

## CASE STUDY ON PIPING INSTRUMENTATION DRAWING



### The Client

For this highly challenging project Flatworld associated with the biggest coastal refinery in the United States. The client, mainly operating from the eastern region of the US is a key player in the domain and is operating the three largest oil refineries in Northern America, thus making it a force to reckon with in the market.

### Situation - Business Needs

The client wanted a faster turnover in the process of listing piping instrumentation indexes during the modification and maintenance. They also wanted to show the equipment and systems' physical sequences.

### Challenges

This project required us to push our boundaries and come up with creative solutions which are technologically sound. Some of the primary hurdles faced during the tenure of the project were -

- + **Designing a cost saving solution:** The solution was to be engineered to list and catalogue the piping instrumentation indexes for multiple units of previous Piping and Instrumentation Diagrams (P&IDs)
- + **Strict detailing:** The instrumentation loop diagrams were to be designed in a particular format with minimal margin of errors
- + **An end-to-end solution:** The solution to be designed was to be multipronged keeping in mind all the safety features for designing P&IDs as well as ensure complete removal of errors

### The Flatworld Solution

The solution was finalized after detailed evaluation of the client's requirements. The solution was spearheaded to address multiple issues in the most effective manner. The entire solution process required extensive research and analysis and finally our highly dynamic and experienced team came up with an answer that catered to all needs of the client. The main aspects of our solution included -

- + **Forming a team of experienced personnel especially qualified for this job** - Highly expert engineers specialized in process designing, piping and instrumentation were deployed to understand the previous P&IDs and resolve the problems accordingly
- + **Regular quality checks** - The P&ID designs were subjected to periodic reviews to assure that the team adheres to the requirements and standards
- + **High amount of research** - All the specifications of the client were catered to and extensive and detailed research was done by our team to deliver an effective solution
- + **Customized solution** - A highly specific solution was provided to the client for the improvement of the format for output of the instrumentation loop diagrams and P&IDs. Our solution helped to improve around 50,000 of the existing P&IDs and diagrams

### Results

The outcomes of the collaboration were exemplary. Not only did Flatworld Solutions fulfil the client's expectations, but also helped in realizing all the objectives that we set out to achieve. Some of the high points of our results were -

- + **Cost saving** - A tremendous cost saving of nearly 50% was achieved in the domain of resource management and output generation
- + **High amount of accuracy** - The cataloguing process became not only smooth but also highly accurate. The accuracy was 99.9% with minimal or no margin of errors

We provided the client with a solution that effectively increased the production output with a razor sharp accuracy. We have vast expertise in offering [PDMS services](#) with great accuracy, and can provide you reliable and cost-effective solutions for your customized [engineering](#) needs.