

Elsyca CPMaster

Expert 3D software for intelligent CP solutions

Elsyca CPMaster is a unique 3D software solution for the design and optimisation of cathodic protection systems for buried and submerged structures. Elsyca CPMaster provides the corrosion engineer an intelligent tool for managing operational costs, significantly reducing expensive commissioning surveys and costly repairs.

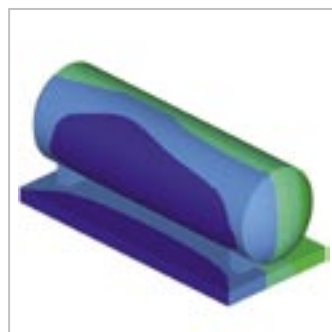
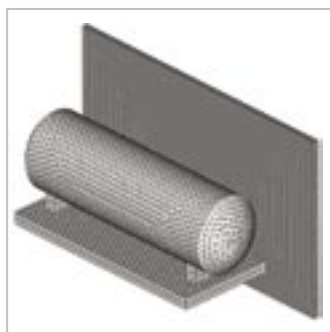
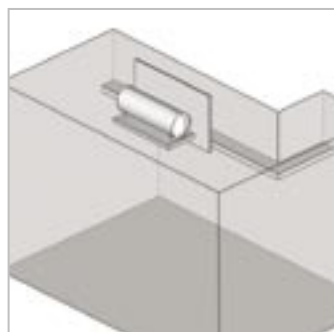
Elsyca CPMaster adds major value to your cathodic protection business:

- Elsyca CPMaster is **the** solution to save time and costs from design to installation:
 - guaranteeing CP design "right-first-time"
 - speeding up significantly development and time-to-installation of new CP systems
 - reducing substantially maintenance and exploitation costs
- Elsyca CPMaster assists in optimisation towards corrosion control, effective system performance and cost-efficiency
- Elsyca CPMaster is a knowledge management tool:
 - provides in-depth insight and understanding of your CP design
 - is a means to capture, accumulate and distribute the implicit know-how available in the company
- Elsyca CPMaster offers a differential advantage with respect to competitors

Detailed documentation and customised on-site training by Elsyca, guide you through the simulation stages:

- 1) CAD creation:** Elsyca CPMaster creates (or imports from file) the complete geometrical configuration (pipelines, tanks, casings, ground beds, ship hulls, ...) using state-of-the-art CAD tools
- 2) Pre-processing:** Elsyca CPMaster reads the electrolyte (soil, river water, sea water) characteristics from file or database
- 3) Meshing:** Elsyca CPMaster automatically meshes your complete configuration
- 4) Boundary conditions:** Elsyca CPMaster handles without any problem multiple impressed current and/or sacrificial ground beds/anodes
- 5) Solving:** Elsyca CPMaster swiftly computes structure-to-soil or structure-to-water potentials and current density distributions on all metallic structures in the CP configuration
- 6) Post-processing:** Elsyca CPMaster has powerful visualisation tools within the CAD user environment
- 7) Optimisation:** Elsyca CPMaster enables optimisation of your CP design by allowing a fast adaptation of the CP configuration and electrical parameters

Modelling with Elsyca CPMaster ensures an immediate ROI. When questions arise, Elsyca's technical support team gives you the answers you need to complete critical issues on schedule.



Elsyca CPMaster Key CAD en User Interface Features

- Entirely integrated in SolidWorks® (www.solidworks.com) offering a cost-efficient and user-friendly interface for your CP designs
- File import from numerous CAD packages such as IGES, STEP, SAT (ACIS), VDAFS, DXF, PARASOLID, ProE, Inventor, ...
- Fast and highly accurate hybrid grid generator
- Robust and prompt numerical solver calculating structure-to-soil or structure-to-water potentials, current and ground bed consumption rates
- Powerful visualisation tools with optional output to Tecplot® (www.tecplot.com) via the software product 'Tecplot for CPMaster'

Elsyca CPMaster Key Model Features

- Parameterisation of all geometrical dimensions
- Simulation of 3D CP-configurations with arbitrary complexity (including position and shape of ground beds, casings,)
- Interference from 3rd party CP-systems
- Ohmic drop effects in the soil or water
- Anodic and cathodic reaction polarization behavior
- Impressed current and sacrificial ground beds/anodes
- Floating (not contacted) electrodes (for example casings)
- Multi-layered soils with varying resistivity
- Lifetime prediction (e.g. sacrificial anodes, ...)

Hardware and Software Requirements for Elsyca CPMaster

- SolidWorks license: can be acquired through Elsyca in bundle with Elsyca CPMaster
- High performance PC (e.g. P4 3.2 GHz processor, ...)
- Operating system: Windows 2000, NT, XP
- Minimal 2 GB RAM memory
- Hard disk size → 100 GB
- Video Card: NVidia QuadroFX and Quadro4 recommended or check on www.solidworks.com

