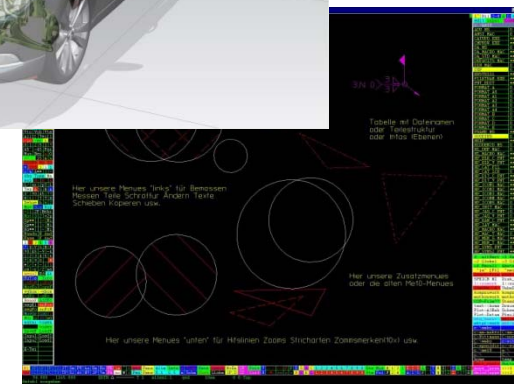
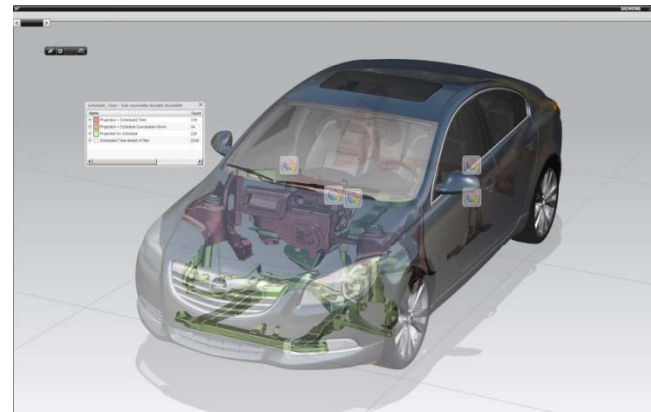


# Computer-aided Design

## - A short Review -

Bugsquashingseminar 02/15/2011



# Intention

- Quickly draw ideas
- Increase efficiencies
- Producability
- Simplify communication
  - Create Models
  - Create Drawings
  - Create Blueprints

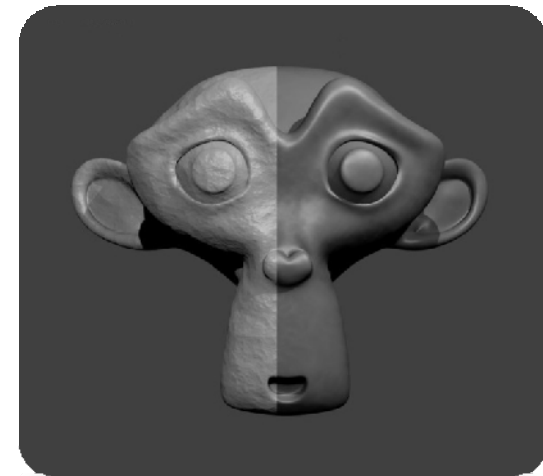
# CAD is not just CAD

Different applications call for different modelling approaches

Example

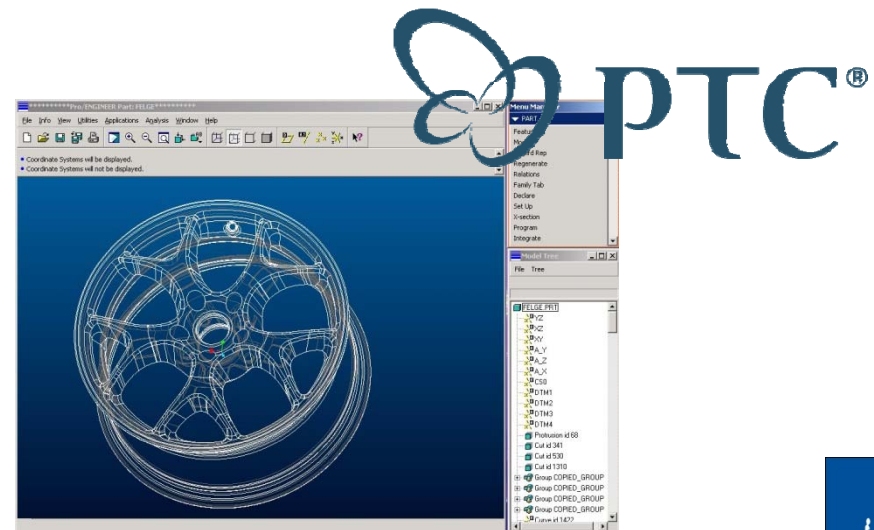


vs.



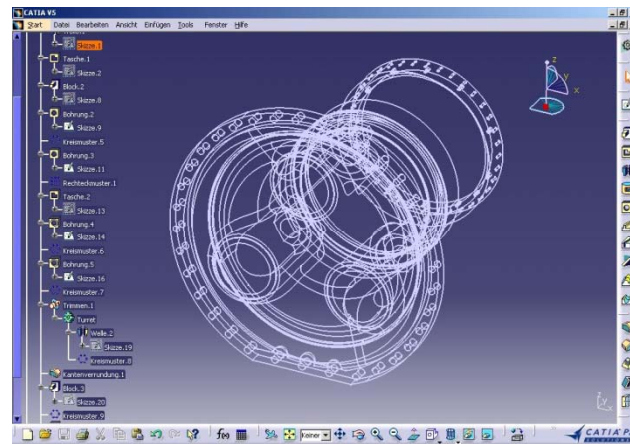
# Example Applications - ProE

- PTC® Pro/Engineering [Wildfire 5]
- Currently: Creo Elements/Pro
- Price depends on packages
- Mainly for mechanical engineering
- FEM support using Pro/Mechanica
- Parametric CAD



# Example – SolidWorks / CATIA

- Dassault Systèmes
- Siemens Parasolid
- Mechanical Engineering, Product-Lifecycle-Management, Design
- Current Price for Standard Version \$6.600



# Parametric Design Concept

- Sketch Profile

- Create Volumen using Extrude/Revolution/Sweeping by defined Parameters

- Modifiy Model

# Parametric Design Concept

- Simulate *real* manufacturing processes
- *Easy to use*
- *Supports standard parts*
- *Additional informations and processing concepts possible*

# CAD and MITK ?

- Support typical CAD file formats, like STEP, VDA-FS, STL
- Interactions with 3D Models
- MITK as interface between robotic assistant systems and augmented reality...
- ... ???



# A quick example

