

CLIENT

The client is one of the worlds leading industrial automation company, based in USA

Portable Terminal- Re engineering

Scope of Work

- Legacy software & Firmware study
- Software & Firmware re -engineering
- Software testing.

Executive Summary

The client's product was a portable, wireless, electronic micro terminal intended for attachment to container of work in progress in a semiconductor fabrication environment. It uses two-way communication via modulated infrared light to communicate location and status Information to a centralized control system.

Our client's product Version-01 was working on the Atmega 103 micro-controller, which was running on the software old version.

Due to obsolescence of Atmega 103 there was a need to find a solution with a controller of same footprint with supporting software.

When this product's microcontroller was replaced with the Atmel advanced version Atmega 128, the product got some incompatibility problem.

Aim of this project was to make the product work on the Atmega 128 microcontroller.

All the incompatibility problems are solved by changing the necessary code of old version and the product is made to work as earlier version. Then the final working source code was released on the new version name.

Project Execution

Phase I: Preliminary Hardware Systems Analysis

- Study of product specifications and functionality
- ATMEGA128L and ATMEGA103L comparison

Phase II: Software Data Flow Diagrams

- Analysis of the existing code.
- Preparation of Data Flow Diagram with respect to existing code
- Brief description of the Software Modules

Phase III: Corrective Action Requirements and Coding

- Corrective action requirements identified during Phase I and Phase II were listed and the respective changes were implemented in the code.
- The modified firmware was provided to the client during this phase.

Phase IV: Testing

- Final testing and validation of the software was done at client's test facility.

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