LUU NHU HOA

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Skills

Languages:	C, C#, familiar with C++ concepts
Frameworks:	MQX (Freescale), .NET micro framework (Microsoft), AUTOSAR, DSP-BIOS (TI), Xilkernel (Xilinix). FreeRTOS, uCOS-II, QP State machine.
Platforms:	Microblaze (Xilinx), C55x (TI), Kinetics Freescale family (K60, K40), S12 Freescale Family.
Revision control:	Clear case, SVN, Git.
Instrumentation:	Spectrum analyzer, Oscilloscope, Vector signal generator.

Experience

Military Communication Center, Viettel R&D Institute June 2012 to present
Leading company in developing military telecommunication device in Vietnam.

Developing Software for HF transceiver station for Navy January 2015 to present
Responsibilities:

- Implementation and optimization software for main processor board to working with RCV, PA, UI, Remote-UI board. Integrate and Develop Solution for Waveform Modulation Library Dynamic Loading.
- Developed remote control protocol in HF transceiver for automatic measurement.
- Developed ALE – 2G protocol (MIL-STD-141B, Appendix A), integrate ALE – 3G protocol (MIL-STD-141B, Appendix B) for HF transceiver to identify which is currently best frequency to communicate.
- Integrate MELP library (low bitrate vocoder) for voice transmission over HF.
- Develop JPEG-2000 application for image transmission over HF.

Developing Software for VHF transceiver handheld January 2014 to December 2014
Responsibilities:

- Implementation and optimization software for main processor board to working with RF and UI board. Integrate and Develop Solution for Waveform Modulation Library Dynamic Loading.
- Developed remote control protocol in VHF transceiver for automatic measurement.

Developing Software Framework for SDR Platform October 2012 to December 2013
Responsibilities:

- Work on software architecture, design and implementation for main processor board in Software defined radio (SDR) platform including master processor-board, multi slave RF-boards, UI board, and Remote UI board. The platform is used to develop multiple radio products ranging from HF to VHF, handheld to station transceiver.

Developing Data Transmission Protocol for radio transceiver device June 2012 to September 2012
Responsibilities:

- Developed reliable protocol (ARQ) for data transmission over HF, VHF radio.
- Developed PC application for text, file, and images transmission through radio transceiver, display location position of radio device on map.
- Developed PC application for Configuration and Parameter Loader for HF, VHF radio.

G16, FPT Software September 2010 to June 2012
Outsourcing company for Freescale Semiconductor

Embedded Software Engineer

Measurement Automated Framework Testing September 2011 to June 2012
Overview: Measurement Automated Framework (MAF) is a part of automation test framework for AUTOSAR MCAL drivers. It provides set of API function to communicate with NI-CARD to simulate the behavior of hardware devices. The goal of the project is test API functions of MAF.

Responsibilities:

- Designing test specification on Testlink for CAN and LIN functions of MAF. Implementing test code with target board is MC9S12XEP100

Developing drivers for .NET Micro Framework December 2010 to August 2011
Overview:
.NET Micro Framework is an open source .net platform for resource-constrained. It includes tinyCLR that supports development in C#, Visual Basic .NET and debugging (in emulator or hardware) using Microsoft Visual Studio. This project aims to porting Micro Framework to Freescale Kinetis board (TWR-K40, TWR-K60).

Responsibilities:

- Setup build environment with msbuild, writing startup code, linker script for TWR-K60, developing drivers for TWR-K60 over Micro Framework including: Flash, GPIO, SPI, ADC, I2C, PWM, USB device, Touch sensing input, LCD Graphics, Touch Screen, Wifi.
- Developing demo applications on C# for the project: Webserver USB device and Smart phone application (Program displays RSS CNN News, Yahoo weather, Yahoo Stock on LCD, using touch screen to switch between applications).

This project received praise from Freescale who appreciate our efforts that help them win the Designing Award of Ericsson

Porting MQX to MPC5125 September 2010 to November 2010
Overview: MQX is Freescale's RTOS solution for 32bits MCUs. It includes core RTOS as well as I/O drivers. The goal of this project is porting MQX driver from Coldfire platform to PowerPC platform.

Responsibilities:

- Porting driver for CF card and SD/MMC card for MQX (embedded OS) with target board is MPC5125

Languages

English: working proficiency (TOEIC 850)

Education

Hanoi University of Technology, 1 Dai Co Viet Road, Hanoi 2005 - 2010
Center for Talents Training (Honor Program)
Major: Automatic Control

Honors and Awards

- Consolation prize in National Mathematics Olympiad, Vietnam ministry of education and training 2005