

# Development of A Custom Display Builder for Configuring Oil & Gas Field Assets



## Problem Statement

The client is global OEM offering services and solutions for a wide range of discrete and process industries. The client has a popular line of flow computers for the Oil and Gas market. Given the varied applications, the flow computers were required to be configured in multiple unique ways. The cost of enhancing/upgrading the configuration application by their software team was amounting to a significant OpEx. As such the client was looking for a way to design and define interactive custom displays without having to program and test for each use case.



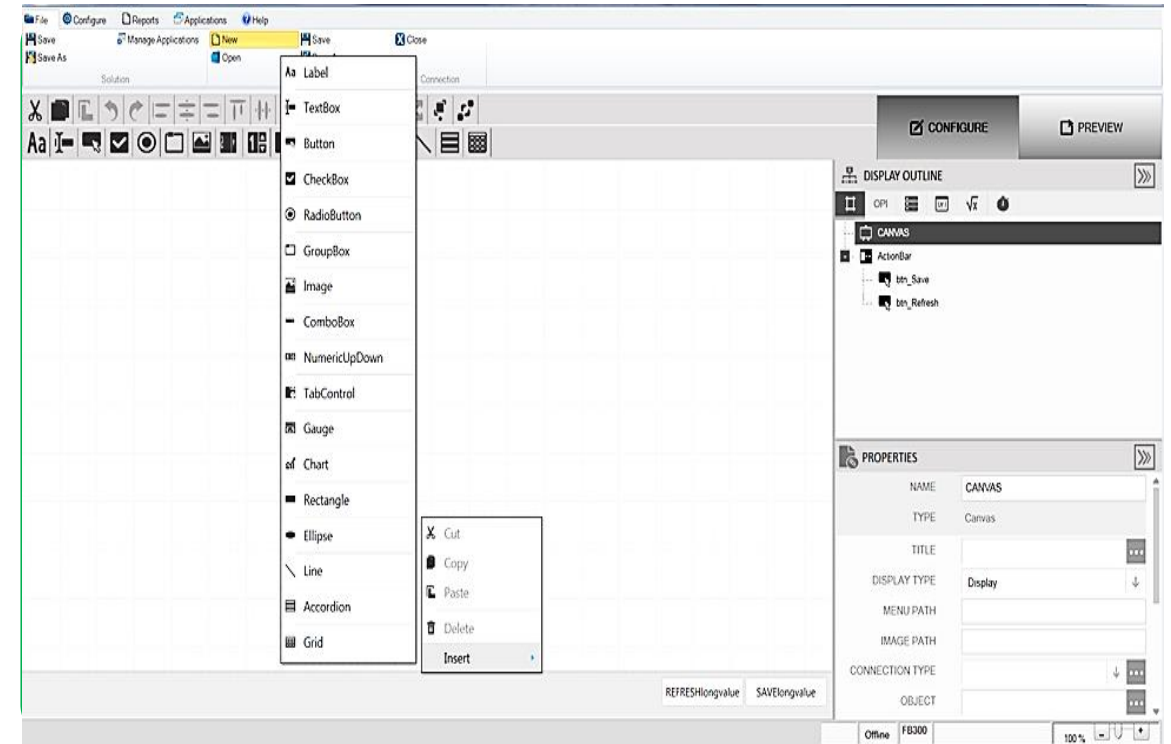
## Challenges

- Developing and testing multiple customized displays was a time-consuming and expensive process
- Field personnel were slowed down as a result. End customer experience was also inferior
- In-consistent UI display across flow devices



## Solution

- Utthunga developed a Windows-based custom display builder application with following features:
- Developed a modular architecture to allow drag & drop functionality for the features
  - The displays can be customized in both 'Offline' and 'Online' modes
  - Enabled multiple displays to be defined and saved in the local drive to be loaded as required
  - Defined smart controls functionalities like grouping of elements, tabbed panels, and other visual effects as per specific requirements
  - Provided functionalities like Control Properties, OPI, Expression Builder, Local parameter, Timers, etc.



## Benefits



- Utthunga's HMI builder solution helped the client in following ways:
- Standardized platform that simplified UI development process, reducing complexity
  - Significant cost and time saving
  - Customized software with greater flexibility to meet unique customer needs
  - Consistent UI across all devices
  - Field technicians experienced an improved user friendly interface that improved performance and reduced uncertainty in their control and measurement processes