PSA
PROFESSIONAL SOFTWARE ASSOCIATES, INC.

ALLOY TESTER FIRMWARE IMPLEMENTATION

Datasheet

PROVIDING SOLUTIONS FOR TOMORROW – SINCE 1993

Project objective

Develop the firmware for the alloy tester unit to distinguish electrical grade copper from other copper alloy varieties. Propper copper sensor components are necessary to ensure accurate measurements by client's sensors created for the high-precision manufacturing with molten metals involved.

Result

The delivered alloy tester can distinguish electrical grade copper from other copper alloys in very fine detail; this ensures accuracy of measurements within molten metal temperature sensors, allowing to control the processes in their customers' foundries.

Scope of work

- Hardware design review for custom alloy tester to eliminate hardware drawbacks
- Architecture design and development of the final firmware of the unit
- Development of special algorithms to bypass restrictions caused by the compactness and sensitivity of the device
- Engineering and functional testing

Activities

- Requirements clarification
- Hardware design review
- Firmware design and implementation
- Testing and product verification
- Final delivery

About the project

Technologies

- C/C++
- Git
- Microchip MPLAB X IDE v.3.61 with XC8 v.1.42 compiler
- Microchip MPLAB IPE v.3.61
- Microchip PICKit 3 programmer/debugger

Platforms

- Embedded

Project size

- 1 Technical Coordinator
- 1 Project Manager
- 1 Software Engineer
- 1 QA Engineersr
- 1 Technical Assistant
- 1 Business Analyst

Duration

4

4 months