

Software Application for Time and Attendance Systems – Acroprint ADCT

AREA OF COMPETENCES: Embedded Systems and Microelectronics

INDUSTRY: Time & Attendance Systems

CHALLENGE



Our client is a US based long-established producer of time and attendance systems who acquired a punch device/a timing system for a Mexican company and planned to integrate it with large industrial customers.

They approached us with the purpose of enhancing the software application on that equipment so that it became effective for employees related time management issues: handling the timing and attendance schedules of workers; maintaining the accountancy of employees schedule and records required by their payroll system etc.

SOLUTION

For this project, IP Devel's team has designed and implemented the entire application while the testing was performed by the client. The software application created by us is capable of reading the data from the punch device into a remote system, storing it locally and supplying it further to payroll systems.



The application meant to improve the communication at different speeds of punch device that could work via three communication interfaces: wireless, net wireless and serial. The improvements were added not only at the interface level (i.e. introducing functioning parameters of device display), but also introducing a new a new C compilation version in order to reach 100 MB per sec speed.

Modern encrypting protocols like WPA and WEP were used to protect the broadcasted information. The application was written in C language while the platform hardware is centered on an ARM processor. For debugging, JTAG technology was used.

As main benefits, the application can be easily customized, stable and easy to be used.

ABOUT OUR CLIENT

Since 1969, Acroprint has a tradition of manufacturing and distributing reliable and affordable time and attendance products, document stamps and document stamps worldwide being recognized as the industry leader for small business time and attendance. Currently, Acroprint operates through a network of over 8,000 dealers and office supply outlets around the world. Acroprint time tracking solutions provide accurate, indisputable records which meet the requirements of federal and state wage and hour laws. Acroprint Time Recorder Company was founded in 1969 and is headquartered in Raleigh, North Carolina, near Research Triangle Park.