



ELECTROPLATING SIMULATION

ELSYCA PLATINGMANAGER software

Elsyca PlatingManager is the state-of-the-art graphical simulation platform for analyzing the production performance and quality of electroplating processes. Simulations are executed using a virtual mock-up of your in-house plating line and detailed layer thickness and quality results are available for every part on the rack and for every plating step. The benefits are tangible and proven: improve production quality, reduce time-to-market, defend production choices and pricing strategy to your clients, etc. **Elsyca PlatingManager** supports the production part approval process and is thus the right tool for both the production engineer at the plating shop, as well as the program or quality manager at the OEM or tier 1 supplier.

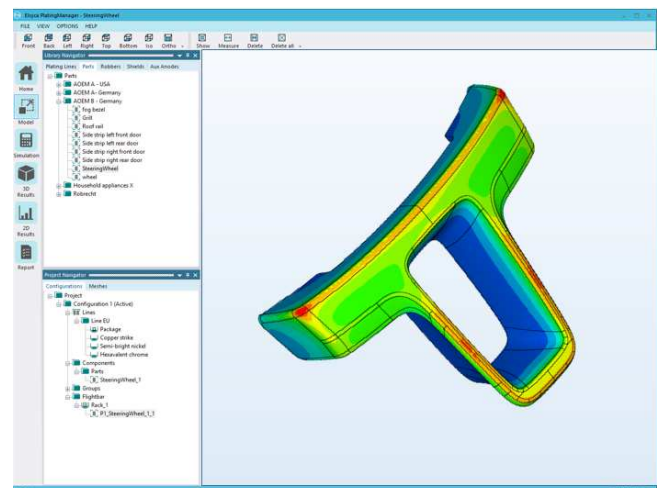
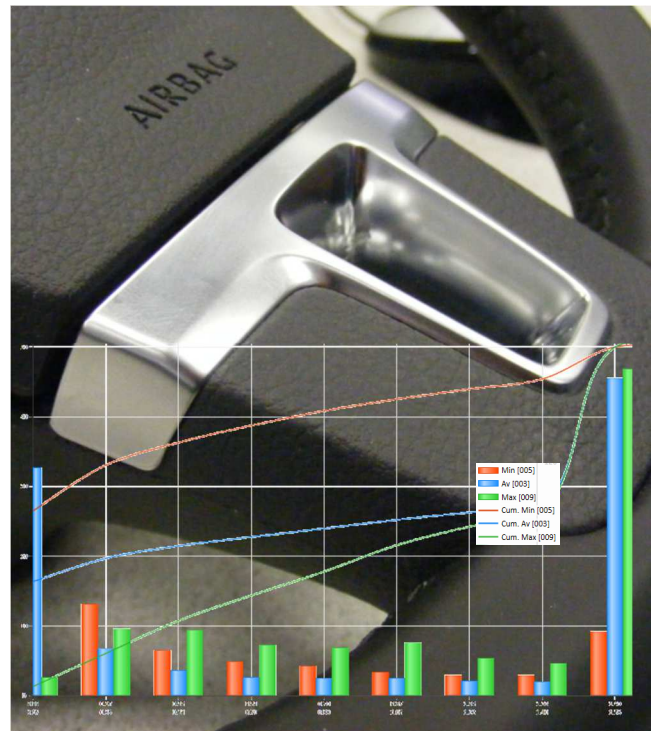
Elsyca PlatingManager simulates the electroplating process and provides detailed information on the layer thickness distribution over the various parts on the rack while highlighting potential problem zones. Alternative part orientations and/or rack configurations can now be evaluated in only a few mouse clicks, additional tooling can be designed and its effect verified, and once the quality is optimized the rack and part lay-out is available as CAD data to start the construction of the fit-for-purpose racks ... the whole process has never been more efficient!

The benefits are plenty and tangible:

- **Quality:** Potential production issues are highlighted for the various plating steps. The engineer can now adjust the rack load and design active or passive tooling to avoid any shop floor surprises. The quality manager also knows exactly which critical parts to test and where.
- **Time-to-market:** You can simulate the plating process even before the first physical part enters the building. The analysis can start as soon as the part's CAD data is available providing ample time to design the optimum rack lay-out and have them ready by the time production needs to kick off.
- **Profit margins:** The simulation analysis allows you to defend production choices and hence pricing. Higher plating quality may require more advanced tooling which comes at a cost – and you have now the simulation report to prove it.
- **Knowledge:** PlatingManager is an investment in knowledge as it helps to build and retain critical company know-how.
- **Customer satisfaction:** Reduced time-to-market, increased capacity, less scrap, improved quality ... it strengthens your company image and helps building excellent customer relations.

Elsyca PlatingManager is ingenious in its simplicity. As a user, you load the CAD model of the part, set the process parameters, and press the simulation button. It is really that simple!

Elsyca PlatingManager comes from the leading supplier in electrochemical knowledge and technology and is the result of years of strong collaboration with the plating industry!



Elsyca PlatingManager Key Features

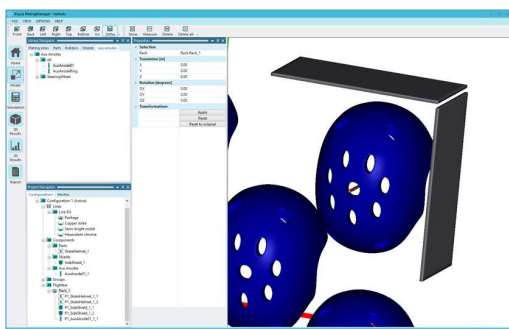
- Your real-life plating line is pre-configured by Elsyca
- No more CAD repair or need for a CAD system on your computer: ask your colleagues from the CAD department to export the CAD data of your parts into STL format (available in every CAD package) and use it for simulations in Elsyca PlatingManager.
- User-friendly positioning and automated patterning of parts on the rack; the consistency of the plating package is verified upfront
- Subsequent plating steps (e.g. Cu strike, acid Cu, semi-bright Ni, bright Ni, micro-porous Ni, hex Cr) can be modeled, both individual and cumulative results are available
- Robust and fast simulation of current density and layer thickness distribution, all potential quality problems are indicated, 2-D charts and 3-D color plots available.
- Easy what-if simulation to verify the impact of tooling (shielding, aux anodes, current robbers), different part load (and thus production capacity) and change of production settings
- Resulting rack/part lay-out is available in STL format for detailed construction of fit-for-purpose racks. Production can now start as soon as physical parts arrive! No need for expensive trial testing and tuning of rack design.
- Library of electrolyte data is included
- Science-based! The technology uses FEA (finite element analysis) to solve the distribution of the current density, and calculates layer thickness with Faraday's law.
- Automated yet customizable reporting in support of ISO quality processes
- Supports Elsyca XPlorer, the visualization and post-processing environment that allows sharing 3D simulation results with other stakeholders
- Ideal for
 - the plating engineer to solve upfront quality issues,
 - the production manager to optimize production capacity and decide which program to run on which plating line,
 - the quality/program manager to define the locations of discrete P-points and complement these with a full-view quality report
 - sales and purchasing as an objective tool to base production choices on and negotiate pricing

Hardware and Software Requirements for Elsyca PlatingManager

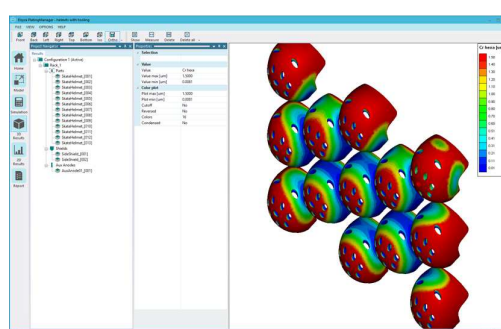
- Windows operating systems (64-Bit): Windows7 and Windows8, minimum 16GB RAM (32GB recommended)
- High-end graphical card (E.g. NVIDIA Quadro 2000 1GB); fast hard disk of 500GB or more

Customer Quotes

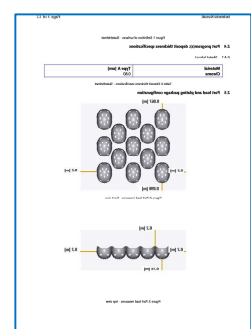
- *“Elsyca PlatingManager is truly a world-class product coming from the leader in electroplating simulation technology!”*
- *“This is a game changer software program. From now on we can weigh production choices versus tooling cost and make collaborative decisions with our clients instead of battling over price and quality.”*
- *“So fast, so user-friendly, and yet so accurate. “Wir sind total begeistert ...!”*



Configuration



Result analysis



Reporting