

The configuration method of instrument and control system platform based on FPGA (CAP1400)

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1. Background

2. Configuration Method

1. Background

NuPAC is a FPGA technology based safety digital I&C system platform. It was cooperatively developed by State Nuclear Power Automation System Engineering Company(SNPAS) and Lockheed Martin.



LOCKHEED MARTIN



1. Background

NuPAC doesn't use CPU, MCU, ARM, and doesn't use any operating system (OS) or software. NuPAC only uses FPGA as the logic chip.



1. Background

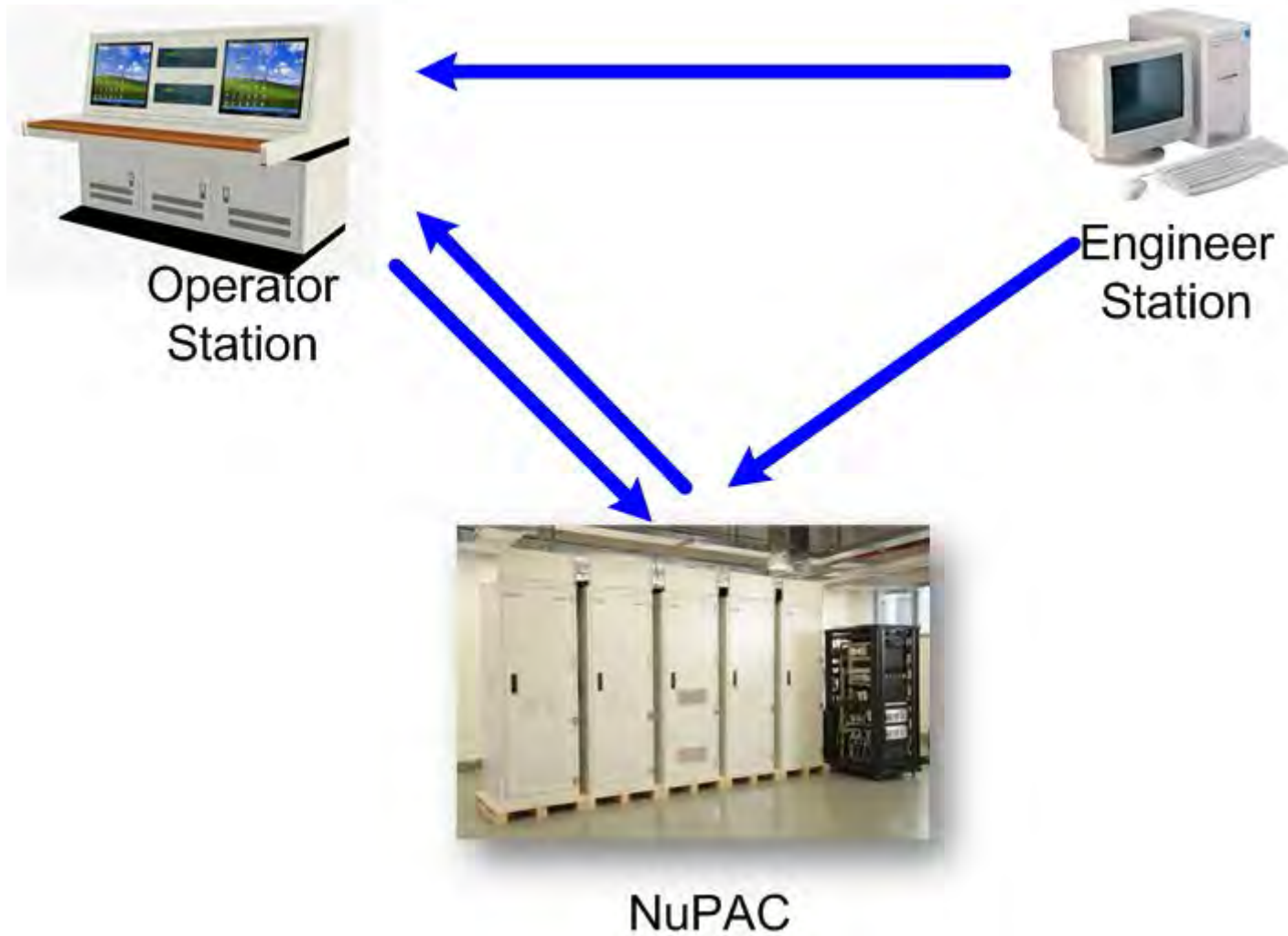
NuPAC is the first safety digital I&C system platform which has received the approvals from both China NNSA and the U.S.NRC.



1. Background

2. Configuration Method

2. Configuration Method



2. Configuration Method

Engineers use the graphical configuration tool in Engineer Station, to design the application function for NuPAC. Engineer Station send Configuration data to operator station and NuPAC.



**Engineer
Station**

2. Configuration Method

Operator station receives the monitoring data from NuPAC and show them on the screen according to configuration data, that is from engineer station. Also, Operator station send the operation command to NuPAC.



2. Configuration Method

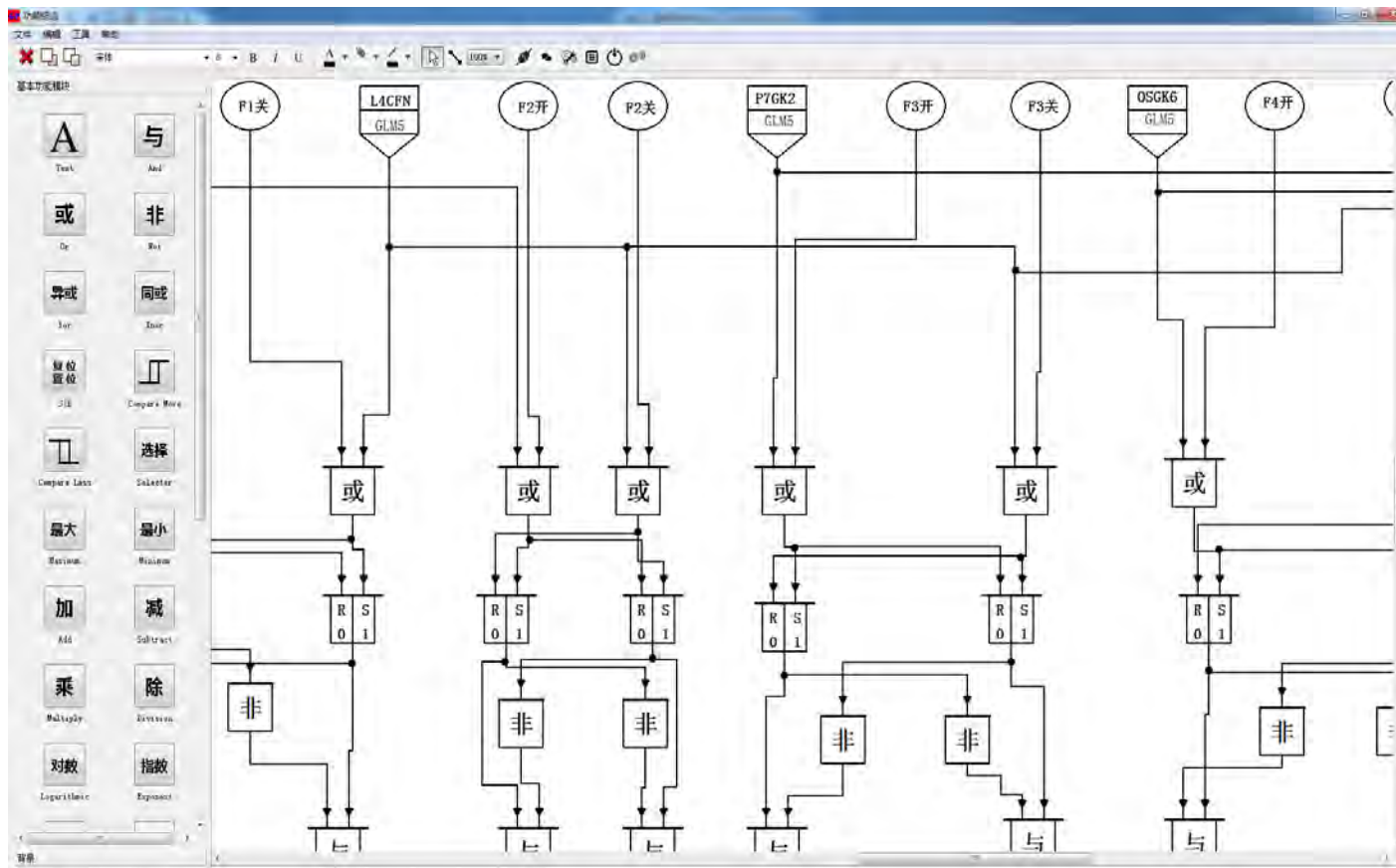
NuPAC performs the application function according to configuration data, that is from engineer station, and send monitoring data to operator station.



NuPAC

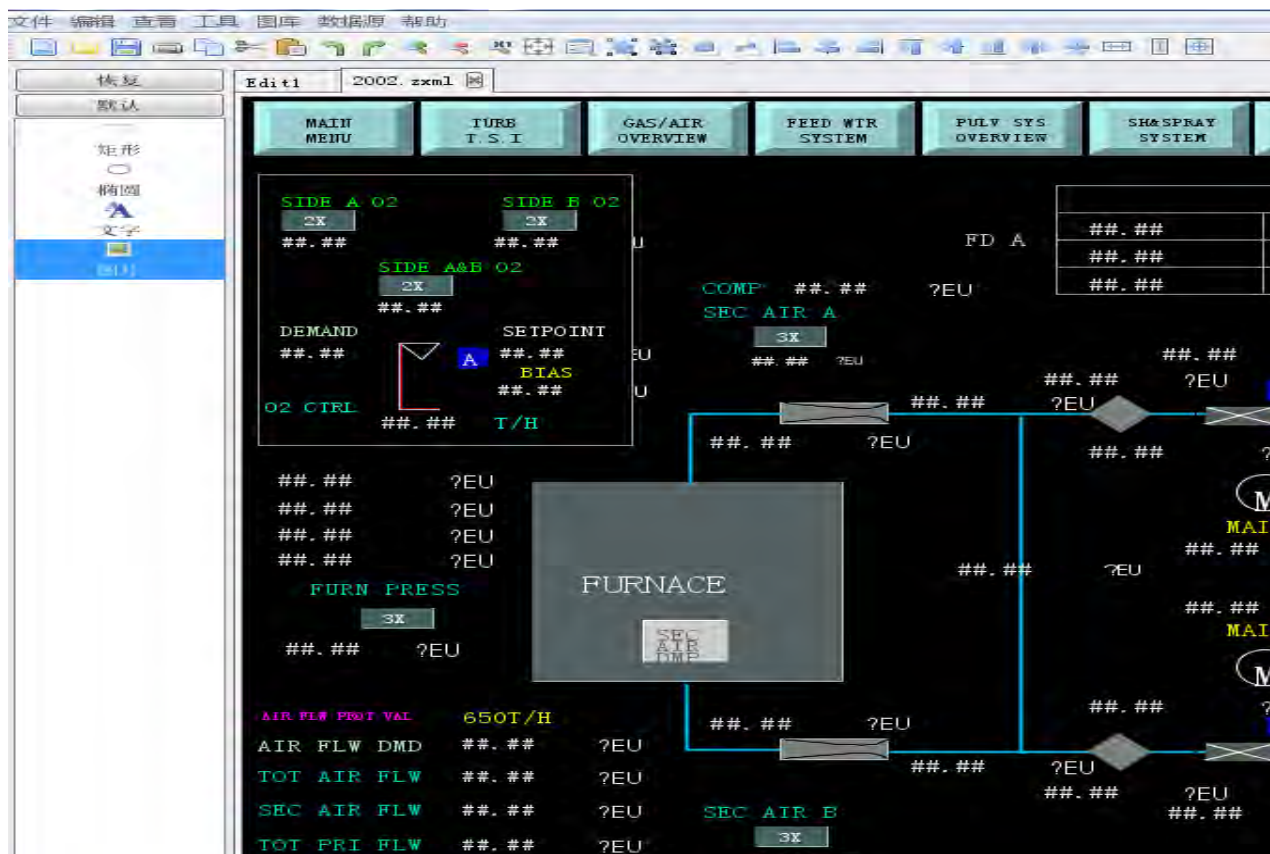
2. Configuration Method

How to configure the application function using graphical tool



2. Configuration Method

How to configure the display method using graphical tool for operator station



谢谢！
THANK YOU !