

**PROFILE**

I am seeking a position in any of the following job categories: **Electronics Technology; Instrumentation Technology; Computer / Program Operation; Hardware / Software Development; Computer Graphics / Design; Quality Control (Electrical and / or Mechanical Testing / Inspection);** or where any, some or all of my educational and acquired skills described in this resume may apply.

Forty years of experience as an Electronics Technician, Design Engineer and Computer Programmer/Operator has given me the opportunity to apply my ambition, education and abilities to the performance of many job functions within one company. Some product obsolescence and the current state of the economy have led to a marked decline in production for the company I've been with since 1969. Since I've been primarily involved with research and new design development, the lack of new project activity has resulted in the "lack of work" scenario for me.

Started out as an Electronics Technician wiring and soldering circuits and boards and testing cathode ray tube display systems and components. This included the assembly, calibration and maintenance of optical equipment used to perform various tests and for sale to customers. In addition to product testing, I was in charge of equipment calibration and maintenance. This included maintaining the in-house Standards Lab. Eventually became supervisor of calibration operations and Lead Tester responsible for the Testing Department.

Demonstrating strong math and organizational skills along with drafting and design abilities led to designing electromagnetic components, housings and machining fixtures. Development and documentation of new construction and production procedures was often required. Computer skills, self-acquired working in the Engineering Dept., allowed me to program N/C machines in the company's own machine shop to create fixtures and parts required to produce a final product.

Designed new test setups to facilitate production. Efforts in the Engineering Dept. led to receiving the company title of **Design Engineer**.

Worked in the Computer Department on DEC Mini's, DEC Vax-11, PCs and MAC and SGI Work Stations. Wrote programs in Assembly (various machines), Basic, Basic+, FORTRAN, UNIAPT, C/C++ and HTML. Wrote software to interface National Instruments LAB-PC DAQ and IEEE488 boards to test setups and work stations. Wrote original equipment software to operate Celco's Digital Color Film Recorders on several platforms and wrote all the software for operating Computer Assisted Test Stands and a Virtual Instrumentation Test Bench. Wrote programs to aid in the design, testing and analysis of electromagnetic components. Created and maintained the [celco-nj.com](http://celco-nj.com) website and wrote business applications software. My achievements in the Computer Dept. led to an additional title within the company, that of **Software Engineer**.

I have worked with many computer systems, operating systems, programming languages and software applications as detailed below.

**EXPERIENCE****ELECTRONICS TESTER & TECHNICIAN / DESIGN ENGINEER / SOFTWARE ENGINEER - CELCO, MAHWAH, NJ - 1969 – 2009 - PRESENT**

Started as an Electronics Technician and Product Tester, working on cathode ray tube display systems and components. In the early 70s I demonstrated my ability to quickly learn to operate and program the company's DEC PDP8 and PDP11 computers. I was offered additional hours to work in both **Engineering** and **Computer** departments. Was laid off in '09 because of the decline in business due to problems with the economy. Since being laid off, I have been called back at irregular intervals, a few days at a time to work on emergency projects and production items.

**Engineering Department... I have been responsible for:**

- QC electrical testing involving measurement of electrical parameters such as inductance, resistance, capacitance, Q, resonant frequency, etc. as well as measuring display parameters such as pattern geometry, pincushion, orthogonality, linearity, circularity, sensitivity, beam resolution, residual magnetism and dynamic recovery time and more. "Pass" or "Fail" status determined by comparing collected data with Engineering Design Sheet specifications. Data collection, graphical analysis, creating data forms and reports writing were integral requirements for this job.
- QC mechanical inspection involving measuring and comparing physical part dimensions to engineering drawings using vernier calipers, micrometers and various other gauges and scales to determine "Pass" or "Fail" status.
- Assembling, wiring, soldering and testing breadboard and printed circuit boards.
- As a MIL-STD-2000 Category 'C' Instructor/Examiner, trained CELCO personnel how to prep, assemble, solder and clean lead connections and printed circuit boards in compliance with the Mil-2000 Soldering Technology specification.
- Research, development, design and installation of electromagnetic components for use in new and existing applications.
- Prototype construction and documentation of resultant construction and production techniques devised to build custom electromagnetic components per customer specifications. Documentation included photos, sketches, design drawings as well as verbose instructions and notes.
- Troubleshooting, repair, maintenance and calibration of test equipment (electrical and optical) and maintenance of calibration records and Standards. Eventually set up calibration records and scheduling on computer ... first on DEC PDP11 mini and later on PC.
- The design, construction and implementation of test circuits, panels and power supply configurations required by the testing department.
- Drafting - electrical and electronic circuits as well as the mechanical design of various parts and machine shop fixtures.
- Technical writing in the form of lab reports, research and development notes, project management records and production processes as well as engineering and technical procedures for manufacturing and testing. Have also written and illustrated several instruction manuals on how to use various lab test setups, software and CELCO produced Hardware. Primarily used Microsoft Publisher, Picture Publisher, Paint Shop Pro, Quattro Pro (spreadsheet), Smartdraw (flow-charting), Solid Edge (CAD) and 3D Grapher to create technical documents and publications.
- Installation and calibration of optical components and assemblies required for manufacturing CELCO precision X-Y traveling microscopes and CRT spot analyzers.
- Photographic records of various components, systems, display and test results used for reference and in CELCO ad campaigns.

**Computer Department ... I have experience with the following:**

- **Computer Systems and Hardware - Computers:** DEC PDP8; DEC PDP11; DEC VAX-11; MACs; PCs. **Hardware:** DEC DR-11B, C, and W I/O boards and their PC emulators; National Instruments LAB-PC-1200 DAQ board + the SC2070 General Purpose Termination Breadboard; National Instruments GPIB IEEE-488 Communications Board.
- **Software Operating Systems - DEC Operating Systems:** DEC PS8; OS8; RT-11; RSX-11; RSTS-E; VAX-VMS. **SGI Operating Systems:** IRIX. **PC Operating Systems:** DOS; Windows 3.1, 95, NT, 98, XP, Vista, MAC OSX.
- **Programming Languages - Programming DEC Machines:** PDP8 Machine Code; PAL8 Assembly; PDP11 Machine Code; PAL11 Assembly; Macro-11; BASIC; FORTRAN; UNIAPT III; BGL. **Programming PCs:** Assembly; Basic; Pascal; C/C++.
- **Software Applications - Drafting, Electronics and Mechanical Design:** Orcad; Design CAD; AutoCad2000; Solid Edge. **Spreadsheets:** QuattroPro; Xcel. **Word Processing:** Word Perfect; Microsoft Word; Microsoft Publisher. **Forms and Data Sheets:** Form Tool Gold. **Flow Charting:** Smart Draw. **Photo Processing:** JASC Paintshop Pro; Micrografix Picture Publisher; Aldus Photostyler; Adobe Photo Shop; Micrografix Suite; GIMP. **Publishing (for Advertising):** Aldus Page Maker, Quark Express. **Web Design and Maintenance:** HTML; GIF Movie Gear. **Graphical Data Analysis:** Harvard Graphics; QuattroPro; 3D Grapher; GIF Movie Gear.

## JOHN H. DODD

### Computer Department ... I have been responsible for:

- Writing, proving out and debugging UNIAPT programs. UNIAPT (United Computing's Automatically Programmed Tools) is a Geometric-Mathematical language designed to produce N/C (Numerical Control) tapes for various programmable machine shop tools such as lathes, drills, millers and 3-D contouring machines such as the Monarch Pathfinder Lathe and Milwaukee-Matic II 3-D Contouring Machine.
- Using assembly language and operating under the PS/8 and OS/8 operating systems, programmed DEC computer-driven test stands and designed and wrote all of the original equipment software required to operate a Font Scanner/Printer system manufactured by CELCO for Mergenthaler Linotype Company. The final software package was a stand-alone operating system complete with diagnostic aids and Software User's Manual.
- Writing original equipment software and drivers in Assembly, FORTRAN and C/C++ for the development of CELCO's Digital Color Film Recorder Series which began with the CFR4000, initially used by Slide Bureaus, NASA, Baltimore Space Telescope and others to put digital image data on film. The first movie to use the CFR4000 was Disney's **TRON**. The CELCO Film Recorder is used by many major film companies today.
- Designing and writing operating system compatible and DOS stand-alone software for operating PC computer-driven test stands and a Virtual Instrumentation Test Bench used primarily for the measurement and 3-D graphical analysis of magnetic fields. Conceived and blocked out the PC computer-driven test stands and Virtual Instrumentation Test Bench which use the National Instruments LAB-PC-1200 DAQ board + SC2070 General Purpose Termination Bread Board. Wrote and incorporated register level routines to access the 1200 board from my own C/C++ GUI driven programs. Worked with NI-DAQ Register Level Programming Manual to develop subroutines needed. Explored NI - LabView DEMO as well but ended up using the register level programming approach creating DOS stand-alone applications. Company did not purchase LabView software.
- Writing software using National Instruments PCIB-IEEE-488 Communications Boards to download data, for processing to film, from various Graphic Work Stations to a CELCO Work Station consisting of a PC and the CELCO Color Film Recorder.
- Writing business applications in BASIC-Plus, FORTRAN, and C/C++ as well as programs providing engineering design assistance, data tabulation, graphical analysis, customer data sheets etc.

### RETAIL CLERK / CASHIER - FIRST NATIONAL STORES, NEW CITY, NY - 1963 - 1973

Began working for First National Stores at the age of 16. Worked as a cashier and retail clerk responsible for ordering and maintaining stock in the grocery department. Unloading freight trucks, collecting carts and general clean up were also among duties performed. Worked P/T while attending High School and RCA Institutes of Technology. Worked F/T summers while in High School. Continued to work P/T from 1969 - 1973 while working F/T at CELCO.

### EDUCATION - Certificates and Diplomas can be viewed at [www.jodocoplanet.com](http://www.jodocoplanet.com).

**D.O.D.**, U.S. ARMY AMCCOM, Picatinny Arsenal, N.J. - MIL-STD-2000 Soldering Technology - Certificate, **1995**

**D.O.D.**, U.S. ARMY AMCCOM, Picatinny Arsenal, N.J. - MIL-STD-2000 Soldering Technology - Certificate, **1993**

**D.O.D.**, U.S. ARMY AMCCOM, Picatinny Arsenal, N.J. - MIL-STD-2000 Soldering Technology - Certificate, **1990**

... Certified Category C - Instructor / Examiner. Recertification every 2 years. Achieved 90+% course average each time.

**Digital Equipment Corp.**, Maynard, MA - PDP8 OS/8 Software - "A" average - Certificate, **September 1972**

**Digital Equipment Corp.**, Maynard, MA - PDP8 Paper Tape Programming - "A" average - Certificate, **August 1972**

**RCA Institutes, Inc.**, New York City, N.Y. - Electronics Technology T-3 Program - Certificate, **1968**

... Dean's List student. T-3 courses were college accreditable towards BSEE degree.

... Program was 2520 HRS, graduated 3rd out of a class of about 90 students. The T-3 Program started out with 6

... classes/groups of students ending up with only 2 classes at graduation.

**BOCES**, West Nyack, N.Y. - Instrumentation Technology - Diploma and Certificate, **1965**

... Course was 2 YRS / 1000 HRS and consisted of H.S. Physics in my Junior Year followed by the study of Basic Electricity,

... Electronics, Pneumatics, Hydraulics along with the use of instrumentation and devices associated with each. Drafting and design

... were also an integral part of the course. Graduated with an "A" average.

**Clarkstown High School**, New City, N.Y. - Honor Roll Student - Honor Society Member - Diploma, **1965**

... Extracurricular activities: Marching Band; Chorus; Science Fairs.

### HOBBIES AND ACTIVITIES

**Periodicals:** MAC World; Popular Science; Scientific American; Readers' Digest; American Bowler; USTA Tennis.

**Model Rocketry:** Original designs as well as pre-fab models.

**Photography:** Film and Digital; 3-D; Special Effects (see Photo Processing software above). Initially, we used my basement photo lab to process black and white and Ektachrome films to evaluate CELCO Color Film Recorder performance and to calibrate color tables. Eventually we built a dark room at CELCO.

**Videography:** Movies and Slide Shows using *Windows Movie Maker* and *MAC iLife (iMovie, iPhoto, iDVD)*

**Astronomy:** (Currently using a Celestron 8 Schmidt-Cassegrain Telescope)

**Microscopy and Microphotography:** (Currently using a Boreal 57900-03 Digital Research Microscope)

**Avid Tennis Player:** USTA Member, former AATA (Amer-Asian Tennis Assoc.), Waldwick Covered Courts, NJ

**Avid Bowler:** Cresskill Gardens Men's League, O&R/Monday Night Mixed League (Montvale Lanes, NJ)

... also enjoy **Woodworking** and playing **Guitar** and **FLUTE**.

### REFERRALS

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### PHONES LEGEND

**O = Office**

**H = Home**

**C = Cell**