



## CUSTOMER CASE STUDY

AVEVA's IE&D solution enables Russian EPC Giprogazoochistka (GGO) to link schematic, engineering and 3D objects, to ensure a single source of data can be defined and used.

Giprogazoochistka

Industry - Engineer, Procure, Construct

## Goals

- Develop a single standard for datasheets to automate work processes.
- Carefully monitor and control the initial design concept and the final released documentation throughout the project.
- Manage all project information on a common platform so that each discipline can work independently, but all share data as the design develops.

## Challenges

- Replace an in-house SQL-based solution for tighter integration between line lists, the 3D model, and pipe isometrics.
- Navigate the many evolving changes in designing complex petrochemical facilities, such as information clashes between 2D and 3D models.
- Difficult time frame for implementation demanded a quick, collaborative solution.

## AVEVA Solution

- Integrated Engineering & Design

## Results

- GGO has increased its headcount by 3X, despite increasing scale and complexity
- The organization can now deliver 6 times as many projects, using the latest gas purification technologies.
- By integrating engineering data into its 3D model, information clashes between the 2D and 3D models are eliminated, enabling more efficient, collaborative design development.
- Generated datasheets for 25 pieces of equipment with all necessary standards incorporated, enabling tasks to be completed much more quickly and efficiently.
- Engineering data infrastructure can now cater for the varying needs of its users throughout the project life cycle. Everyone involved in a project can now see, and correctly respond to, engineering and design changes as the project proceeds.

## Continuing 80+ Years of Engineering Excellence

**Moscow, Russia** – With over 80 years of experience in implementing successful and sophisticated gas purification projects, the Giprogazoochistka Group holds a leading position in the Russian engineering industry. GGO has successfully executed projects across the oil & gas, petrochemical, chemical, energy, engineering and metallurgical industries. Today, its competent multifunctional performance, highly qualified personnel and proprietary projects and patents enable the company to carry out comprehensive works of any complexity, using the latest gas purification technologies.

GGO serves a wide range of industry-leading customers, including LUKOIL, Gazpromneft, Surgutneftegas, TATNEFT, TNK-BP, ROSNEFT, GAZPROM, Severstal, Novolipetsky, Magnitogorsky and AvtoVAZ, as well as many other domestic and foreign manufacturers.

## The Complexity of Designing Petrochemical Facilities

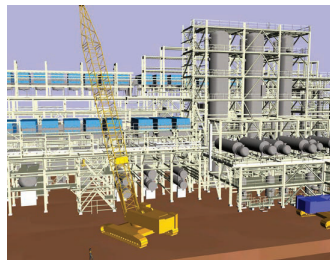
In designing complex petrochemical facilities, the many evolutionary changes between the initial design concept and the final released documentation must be carefully monitored and controlled throughout the project.

Recognising this, Russian EPC Giprogazoochistka (GGO) developed its own SQL-based solution for tighter integration between line lists, the 3D model and pipe isometrics. However, the limitations of this approach prevented them from expanding this solution to other types of objects and models. They realised that they needed to deploy a comprehensive Integrated Engineering & Design (IE&D) solution.

## A Streamlining Strategy Based on AVEVA IE&D

GGO embarked on a streamlining strategy to manage all project information on a common platform so that each discipline can work independently, but all share data as the design develops. AVEVA's IE&D solution enables GGO to link schematic, engineering and 3D objects, to ensure that the single source of data can be defined and used as a reference when it is at an approved maturity level. Integration and interoperability are some of the areas in which AVEVA technology excels.

GGO decided to replace their in-house solution with AVEVA's IE&D solution, with AVEVA Engineering™ playing a key role. By integrating engineering data into the 3D model, information clashes between the 2D and 3D models are eliminated, enabling more efficient, collaborative design development.



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“AVEVA places a high value on such early stage collaboration, as it is crucial to the continual progression of AVEVA solutions and helps our customers to achieve their goals faster and with fewer risks.”

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**Dmitry Smeltsov,**  
Regional Manager AVEVA Russia & CIS

GGO's time-frames for implementation were challenging but deployment was completed successfully, and GGO was soon able to review the performance of AVEVA Engineering on a pilot project. One of their objectives had been to develop a single standard for datasheets, as it would have been impossible to automate work processes without this in place. Using AVEVA Engineering, GGO generated datasheets for 25 pieces of equipment. All necessary standards were incorporated, enabling tasks to be completed much more quickly and efficiently.

### **AVEVA Engineering Enables Six-fold Growth**

As a result of this deployment, GGO's engineering data infrastructure can now cater for the varying needs of its users throughout the project life cycle. Everyone involved in a project can now see, and correctly respond to, engineering and design changes as the project proceeds.

GGO was impressed with AVEVA Engineering's architecture, capabilities and speed of implementation, which were considerably better than their original in-house solution. The resulting increase in speed and usability has made a major contribution to the company's impressive growth. Success has enabled GGO to grow its headcount by three times while, despite increasing scale and complexity, it can now deliver six times as many projects.

Today, GGO works alongside major oil producers on some of the biggest projects in the Russian oil industry. The company attributes its successful growth in part to their adoption of AVEVA's IE&D solution, of which AVEVA Engineering is an important element.

### **Moving to the Future with AVEVA Engineering**

GGO is putting IE&D at the heart of its business. The company is now focused on the next phase of AVEVA Engineering implementation, in which they will centralise data from their processing lines. At the end of 2015, GGO will begin to establish a piping data management system that will directly link engineering data, schematic diagrams and design models for fully integrated working. Using AVEVA Instrumentation™ with AVEVA Engineering will enable 2D deliverables to be optimised in line with the 3D model.

Once full deployment is achieved, GGO will be able to have multi-discipline engineers working concurrently on design and engineering changes in real time, from anywhere in the world with the help of AVEVA Global™. They will be empowered across each engineering and design discipline to progress the design in parallel, to deliver complex, up-to-date designs quicker than ever before.