
David D Stubbs

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Consultation, training, and collaborative work in three areas:

- Gathering detailed end-user product requirements with primary focus on workplace tasks, usability metrics, and feature and function set details
 - Transforming requirements into concepts, user interface designs, and specifications
 - Evaluating product usability and impact on the workplace
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Employment

1999 TO PRESENT – USABILITY ARCHITECTS, INC., VICE PRES. & PRINCIPAL CONSULTANT

I currently represent Usability Architects, Inc. (UAI), of Kirkland, Washington, as Vice President and Principal Consultant. I provide direct consultation and project work as well as specialized usability and user interface staffing to UAI's industrial and commercial clients in the western United States (www.usability-architects.com). My clients have included TransCore, Hewlett-Packard Company, Intel, Tektronix, NCS Pearson, ASPCA, Bosack-Kruger Foundation, and the Portland-area Tri-County Metropolitan Transportation District (www.trimet.org).

- **Freight Matching Fieldwork** – Conducted and reported observations and interviews with freight brokers in northwest Arkansas for TransCore. – March 2008.
- **Instrument UI Design** – Prototyped and designed appearance and behavior of transaction-level QPI serial data display for Tektronix. Tested and refined general-purpose logic analyzer user interface specification and interpreted to Bangalore implementation team. Designed appearance and UI behavior for the [7Sxx PCI Express serial analyzer](#) module. September 2005 – March 2008. Beaverton, OR.
- **Freight Matching Software** – Performed heuristic review on freight matching software (likened to “dating service” software for truckers and shippers) for TransCore. July 2005. Beaverton, OR.
- **HP Consumer Innovation and Design** – Recently completed a 2-year assignment writing the User Experience Specification for the [Photosmart 425 GoGo Photo Studio](#), a printer with docking camera, and providing general human factors support to a variety of clients throughout the Imaging & Printing Group as a member of the Vancouver Consumer Innovation & Design Center. July 2003 to July 2005. Vancouver, WA.
- **Patent Consulting** (private contract) – Providing expert assessment of competing instrument user interface patents for Finnegan, Henderson, Farabow, Garrett & Dunner, LLP, Washington, DC. March 2004 to May 2005.
- **Patent Consulting** (private contract) – Provided expert assessment of competing instrument control software user interface patents for Meyertons, Hood, Kivlin, Kowert & Goetzel, Austin, TX, (private contract). Fall 2003 to Summer 2004.
- **HP Mobile Printing Applications** – Provided consultation and usability evaluation for new versions of Hewlett-Packard's wireless "mobile printing for Pocket PC" product and software development kit (SDK). March - June 2003. Vancouver, WA.

- **Printer Unpack and Install** – Designed and conducted tests of prototype printer unpack, software installation, printing and front panel operation usability for Hewlett-Packard Singapore. January and February 2003, San Francisco and London.
- **Transportation District Home Page** – Conducted usability test of proposed home page for Tri-County Metropolitan Transportation District of Oregon. December 2002. (www.trimet.org)
- **HP Mobile Printing Application** – Conducted two rounds of heuristic review and usability testing – including web download and installation – of Hewlett-Packard's wireless "mobile printing for Pocket PCs" product. August 2002 to October 2002, Vancouver, WA.
- **Commercial Printing Web Application** – Conducted usability tests and heuristic reviews of an on-line print ordering system with print service providers and print buyers in Portland, New York, and Chicago. February 2002 to April 2002.
- **On-Line School Web Portal** – Conducted heuristic reviews and usability tests of an on-line school web portal product being readied for market by a major provider of educational software. November 2001 to March 2002. (www.ncspearson.com)
- **PetWhere Animal Shelter Software** – Provided usability consultation to the executive director of the Bosack and Kruger Charitable Foundation and the ASPCA regarding detailed design of a new version of their full shelter management software. Served as interim software engineering manager and lead user interface designer for revision of PetWhere 2.6, used in over 900 shelters across North America. Spring 2000 to Spring 2002, Redmond, WA, and Urbana, IL. (www.petnet.org , www.asPCA.org)
- **USB PlugFest Usability Suite** – Reviewed usability of USB peripherals at USB-IF certification event on behalf of the Ease of Use/PC Quality Roundtable, suite sponsored by Intel and Microsoft. October 2001, Milpitas, CA. (www.usb.com, www.eouroundtable.com)
- **Heuristic Reviews & Web Site Redesign** – Provided heuristic review of and recommended design changes for Zairmail consumer web site. Summer 2000, Portland, OR. (www.zairmail.com)
- **Heuristic Reviews and Usability Testing** – Reviewed and tested Hewlett Packard's international certification mark management web site. Spring 2000, Vancouver, WA.
- **Heuristic Reviews** – Reviewed installation and applications screens for Intel hardware support application. Reviewed Intel's internal Authorized Solution Provider web site during its 1999 redesign. Various times between 1999 and 2002.

1997 TO 1999 – CONSULTANT

My independent projects included work on Intel consumer products, Hewlett-Packard inkjet printers and business processes, Rain Bird Commercial Division sprinkler controllers and irrigation management software, and various Tektronix instruments.

- **Computer Office and Entertainment Peripherals** – Contracted through Usability Architects, Inc. to provide control panel user interface specification for line of PC peripherals being developed at Intel. Fall 1998 to Winter 1999, Hillsboro, Oregon.
- **PC Utility Software** – Provided heuristic reviews of and design recommendations for early version of Intel's AnswerExpress web site. Fall 1998.
- **Office Printer Interface** – Consulted with Hewlett-Packard Vancouver Division for design and Visual Basic 5.0 simulation of a small user interface (SUI) for new office printers. Summer 1998 to Fall 1999, Vancouver, WA.
- **Commercial Sprinkler Control System** – Contracted with Rain Bird, a major irrigation controls manufacturer, for user interface design of a Windows-based commercial sprinkler control system family consisting of both hardware and software.

Conducted user interviews for task analysis and feature/function trade-offs, prototyped the software, developed and conducted usability tests. Delivered user interface specification and supported Rain Bird's implementation bidding process. Summer 1996 to Fall 1998.

- **AD007 GPIB-LAN Adapter** – Contracted with Tektronix for detailed usability critique and beta testing of an embedded web site and a firmware update utility of their instrument connectivity adapter.

Synthesized recently published web design and usability guidelines into framework for critique; performed an intense heuristic evaluation of page layouts, navigation mechanisms, terminology, and overall consistency; wrote new HTML pages to illustrate recommendations. Located and recruited participants for Beta test; developed and executed background interviews; conducted video-taped "think aloud" interviews of product unpack and installation. Spring 1998.

- **Instrument Front-Panel Simulation** – Contracted with an international electronics firm to create a user interface simulation of a never-released industrial test instrument.

Working in Visual Basic, developed parameter classes for automatic propagation of value and range constraints among the approximately 50 parameters of the product. Integrated industrial design drawings and VB interface objects to produce a life-like appearance and realistic response-time behaviors. Winter 1998.

1993 TO 1997 – TEKTRONIX, CENTRAL ENGINEERING

As manager of the Tektronix Customer-Centered Design group in Tek's Central Engineering organization, I located projects for and supervised assignments of four engineers across Tek's Measurement Business (test and measurement instruments). Prepared budget, staffing, and equipment plans. (www.tek.com)

Created "Engineer in the Wild," a support system and brief ethnography training program for engineers visiting customers to work on their projects for extended periods (1-8 weeks).

As a practitioner in the group, I developed and refined many of the end-user interview methods the group uses to elicit deep work background, detailed product requirements, design and usability issues, and product impact on the workplace. Worked as full member of product development teams from earliest concept development stages through the first several weeks of product shipping.

Projects included:

- **RFA300 8VSB Measurement Set** – Planned and conducted early requirements interviews toward development of a product to measure the new US Digital Television Standard.
- **Purchase Order Automation Software** – Planned and conducted usability tests of Oracle-based software for PC, UNIX/Solaris, and Macintosh-based creation of electronic purchase orders.
- **TDS 210/220 Digital Real-Time Oscilloscopes** – Assisted colleagues in training, execution, and analysis of development team's Panel-of-Experts nation-wide interviewing effort. Developed Visual Basic 3.0 user interface simulation; reviewed usability testing methods, results, and recommendations.
- **Pay-for-Performance Automation Software** – Planned and conducted usability tests of Oracle-based software for direct management input of subordinates' yearly performance and pay recommendations.
- **TFS-3031 Mini Optical Time Domain Reflectometer** – Contributed to early requirements gather and user interface design of a fiber-optic cable testing instrument used by cable technicians and installers.

1991 TO 1993 – TEKTRONIX, MEASUREMENT DIVISION

When TekLabs closed, I was reassigned as a Senior Software Engineer in the Measurement Division to lead user interface development for a portable oscilloscope implementation project.

I advanced from Software Engineer III to Principal Engineer during my time in the Electronic Systems Laboratory. Reorganized into the Computer Research Lab and later into the User Interface Research Lab. Developed prototype software tools for automated test software development and secured five patents for visual instrument system programming techniques.

I was hired into Tektronix as a Software Engineer I to work on an assembly language Basic interpreter project for instrument control and signal processing.

Hired from the Portland State University Scientific Computer Center, I was a mini-computer programmer (Fortran, assembly, and RPG II) and worked on four database applications with senior staff.

Professional Activities

I have been a member of the international Association for Computing Machinery (ACM) and worked for its special interest group on computer-human interaction (SIGCHI) since 1986. I served as audio-visual chairman for three of the SIG's major conferences, CHI'90 (Seattle), CHI'91 (New Orleans), and INTERCHI'93 (Amsterdam, The Netherlands) supporting the 200+ technical presenters and conference staff with presentation equipment and professional personnel. (www.acm.org, www.acm.org/sigchi)

I am past executive director and program chair for CHIFOO, the Computer-Human Interaction Forum Of Oregon (a local chapter of ACM/SIGCHI) (www.chifoo.org). I am currently a "member-at-large" assisting the board as needed.

Co-presenter of "Usability and Product Development" at the 52nd Annual Conference of the Society for Technical Communication, May 2005; and for CHIFOO, September 2005.

Education

BS in History from Portland State University (1974) and have a number of graduate-level computer science, AI, and software management courses through the Oregon Graduate Institute.

References

- **Peter Hildebrandt**, Director of Research and Development, Director of Product Management, PolyVision Corporation, a Steelcase company, Norcross, Georgia. +1.800.631.4514 x1262.
- **Leo Frishberg**, User Experience Architect, Logic Analyzer Product Line, Tektronix, Inc., Beaverton, Oregon. +1.503.627.2833.
- **Pamela Adams**, Senior Human Factors Engineer, HP Labs, Hewlett-Packard Company, Vancouver, Washington. +1.360.212.2854.
- **Mark Stempski**, User Experience Research & Design Engineer, SQL Server Group, Microsoft, Redmond, Washington. +1.425.722.8366.