

Peter C. Howard

Peter.Howard@ePortage.com

651-331-9690



Experienced firmware development engineer with 40+ years' in the embedded electronics industry. I'm seeking to use my engineering knowledge and skills to contribute towards new product development where single/multi microprocessor and/or PIC technologies are utilized. I have developed a multitude of products throughout my career ranging from static single processor devices to multi-processor systems utilized in robotics and motion control. During my career I oversaw all phases of development from product concept through manufacturing and field installation.

ePortage, LLC

Embedded Design Engineer – Independent Contractor / CEO

January 2018 to present

Participate in product conceptualization, design and development of microprocessor-controlled devices.

Supported Technologies:

- Nordic nRF52 series BLE
- ESP-WROOM-32 (WIFI & BLE)
- AWS – IoT, AWS-FreeRtos
- Microprocessors: Intel, Motorola, Renesas + others
- MicroChip PIC Microcontrollers
- Segger IDE, MPLAB IDE, Android Studio, Arduino IDE, SlickEdit, SourceSafe, Matlab, Blender, Kicad
- Single / multi - processor system designs
- Internet development
 - PHP, CSS, Flash, Perl, JAVA, SQL
 - Adobe Macromedia / Dreamweaver development Suite
- Hardware design - Digital/Analog
- Schematic capture / PCB layout
- SMT prototyping, layout and build

Honeywell

Sr. Engineering Manager December 1998 to January 2018 (Retired)

Responsible for overseeing development of Honeywell's Silent Knight and FireLite brand fire and mass communication panels - engineering R&D, technical operations, budgeting and site management. Facilitated design reviews of hardware, mechanical, firmware and PC Software. Bridged staffing growth by actively performing firmware development supporting new products and features.

J. Gordon Electronic Design (Honeywell Contractor)

Principal Software Designer September 1997 to December 1998

Designed and coded scheduling and communication interface firmware for Honeywell thermostats designed for commercial retailers. Motorola and Intel processors utilizing Echelon components and protocol, C and Assembly. Developed Microsoft Visual Basic Diagnostic Tools.

Silent Knight (purchased by Honeywell - 2000)

Product Development & Support Manager July 1995 to September 1997

Managed two engineering teams, developing base product platforms for commercial and residential security industry. Projects were staffed by 10 engineers and several support staff.

Aetrium

Senior Software Engineer April 1994 to July 1995

Designed and developed motion control firmware utilized by a pick and place device handler. Product sorted small pitch integrated circuits after test via networked IC tester. Firmware operated on a distributed Z-80 networked platform - code written in C and assembly. Diagnostic software written in Microsoft C/C++.

MCT

Senior Software Engineer

Software Development Manager April 1985 to April 1994

Designed and coded motion software for MCT 4610 "Dual Test Site Handler." Software process code was configured as finite state machine utilizing five 8032 embedded processors. Machine ran asynchronous between twin test sites. Designed and wrote AC/DC parametric test on 128 pin IC tester – utilized by Intel's manufacturing of their Pentium processor. Projects were completed on schedule and provided MCT with their most profitable products for several years.

Anderson Cornelius

Senior Software Engineer July 1983 to April 1985

Conceptualized, designed then developed operating system, command interpreter and device drivers for communication card installed in IBM PC. Code was written in assembly and C. Hardware was 8086 processor, included interface to POT lines to allow collection of data through administrator-recorded audio messages and response through touch-tone keypad. Dedicated hard drive held speech patterns and collect / shared data. Product was used to control environmental conditions in several hotels and collected production data at the Ford Motor plant in St. Paul, Minnesota.

MTS Systems Corporation

Engineering Electronic Technician September 1978 to Jul 1983

Assisted in design and tasked to build and write firmware on multiple Intel 8080 based manufacturing test fixtures. Programmed manufacturing test equipment included Zentel. Wrote and maintained organization of test procedures - aided manufacturing test as needed.

Personal

- Lifelong passion towards electronics and software technologies
- Maintain complete electronic design lab
 - Full line test equipment – (Scopes, function generators, PS, Logic Analyzer, etc.)
 - SMT design, layout and build capabilities
 - Firmware / Microcontroller development - hardware integration
 - Refurbish antique radios and test equipment
- Amateur Radio - Extra Class
 - Active in two local clubs
 - TCDXA - Twin City DX Association
 - SARA - Stillwater Amateur Radio Association
 - Past president (two years) and director (two years)
 - Associations
 - AWA - Antique Wireless Association
 - Collins Collectors Group
- Classical Pianist – Continuing instruction and daily study
- Education – University of Minnesota

Professional Experience Can Be Found Via LinkedIn Here:

<https://www.linkedin.com/in/peter-howard-8bb32213/>

Amateur Radio details can be found here:

<https://www.qrz.com/lookup/N0GRM>