

David Benjamin DeFebo
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Duties have included Printed Circuit Board Designer, Printed Circuit Board Design Supervisor, CAD System Administrator, CAD System Librarian, Engineering Services Management, Computer Support, Packaging Design Consultant, Manufacturing Liaison, Project Engineer, Technical Writing, Customer Support/Training, Network Administrator, Database Analyst, Technical Software Sales.

Abilities:

- Printed circuit board design including thru-hole, SMT, digital, analog, high speed, high frequency, RF, ECL and all combinations of as well as flex circuit and hybrid circuit design.
- Administration and use of CAD systems for electronic design (experience with Gerber, ComputerVision, PCAD (DOS), ViewDraw, PADS, Autocad, OrCad, Spectra, Mentor Design Capture and Expedition, (brief exposure to Electronic Workbench and Cadence), currently working with Altium Designer and Alibre Design.
- Administration of computer networks.
- Training and support of personnel in use of software including CAD software as well as general office software including Word, Excel, Access, PowerPoint, Publisher, Corel Draw, Outlook, Acrobat, and others.
- Train and assist engineers and technicians in PC board design.
- Develop software for engineering and internal office use (using Visual Basic and other automation tools).
- Engineering liaison to manufacturing from board level up through complete products.
- The supervising of PC board designers.
- Design project management including BOM administration and project documentation.
- Creation of Databases for BOM administration, CAD interfacing, and design and component information.
- Technical writing including engineering, assembly and test procedures and specifications.
- PC board, sub-assembly and final product assembly implementation and management.
- Conceptual and basic equipment packaging (industrial design) and electronic hardware design.
- Equipment troubleshooting and service (both in house and in the field).
- Prototype construction and testing.
- Design project engineering.
- Design and creation of corporate graphics and Web page design.
- Design, implementation and administration of corporate information databases (including customer data, product data, service and maintenance data, and more).
- Technical and other information research.
- Customer Support and Training.
- Technical Software Sales.

Employment:

November 1, 2001 – present – I have been an independent engineering consultant and PC board designer. Work has ranged from basic PC board design to CAD system libraries, database design and construction, and design and design flow consulting. Have also contracted to companies including Badger Meter (7/03-11/03) and Johnson Controls (9/06-6/07 and 9/08-11/08 and 3/09-4/09) and GE Health Care (7/07 – 01/08).

Eaton Corp. R&D, Milwaukee, Wisconsin – 11/95 to 10/01. ECAD System Administrator / Product Designer. Duties included printed circuit board design and CAD system administration using various design software. That included the implementation of the software for electronic design. My job was to create libraries, configure programs, and develop methods for and train engineers and technicians in the use of software for schematic capture, circuit simulation and PCB layout. I created a database of engineering and manufacturing information to work with MRP data to feed the CAD software. I was responsible for computer operations for the department including 2 file and application servers and dedicated computers for specialized tasks.

ELPASO Inc. (Electronic Packaging Solutions), (now defunct) Waukesha, Wisconsin– 5/93 to 7/95 as Director of Technical Services. Duties included PC software and hardware sales, technical support for customers, customer training, PC hardware setup and configuration, PC board design, design and creation of all corporate graphics, computer bulletin board and PC network administrator, software development, everything but accounting.

Personal Resume of David B. DeFebo

Marquette Electronics (now GE Healthcare), Milwaukee, Wisconsin – 1/81 to 4/93 as PC board designer, packaging consultant, PC board design supervisor, CAD system administrator, and from 1985-1993 in corporate research and development as all of the above along with network administrator, general computer support, and manufacturing liaison. I participated on teams that developed some of Marquette's most ambitious and successful products.

Eder Industries (now Creation Technologies), Milwaukee, Wisconsin – 9/76 to 1/81 Project Engineer. During my time there I did most everything related to engineering and manufacturing. Most of my time was spent on 1 particular project, a laboratory instrument for tissue slide preparation. The project was taken from initial rough prototype through volume production. During that time I did project management, electronic circuit design, mechanical design, PC board layout, mechanical detail drawing, PCB assembly drawing, component purchasing, prototype assembly and testing, creation of assembly, test, and QA procedures, production assembly and testing, UL and FDA compliance, and field service work. I also began my quest for computerizing many aspects of engineering work and extending to training and assistance of general office personnel in the use of computers. Other design projects I worked on included relay logic control panels and assorted industrial control applications.

Education:

- Continuing Education via numerous seminars, lectures and short courses including but not limited to ECAD software training, High-Speed PCB Design, EMC Considerations In PCB Design.
- College: Milwaukee School of Engineering - September 1972 to September 1976. AAS degree in Electronic Communications Engineering Technology (1975). Left 2 quarters short of BS-ETE degree.
- High School: Milwaukee Trade and Technical High School - September 1969 to June 1972. Graduated from the Electronics Technology program (3 years of electronics with 3 years of mechanical/electronic drafting).

Professional Activities:

- Acting Chairman of Southeastern Wisconsin Chapter of IPC Designer's Council 2000-2002.
- Participation in CAD user groups at the local to international level, including giving presentations to the groups.
- Chairman of Wisconsin PCAD Users Group 1993-1997. Vice Chairman of Midwest Gerber Scientific Users Group 1982.
- Member of industrial advisory committee for Printed Circuit Board Design program at Waukesha County Technical College 1983-1997.
- Lectured at Waukesha County Technical College in PC board design and the role of the designer. I also conducted tours of manufacturing and design facilities for students (1989-1992).
- Lectured at Marquette University on being an engineer in the real world (1991).
- Participated in book review program for computer books published by SYBEX Inc. (1991-1992).
- Judge in Southeastern Wisconsin Regional Science Fair, Engineering, at Marquette University (1988).
- Judge for the Milwaukee Area Skill Olympics, Electronics at Milwaukee Area Technical College, (1988).
- Co-authored and presented a paper at the National Computer Graphics Association 1983 national convention and published in the conference proceedings - *The Integration of the Gerber PC-800 Into a High Technology Environment or What do I do Now That I Bought It* with Gerald J. Reiser, *Proceedings of the Fourth Annual Conference of the National Computer Graphics Association*, pp. 295-305, 1983. Received an excellent review in *Computer Aided Design Report*, p.1, August 1983.

Hobbies and outside Interests:

- Licensed radio amateur (WB9BWP - Extra class) since 1969. I have served in various offices of the Milwaukee Radio Amateurs' Club, including President and Treasurer. Through the club, I have taught classes in basic electronics and communications (1976 to 1996). I have been involved in the Southeastern Wisconsin Amateur Radio Emergency Service, since 1971, providing communications for public service events and natural disasters. I have also been a representative from the MRAC Volunteer Examiner Coordinator group to the National Council of Volunteer Examiner Coordinators Question Pool Committee. That's a lot of words to say I participated in the creation and evaluation of FCC approved examinations for amateur radio licenses.

Specific Accomplishments:

Independent Consultant:

- PC board design.
- Engineering component information database design and development.
- Participate on product design teams.
- OrCad Capture CIS and Layout training.
- Mentor Design Capture and Expedition training.
- Training engineering in use of design and component information databases.

Eaton:

- Assist engineers and technicians in use of Viewlogic, PADS, and OrCad software for electronic design.
- Develop schematic symbol libraries and utility programs for use with Viewlogic and OrCad software.
- Develop PC board part libraries and utility programs for use with PADS and OrCad Layout software.
- Develop an engineering electronic component information database for use by engineers and technicians.
- Administration of departmental computer servers for electronic design applications.
- Develop methods, procedures, and documentation, including Web pages, for use of all ECAD software.
- Maintain internal web pages for individual project information and status.
- Participate on a number of research project design teams.
- Begin learning the use of Cadence Concept and Allegro ECAD software and assist others in its use.

ELPASO:

- Customer training on-site, at our facility, and in a seminar setting including preparation of training materials.
- Telephone and on-site technical support for engineering software and computer hardware.
- Administer internal computer network and customer support computer bulletin board.
- Manage development of the first in-house products for ELPASO including CAD utility software and libraries.
- Development of a database application for electronic component information for engineering departments.
- Development of a customer information database.
- Concept, design, and production of a bi-monthly customer newsletter distributed electronically.
- Design and creation of all corporate graphics standards.

Marquette Electronics:

- Procedures to track and control individual photo tools for PC board fabrication (in use at other companies).
- Procedures to create multi-view assembly drawings of PC boards including double-sided surface mount.
- An engineering component database incorporating engineering and CAD system information.
- Develop software to automate the creation of Bill-of-Materials from CAD schematics and PC boards.
- Develop software to interface CAD systems to PC board assembly and test machines.
- Training and assisting others in use of all types of computer software (both engineering and general office).
- Documentation relating to engineering software use, PC board design, document administration.
- The setup, implementation, and administration of multiple CAD systems, PC and mainframe based.
- Familiarity with FDA GMP, and UL-544.
- First dedicated supervisor of PC board designers.
- First multi-layer board design by Marquette.
- First in-house design of ceramic thick film hybrids.
- Corporate R&D liaison to manufacturing.
- Assist in prototype construction in R&D environment.
- Participated on numerous design teams for a number of very successful and award winning products.

Eder Industries:

- Coordinated project team for the design, commercialization and production of a medical laboratory instrument.
- Developed and documented in house assembly and test procedures for custom designed products.
- Engineering data automation projects including bill-of-material generation and project tracking.
- Created first (to Eder) computerized project bill of materials.
- Business data automation projects including database projects for manufacturing and management.
- Introduced close-up photography for documenting complex assembly details and assembly modifications.