

CAPITOLE-RCS

Radar Signature Software



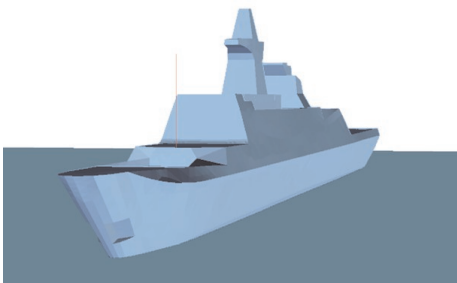
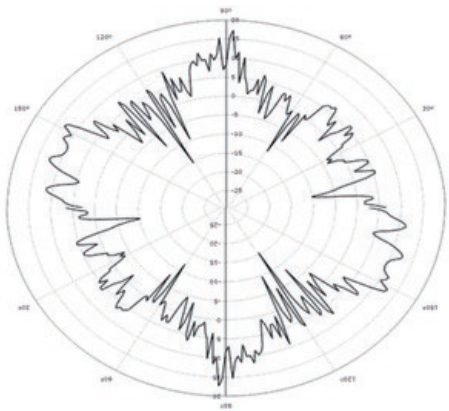
VOLTA[®]
S.p.A.

Competenza
ed entusiasmo per
soluzioni tecniche



5 Reasons to choose CAPITOLE-RCS

- **Fast:** ACA compression and parallelization allow to speed up the calculation
- **Accurate:** Fully validated with measurement results on real mock-up
- **Innovative:** New method from research labs
- **Powerful:** Compute very large models
- **Easy:** Dedicated graphical user interface with modern layout



Software resulting from innovative projects

A-SEAD (2010-11)

- Method ACA for matrix compression
- Validation with measures in CHEOPS chamber (DGA CELAR)

CAPITOLE-EM (2012-14)

- Volume methods for dielectric and absorbent materials to radar waves
- Validation with measures in anechoic chamber

CAPITOLE-HPC (2012-13)

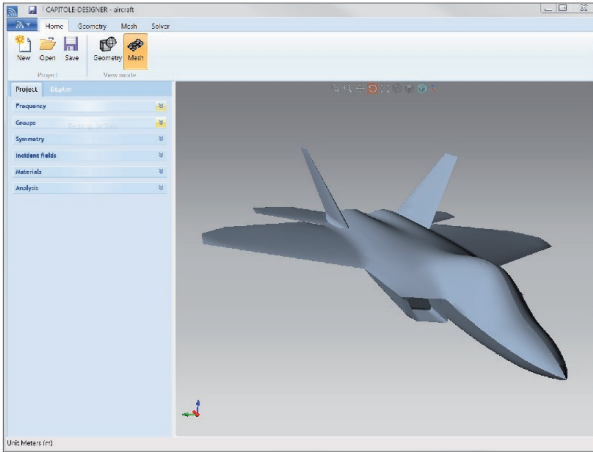
- Solver on cluster for large model



CAPITOLE-RCS

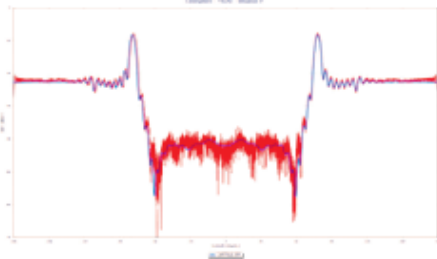
Radar Signature Software

NEXIO
Electromagnetism is our thing



Solver:

- Based on Method of Moments (MoM)
- Volume and Surface elements
- Matrix Compression: algorithm Adaptive Cross Approximation (ACA)
- Direct Solver: Multi-Scale Compressed Blocks Decomposition (MS-CBD)
- Multiple incidence optimization



SOFTWARE OFFERS

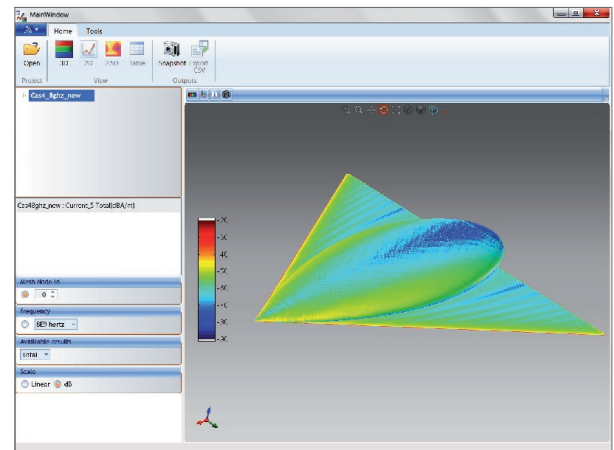
Standard license
License with specific development

SERVICES OFFERS

Support
Maintenance
Training

DESIGNER Component:

- Geometry Importation from CAD Software
- Mesh generation
- RCS analysis type: monostatic or bistatic
- Materials Definition: Dielectric, absorbent or conductive materials
- Angles Definition impact (Azimuth and elevation)
2 types: « conical cut » or « great circle »
- Polarization: Vertical or Horizontal



POSTPRO3D Component:

- RCS Results Analysis
- Frequency response
- Polar and Cartesian 2D Graphs
- Superposition of curves, annotations
- Hologram's display
- ISAR Image processing
- Impulse Response Calculation
- Surface Current's display
- Exported image
- Exported results in CSV format