



“CADWorx Plant Professional allowed Collaborated Engineering Design Office to achieve complete control over our project and ensure a smooth project flow in 3D.”

Boro Radovanovic, Production Manager at Collaborated Engineering Design Office

#### PRODUCT INDEX

CADWorx® Plant Professional

#### INDUSTRIES SERVED

- Petrochemical

#### FEATURED RESELLER

Chempute  
South Africa

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## Collaborated Engineering Design Office leverages CADWorx to meet tight deadlines

Collaborated Engineering Design Office Ltd. (former Kran Developments) is a small company based in Johannesburg, South Africa. The company was formed in order to produce bankable documentation for a gas processing plant using licensed processes by the Randall Gas and PDH in the USA.

#### Cost estimate project for one of the largest processing plants

The project awarded to Collaborated Engineering Design Office Ltd. (CEDO) involved producing a cost estimate and design for one of the largest gas processing plants ever built in South Africa, with a capacity of 250,000 metric tons per year. CEDO was to provide technical engineering and services that incorporated the design of interconnecting piping and all required waste services, while the client provided basic product flow and 2D diagrams related to its licensed processes.

#### Determining a plant design solution

In order to implement this project successfully, CEDO sought a reliable solution that would help them meet the tight deadlines, produce comprehensive plant equipment and piping designs and ensure that isometrics were created quickly and accurately. COADE CADWorx Plant Professional was determined to best address those needs as well as to help them control project flow.

#### CADWorx Plant Professional helps meet “impossible” deadlines

“When we decided to use CADWorx Plant Professional, it allowed us to meet the seemingly impossible deadlines given to us by the client, including all of the additional time spent on design changes. Instead of potential contract duration of 10 months and in spite of a constant increase in the scope of work, we produced more than 10,000 documents with accurate design information in only six months,” explained Boro Radovanovic, production manager at CEDO.

#### Developing automatic and accurate drawings

Another great feature of CADWorx Plant Professional that helped CEDO finish the project successfully was the automatic generation of piping isometric drawings. After placing all pieces of equipment in their correct positions, CEDO completed the design by routing all of the pipes and produced all of the mechanical, piping, civil and structural design layouts. “Automatic generation of isometric drawings with full bills of material saved us many hours of detailing and compiling piping bulk take-offs,” added Radovanovic. “We generated 6,500 automatic piping isometric drawings for more than 3,000 lines plus all the required layouts and a full set of mechanical design drawings for all plant vessels.”

#### Achieving control over the project flow

Since this was mainly a piping design project, any possible hiccup in the design would likely impede project flow. By having all of the steel, equipment and piping in place, CEDO generated mechanical, piping, civil and structural layouts. “Using CADWorx Plant Professional to design in 3D helped us ensure a smooth project flow,” stated Radovanovic. “We expect the advantages of CADWorx to be even greater during the construction phase since during the design we were able to constantly check for interferences and clashes in the model.” The expertise and resources that were acquired on this project have been re-deployed by G/4 Engineering and Project Services, a firm closely associated with CEDO that executes a multitude of engineering contracts worldwide.