

Consulting: Critical Success Factors

Kirk Paul Lafler, Software Intelligence Corporation
Charles Edwin Shipp, Shipp Consulting

Abstract

The age of the Internet is changing the way many companies do business - and the type of consultant they need. The consultants of tomorrow will require different skills than the consultants of today and yesterday. Today's consultant may just as likely have graduated with an MBA degree as with a technical degree. As hired advisers to a company, a consultant often tackles a wide variety of business and technical problems and provides solutions for their clients. In many cases a consultant chooses this path as an attractive alternative career option after toiling in industry for a number of years.

This paper describes the consulting industry from the perspective of the different types of organizations (e.g., elite, Big Five accounting firms, boutique, IT, and independent) that they comprise. Specific attention will be given to the critical success factors needed by today's and tomorrow's consultant.

Introduction

To become a successful SAS consultant, your SAS skill is paramount, followed by your skills in creating and running a small business. Critical success factors include training and business preparation, the business plan, marketing material, positioning and image, choosing your areas of services, and lastly, setting a billing rate or project price. As a consultant, you find projects in programming or in SAS instruction, and work individually or team with others. You learn how to market your services to small companies, large corporations or government agencies. To assist you in getting started, a self-survey map will be made available in the SUGI presentation to help you assess where you are and the options concerning where you would like to be.

Career Path Options

In most cases, a professional SAS consultant starts as an employee in a corporation, government or academic office where he or she learns many valuable lessons and experiences in SAS planning and programming. Paths then open to outside consulting opportunities, either as an independent consultant or teaming with others. That was the past. Now it is more common for younger programmers to consider entering consulting earlier. It remains a good career move for those near retirement or considering early retirement to prepare to work in some areas of SAS as a consultant. There are some easy steps and lessons to learn in making this move.

The Portable Office

For a Consultant, portability means independence. This does not mean that everything you need is loaded into your car and off you go. What it means is that items essential to your business can be accessed easily when necessary. Examples include working from home and dialing in to where your systems and applications reside, or being able to use a laptop or computing device wherever and whenever the need calls for it.

It is possible that a portable office is nothing more than your closest "full-service" copy center (e.g., FedExKinko's, etc.). These types of "full-service" centers offer high quality amenities at affordable prices including reproduction, fax, binding, telephone, computer publishing, printing, scanning, etc.

What does the portable office give you?

The basic definition of the portable office can be defined as follows:

1. Being productive away from "home" surroundings
2. Having what's necessary to conduct business
3. Having at your finger tips what's familiar to you.

What does the portable office look like?

Answering this question depends on when and where you need an office (e.g., plane, train, automobile, ship). The definition of portability means to be able to conduct the activities of your business whenever and wherever necessary. Naturally, the latest electronics have made this once difficult task less daunting. Today's consultant often uses one or more of the items listed below.

1. Laptop or notebook computer
2. Cellular telephone
3. Pager
4. PDA (Personal Digital Assistant)
5. Pocket tape recorder
6. Modem/fax
7. Portable printer
8. Rechargeable cigarette adapter
9. Battery charger
10. Batteries
11. Blank diskettes
12. High capacity storage device (e.g., Zip drive, optical read/write drive, etc.)
13. Learning tapes (e.g., career, management, languages, books, etc.)
14. Name and address book (e.g., telephone #s for airlines, car rentals, hotels, business associates, etc.)

Rate Setting

There are two ways to price your consulting services:

1. Set a rate according to the value of your time (i.e., hour or day or week)
2. Set a total price for a task, activity, or job.

The method you decide to use for establishing your rate is a personal decision. You could combine both methods or invent an entirely new method to price the services you perform. Set up some rules to live by. You and your family must be able to survive on the salary you pay yourself, you should be able to meet all of your financial obligations, and hopefully show a profit (although this last point may not be a possibility when you are first starting out).

Before you begin to set your rate, the first thing to remember is that whatever rate you set must (or should) be a competitive one. A second thing to remember is that there is no set or "fixed" price for any service. You will find a range of prices (low to high and everything in between). It will be necessary to establish a rate within these upper and lower ranges. Do not be convinced that the only way you'll be able to compete is to set the lowest price within this range.

You should then spend time researching and learning all you can about the market you are seeking to sell your services to. Make every attempt to answer the following questions. Is there a need for the services I provide? Is there a competitor that can provide the same service as me? What types of services is my competition providing? Are there opportunities that are not being pursued? How do other consultants sell their services?

Elements to factor in when determining consulting rate:

1. Type of job (system programming, application programming, training, etc.)
2. Cost of living
3. Overhead costs
4. Personal Training Costs (including getting up to speed)
5. Setting up to do business
6. Insurance (health, liability, auto, etc.)
7. Office equipment (including computer, telephone, FAX machine, supplies)
8. Vacation days
9. Include also marketing costs such as advertising.

Once a rate has been established, hold firm to it. This is only fair to existing and prospective clients alike. Rates should only vary when special market forces or conditions out of your control dictate such an increase (e.g., cost of living in a particular city, travel expenses, etc.). Certain things should be factored in when setting your rate:

1. Size of contact
2. Duration of contract
3. Type of work (common tasks, special skills required)
4. Working long hours, due to a priority deadline (charge more/extra)

5. Location that is less than ideal (travel, weather, pain/suffering)
6. Lodging rates that are extra high (will client absorb these costs?)

Taking Inventory of Your Skills

Knowing what you can provide clients and prospective clients is a valuable ingredient for success. First and foremost, the services you intend to offer should be perceived as adding value in an already highly competitive marketplace. Second, keep in mind that there will almost certainly be intense competition from other like-minded individuals. Taking inventory of your skills involves the following steps:

1. List your skills/services (e.g., strategic planning, market analysis, systems analysis, technical writing, etc.)
2. Perform the following rankings for each skill/service:
 - a. Level of competence (e.g., up-to-date (current), competitive, and out-of-date)
 - b. Income level production for the past 12 months (largest to smallest)
 - c. Assess whether each skill/service is "Active" or "Passive" (e.g., Active---critical to clients you are pursuing, Passive--non-critical to prospective clients)
3. Once ranked, categorize each skill by functional discipline (e.g., Business consulting, programming, marketing, etc.)
4. Capture comments, features, successes, and failures about each skill/service. These comments, along with rankings, will be used in the preparation of promotional materials.

Obtaining Leads

Obtaining leads about opportunities are vital to the success of every Consultant. But where are these opportunities found and how can a Consultant use these to their advantage. This activity is often referred to as "Prospecting". Prospecting for leads involves collecting information on prospective clients. But, before information can be collected, it is vital for the Consultant to know where to look. Sources of Information include:

1. Local library
2. Local Newspaper
3. Directories
 - a. Associations
 - b. User Groups
 - c. Chamber of Commerce
 - d. Seminars
4. Indexes
 - a. The Newspaper Index
 - b. The Magazine Index
5. Employment databases
6. Federal Government publications
 - a. Commerce Business Daily
 - b. The Statistical Abstract
 - c. Special Industry Reports
7. The Bureau of Census
8. Department of Commerce
9. Department of Agriculture
10. State Government publications
 - a. State Registers
 - b. State Department of Commerce
 - c. State Business Offices
11. City Government publications
12. Books in Print
 - a. Information U.S.A.
 - b. Getting Yours
13. Newsletters
 - a. The Oxbridge Newsletter Directory
14. Internet
 - a. Job Lines (many employers advertise their openings as part of their web pages)
 - b. Web sites (e.g., www.Hotjobs.com, www.Monster.com, etc.)

Proposal Writing

Proposal writing can be one of the strongest sales tools a consultant has. It is a powerful tool that, unfortunately, many consultants never take the time to master. The typical proposal explains who you are, what you are about, why you are best for the job, how you will manage and perform the services of the contract, your understanding of the client's requirements, your perception of the problem, your approach and/or methodology, your qualifications, your previous experiences, your references, and costs.

The Basic Elements of a Proposal

Proposals are a lot like people. They come in all sizes and shapes, are written or typed on paper, and are usually bound by front and back covers. Although they vary in length, format, and scope, they serve the same purpose - to persuade a prospective (desired) client toward your services rather than one of your competitors. The following elements are generally adhered to in every proposal:

1. Cover letter
2. Front cover with title and back cover
3. Table of Contents
4. Response Matrix or Cross Reference of Pertinent Information
5. Executive Summary
6. Introduction
7. Understanding of Problem(s) and Requirement(s)
8. Your Proposed Approach and/or Methodology
9. Resources and Personnel Qualifications (Staffing and Resources – include resumes)
10. Management Plan (Administrative and Project Management)
11. Conclusion
12. Appendixes (Supplemental Information)

Improving Skills/Position

Many Consultants believe they have mastered the necessary skills to be successful. But as technology evolves, it becomes increasingly more important to continue learning, and consider specializing. Even if you already consider yourself a good SAS programmer, with interests and abilities in several areas of the SAS software, specialization is becoming more of a necessity. Consider additional training from several sources:

- 1) Self-paced computer-based training (CBT)
- 2) SAS-led courses (lecture / hands-on workshops)
- 3) Non-SAS Consultant-taught courses
- 4) SAS Manuals
- 5) Books by Users (BBU)
- 6) User Group presentations

An excellent way to improve or brush up on your skills is through computer-based training (CBT) modules. Many popular topics are available for purchase or through subscription. All you need to access this treasure-trove of knowledge is a computer and Web browser. SAS Institute, for example, offers topics that can be studied for a 90-day period on the Web.

SAS Certified Professional Exams

To give your career a significant boost and to improve your prospects for success, the SAS Institute offers certification testing for users in three key areas: 1) SAS Programming, 2) Predictive Modeling and 3) Data Warehousing. These globally recognized certification tests are administered in more than 140 countries by a global leader in testing services in the IT industry, and are taken in a controlled environment.

Two credentials are offered by SAS Institute for SAS programmers to consider:

- 1) SAS Certified Base Programmer Credential for SAS 9
 - a. SAS Base Programming Exam for SAS 9
- 2) SAS Certified Advanced Programmer Credential for SAS 9
 - a. SAS Base Programming Exam for SAS 9
 - b. SAS Advanced Programming Exam for SAS 9

SAS Institute offers users a credential for predictive modelers to consider:

- 1) Predictive Modeling Using SAS Enterprise Miner 5.2 Credential
 - a. Predictive Modeling Using SAS Enterprise Miner 5.2 Exam

Two credentials are offered by SAS Institute for SAS data warehouse professionals to consider:

- 1) SAS Certified Warehouse Development Specialist Credential
 - a. SAS Advanced Programming Exam for SAS 9
 - b. SAS Warehouse Technology Exam
 - c. SAS Warehouse Development Specialist Concepts Exam
- 2) SAS Certified Warehouse Architect Credential
 - a. SAS Warehouse Technology Exam
 - b. SAS Warehouse Architect Concepts Exam

SAS Alliance Partner Program

SAS consultants may want to consider applying to become a SAS Alliance Partner. Five core programs are available to choose from, 1) Technology Program, 2) Consulting Program, 3) Application Program, 4) Outsourcing Program, and 5) Reseller Program. Each program has three levels: 1) Platinum, 2) Gold and 3) Silver. For more information about Alliance partnership opportunities, prospective candidates should access and review the SAS Alliance Program Guide on the SAS Institute web site at <http://www.sas.com/partners/programs/index.html>.

Seeking Your Level

Once you have decided to be a SAS consultant, consider the appropriate level to begin at. Assess your skill level, including what you like to do most, and what you like to do least. Your past experience doing similar things is critically important. You should get the recommendations of other consultants you know. For your first project, it may work out best to combine your skills with another consultant. Going through an agency is another good way to start. This way you can concentrate on what you do best without all the other hassles associated with running a consulting business. Here are increasing levels to consider:

1. Contract programming (through an agency)
2. Teaming with another consultant
3. Self-employed small business
4. Partnership
5. Small, single-person, corporation
6. Corporation with employees.

Code of Ethics and Client Relationship

Maintaining a code of ethics is an essential part of doing business. Webster's New World Dictionary defines ethics as the study of standards of conduct and moral judgment. All too often we read and hear about ethical charges being brought against one individual or another. Work out details in contracts, and only sign those you will absolutely honor. Then use wisdom and common sense in how you conduct your business.

Summary

There are many aspects to preparing to become a SAS consultant. Education and experience in the main areas of SAS programming are very important. Being able to work with people is a key success factor. And, being able to run a small business as a corporation or as a sole-proprietor small business, determines your success. Careful planning, preparation, organization, the ability to handle multiple tasks, and diligence are important factors for any consultant to have. Learn from others, their successes as well as failures, to improve your chances for greater success.

Becoming a consultant requires hard work. The value of preparation and on-going training cannot be overemphasized. In addition to whatever skills you possess, give attention to how you will position yourself and begin setting up a business. There is a lot more to being a successful SAS consultant than just knowing how to code. Being a consultant requires wearing many hats equally well, especially one- and two-person companies.

This is where the challenges and the fun actually begin. If you ever wanted to learn how to prepare a business plan, market your services, negotiate a contract, balance an expense account, and when that is done go about doing what you do best, then the consulting profession may be your ticket to paradise. Consulting, after all, requires knowing something about many business activities.

Evaluate how other consultants conduct business. Other consultants provide continuing training and support that can help you, including SAS-L and various web sites for professional SAS programmers. This includes training, self-study, learning about consulting, certification, and looking into the SAS Quality Partner[®] program. (Note: You can apply to be in the program while at a corporation or university.) A good consulting book or two to add to your library can also be helpful. Most importantly, a career as a SAS consultant should always be an enjoyable one.

Conclusion

Consulting is a wonderful and honorable profession. With the many benefits and rewards derived from being a SAS consultant, probably the greatest joy of all is in knowing that your expertise is worth something to someone else. This fact alone is worth all the sacrifice and hard work, knowing that the countless hours you spent (long after a full days work) marketing, reading, and learning new techniques has finally paid off. There is something very special about succeeding in what you do best. Most consultants do what they do, not because of the money, but because of the enjoyment they receive when their knowledge is used to help someone else.

Acknowledgments

The authors would like to thank Li Zheng, WUSS 2007 Management, Careers & Professional Development Section Chair; Dr. Besa Smith, WUSS 2007 Academic Program Chair; and MaryAnne Hope, WUSS 2007 Operations Chair for accepting my abstract and paper, as well as the WUSS Leadership for their support of a great Conference.

References

- "SAS Consulting: New Beginnings"** (Kirk Paul Lafler and Charles Edwin Shipp) – **Awarded "Best Contributed Paper"**, Proceedings of the Ninth Annual Western Users of SAS Software (WUSS) Conference – 2001.
- "Training in a World of Cost-Cutting and Downsizing"** (Charles Edwin Shipp and Kirk Paul Lafler), Proceedings of the Eighth Annual Northeast SAS Users Group Conference - 1995.
- "Training in a World of Cost-Cutting and Downsizing"** (Charles Edwin Shipp and Kirk Paul Lafler), Proceedings of the Third Annual Western Users of SAS Software Conference - 1995.
- "Training in a World of Cost-Cutting and Downsizing"** (Charles Edwin Shipp and Kirk Paul Lafler), Proceedings of the Third Annual Southeast SAS Users Group Conference - 1995.
- "Training in a World of Cost-Cutting and Downsizing"** (Charles Edwin Shipp and Kirk Paul Lafler) - **Awarded "Best Contributed Paper"**, Proceedings of the Twentieth Annual SAS Users Group International (SUGI) Conference - 1995.
- Holtz, Herman, How To Succeed as an Independent Consultant, John Wiley & Sons, Inc., 1983.
- Holtz, Herman, The Consultant's Guide to Proposal Writing, Second Edition, John Wiley & Sons, Inc., 1990.
- Kishel, Gregory and Patricia Kishel, How to Start and Run a Successful Consulting Business, John Wiley & Sons, Inc., 1996.
- Nelson, Bob and Peter Economy, Consulting for Dummies, IDG Books Worldwide, Inc., 1997.
- Schiffman, Stephan, The Consultant's Handbook, Adams Media Corporation, 1988.
- Shenson, Howard L. Shenson on Consulting, John Wiley & Sons, Inc., 1994, 1990.
- Simon, Alan R., How to be a Successful Computer Consultant, Third Edition, Mc-Graw-Hill, Inc., 1994.
- Weinberg, Gerald M., The Secrets of Consulting, Dorset House Publishing, 1985.

Trademark Citations

SAS, SAS Alliance Partner, and SAS Certified Professional are registered trademarks of SAS Institute Inc. in the USA and other countries. ® indicates USA registration.

About the Authors

Kirk Paul Lafler is consultant and founder of Software Intelligence Corporation and has been programming in SAS since 1979. As a SAS Certified Professional and SAS Institute Alliance Member (1996 – 2002), Kirk provides IT consulting services and training to SAS users around the world. As the author of four books including *PROC SQL: Beyond the Basics Using SAS* (SAS Institute. 2004), he has written more than two hundred peer-reviewed papers and articles that have appeared in professional journals and SAS User Group proceedings. Kirk has also been an Invited speaker at more than two hundred SAS International, regional, local, and special-interest user group conferences and meetings throughout North America. His popular SAS Tips column, "Kirk's Korner of Quick and Simple Tips", appears regularly in several SAS User Group newsletters and Web sites, and his fun-filled SASword Puzzles is featured in SAScommunity.org.

Charles Edwin Shipp is a programmer, consultant and author with 30 years of experience working with the SAS and JMP software. He has written numerous articles and co-authored the popular Books by Users (BBU) book, *Quick Results with SAS/GRAPH Software*. Charlie is currently involved with sasCommunity.org, consulting content creation, and web development.

Comments and suggestions can be sent to:

Kirk Paul Lafler
Software Intelligence Corporation
E-mail: KirkLafler@cs.com

~~~

Charles Edwin Shipp  
Shipp Consulting  
E-mail: CharlieShipp@aol.com

## Professional SAS Consultant Survey

"We are doing a survey for consulting papers on how successful consultants market and operate. Please respond, and thanks in advance!"

Company Name: \_\_\_\_\_ Consultant: \_\_\_\_\_  
 (How you do business) Phone: \_\_\_\_\_ Date: \_\_\_\_\_  
 Web Site: \_\_\_\_\_ E-mail: \_\_\_\_\_

1. How long have you been a SAS consultant? \_\_\_ < 1 Year \_\_\_ 1 – 5 Years \_\_\_ 6 – 10 Years \_\_\_ > 10 Years
2. How is your consulting business structured? \_\_\_ Sole proprietorship \_\_\_ Partnership \_\_\_ Corporation
3. How do you get your consulting work? \_\_\_ Agency \_\_\_ Teaming \_\_\_ Contract Award \_\_\_ Other
4. Have you been certified as a SAS Professional by passing the certification exam? \_\_\_ Yes \_\_\_ No
5. Are you a SAS Alliance Partner? \_\_\_ Yes \_\_\_ No If you answered 'Yes' to previous question, how long? \_\_\_\_\_ Years
6. Does your consulting practice require you to be portable? \_\_\_ Yes \_\_\_ No
7. How do you conduct marketing and advertising activities? \_\_\_\_\_  
 \_\_\_\_\_
8. What methods do you use to improve skills? \_\_\_ CBT \_\_\_ Lecture Training/Workshops  
 \_\_\_ SAS Manuals \_\_\_ SAS Press Books \_\_\_ User Group presentations \_\_\_ Other
9. Rate the following SAS programming/consulting categories by how successful they have been for you (1=Lowest, 10=Highest):

|                           | Unused | Used | Consult | Teach | Future |
|---------------------------|--------|------|---------|-------|--------|
| - Base SAS                | ----   | ---- | ----    | ----  | ----   |
| - SQL Processing          | ----   | ---- | ----    | ----  | ----   |
| - Macro Programming       | ----   | ---- | ----    | ----  | ----   |
| - SAS/FSP, SAS/AF and SCL | ----   | ---- | ----    | ----  | ----   |
| - Statistical Consulting  | ----   | ---- | ----    | ----  | ----   |
| - SAS/IntrNet             | ----   | ---- | ----    | ----  | ----   |
| - SAS/PC                  | ----   | ---- | ----    | ----  | ----   |
| - SAS/Connect             | ----   | ---- | ----    | ----  | ----   |
| - SAS/ETS                 | ----   | ---- | ----    | ----  | ----   |
| - SAS/OR                  | ----   | ---- | ----    | ----  | ----   |
| - SAS/Graph               | ----   | ---- | ----    | ----  | ----   |
| - SAS/XML                 | ----   | ---- | ----    | ----  | ----   |
| - Data Mining             | ----   | ---- | ----    | ----  | ----   |
| - Other _____             | ----   | ---- | ----    | ----  | ----   |

10. What makes your enterprise unique and/or successful? \_\_\_\_\_
11. What are your goals, directions, and future plans? \_\_\_\_\_  
 \_\_\_\_\_
12. Are there any other comments that you have that haven't been asked in this survey? \_\_\_\_\_  
 \_\_\_\_\_

Thank you for participating in this survey! We expect that the results of this survey will be compiled and used within future papers.

**Figure 1. Professional SAS Consultant Survey**