

# CLAYTON E. CRAMER

36 Sunburst Road  
Horseshoe Bend, ID 83629  
(208) 793-3044  
clayton@claytoncramer.com  
<http://www.claytoncramer.com>

## SKILLS

Languages: C; C#, Java; assembly (x86, Z80, 8085, Z8000, 68000, 6809, 6502); PLM-86; TL-1; ASN.1; PostScript; FORTRAN IV.

Operating System Code Development: Linux; HPUX; BSD 4.2 Unix; DOS; Windows (early versions); Wind River Systems VxWorks.

Application Categories: DSL access multiplexers; routers; telephone switches; user interfaces; in-circuit emulators; business applications; Java applets; device drivers (for antiques).

Scripting Languages: ksh; Perl; HTML.

SCMs: ClearCase; SourceSafe; RCS; SCCS; Subversion.

SCM Administrator Experience: ClearCase; SourceSafe.

Protocol Development Experience: DHCP; SNMP.

Other Skills: Technical document creation; marketing collateral creation; project leader; public speaker.

## EXPERIENCE

### **Contractor to Paladin POS Systems (Bend, Oregon)**

**2008-2009**

- Wrote approximately 500 C#/.NET unit tests for Paladin Data Systems' POS product; maintained and enhanced hundreds of existing unit tests. This involves some maintenance of existing SQL transactions and improving existing production code. Also user interface components and database export/import functions. I won't claim to great expertise in SQL, but I am familiar with what is required to write C# using DataSets and DataTables to perform database transactions.

### **Hewlett-Packard Corporation**

**2001 – 2008**

Research & Development Engineer: Software Integration Group. Languages: ksh; C; Java; C++.

- development of scripts and Java applets for gathering and displaying performance metrics;
- evaluating bottlenecks in our development processes;
- maintaining existing software integration tools;
- developing automated regression tests;
- led the writing of a comprehensive manual (approximately 280 pages) explaining how the software integration process works;
- led the development effort of porting our existing integration tools from HP-UX 11 to RedHat Linux 9.0;



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- requirements' analysis, design, coding, debugging, and integration of the Optilink Memory Administration and Provisioning System (OMAPS) with the Litespan-2000 fiber optics digital loop carrier;
- defined parsing and reporting rules to integrate Litespan-2000 into DSC's multiproduct Network Element Management System using the Objective Systems Integration NetExpert product;
- during the first 1 ½ years, also responsible for system administration of a Sun 3/50 workstations, PCs using Sun's PC-NFS, and Macs using an Apple LocalTalk/Ethernet bridge, including troubleshooting network configuration problems, mailer confusion, network hardware problems, and installing network news software;
- wrote an *Introduction to Litespan* book intended for use by new hires.

DSC bought Optilink while I was there; Alcatel later bought DSC.

### **Kontron Electronics**

**1984 - 1987**

Software Project Leader. Languages: C; x86 assembly.

- defined product requirements for an in-circuit emulator user interface product;
- led three other software engineers in the design, code and debugging of this product in C that ran on a VAX or Sun-3 using Berkeley UNIX 4.2, and on an IBM AT under PC-DOS 3.1.

### **Harris Digital Telephone Systems**

**1982 - 1984**

Software Engineer III. Languages: PL/M-86 and ASM86.

- designed, coded, and tested a native debugger for 8086 based digital PABX;
- coded changes to Telephony Interface Controller to accommodate new programming standards and changes in functional specifications;
- coded and debugged simulator for real time performance analysis of new digital PABX;
- coded telephony trunk control functions of Telephony Interface Controller;
- maintained logical disk I/O system;
- specified, designed, and coded software to interface 8051-based serial I/O device controller to PABX operating system;
- designed and coded a new logical disk I/O system to replace an existing, but unreliable one.

### **Futuredata (became Kontron Electronics)**

**1980 - 1982**

Software Engineer III. Languages: assembly language for 8085, Z80, 6809, 6502, Z8002, and Z8001.

- design, code, and test of all processor dependent software for the 6809 and 6502 Slave Emulator Development Systems;
- code and test of Z8002 resident software for Z8002 Slave Emulator;
- design, code, and test of disassemblers for the 6809, 6502, Z8002, Z8001, 68000, Z80, and 8085 Slave Emulators;
- assisted in systems integration of Z8002 Slave Emulator software and hardware;
- design, code, and test of utilities for sector allocation and management of files within a track allocation disk I/O scheme;
- design, code, and test of waveform display for Slave Emulator Logic Analyzer;
- travel to customer site in Memphis, TN, to assist marketing in 6502 Slave Emulator integration with customer product;
- enhancement and optimization of floppy disk, keyboard, CRT, and serial port I/O executive subroutines;
- maintenance and enhancement of File Editor, Debugger, serial port I/O driver, Slave Emulator Executive software, and Futuredata's Z8000 cross assembler;
- restructuring an I/O service subroutine library into a near operating system;
- maintaining a BASIC Interpreter;
- analysis of performance bottleneck with Futuredata's proprietary network system.

**Raytheon (Lexitron Division)**

**1979 - 1980**

Engineer. Languages: PL/M-80; STAGE II.

- designed, coded, and tested a floppy disk file control system diagnostic in PL/M-80 using Intel's ICE-85;
- designed, coded, and tested a program for generating ridiculously complicated tables using STAGE II, an almost incomprehensible but outrageously powerful macro language.

**Telos Computing**

**1979**

Member of Technical Staff. Languages: PL/I; CICS; DL-I; VTAM.

- performed detail design, code, and test of accounting programs, both batch and on-line.

Account Executive.

- interviewing computer professionals,
- checking references,
- negotiating contracts with customers, consultants, and employees.

**Delta Management Systems**

**1976 - 1979**

Employment Agent.

- performed all functions in an employment agency specializing in the placement of computer professionals

**Telos Computing**

**1975 - 1976**

Member of Technical Staff. Languages: Univac 1530 assembly language.

- designed, coded, and tested real-time and near-real-time assembler language programs for process and display of telemetry and imaging data returned by the Voyager space probes

**Weird Jobs I Had Before I Was Old Enough To Vote**

Previous experience includes summer and as needed employment with Santa Monica Unified School District and American Business Computers. Highlights include: definition of accounting system requirements for school district maintenance department; design and code of 32-bit arithmetic routines for Interdata 16 bit minicomputers in assembler; miscellaneous inventory control report programs in Interdata 74 assembler; maintenance and enhancement of Interdata DOS; design, code, and test of text editor for Interdata minicomputers; Enhancement of native debugger written for 16 bit Interdata operating in a timesharing environment.

**CONSULTING EXPERIENCE**

Led a team of three programmers in the design, programming, and maintenance of a small accounting system for service stations. This project was a fixed price plus royalties contract with AMFON II, a software marketing firm. All programming was in BASIC on the TRS-80 Model III.

Modified Z8002 disassembler to operate as a Z8001 disassembler as well. Converted CP/M program for calculating file CRCs to operate under proprietary Kontron operating system. Both projects were time and materials contracts with Kontron Electronics. All programming was in Z80 assembler language.

Developed a typesetter proofing program on the IBM PC for the Apple LaserWriter printer; all programming was in Microsoft C and PostScript.

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I developed a terminate-and-stay-resident MSDOS utility for transparently converting Epson MX-80 output to PostScript, thus allowing MSDOS applications that had no PostScript support to be used with PostScript printers. I sold the Epson to PostScript translation code to Traveling Software, for inclusion in their LapLink product. I wrote this in C, 8086 assembler, and PostScript.

### **PROFESSIONAL EDUCATION**

Yourdon Structured Design Workshop, San Francisco, 1982  
Intel 286 Seminar, Santa Clara, 1983  
Digital Research GEM ISV Seminar, Monterey, 1985  
Digital IC Design, UC Berkeley Extension, 1986  
Smalltalk, ParcPlace, Sunnyvale, 1994  
ATM/IP Networks, UC Berkeley Extension, 1998  
Introduction to SQL, PL/SQL, Oracle Corporation, 1998

### **EDUCATION**

M.A. History, Sonoma State University, 1998  
thesis title: "Concealed Weapon Laws of the Early Republic"

B.A. History, Sonoma State University, 1994, *cum laude* with honors  
Minor: Computer & Information Science

Relevant coursework:

- Object-Oriented Programming in C++
- Introduction to File Processing
- Computer Hardware Organization
- Assembly Language Programming
- Introduction to Pascal
- Intermediate Pascal
- Introduction to C (completed by challenge exam)

### **PUBLICATIONS**

#### **Academic Books**

*By The Dim And Flaring Lamps: The Civil War Diary of Samuel McIlvaine*, editor  
Library Research Associates, Inc., Monroe, N.Y. [1990]

*For The Defense Of Themselves And The State: The Original Intent And Judicial Interpretation of the Right To Keep And Bear Arms*  
Greenwood Publishing/Praeger, Westport, Conn. [1994]

*Black Demographic Data, 1790-1860: A Sourcebook*  
Greenwood Publishing, Westport, Conn. [1997]

*Concealed Weapon Laws of the Early Republic: Dueling, Southern Violence, and Moral Reform*  
Greenwood Publishing/Praeger, Westport, Conn. [1999]

*Armed America: How Guns Became As American As Apple Pie*  
Nelson Current, Nashville, Tenn. [2006]

### **Popular Books**

*Firing Back!: Defending Your Right To Keep And Bear Arms*  
Krause Publishing, Iola, Wisc. [1995]

### **Academic Journal Papers**

“Ethical Problems of Mass Murder Coverage in the Mass Media,” *Journal of Mass Media Ethics*, 9:1 [Winter 1993-94]: First Place, Association for Education in Journalism and Mass Communication Ethics Prize, 1993.

“The Racist Roots of Gun Control”, *Kansas Journal of Law & Public Policy*, [Winter, 1995].

“‘Shall Issue’: The New Wave of Concealed Handgun Permit Laws”, *Tennessee Law Review* [Spring, 1995]: Co-written with David Kopel.

“A Tale of Three Cities: The Right to Bear Arms in State Supreme Courts.”, *Temple Law Review* 68:3 [Fall, 1995] Examines the legal theories used by Oregon, Ohio, and Colorado courts when assault weapon regulations have been challenged under state constitutional arms provisions. Co-written with David Kopel and Scott Hatstrup.

“Confiscating Guns From America’s Past”, *Ideas on Liberty*, 51:1 [January, 2001], 23-27.

“Why Footnotes Matter: Checking *Arming America's* Claims,” *Plagiary* 1(11):1-31 [2006]

“What Did “Bear Arms” Mean in the Second Amendment?” *Georgetown Journal of Law and Public Policy*, 6:2 [2008]. Co-authored with Joseph Edward Olson.

“Pistols, Crime, and Public Safety in Early America.” *Willamette Law Review*, 44[2008]. Co-authored with Joseph Edward Olson.

“Gun Control: Political Fears Trump Crime Control,” *Maine Law Review*, 61:1 [2009] 57-81. Co-authored with Joseph Edward Olson,

### **Popular Magazine & Newspaper Articles**

See my web page <http://www.claytoncramer.com/popularmagazines.htm> for a current list of popular magazine articles – it is rather long and hard to keep up to date in so many places at once.

### **CITATIONS IN COURT DECISIONS**

*For the Defense of Themselves and the State* cited as an authority in *USA v. Emerson*, 46 F.Supp.2d 598 (N.D. Tex. 1999) and *Mosby v. Devine*, 851 A.2d 1031 (R.I. 2004) (Flanders, J., diss.).

“What Did “Bear Arms” Mean in the Second Amendment?” cited in *D.C. v. Heller* (2008). In addition, significant parts of Justice Scalia’s opinion are derived from amicus briefs that I helped to research and write.

### **CONFERENCES & EXPERT TESTIMONY**

**CLAYTON E. CRAMER**

American Society of Criminology, Chicago, Ill., November, 2002. "The Duty to be Armed in Colonial America." I delivered a paper on the legal obligations to own and carry firearms present in the American colonies.

American Society of Criminology, San Diego, November, 1997. I delivered a paper on the origins of the British Firearms Act of 1920. The audience remained conscious at all times.

Michigan House of Representative Judiciary Committee, December 5, 1995. I testified concerning the effects of recent changes to concealed weapon licensing as discussed in the *Tennessee Law Review* article mentioned above, along with the history of Michigan's concealed weapon licenses.

Ohio State Senate Judiciary Committee, March 22, 1995. Pretty much the same speech as before the Michigan House of Representatives Judiciary Committee, somewhat tailored to Ohio's legislative and judicial history.