

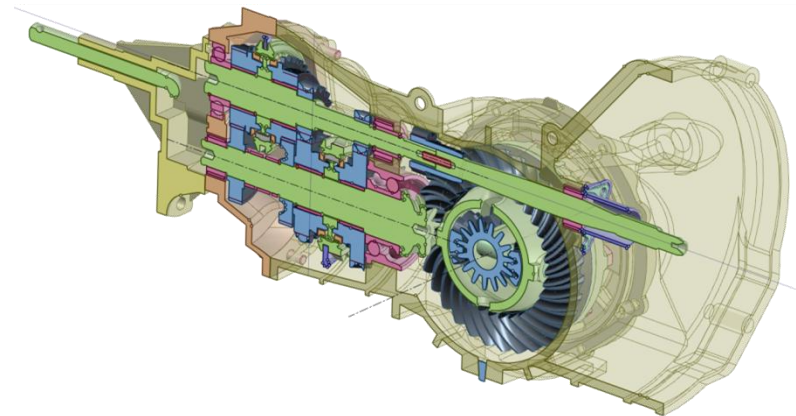
Developing designs, drafts and offers, even if you're not an CAD expert, with SpaceClaim and CADENAS PARTcommunity

Detlev Mohr, Senior Technical Consultant



SpaceClaim Background

- **Founded by experts in mechanical design**
 - Mike Payne: a founder of PTC and SolidWorks, CTO of Dassault Systèmes
 - Danny Dean: created Pro/ENGINEER, pioneered modern 3D CAD
- **Backed by VCs with experience in engineering markets**
- **Managed by an experienced engineering software team**
- **Based in Concord, MA**
 - Sales offices in USA, UK, France, Germany, Japan
- **SpaceClaim is growing rapidly**



Selected Corporate Customers



Toyota
Motor
Corporation



Microsoft



Rolls-Royce



SIEMENS



MOOG



HARRIS

Johnson & Johnson

P&G



EATON
Powering Business Worldwide

AeroNautique



ALSTOM

KMW
KRAUSS-MAFFEI WEGMANN

GENERAL DYNAMICS



Raytheon

Nokia Siemens
Networks

LOCKHEED MARTIN



IBM

AIR PRODUCTS

Bell Helicopter
A Textron Company



Honeywell

Pratt & Whitney
A United Technologies Company

Husqvarna

varian
semiconductor
equipment



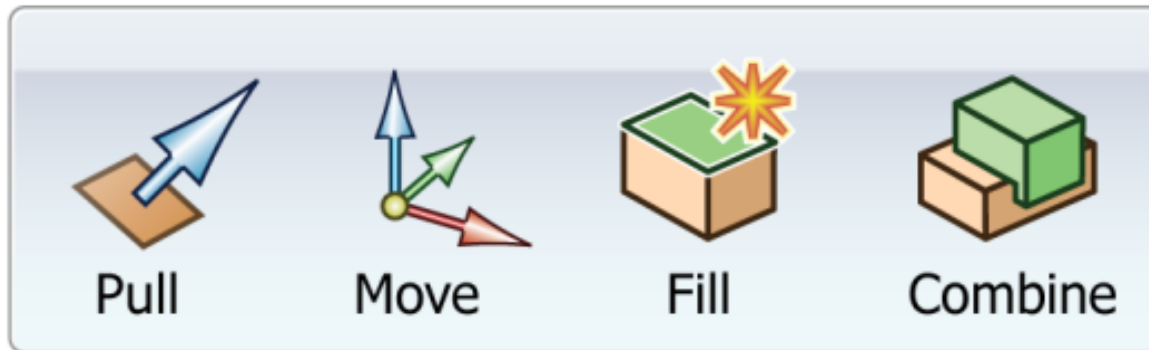
“We can create and modify 3D models in SpaceClaim with a speed not achievable in other software tools.” – Borg Warner

How SpaceClaim is Different

- **SpaceClaim is easy to learn and use**
 - Precise, powerful, and easy-to-use modeling, without the complexity of traditional history-based MCAD
- **Fast, real-time direct modeling**
 - Flexible and interactive tools support rapid design, creation and editing
- **Intelligence at your finger tips**
 - Application analyzes geometry and context, anticipates user actions and gestures
 - Powerful geometric inference engine that works on any geometry
- **Superior interoperability**
 - Imported CAD data can be edited and combined as easily as native data

SpaceClaim is CAD for non-CAD Experts

Easy to Use
CAD Neutral / Interoperable
Powerful



3D Should Be Available To All Engineers



15-25M engineers in manufacturing worldwide

Penetration of 3D CAD is low:

- Fewer than 1 million 3D MCAD seats under maintenance
- 3:1 ratio of 2D to 3D seats

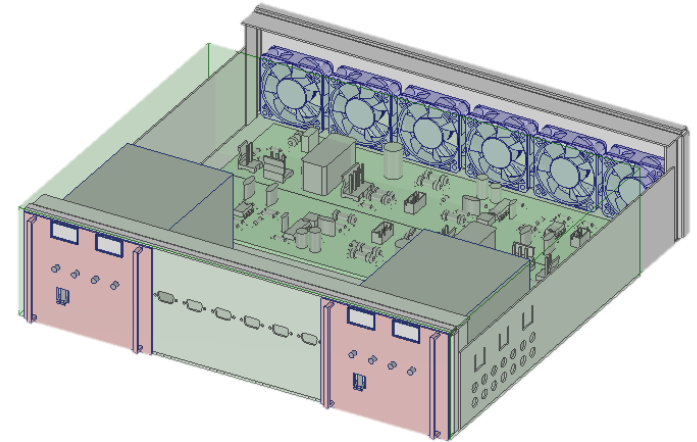
At least 3-5 million engineers in need of 3D tools

SpaceClaim is the first 3D design tool for all engineers, not just CAD specialists

SpaceClaim for Bid and Concept Modeling

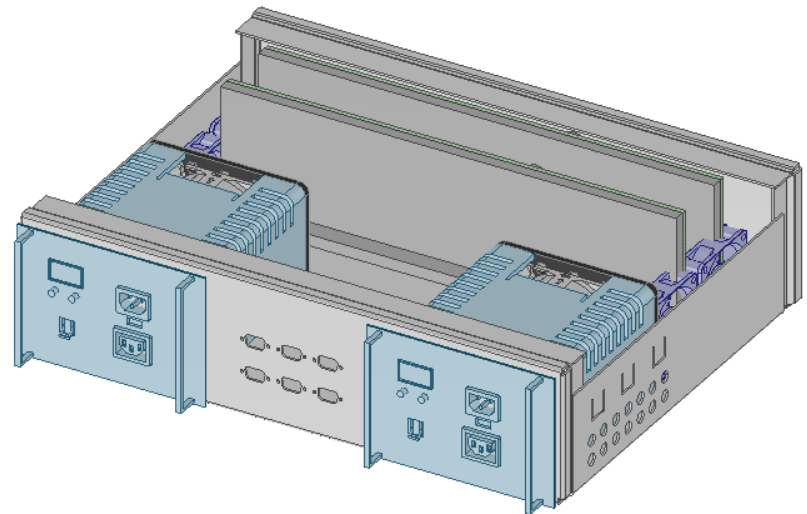
➤ SpaceClaim lets you bring it all together

- The fastest product to create new concepts
- Customer, supplier, and in-house data
- So easy, you can change designs in front of customers



➤ 3D becomes a business tool

- Understand costs
- Deliver to simulation
- Optimize before quote



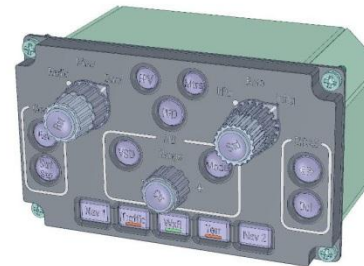
Case Study: GE Aviation

- Used SpaceClaim and Keyshot for all bid modeling work on the Chinese COMAC C919 project
- Estimated 10x more productive/ throughput than using CAD, and design & field engineers (not draftsmen) able to do the work
- Awarding the bid, specific mention was made to the quality of the engineering proposal



“Going to CAD too early costs us dearly. With SpaceClaim, I can evaluate 3-4x more concepts in the same time”

Graham Baldwin
Senior Design Manager



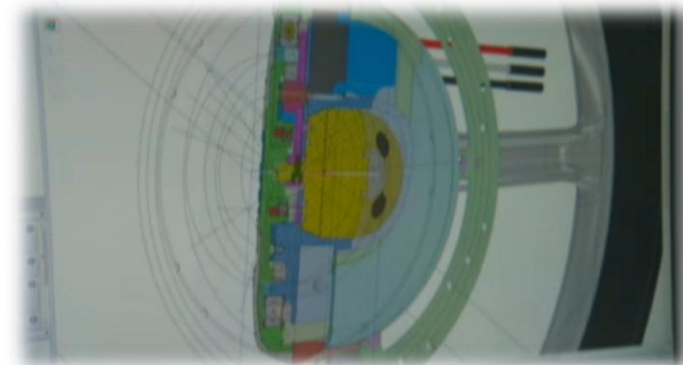
GE Aviation

Case Study: Volke KommunikationsDesign

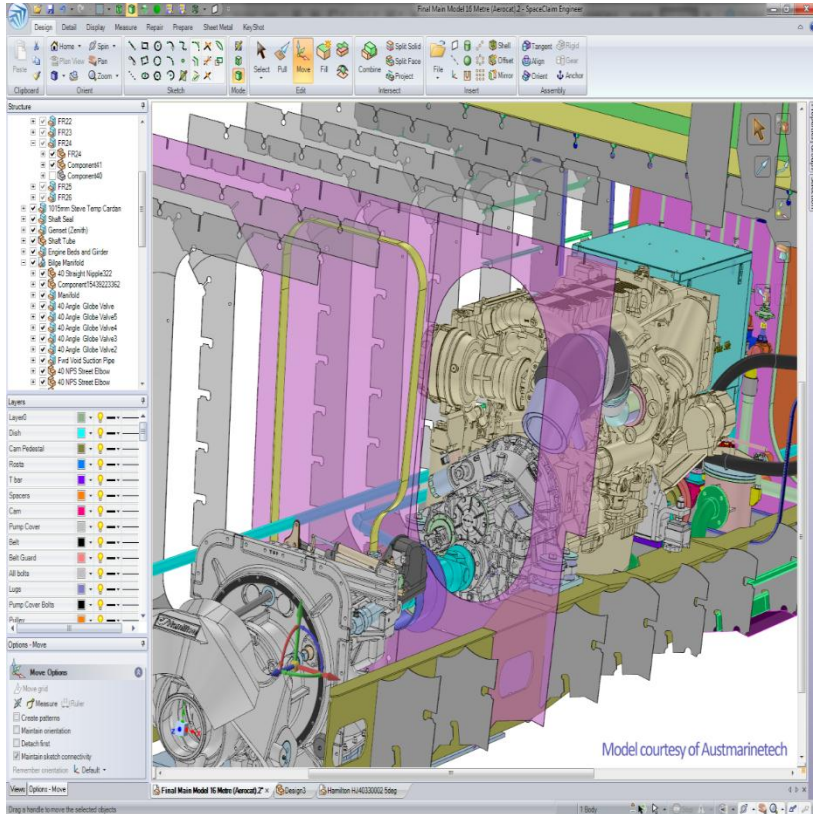
➤ Designed collapsing electric bike in SpaceClaim

“SpaceClaim was the right solution for this work as it included a lot of conceptual work, so I would not have been able to use a history-based system. The flexibility of direct modeling was a significant advantage as I designed the Volkswagen Electric Bike with SpaceClaim. All the engineering was done in SpaceClaim.”

*Martin Koppolow,
Industrial Designer and Researcher*

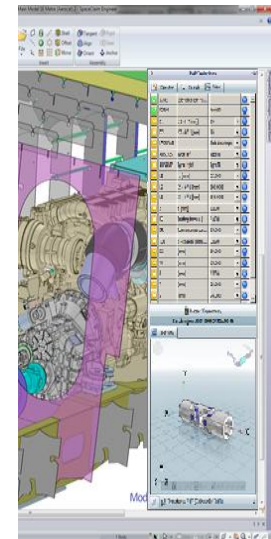


CADENAS - integrated Partsmanagement



- Download (DEMO)
- E-Mail
- Into CAD

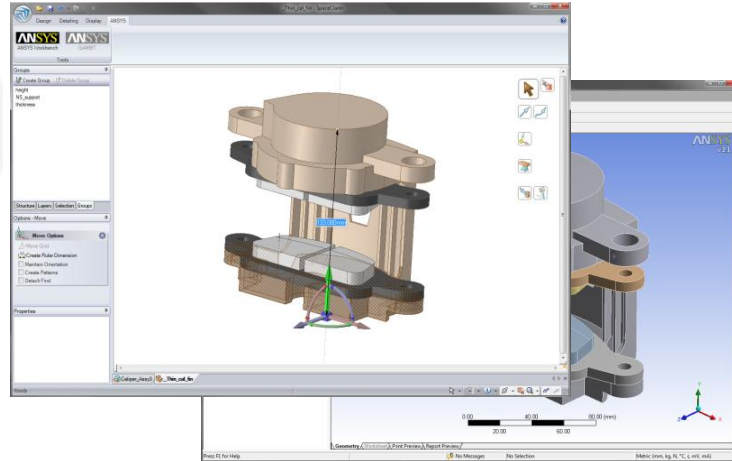
Integrated Parts Management with PARTsolutions and PARTdataManager



Rich API Supports Partnerships



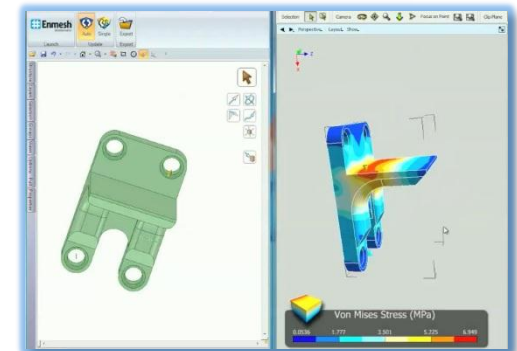
ASCDM: ANSYS
SPACECLAIM
DIRECT MODELLER



Worlds Largest
Machine Tools
Manufacturer
- selects SpaceClaim



FLOWXPRT™
WATERJET
CUTTING
SOFTWARE



Processes - more flexible and faster!

- **Easy to use— little training –high productivity**
- **High efficient 3D Solution**
- **Interfaces to common CAD Systems**
 - Step, JT, Iges, ProE, NX, Catia, Inventor, Solidworks, STL, Sat

Thank you!

Detlev Mohr

Senior Technical Consultant

