Paper 228-26

SAS® Consulting: New Beginnings

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

Abstract

Trends in corporate America include using top quality short-term resources such as subscription online software services, DP outsourcing, system development outsourcing, in-house consulting and contract programming. SAS consultants are in a favorable position to take advantage of the high demand for their services. Is your energy and skill set up to the challenge? If so, there are benefits and rewards to consider. This paper presents and discusses how you can become involved in the exciting world of SAS consulting and build a successful business as well.

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., Kinko's). These "full-service" copy centers offer high quality services 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 very definition of portability means being able to conduct the activities in 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?)

Note: Consider reducing rates according to personal convenience, such as being able to work from home.

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:
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
        1.) The Bureau of Census
        2.) Department of Commerce
        3.) Department of Agriculture
7.   State Government publications
      a. State Registers
      b. State Department of Commerce
      c. State Business Offices
8.   City Government publications
9.   Books in Print
      a. Information U.S.A.
      b. Getting Yours
10.   Newsletters
      a. The Oxbridge Newsletter Directory
11.   Internet
      a. Job Lines (many employers advertise their openings as part of their web pages)
      b. Web sites (e.g., www.Hotjobs.com, Monster.com, Headhunters.net.)

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 specialing. 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

The SAS Institute provides certification testing, taken in a controlled environment, in the many areas of SAS programming. Two core certifications can be taken in Level I:

1) V6 (SAS Version 6)
2) V8 (SAS Version 8).

Either of the certification exams is intended to gauge your skill and knowledge in the following areas of the SAS System:

1) Accessing data
2) Creating data structures
3) Managing data
4) Reporting
5) Working within the SAS environment.

Candidates who have earned one core certification can then go on to earn a specialty certification (Level II). The available specialty certifications include:

1) SAS Certified Professional - Data Management V6
2) SAS Certified Professional — Business Intelligence V6
3) SAS Certified Professional — Application Development V6
4) SAS Certified Developer V6.

SAS Quality Partner Program

SAS consultants are encouraged to become a SAS Quality Partner. To apply, an application is submitted to the SAS Quality Partner Program (see

SAS Institute web site www.sas.com for details). A relatively small number are admitted, but when you are an experienced consultant, it is well worth your consideration.

Seeking Your Level
Once you have decided to be a SAS consultant consider at what level you want to begin. Assess how good your skills are, 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. A contract programmer (through an agency)
2. Teaming with another consultant
3. Self-employed small business
4. Small, single-person, corporation
5. 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, whether as a corporation or as a sole-proprietor small business, determines your success. Careful planning, preparation, and diligence are important. Learn from others to succeed.

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. There is no better feeling.

Acknowledgments

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About the Authors

Charlie is a programmer and consultant with over 20 years experience working with the SAS System. He has authored numerous articles and co-authored the popular Books by Users (BBU) book, Quick Results with SAS/GRAPH Software. His expertise includes application design and development, training, and programming using base-SAS, SAS/SQL, ODS, SAS/FSP, SAS/AF, SCL, FRAME, and SAS/EIS software. He has also been involved with web design, content creation, and development.

Kirk is a SAS Quality Partner¤ and SAS Certified Professional¤ with 25 years of SAS software experience. He has authored over one hundred articles on computing and technology that have appeared in professional journals including Enterprise Systems Journal, SAS Users Group International (SUGI) since 1981, regional User Groups, and local User Groups. His popular SAS Tips column appears regularly in the SANDS and SESUG Newsletters. His expertise includes application design and development, training, and programming using base-SAS, SAS/SQL, ODS, SAS/FSP, SAS/AF, SCL, FRAME, and SAS/EIS software.

Comments and suggestions can be sent to:

Charles Edwin Shipp
Shipp Consulting
E-mail: MacFamily@aol.com
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Kirk Paul Lafler
Software Intelligence Corporation
E-mail: KirkLafler@cs.com

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Professional SAS Consultant Survey

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"We are doing a survey for a SUGI paper 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 Quality 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   ____ BBU Books
                                                ____ User Group presentations   ____ Other

9. Rate the following SAS programming/consulting categories by how successful they have been for you:

	Unused	Used	Consult	Teach	Future
- Base SAS	____	____	____	____	____
- SQL Processing	____	____	____	____	____
- Macro Programming	____	____	____	____	____
- SAS/AF and SAS/FSEDIT . . .	____	____	____	____	____
- Screen Component Language	____	____	____	____	____
- SAS/IntrNet	____	____	____	____	____
- SAS/PC	____	____	____	____	____
- SAS/Connect	____	____	____	____	____
- SAS/ETS	____	____	____	____	____
- SAS/OR	____	____	____	____	____
- SAS/Graph	____	____	____	____	____
- Statistical Consulting	____	____	____	____	____
- 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? _____
    _____
    _____

13. Would you like a copy of our paper sent to you?   ____ Yes ____ No

Thank you for participating in this survey!   It is expected that the results of this and other participant surveys will be compiled and used within the SUGI paper.

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Figure 1.   Professional SAS Consultant Survey

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