

SASOL ADOPTS CLEOPATRA ENTERPRISE

Increasing estimate quality and work process efficiency through integrated solution



Sasol's Lake Charles Gas-to-Liquid and Ethane Cracker Complex, USA

Challenges

As one of the world's leading energy and chemical companies Sasol faced challenges in cost estimating that are commonly found in global organizations. Sasol's estimating group generates approximately 50-60 estimates per month. Managing this number of estimates and guaranteeing quality and effectiveness in a convenient and structured way is a challenging task.

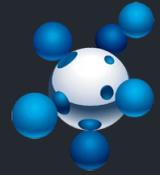
To overcome these and other challenges, Sasol started a careful selection process to look for a possible replacement of their in-house tools. This tool should allow for more efficient and accurate estimating, as well as quick benchmarking and bid evaluations. Being able to quickly make high-level estimates based on historical data is crucial and gives Sasol the opportunity to challenge their contractors. Sasol identified Cleopatra Enterprise as the tool that could bring these and other improvements.

Needs Analysis

In order to determine the key requirements for a cost estimating solution at Sasol, a multi-disciplinary Needs Analysis workshop was conducted with Sasol's conceptual estimators, discipline engineers, process engineers, board and project controls members. This resulted in the identification of several improvements that could be made in the cost estimating and project analysis processes.

Benefits of Cleopatra Enterprise for Sasol

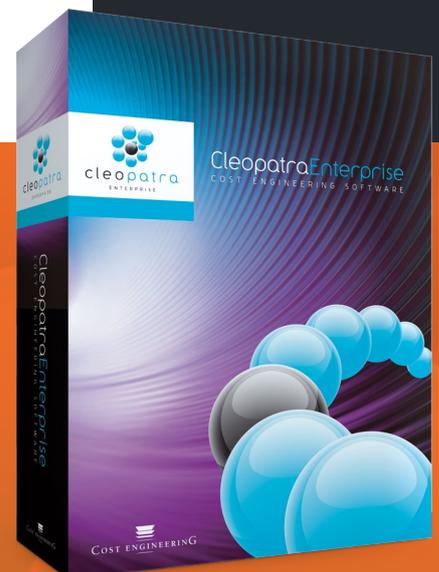
- High quality centralized databases for (semi)definitive class 3 / 4 estimates
- Feedback loop from final execution to factorized cost models
- Support for local and international projects through location factor tables
- Derive accurate parametric equipment models from historical data analysis
- Standardized reports for more insight into the estimate for project managers
- Providing a link between planning, estimating and cost control



sasol
reaching new frontiers

- Multi-billion \$ projects
- 34.000 employees
- Presence in 37 countries
- South Africa's second largest company

Sasol is an international integrated energy and chemical company that leverages the talent and expertise of more than 34 000 people working in 37 countries. Sasol develops and commercialise technologies, and build, maintain, and operate world-scale facilities to produce a range of product streams, including liquid fuels (GTL), high-value chemicals and low-carbon electricity.



Implementing a tailored solution for Sasol

Following the Needs Analysis workshop, Sasol quickly decided that Cost Engineering Consultancy provides all the desired capabilities. They have the tool and knowledgeable consultants who can provide the answers to the challenges.

Cost Engineering's expertise was leveraged during the implementation process to create a tailored solution for Sasol. This included the following activities:

- Benchmarking of Sasol's estimating data, factor models and maintenance contracts against the DACE norms and international estimating standards
- Comprehensive knowledgebases were developed together with Sasol's data team for definitive estimates (unit-rates), semi-definitive estimates (assemblies) and order of magnitude estimates (capacity factoring, parametric models)
- Setup of factor tables for productivity and location factors to allow for accurate estimating in various locations and circumstances
- Custom made dashboard reporting for the board which gives instant insight and interfaces with IPA, so the numbers can be directly fed into the IPA evaluation sheet
- Setup of additional breakdown structures for more detailed calculations and comparisons to support bid evaluations, benchmarks and to provide input for cost control and planning

Cost Engineering assigned a core implementation team who performed most of the implementation activities on-site at Sasol's offices in South Africa. This to ensure a direct communication and cooperation with Sasol's estimating and project management team.

Full-Scale Deployment

Following on the first implementation phase and training of the users in Cleopatra Enterprise, the deployment quickly reached finalization. Cleopatra Enterprise is now fully operational and applied on Sasol's projects.

Sasol has seen dramatic time savings since the transition to Cleopatra Enterprise was made. Furthermore, the consistency and quality of the estimates has significantly improved, through standardization of reporting structures and the use of templates. With the new work process in place, the man-hours per estimate were reduced and more attention can be paid to the feedback loop and analysis of project results

Looking back at the implementation of Cleopatra Enterprise, Sasol is especially pleased with the ongoing support provided throughout the process. Cost engineers and implementation engineers were always available to provide accurate guidance and support, both on-site and from Cost Engineering's home office.

Future Steps

With the implementation completed and the main objectives achieved, the roadmap for the near future is being defined. Some of the focus areas are for example the continued development of additional cost models derived from project actuals.

The integration with cost management and project controls will be an interesting area, with the Cleopatra Enterprise Cost Management module providing ample opportunities to integrate the cost estimating and project controls functionalities in one tool.

Cost Engineering Consultancy provides cost engineering services and software for capital projects of all types to owners and contractors. Our experienced professionals understand the complex variables which determine cost -- materials, equipment, labour rates, productivity, profit, benefits, schedules, etc.

We combine this understanding with unmatched estimating and cost management skills, accurate data and a thorough knowledge of your project objectives to create the information needed to make sound functional and economic decisions.

Since being founded in 1996, Cost Engineering Consultancy has helped over 250 companies streamline and improve their cost engineering process.

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www.costengineering.eu

"Thank you very much for the excellent work done by Cost Engineering and your continued support on the project."

Hylton Robinson | Vice President Decision Support Group Technology, Sasol