

Stepping Out on Your Own Is Consulting for You?

C B Johnson
Chair, Alliance of IEEE Consultants Networks Coordinating
Committee

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Consultant

- “... an expert who charges a fee for providing advice or services in a particular field.” Encarta online.

Why consult?

- Lost job with employer
- Outsourcing
- Potential for financial security
- You have something marketable to offer; engineers have tremendous assets
- You want to be your own boss; set your goals & work to achieve them

Your network chain

- Independent Consultant
 - Local Consultant's Network
 - Section
 - Region
 - » IEEE USA Consultants' Services
(www.ieeeusa.org/business) &
IEEE USA
(www.ieeeusa.org)

IEEE Career Navigator

<http://ieeusa.com/business/localnetwork.asp>

- IEEE-USA Consultants Database
- Business & Consulting
- What Is AICN?
- Local Networks
- Consultants Workshops
- Starting a Network
- Consultants Library
- Consultants' Fee Survey
- Web Resources

IEEE-USA Consultants Database

- Clients:
 - Here you can find the world's best electrotechnology and information-technology professionals-for-hire. No charge to search the directory or post assignments!
 - Consultant Finder - A sophisticated questionnaire-based tool that matches consultants to your project.
 - Advanced Search - A search engine allowing maximum control over the search terms and results.
 - Simple Search - A quick and easy search form.
 - Post Assignments - Put your project where 20,000 IEEE-member consultants can see it.
- Consultants:
 - Last year, more than 30,000 clients searched the database. This year, make sure they find you!
 - Join the Database - Submit a profile describing your consulting practice. The annual fee is only \$79 for IEEE members.
 - Search for Assignments - Browse our project board for opportunities that match your interests.

IEEE-USA Consultants' Database

- Last year, more than 30,000 clients searched the database; ***make sure they find you!***
- **Join the Database** - Submit a profile describing your consulting practice. The annual fee is only \$79 for IEEE members.
- **Search for Assignments** - Browse our project board for opportunities that match your interests.
- Your leverage per hit (L) ; $L = x (\$79)$, $x \gg 1$
(don't spend more than ~0.5 hr thinking about this)
- Bottom Line ...
"This is a good marketing investment!"

Business & Consulting

- IEEE USA Books
 - UH3020: IEEE-USA Consultants Profile 2006; This report on the IEEE-USA 2006 Consultants Fee Survey provides the profile of typical self-employed and independent technical consultants, including their education, experience, business practices, median earnings and hourly fee.
 - UH3010: The Best of IEEE-USA Today's Engineer: On Consulting; This downloadable PDF document puts 65 pages of content for consultants right at your fingertips.
 - UH3000: IEEE-USA Consultants Database; The IEEE-USA Consultants Database is the premier service matching technical consultants with clients. Consultants can easily register credentials and update information at any time, making their profiles available to prospective clients.

Consultants Workshops

- The IEEE-USA Alliance of IEEE Consultants Networks (AICN) helps US IEEE members develop their own consulting businesses
- Currently more than 30 local consultants networks throughout the United States, & more emerging in India, Canada, Australia and the United Kingdom

Starting a Consultants Network

- [How to Start a Consultants' Network](#); A step-by-step guide prepared by Dr Gary Blank
- [Requirements to Form an IEEE Affinity Group](#) (Affinity Group Petition) To take advantage of IEEE's branding and resources and qualify for funding through the IEEE Section Rebates, new consultants networks are required to register as "affinity groups" to the Alliance of IEEE Consultants Networks. This document walks you through the required steps, including the petition for affinity group formation.

Consultants Library

- Consultants' Fees Survey
 - Results of the 2002 Consultants' Fees and Business Practices Survey, as well as:
 - Plots of Consultants' Fees and Annual Earnings (May 2003)
 - Profile of IEEE Consultants (May 2003)
- Sample Consulting Agreement
 - A sample agreement developed by IEEE-USA's AICNCC for educational purposes. It is meant to provide the technical consultant with an outline of the important issues relating to the business relationship between a client and a technical consultant.
- AICNCC Newsletter Archive
- Directory of IEEE Electrotechnology and Information-Technology Consultants
 - A resource for employers of electrotechnology consultants, this is an searchable on-line version of IEEE-USA's Directory of IEEE Electrotechnology and Information-Technology Consultants
- Publications for Consultants

Consultants Library, cont'd

- **Starting A High-Tech Company**, *by Michael Baird, Independent Consultant*
- **Marketing for Engineers**, *by Stan Haavik*
- **Successful Patents and Patenting for Engineers and Scientists**, *edited by Michael A. Lechter, Esq., Robert B. Familglio, Esq., Earl C. Clifford, Esq., and Dr. R.J. Joenk*

Web Resources

- Aerospace Business Development Center
- Business Forum On-Line
- BRINT (Business Research in Technology)
- CCH's Business Owners Toolkit
- Forum for Women Entrepreneurs
- Garage.Com is "dedicated to helping entrepreneurs and investors build great businesses" and is the brainchild of Guy Kawasaki of Apple fame
- Independent Computer Consultants Association (ICCA)
- Invention Dimension (MIT)
- Maryland One-Stop Shop for Business Assistance
- National Association of Seed and Venture Funds
- National Business Incubation Association (NBIA holds conferences and training sessions, publishes books & maintains databases designed to help "small businesses grow")
- National Commission on Entrepreneurship
- National Society of Professional Engineers
- Network Professionals Association (NPA)
- Professional and Technical Consultants Association (PATCA)
- RealRates -- Resources for Computer Consultants
- IRS Resources for Small Business Owners and the Self-Employed
- Small Business Knowledge Base
- SmallBusiness Focus (search engine for small business/entrepreneurs)
- smallbizNET (Edward Lowe Foundation)
- Venture Capital Marketplace
- Venture Capital Resource Library
- Women's Bureau (Department of Labor)
- Yahoo! Small Business

Government Assistance & Procurement Opportunities

- www.cbdnet.access.gpo.gov; Commerce Business Daily is the official source for notices of Federal procurement and contract opportunities. The Government Printing Office's CBDNet extracts and publishes these notices on-line in a searchable format.
- www.federallabs.org; Federal Laboratory Consortium for Technology Transfer (FLC) -- Organized in 1974 and formally chartered by the Federal Technology Transfer Act of 1986 to promote and to strengthen technology transfer nationwide, the FLC is comprised of more than 700 major federal laboratories and centers and their parent departments and agencies.
- www.nttc.edu; National Technology Transfer Center is your window to access technical assistance and technologies with commercial potential from the U.S. government.
- www.zyn.com/sbir; Small Business Innovative Research Program (SBIR).
- www.irs.ustreas.gov/businesses/index.html; Tax Information for Business from the Internal Revenue Service.
- www.business.gov; US Business Advisor
- www.sba.gov; US Small Business Administration

Legal & Intellectual Property Resources

- www.findlaw.com; FindLaw on Intellectual Property
- www.ieeeusa.org/volunteers/committees/ipc/index.html; IEEE-USA Intellectual Property Committee
- www.invent.org; National Inventors Hall of Fame
- <http://netpreneur.org/advisors/ip/>; Netpreneur Exchanges' Intellectual Property Resource Center
- www.uspto.gov; US Patent and Trademark Office
- <http://prepaidlegal.com>; Pre-paid Legal Services

Intota & Teltech Consulting Services

- www.intota.com
- **Experts**
 - World-class experts representing science, technology and industry. Teltech, a division of FIND/SVP, Inc, created the network in 1984. Goal-provide business/industry with a better way of tapping into the knowledge of the world's most gifted scientists, engineers, researchers and technical professionals.
- **Consulting Services**
 - As an Intota expert, you can increase your personal income by providing consultations via brief telephone or e-mail interactions with clients. They will find you on our web site and use a sophisticated Internet-based e-mail and telephone system to consult with you in your primary areas of expertise. You can also generate additional income by engaging in longer-term consulting projects with clients.

It's Your Business

- Business Office
 - At home vs separate location
 - Office equipment; desk, phone(s), answering machine/service, mail services, FAX, copiers/scanners, bookshelves, open-shelf filing, ...
 - Virtual office
- Business Structure
 - Sole proprietorship ; no liability protection
 - Partnership; no liability protection
 - S-Corp; liability limited to corporation's assets
 - C-Corp; liability rests on directors & employees
 - LLC; owners/members protected from personal liability for business debts
- Financial
- Marketing & Business Practices

Pump-priming in Your State

- Economic Council
- Technology & Business Incubator
- Other incubator websites
- Office of Technology Transfer (State &/or University)
- Technology Commercialization Co
- State Firm Directory
- Engineering jobs in Your State
- Chamber of Commerce

Sample Invoice – an Oldie but a Goodie

- Charles Steinmetz retired as an engineer from General Electric to teach electrical engineering at Union College in 1902. GE later called him back as a consultant. He had worked on a very complex system that was broken. No one could fix it no matter how hard they tried. So they got Steinmetz back. He traced the systems and found the malfunctioning part and marked it with a piece of chalk. Charles Steinmetz submitted a bill for \$10,000.00. The GE managers were shocked and asked for an itemized invoice.

Sample Invoice – an Oldie but a Goodie, cont'd

- He sent back the following invoice:

Making chalk mark\$1.00

Knowing where to place it.....\$9,999.00

Total.....\$10,000.00

Elmers

- In the amateur radio hobby, an “Elmer” is another “Ham” that assists you with a problem; they are mentors
- Other consultants are generally happy to mentor & assist you, talk about your consulting concerns, tell you how they solved a similar problem, give you some ideas, ...
- Mentoring ↔ Networking

How to be a Successful Consultant - 1

- Some necessary conditions
 - Practice with ethics (What happened to Arthur Anderson LLC?)
 - Design for success
 - Perform as a professional & an entrepreneur
 - Be yourself, be distinctive & be useful
 - Experience, but continue to make deposits
 - Tolerance to non-steady income
 - Give & receive all the help you can & network
 - Well-greased PC & the WWW
 - Good web page
 - Family integrity

How to be a Successful Consultant - 2

- Dress for client meetings; a little better than client's attire
- Acquire more expertise, experience, maybe a short-course, a PE license, another degree, ...
- Keep expenses down
 - Home office
 - Avoid driving & travel
 - Use a low-cost phone service; phone cards for ~3.5¢/min, cell phone “deals”
 - Make effective use of the web; information, communication, ...
 - Read technical & trade journals to find new business leads; many of these are free &/or online

How to be a Successful Consultant - 3

- Increase your exposure
 - Good web site & biography
 - Be active in a Consultants' Network
 - List in the IEEE USA Consultants' Database
 - Attend conferences, write papers, chapters, newsletters, books
 - Teach a course
 - Use the benefits of your various business & technical organizations
- Quality
 - Work from your strengths
 - Check back with clients to assess the quality of your work & make necessary adjustments
- Give something back to your community

Other URLs

- www.SmallBizBooks.com Entrepreneur Magazine; providing essential business information to help plan, run and grow your business.
- The Independent Consultants' Forum is now open in the Community section of the ICA Web site, www.ica-assn.org. Join speakers, writers, trainers, coaches, teachers and prospective clients in relevant discussions and networking opportunities that can help your business.
- IEEE Phoenix Area Consultants Network; www.ieeepacn.com. Newsletter, calendar of events, vision/mission statements, directory of consultants, areas of expertise, membership application,
- Small Business Innovation Research (SBIR) and Small Business Technology Transfer (STTR) programs; www.acq.osd.mil/sadbu/sbir
- www.ceweekly.wa.com; Contract Employment Weekly

References

- *Breaking Away*, R Matthiew Seiden, Prentice-Hall Inc, 1987
- *The Complete Guide to Consulting Success*, Howard L Shenson, Ted Nicholas (Contributor) & Paul Franklin (Editor)
- *Choosing a Business in the 1990's*, Coopers & Lybrand LLP, 1994
- *The Contract and Fee-Setting Guide for Consultants and Professionals*, Howard L. Shenson
- *Getting Started in Consulting*, Alan Weiss
- *How to start a Local Consultants' Network*, Jorge Medina, Chairman, IEEE Consultants' Network of Orlando (1996)
- *IEEE USA 2002 Consultants' Fee Survey*, R Gauger
- *Great Connections: No-Nonsense Networking for Business & Career Success*, A Baber & L Waymon, Manassas VA, Impact Pubs, 1996
- *The Consultant's Calling*, G Bellman, San Francisco, Jossey-Bass, 1990
- *Flawless Consulting: A Guide to Getting Your Expertise Used*, San Diego, University Associates, 1981
- *The Seven Habits of Highly Effective People: Restoring the Character Ethics*, New York, Simon & Shuster, 1989
- *Become a Top Consultant*, New York, John Wiley, 1985
- *The Secrets of Consulting: A Guide to Giving & Getting Advice Successfully*, New York, Dorset House, 1985