

# ROBERT C. TRESMOTT JR.

17411 Bernardo Center Drive, San Diego, CA 92128  
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## SUMMARY

**Design engineer and system architect** for new product development, which may include all aspects of product implementation from prototype to production. Strong emphasis on competitive designs with high technology solutions in areas of, but not limited to:

- Embedded Real-Time Control Systems
- Digital / Analog Designs and Interfacing
- Commercial / Industrial Applications
- RF / Spread Spectrum Communications
- 3D Motion Control Systems
- Software / Firmware Development
- Computer Human Interfacing
- Microcontroller / DSP Applications

## PROFESSIONAL EXPERIENCE

**SAGE METERING, INC**, Monterey, CA 2002-Present  
VP of Engineering/Owner

- Manage all aspects of product development and support, including hardware design, firmware integration, software tools development, manufacturing/machining process systems, and final product testing. Sage is an OEM supplier of microprocessor based industrial instrumentation for air/gas flow measurement.

**ANALOGIC, ACQUITRONICS INC.**, San Diego, CA 2001-Present  
President, CEO

- Manufacture and market new embedded microcontroller based systems which will provide high technology equipment to engineers, architects, and construction professionals.
- Produce and market Desktop Manufacture Computer Numerical Control (CNC) Machinery for engineering, rapid prototyping, and R&D applications.

**INTEL CORP**, San Diego, CA 1998-2001  
Senior Hardware/Software Engineer

- Designed and prototyped network Internet equipment for the Advanced Development team. Some of these patented designs provided our team with award winning products and demonstrated successful concept models to corporate and commercial clients.

**ORBITEC ELECTRONICS, FLUERE INC**, Salinas, CA 1998-2000  
VP Product Development

- Produce new microprocessor based hardware and software to create new market demand of high technology solutions for flow measurement sensors. ORBITEC is an OEM supplier of commercial and industrial instrumentation for air/gas and fluid flow measurement.

**ELDRIDGE PRODUCTS, INC**, Monterey, CA 1996-2002  
Director of Engineering

- Manage all aspects of product development and support, including hardware design, firmware integration, software tools development, manufacturing/machining process systems, and final product testing. EPI is an OEM supplier of microprocessor based industrial instrumentation for air/gas flow measurement.

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**JABRA INC. USA**, San Diego, CA

1995-1997

Senior Software Engineer

- Write C++ code to provide Internet MIME mail messaging and API to new product release. This cross platform C++ code also supports multiple operating systems.
- Develop new C++ code to support new product release in screen-based computer telephony software. Bring prototype code to beta and final release working closely with marketing, engineering and QA teams.

**GTE, INTERACTIVE MEDIA**, Carlsbad, CA

1993 - 1995

Principal Integration Engineer

- Design motion controlled video camera apparatus to create special effects for new CD-ROM titles.
- Manage a team to develop a 3D motion capture suit for human kinematics analysis for network based action games and military medical applications.

Senior Software Engineer

- Developed drivers and applications to provide automated studio operations.
- Built custom hardware (electro-mechanical and electronic) to provide computer control to software applications.

**NORTH AMERICAN PHILIPS CORP., OPTIMAGE**, Des Moines, IA

1992-1993

Software Engineer

- Provided software tools for use in CD-I technology and Full Motion Video MPEG, which allows users (producers, directors, etc...) computer automation of professional audio and video equipment for Encoding Control List generation and manipulation.

**CUSTOM AUTOMATED ELECTRONICS (CAE)**, Monterey, CA

1980 - 1992

- Founded CAE to provide, through research and development, applications of microcomputer technology in digital and RF communications, data acquisition and automation. Products from this research and development, both hardware and software, focus on technical problem solutions.
- Developed for **DIGITAL MEDIA**, Santa Cruz, CA - an Electronic Whiteboard computer interface and software driver. The interface converts the thermal imaging signals to serial data. The software driver captures the serial data and reconstructs the imaging signals for video display or disk storage.
- Developed and licensed to **ACECAD Inc.** Monterey, CA - software driver to interface their graphics tablet for pen based computing, to Apple Macintosh computers. The driver consists of software written in 68000 Assembly, C, and C++.
- Contracted by **DANLIN Corp.** Syracuse, NY - to develop a multi-user remote control system using RF spread spectrum communication technology.
- Contracted by **68000 Inc.** Scott's Valley, CA - to develop a high performance Macintosh Video / DSP Nu-bus card. The card was designed to have all operating parameters under software control for ultimate video signal flexibility.

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U.S. NAVAL POSTGRADUATE SCHOOL, BDM Corp. , Monterey, CA 1979-1980

- Member of an engineering design team developing a NAVAL SATELLITE MONITORING SYSTEM. Participated in the design of complex RF-to-Computer (PDP 11/34) interfaces.
- Designed and developed a GEOMAGNETIC METER CONTROLLER, a low-power electronic chronometer / transceiver. Provided all PC artwork, technical drawings, and built and tested the working prototype.

EDGEWATER PACKING CO., Monterey, CA 1978-1992

## System Administrator

- UNIX system support for accounting, inventory management, and database applications.
- Developed custom software for accounting and database applications.

## Computer/Video Game Technician

- Troubleshoot and repair 80+ electronic and mechanical video games, pinball machines, and reality simulation machines.
- Managed technical support staff.

## MICROCOMPUTERS & DSPs and LANGUAGES

Motorola 680x, 680x0, 68HCxx, 5600x DSP, 9600x DSP; Hitachi HD647180 H8 Family; Intel 808x; MOS Technology 6502; PIC; Zilog Z80, Z8000, ASSEMBLY, PASCAL, C, C++, FORTH, CP/M, UNIX, MSDOS, Microsoft Foundation Class, Linux, PowerPC, Microchip Technologies, Protel, Solid Edge, Solid Works

## PUBLICATIONS (available on request)

- August 1994, EDN - Ideas for Design: AC Power Controller
- October 1994, ELECTRONIC DESIGN - Software Design Ideas: CRC Generation

## EDUCATION

- Mira Costa College, Cardiff, CA 1994 - 1996  
Manufacturing Robotics Technology, PLC Flexible Manufacturing
- Monterey Peninsula College, Monterey, CA 1980  
Computer Peripheral Interfacing and Control
- Kent Vocational-Technical School, Camden, DE 1974 - 1978  
Radio and Television Electronics and Troubleshooting