTERFACE						
User Assistant Follow an interactive wizard to set up, run, and review results of simulations	●	●	●	●	●	●
Physics Methods Reuse Customize the User Assistant to streamline the setup and solving of complex simulations			●	●	●	●
PLATFORM						
Data Access and Management Access the latest product design information from a single, centralized, secure location on the cloud	●	●	●	●	●	●
Engineering Collaboration Collaborate in real time, exchange ideas, and manage tasks across disciplines on the cloud	●	●	●	●	●	●
Lightweight Results Review Review and share simulation results in real time on the cloud	●	●	●	●	●	●
SOLVING TECHNIQUES						
Abaqus Implicit Static Analysis Solve static problems of deformable parts and assemblies	●	●	●	●	●	●
Abaqus Implicit Dynamic Analysis Solve nonlinear transient and quasi-static problems such as snap fits			●	●	●	●

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Abaqus Explicit Dynamic Analysis Solve nonlinear dynamic problems such as drop test and impact					●	●
fe-safe Durability Analysis Solve linear and nonlinear fatigue analysis with stress-based and strain-based fatigue methods allowing high-cycle and low-cycle fatigue analysis				●		●
SCENARIO						
Linear Analysis Run static, thermal (steady-state), frequency, and buckling studies with frictionless contact interactions and small sliding	●	●	●	●	●	●
Advanced Linear Analysis Run modal transient and model harmonic studies		●	●	●	●	●
Nonlinear Analysis Run nonlinear static, thermal (transient), visco/creep studies and axisymmetric idealization of 3D models			●	●	●	●
Advanced Nonlinear Analysis Study explicit dynamic, post-buckling, random vibrations, complex frequencies (with possible preloading effects), piezoelectric response, and unstable collapse of nonlinear structures					●	●
Sequential Multi-Step Simulations Set up automatic sequential loading in one simulation			●	●	●	●
Abaqus General Contact Automatically set up component contact	●	●	●	●	●	●
Design Exploration Find the best design based on performance objectives, working with SOLIDWORKS and **3D**EXPERIENCE parameters					●	●
Durability Analysis Run realistic fatigue loading defined by any number of structural events from elastic or elastic-plastic structural analysis; multiple load events can be used to replicate entire test schedules, including inter-event transitions and manufacturing effects				●		●
MODEL						
Connections Set up modeling of multiple components in an assembly	●	●	●	●	●	●
Comprehensive Meshing Capabilities Create high-quality meshes for solids, shells, and beams		●	●	●	●	●
Rule-Based Meshing Set meshing size and specifications (holes, fillets) for automatic high-quality mesh creation		●	●	●	●	●
Model Assembly Design Apply automated modeling to rapidly set up a simulation model mesh on a complex assembly			●	●	●	●

DASSAULT SYSTEMES

KEY CAPABILITIES

	STRUCTURAL DESIGNER	STRUCTURAL ENGINEER	STRUCTURAL PERFORMANCE ENGINEER	DURABILITY PERFORMANCE ENGINEER	STRUCTURAL MECHANICS ENGINEER	DURABILITY AND MECHANICS ENGINEER
Geometry Preparation & Simplification Automatically remove undesired geometry (holes, fillets, logos), extract mid-surface, and partition geometry for hex meshing					●	●
MATERIALS						
Nonlinear Materials Explore a wide range of materials including the following properties: hyper-elasticity, plastic or permanent deformation, creep deformation, viscoelasticity, and more			●	●	●	●
Fatigue Materials Use database of fatigue materials with high-quality stress- and strain-based data for over 350 common materials				●		●
Material Calibration Use test data to calibrate model behavior					●	●
RESULTS						
Basic Post-Processing Tools Generate reports, contour/vector/iso-surface plots	●	●	●	●	●	●
Advanced Post-Processing Tools Create XY plots (field, history), path plots, view cuts		●	●	●	●	●
Material Rendering Create stunning visuals coupling material rendering with simulation results		●	●	●	●	●
High-Performance Visualization Accelerate the visualization of results, even on large models		●	●	●	●	●
COMPUTATION						
Local and Cloud Computing Run simulations on your local computer or in the cloud	●	●	●	●	●	●
High Performance Computing (HPC)* Expand the computing capacity of your local computer and on the cloud	●	●	●	●	●	●

● *Included*

* *Requires an additional role*

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