visual components

SOLIWORKS ADD-ON

VISUAL COMPONENTS SOLIDWORKS ADD-ON SUPPORTS THE REUSE OF EXISITING PART AND ASSEMBLY FILE DATA FOR THE DEVELOPMENT OF LIGHTWEIGHT SIMULATION EFFICIENT VISUAL COMPONENT MODELS. SOLIDWORKS 3D CAD DATA CAN BE READ DIRECTLY AND STRIPPED OF COMPLEX DESIGN DETAILS WHILE MAINTAINING ACCURATE VISUAL REPRESENTATION.

- **USES SOLIDWORKS API**
- **READ PART AND ASSEMBLY FILES**
- **FILTER SETTINGS FOR AUTOMATIC DETAIL REDUCTION**
- **SIMULATION EFFICIENT 3D MODELS**

3DS SolidWorks Solution Partner

- LIGHTWEIGHT MODELS FOR FAST SIMULATIONS AND SMALL LAYOUT FILE SIZES
- FILTER SETTINGS CONTROL THE REMOVAL OF UNWANTED DESIGN FEATURES.
- ONE STEP AUTOMATIC GEOMETRY SIMPLIFICATION SCRIPTS
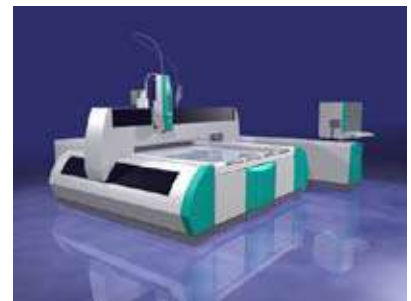- REQUIRES 3DCREATE AND SOLIDWORKS LICENSES TO OPERATE.

SIMULATION EFFICIENT
LIGHTWEIGHT MODELS

TO PRESENT PERFORMANCE BASED REALISTIC 3D PRODUCTION AND ASSEMBLY LAYOUTS IT IS IMPORTANT TO USE SIMULATION EFFICIENT MODELS. HEAVY DESIGN DETAILS SUCH AS SMALL HOLES, FILLETS, NUTS, BOLTS AND THREADS, WHEN DUPLICATED IN FACTORY LAYOUTS RESULT IN SLOW AND HARD TO WORKWITH MODELS. THE SOLIDWORKS ADD-ON IS AN EFFECTIVE TOOL TO ACCESS YOUR CAD DATA THROUGH THE SOLIDWORKS APPLICATION PROGRAMMER INTERFACE (API) AND AUTOMATICALLY REMOVE EXCESSIVE DESIGN FEATURES.

Preprocessing unwanted CAD design features in SolidWorks is always the best step towards building a library of lightweight models. In cases where this is not possible the Solidworks Add-on has filter settings to set the size of feature to be automaticaaly stripped from the model. When complete the simplified geometry is loaded into 3DCreate for preparation into a simulation based "visual component" model.

Tools within 3DCreate also help clean-up any custom features not identified by the Add-on. Commands include "BLOCKIFY", "CYLINDERIZE", "DECIMATE GEOSET", and "MERGE POINTS" which can be combined into scripts to help with repetitive geometry clean-up tasks and further reduce the CAD processing time.
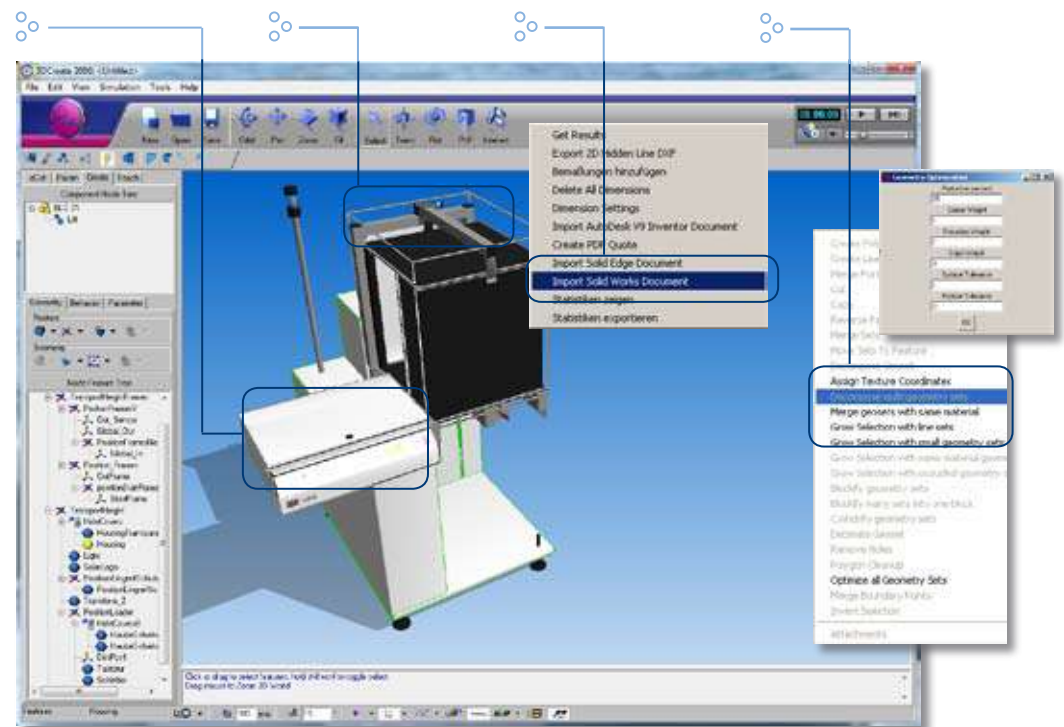
FEATURES

Geometry reduction tools are used to cleanup, restructure and reduce geometry at the geometry set level

Blockify, Cylinderfy commands substitute a geometry set with a block or cylinder with little impact on appearance.

SolidWorks Parts are accessed directly from the Menubar using the familiar Solidworks Open Dialog.

Decimate Geoset collapses complex features to a suitable display level base on a reduction percentage.

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Korppaanmäentie 17 CL6, FI-00300 Helsinki, Finland, Phone +358 9 323 2250
sales@visualcomponents.com, www.visualcomponents.com