

# LASZLO KISS

SENIOR SOFTWARE ENGINEER

Download PDF

[e-mail me](#)

(602) 418-9922

## Profile

A developer and a technical leader who is able to provide solutions for software challenges ranging from whole system design to the detailed coding of real-time device drivers.

## Expertise

### Real-Time

Over 20 years of work experience in this area of software development. From one man projects to multi-billion dollar space based communication systems.

### Distributed Systems

Large experience base in multi-cpu systems, both in embedded real-time telecomm, as well as, Unix based systems.

### Unix/Posix

Wide ranging expertise in multi-threaded Unix environments, such as, Linux, Mac OS X and Solaris including kernel work.

## Technical

C/C++/Objective-C

Java

Mac OS X

Linux + Kernel

Solaris

VxWorks

ENEA Element

ICE/CORBA

Device Drivers

OOA/OOD

Agile Methods

Windows

Scrum Based Development

UML

TCP/UDP/IP Networking

ATM, LAP-D Protocol

High Availability Systems

Wind River Simics

## Experience

### The Boeing Company

2002-Present

Senior Software Engineer, Contract

Part of an Agile team, developed a high availability service that is used to enhance GPS signals via the Iridium communication network. Responsibilities included the TCP/IP network communication portion (the service front end), the satellite messaging portion (see below) and the ENEA High Availability infrastructure integration. [More detail...](#)

As a team member, responsible for writing a majority of a Linux network communication protocol (as a loadable kernel module) similar to LAP-D that is used to communicate (command, control and telemetry) with the Iridium satellite network. The protocol is made available to Linux applications as an ordinary BSD socket. [More detail...](#)

Designed and coded a high-availability SMS messaging solution for the Iridium phone system that services both SMTP and Web message requests. The solution included interfacing with a MySQL database backend. [More detail...](#)

Developed a complete Iridium space vehicle simulation system based on the Wind River Simics whole system simulator, which included, numerous ASICs and satellite communication devices. Responsible for flight software bring-up in this emulated environment. Integrated the vehicle simulation with a

Unix based distributed test environment. Ported the test environment from HP/UX to Solaris, Linux and to Mac OS X. [More detail...](#)

Responsible for the enhancement and maintenance of multiple space vehicle software subsystems of the Iridium communication constellation, especially the unique inter-satellite links. System knowledge spans the entire vehicle and portions of the ground system software. [More detail...](#)

---

## ENE A, Inc.

2000-2001

### Senior Software Engineer, Contract

Designed and developed a CompactPCI Hot Swap solution for the OSE real-time operating system, including modifications to the proprietary device driver subsystem. Relied on previous experience with Rational Rose and UML to formulate the design and the accompanying design documents. Once approved, development proceeded on both a Windows simulated environment, as well as, on the target system, which ran on a PowerPC CPU (MCP750) and the Motorola CPX8216 CompactPCI chassis. Mission accomplished ahead of schedule and below budget. [More detail...](#)

In a Technical Lead role ported a high availability middle-ware system from Linux to Windows. This activity entailed porting of Linux user mode services to Windows services as well as the creation of original Windows Driver Model (WDM) device drivers and a PCI Hot Swap System Service integrated with Windows Plug & Play architecture in support of the Motorola 8216 High Availability CompactPCI platform. [More detail...](#)

---

## Motorola, Inc.

1997-2001

### Senior Software Engineer, Contract

Designed and developed an application control and monitoring mechanism for a high availability telecom system through the use of the Unified Software Development Process and the Unified Modeling Language in the analysis and design phases. The system was implemented by reusing third party libraries for XML parsing, a CORBA Object Request Broker for inter-process communication and custom algorithms using the C++ language. Strict adherence to the Rational Unified Process (RUP) was accomplished through the use of Rational Rose, Rational ClearCase and ClearQuest. The initial target platform was Sun Solaris 7 delivered through the Sun Workshop C++ development environment. [More detail...](#)

In accordance with the Unified Software Development Process developed requirements for a distributed 'Location Service' in the form of UML Use Cases. Performed the initial analysis and developed the architecture. All aspects of this development adhered to a rigorous development process that included formal inspections and document releases. [More detail...](#)

Designed, using Shlaer/Mellor Object Oriented Design methodology, and developed the satellite to satellite K-Band communication control software for Motorola's Iridium space based telecommunication system. Strict software development principles and processes were utilized in a team environment to accomplish mission objectives. The resulting software is deployed on space vehicles on multiple PowerPC processors running the pSOS real-time kernel. Also responsible for all K-Band communication link control and payload commanding subsystem software enhancements, which includes performance tuning as well as bug fixes. [More detail...](#)

---

## Delta Prime, Inc.

1992-1997

### Senior Software Engineer, Principal

Designed and developed a real-time control software package for telemetry tracking antenna controllers. The functionality of the controller software includes dual axis servo control, state machine based control logic, ethernet and multi-channel serial communication, custom graphical user interface (both proprietary and Win32 based). Client/server concepts applied to remote control and slaving of systems via ethernet. Orbit prediction and coordinate transformation requirements have also been met. [More detail...](#)

Designed and developed a mission abort/destroy system software package for the Kwajalein Atoll Missile Range Safety System (U.S. Army) based on networked VAX computers running VAXELN, a real-time version of VMS. The software was utilized for providing part of the safety coverage for the entire Marshall Islands during missile testing. [More detail...](#)

---

### Electro-Magnetic Processes, Inc. Software Engineer

1985-1992

Headed the design and development of a custom antenna control unit based on a real-time version of Unix and the X Window / Motif graphical user interface environment. Responsible for the initial design of a custom interface board, the design and implementation of the control software (including device drivers), specification of third party hardware and setup (hardware and software) and management of the related computer network and the Unix development environment. Was responsible for this R&D project in a Project Manager role.

Designed and developed control software to automate telemetry ground stations comprised of telemetry receivers, combiners, recorders, antenna controllers and associated RF test equipment. Designed a microprocessor based data acquisition black box and associated software used on a Remotely Piloted Vehicle program. Responsible for the development of data acquisition hardware and software for an experimental phased array telemetry tracking antenna. Participated in the implementation of a real-time video tracking algorithm on a British smart-bomb development project based on the Motorola 68020 CPU.

---

### *Education*

### Bachelor of Science in Electronic Engineering

---

Laszlo Kiss — [deltaprime.com](http://deltaprime.com) — (602) 418-9922