PSA
PROFESSIONAL SOFTWARE ASSOCIATES, INC.

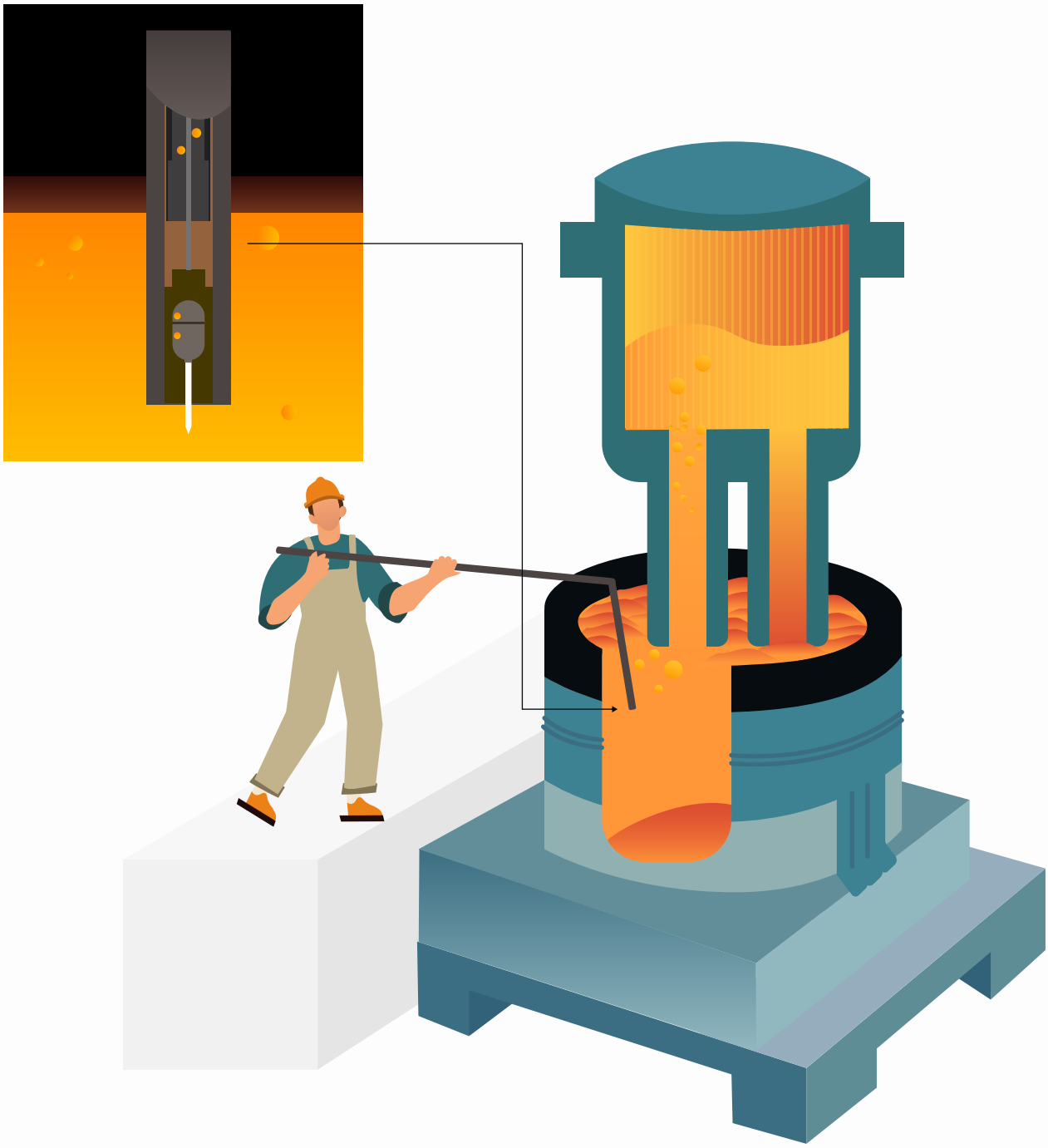
STEEL SAMPLING SYSTEM UPDATES

Datasheet

PROVIDING SOLUTIONS FOR TOMORROW – SINCE 1993

Project objective

To develop additional features for the Logic Board to support self-diagnostics functionality. To develop a driver to perform operations with the USB flash drive, and the the logic for writing existing configuration to the USB key and reading new configuration from USB key. This ensures safe and seamless usage of a steel sampling system by informing the operator about current issues.



Result

The updated system allows the user to identify drawbacks and can be safely utilized to optimize steel making processes.

Scope of work

- Implement a USB flash functionality support for the Logic Board and the logic to update board parameters and write current parameters
- Configure and implemented the Flow Limit, Flow Lock features and logging to USB
- Implement the Hardware Pole Leak Test setup and functionality
- Actualize sample abort action by 5 seconds---- long press of the start button
- Realize minor firmware updates like verifying all menu items, options and parameter limits, restoring the Overflow Error Menu, and performing engineer testing

Activities

- Requirements clarification
- Application functionality development
- Logic implementation
- Firmware uptades
- Testing and debugging

About the project

Technologies

- C/C++
- USB
- Git
- FTDI Vinculum II IDE
- Microchip MPLAB X IDE v3.61
- XC8 v.1.42 compiler
- Microchip PICKit 3 programmer/debugger
- Kernel
- VNC2 debug module

Platforms

- Embedded

Project size

- 1 Technical Coordinator
- 1 Project Manager
- 1 Software Engineer
- 1 QA Engineersr
- 1 Technical Writer

Duration

18

18 months
August, 2018 – March, 2020