

United Electronic Industries & Framatome

WORKING TOGETHER TO FIND SOLUTIONS

Framatome is an international leader in the energy market in which they design and supply nuclear reactors, provide nuclear plant equipment and services, and have been recognized for innovative solutions and value-added technology supporting the global nuclear fleet. As innovators in nuclear plant components for fuel and instrumentation and control (I&C) systems, Framatome experts collaborated with United Electronic Industries (UEI) to develop solutions that would help ensure the platform's ongoing integrity and reliability and mitigate any potential obsolescence challenges for maintenance and testing tools on one of their safety systems.



THE IMMEDIATE CHALLENGES

- 1 Framatome's Safety I&C platform **TELEPERM XS** has been operating reliably for more than two decades in more than 80 plants around the world. To support customers' long-term operation strategies for their plants, Framatome developed solutions to upgrade maintenance equipment with more flexible hardware that allowed for long-term product compatibility and support.
- 2 Framatome was looking for a **versatile data acquisition (DAQ)** solution that could replace multiple products, support all functionality of the current testing system, and provide the flexibility and advantages of modern DAQ systems.
- 3 TELEPERM XS's maintenance tools goal required increased functionality and precision for testing signal conditioning measurement channels.

UEI'S PATHWAY TO SUCCESS FOR FRAMATOME

- Framatome used UEI I/O hardware to replace TELEPERM XS's current generation maintenance system with a new diagnostic interface called the MPAT (**M**aintenance and **P**arametrization Tool), which interfaces with a user-developed application program executed in either Python or LabVIEW.
- MPAT software is compatible with all three of UEI's main **rugged** and **flexible** chassis lines, which allow for various application configurations. UEI's robust self-monitoring features led to more reliable system monitoring and testing.
- UEI engineers developed a state-of-the-art **secure I2C (Inter-Integrated Circuit)** interface for module parameterization, fulfilling Framatome's stringent verification requirements.

END RESULT

UEI HARDWARE HELPED UNIFY AND CENTRALIZE THE NUMEROUS MAINTENANCE SYSTEMS OF TELEPERM XS RESULTING IN REDUCED TEST EQUIPMENT, REDUCED TEST ERRORS DUE TO EQUIPMENT ISSUES, REDUCED TEST TIME AND PROTECTION AGAINST OBSOLESCENCE.

- [WIN]** UEI equipped the I&C system with the tools it needs in order to be validated for correct operation.
- [WIN]** The upgrade reduced development and product management costs and provided a more user-friendly interface, allowing Framatome to save time and money on development and maintenance.
- [WIN]** The upgraded I&C maintenance system could be used to test the accuracy and correct operation of numerous TELEPERM XS measurements, such as neutron flux, reactor pressure, and temperature.

ASK US HOW UEI CAN DO THE SAME FOR YOUR COMPANY!

