LEAD SOFTWARE ENGINEER

Summary

Senior skilled Software Development Professional bringing more than 25 years in Software Design, Development, and Integration.

Expert in Embedded Real Time Processing Systems.

Results-oriented Software Engineer comfortable switching between architecture, design and implementation.

Top Secret Clearance

Highlights

- .NET,#C,C, C++, Java, VMEbus, PCI/PCie bus, VxWorks, LynxOs, Linux, PPC, ARM, Greenhills Multi, GNU, Ethernet
- UML, Object Oriented Design
- Ruby on Rails
- Linux/Unix Scripting
- Extensive Hardware and Software integration.
- Eclipse IDE, NetBeans IDE, NTDS, Ethernet, 1553, Linux Network and Device Drivers
- Visual Studio 2013 C++ Multithreading Applications using ActiveX, Ethernet, serial, and USB interfaces.
- Freescale QorIQ, PowerPC processors

Accomplishments

Ported over Software running on 19 VME processors to 2 Quad PPC VME processors. This task included processor selection, porting software over and integration and test.

Successfully started up Software Group for SAIC now Leidos

Experience

Wells Fargo January 2001 to Current Lead Software Engineer
Grand Island , NE

- Developed a Java client/server application for an Aircraft Camera Control Project. The Server Java application created a GUI using Netbeans IDE. This program ran on a Fedora Linux PC ground station. The client Java application resided on an remote aircraft and ran on an embedded processor running Fedora Linux. The ground station Java program GUI was used to setup the camera that resided at a remote location. These camera configuration commands were setup by a user and then sent to an wireless mess network via Ethernet UDP packets. The wireless mesh network would send the IP data via RF over to the remote location where the data was received by the embedded client Java application. The Ethernet Data received was parsed as Camera Commands. These camera commands were then send over to the camera via a hardware serial interface.
- Developed a Java application using Netbeans IDE that controlled a HD Camera. This Java application was used to create a HD Camera Simulator by receiving commands via Ethernet from the host and execute the commands. This Ethernet interface would also be used to send back status to the host. The simulator would act on commands received from the host, and control the movement of a HD Camera. This Java application would also have an interface to a GPS/INS via USB port to send INS and GPS commands along with Gimbal pan and tilt commands send to the Gimbal via serial port interface from the Java simulator. This Java application ran on a Red Hat Linux PC.
- Developed Linux/LynxOs Device Drivers for custom Hardware via PCIbus and 1553 interfaces
- Developed a Linux device driver to a custom Image Capture board via PCIe interface.
- Developed Linux/LynxWorks Network drivers for custom hard running on a PPC 750. IP stack was accessed and manipulated.
- Ported over Linux device/network driver to a Zynx7000 reference board
- Developed a Multithreaded Visual Studio .NET/C++ GUI to display FFT/IFFT images with Ethernet, Serial and USB interfaces
- Ported over Software and miniaturized hardware from 19 VME processor boards to 2 Quad Processor VME boards.
- Experienced in full project life cycle from design to integration.
- Familiar with how Software interfaces with hardware.
- Performed regression and system-level testing to verify software quality and function before it was released Identified and suggested new technologies and tools for enhancing product value and increasing team productivity.
- Maintained existing applications and designed and delivered new applications.
- Evaluated multiple software solutions during early software architecture plotting and system migration planning stage.
- Evaluated potential software products based on new and existing system development and migration requirements.

Advance Energy October 1987 to January 2001 Software Engineer / Hardware Engineer
Fort Collins , CO

- Developed simulation software in ADA and C/C++ to test tactical combat hardware and network interfaces.
- Lead software engineer in the development of a Beam Controller Test bed (BCT).
- Test bed was used to steer and test out the Electronically Steered Antennas(ESAS) in a Compact Antenna Range CAR).

- Lead software engineer for maintaining system services and infrastructure which included NTDS interfaces, serial interfaces, Ethernet interfaces, microprocessor intercommunications over a VMEbus and the real-time VxWorks operating system.
- Provided extensive field support for software/hardware problems that did not occur in a laboratory environment including issues relating to the software control of Electronically Steered Antennas (ESAs) and various other tactical sensor interfaces.
- Extensive experience with VMEbus/PCIbus/PPCbus single board computers as well as the compilers, debuggers and development required for executing real-time embedded soft.

Raytheon May 1984 to October 1987 Member of Technical Staff
City , STATE

- Developed a DMA VMEbus based controller board utilizing finite state machine techniques for a digital signal processing application.
- Wrote extensive assembly/C code along with Fortran77 routines to aid in system testing and debugging.
- Also wrote ABEL software for Programmable Array Logic (PAL) devices.

Education
Fairleigh Dickenson University Bachelor of Science : Electrical Engineering City , State Electrical Engineering

Skills

Embedded Real Time Experience C, C++, Java,ADA, VxWorks, LynxWorks, Linux, Greenhills.

Visual Studio 2013 C++ managed and unmanaged

Hardware interfaces 1553, Ethernet, NTDS, Serial, PCI/PCIe, VMEbus

Operating Systems. Linux, VxWorks, LynxWorks, Unix