

# CST DESIGN ENVIRONMENT(tm)

## Technical Specification

29 January 2015

### General Features

- Switch between the different members of the CST STUDIO SUITE®: CST DESIGN STUDIO(tm) (CST DS), CST MICROWAVE STUDIO® (CST MWS), CST EM STUDIO® (CST EMS), CST PARTICLE STUDIO® (CST PS), CST MPHYSICS STUDIO® (CST MPS), CST PCB STUDIO® (CST PCBS), and CST CABLE STUDIO® (CST CS).
- Native graphical user interface based on Windows
- Multiple document Interface
- Dockable tool, parameter, and message windows
- OLE automation server (COM/DCOM)
- VBA programming
- Automatic post processing
- Parameter sweeps
- Automatic optimization
- Animated plot export
- Automatic Power Point slide creation
- Automatic updates
- Project management
- Import of sub-projects
- Copy and paste of 3D objects, inside and between projects
- Version control for imported CAD data

### 3D Modeling Interface

- Applies to CST MWS, CST EMS, CST PS and CST MPS
- Intuitive 3D modeling
- Fast interactive, mouse supported model input
- Design intent capture, using relationships between objects
- Fully parametric 3D modeling (including parameterization of previously created structures)
- History list with unlimited undo/redo
- Advanced modelling features such as helices, blends, chamfers, lofts
- Profile editor

- 2D objects sweeps along 3D curves
- Boolean operations on objects
- Parameterisation of imported objects
- Feature-based hybrid modeler allows quick structural changes
- Material database

## Interfaces to 3D Formats

- SAT import/export (up to R23)
- STEP import/export (AP 203, AP214)
- IGES import/export (up to 5.3)
- STL import/export
- VDA-FS import (up to 2.0)
- Autodesk Inventor import (6 to 11, 2008 to 2012)
- Pro Engineer import (16 to Creo 2.0)
- CATIA V4 import (4.1.9 to 4.2.4)
- CATIA V5 import (R6 to R22)
- CoventorWare import
- Mecedtron import
- Synopsys Saber import
- Siemens NX(tm) import (NX 1 to NX 8.5)
- Parasolid (14 - 25.0.155)
- Solid Edge (V18 - ST5)
- SolidWorks (2003 - 2013)
- Nastran import/export
- Object (OBJ) files import
- MAFIA 4 export
- POV-RAY export
- Voxel import (e.g. for biological models)
- CST sub projects
- HFSS

## Interfaces to Planar Formats

- DXF import/export
- GDS II import/export
- GERBER import (single and multilayer)
- Microwave Office (NI AWR Software) layout import

- ADS Momentum Model Import
- Sonnet model import

## Interfaces to EDA flows

- Cadence® Allegro® import/APD
- Cadence® SiP SI
- Mentor Graphics Expedition PCB ASCII
- Mentor Graphics® PADS®
- Mentor Graphics® Hyperlynx
- Zuken CR 5000/8000
- Zuken CADSTAR®
- Zuken Visula®
- ODB++ (e.g. for Mentor Graphics Board Station)
- GERBER multilayer
- Import of PCB designs originating from Simlab PCBMod® / CST PCB STUDIO™
- CST layout database

## Schematic Interface

- Drag and drop of schematic components
- For further functionality check the CST DESIGN STUDIO(tm) specifications

## Documentation

- Handbook "CST STUDIO SUITE® Getting Started" Installation, Modeling, Post-Processing"
- Handbook "CST MICROWAVE STUDIO® Workflow and Solver Overview"
- Handbook "CST DESIGN STUDIO(tm) Workflow"
- Handbook "CST EM STUDIO® Workflow and Solver Overview"
- Handbook "CST PARTICLE STUDIO® Workflow and Solver Overview"
- CST MPHYSICS STUDIO® Workflow"
- CST CABLE STUDIO® Workflow"
- CST PCB STUDIO® Workflow and Solver Overview"
- Online help system

## Minimum Hardware Requirements

- Intel® Xeon® based PC, 4 GB RAM (8 GB recommended), DVD drive, at least 30 GB of free hard disc space (60 GB recommended).
- Fully OpenGL compliant graphic card



- Windows 7, Windows 2008 Server R2, Windows 8, Windows 2012 Server, Windows 8.1, and Windows 2012 Server R2
- RedHat Enterprise Linux (RHEL) 5.x und 6.x. and SUSE Linux Enterprise Server (SLES) 11.x. Some features may not be available, however.
- Hardware recommendation depends on your application. If in doubt, please contact your local sales office for further information. For further details, please see our hardware recommendations.

## General

- CST STUDIO SUITE® is a configurable tool with a choice of several options. Not all listed options are included in the standard license. Not all listed features are available with all solvers. Please contact your local sales office for further information.