THE EMERGING SAS USER AND THE TRADITIONAL DP ESTABLISHMENT
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Abstract
What is it about the existing structure of many large corporate data processing organizations that can transform the proficient SAS user, rich in technical skills but often data-poor, from a vague threat to the status quo into a confirmed nemesis? Why do many frustrated SAS users perceive established procedures and standards enforced by DP areas as obstacles to be surmounted rather than as necessary safeguards? Furthermore, given that many SAS users are technically self-sufficient, why are their dealings with DP departments so often characterized by the same adversary relationship traditionally associated with non-technical end-users?

By focusing on the technically self-sufficient SAS user as a case in point, this paper addresses a somewhat unusual aspect of the ongoing conflict between end-users and the DP establishment. Both the dynamics and the roots of this conflict are examined, and practical suggestions are presented which should help SAS users: 1) to anticipate what to expect when dealing with DP support areas; 2) to minimize as many of the adverse effects of unavoidable or entrenched conflict as possible; and 3) to prevent the escalation of incipient conflict.

Introduction
Few would argue that the corporate data processing function is subject to extreme pressures nowadays. Indeed, the problems which undermine the effectiveness of large DP organizations in carrying out their traditional role by virtually universal, and (for the record) include:

- a growing application backlog, both documented and invisible.
- a crushing maintenance load for existing applications, which diverts scarce resources from development efforts.
- a decreasing responsiveness to user needs (whether real or perceived), particularly for ad-hoc applications and acceptable service times.

As if this were not enough, the very nature of user needs has been changing over time. And in many cases, this change has been drastic. For example, the traditional role of corporate DP functions originally centered around providing operational support to management (transaction processing, record keeping, monitoring and exception reporting, etc.). However, in the midst of rampant economic uncertainty, widespread deregulation, more intense competition, technological advances and increasingly favorable cost-performance ratios of computer hardware, the demand for flexible and rapid access to corporate information resources to support managerial decision making has been growing explosively.

Another factor which reflects the changing nature of user needs is the increasing complexity of their requests, which can require the integration of data from several sources, often from different functional or organizational areas. And finally, responding to the rapid proliferation of low-cost microcomputers and reasonably "friendly" software, many users are demanding "hands-on" access to data. In sum, intense pressures are being brought to bear on the traditional service strategies of many data processing organizations, as user needs, demands, frustration and technical sophistication increase at an unprecedented rate.

There is certainly nothing new or controversial about these problems, much less that there is agreement about the generic solution to many of them: end-user computing. Rather, the real challenge remains one of how to get to there from here. And this is where SAS users have made significant contributions, judging from the proceedings of the previous SUGI conferences. Regardless of the means employed (Information Centers, training programs, special-purpose applications, etc.), SAS users continue to provide an impressive (and eclectic) set of working solutions to the problem of allowing end-users to access their data without struggling with the intricacies of computer operating systems, programming logic or complex, unforgiving syntax rules. Since so much has already been said about this subject, it will not be pursued here any further, except to note that much of the "access" in question refers to the user's capability to produce reports (either tabular or graphic) from pre-defined data sets.

What will be pursued here is a subject about which considerably less has been said: end-users who are not lacking in data processing skill or programming experience. These include not only individuals who are using SAS for complex report writing, data reduction and ad-hoc applications, but also those who are using SAS to develop elaborate systems and large-scale applications traditionally undertaken only by DP departments.

Granted, in terms of the total end-user population, such individuals are more the exception
than the rule. However, their interaction with the DP "establishment" gives us a fairly good idea of what our success in fostering widespread end-user computing might eventually entail, particularly with respect to the traditional roles of the end-user and the DP function. On the negative side, we can expect to see considerably more conflict emerge as these roles change. If not already apparent now, such conflict should become increasingly visible (and intense) as end-users find themselves no longer limited so much by what they are technically capable of doing themselves, but rather by what they are permitted to do.

Instead of attempting to project what the situation will be like five, ten or even twenty years down the road, this paper will focus on a special case of conflict between end-users and the DP "establishment", using the technically self-sufficient SAS user as a case in point. In addition to examining the dynamics and the roots of this conflict, some practical suggestions will be presented which should help SAS users: 1) to anticipate what to expect when dealing with DP support areas; 2) to minimize as many of the adverse effects of unavoidable or entrenched conflict as possible; and 3) to prevent the escalation of incipient conflict.

Definition of Terms

Before proceeding further, some clarification of two key terms is in order, namely "SAS users" and the "DP establishment".

The SAS users referred to here have the following distinguishing attributes:

- Technical Self-Sufficiency - Capable of designing, coding, testing and implementing their applications by themselves. In addition to being proficient in SAS, they are able to prepare all necessary operating system instructions (JCL or its equivalent), to interpret and respond to system completion codes in ABEND situations, and to utilize any other utility programs or software which their applications require.

- Substantive Knowledge - Familiar with the needs and requirements of the problems which their applications address. Knowledgeable about the content as well as the format of the data required.

- End-User Status - Often depends more upon formal organizational criteria than upon functional roles. In practical terms, SAS users can be considered to be end-users if that is how they are regarded (whether correctly or incorrectly) by the particular DP area with which they happen to be dealing.

The DP "establishment," on the other hand, is not limited to the collective management and staff of a corporation's DP function, but also comprises its formal organization, objectives, official policies, standards and procedures (as well as its implicit norms). As such, it represents a formidable entity—one which is not particularly tolerant of those who are not sufficiently well-versed in its "culture," so to speak.

The Nature of the Conflict

If one had to choose a single word to describe the nature of the relationship between end-users and their data processing counterparts, it would probably be "ambivalent." With the exception of the time element (long service queues, unforeseen delays, last-minute requests with unrealistic deadlines, etc.), much of the dissatisfaction experienced by both parties derives from a lack of effective communication. For example, who among us has not heard an end-user complain when they got what they asked for rather than what they wanted? Yet, like a federal marshal escorting a prisoner in transit, end-users and their DP support counterparts are inexorably linked together by bonds of mutual dependency. Despite their disputes and differences, their behavior towards one another is usually tempered by the realization that they will be spending quite a bit of time together.

A technically self-sufficient SAS user, on the other hand, is more likely to rely upon DP support areas for functions which are largely administrative in nature, such as securing access to protected corporate data bases, putting user-developed applications into production, obtaining documentation about certain systems and data files, etc. Rather than collaborating with a DP area on all areas of an application, such a user is usually more inclined to consult with DP support staff only when absolutely necessary. Hence, not only does he or she constitute a relatively unknown entity to the DP area (particularly in terms of the application in question), but can also manifest behavior, expectations and attitudes which are strikingly different from those typically encountered with "normal" end-users. It should come as little surprise, then, that the interaction between such SAS users and their DP counterparts often results in conflict.

In terms of its roots, this conflict has three distinct dimensions: situational, "cultural" and structural. The importance of each of these derives from the fact that any effective strategy to reduce or minimize the extent of conflict between SAS users and the DP "establishment" must invariably come to terms with all of them.

Situational Conflict

Situational conflict can occur whenever equally legitimate organizational objectives cannot be optimized simultaneously. For example, a SAS user might be called upon to provide specific information to management which is not readily
available through normal channels. If a rapid response time is deemed critical, and if the DP support area cannot satisfy the request within the stipulated time frame, then high-level pressure might be brought to bear on the DP unit to provide whatever support is necessary to get the user-written application up and running.

In practice, this might force the support area to temporarily bypass, suspend or otherwise depart from standard (and often time consuming) procedures which support a primary objective of the DP function in general—i.e., to maintain the integrity of corporate data bases and to insure the security of sensitive data. Hence, when this objective is suboptimized in favor of the user area’s short-term “rapid access to data” objective, conflict is inevitable. Unfortunately, even though not directly involved in the decisions which led to the conflict situation, the SAS user in question often represents a visible and inviting target for any resentment which might arise.

More frequently, situational conflict results from such ubiquitous factors as the individual personalities of SAS users and DP staff members, as well as from the political undercurrents which can pervade an organization. For example, the particular “chemistry” between a SAS user and his or her DP counterpart might not be terribly conducive to effective communication or cooperation. Since a data processor’s value to the corporation is largely a function of technical—rather than interpersonal—skills, situations can arise in which user reactions to particular “idiocyncrasies” of DP staff members may range from uneasiness to outright intimidation. On the other hand, DP support areas can be quickly put off by the attitude of users who tend to be caught up in the self-perceived importance of their own particular applications—to the exclusion of all other considerations. To the DP professional, such attitudes resemble that of the rooster who thinks that the sun rises every morning just to hear him crow.

Another factor which can lead to (or aggravate) situational conflict involves the matter of corporate politics. Without going into any detail, suffice it to say that political considerations can (and usually do) further complicate the already delicate interaction between technically self-sufficient SAS users and their DP counterparts.

"Cultural" Conflict

For lack of a better term, "cultural" conflict can result from the interaction between two or more parties whose behavior and attitudes happen to be governed by different values, orientations, expectations and norms—whether implicit or explicit. Assuming that the attitudes/behavior in question are entirely rational and consistent within their own respective "cultural" contexts, the conflict in question usually arises whenever the other's behavior is interpreted according to one's own "cultural" frame of reference.

At the risk of being simplistic, certain generalizations can be drawn about some key factors which influence the different "cultural" contexts within which SAS users and their DP counterparts typically operate. Although summarized in Table 1, each of these will be touched upon briefly here.

Division of Labor. As a general rule, DP support areas are responsible for the "needs of the many"—a fact which is reflected by the way in which they are organized. Their division of labor, for example, tends to be extremely complex, as evidenced not only by the degree of specialization, but also by the centralization of various common functions (i.e., scheduling, quality assurance, etc.).

Technically self-sufficient SAS users, on the other hand, are often characterized by a far less elaborate division of labor. In many cases, virtually all aspects of an application are handled by a single individual—i.e., the user. Hence, in matters pertaining to the allocation of technical resources to satisfy information needs, these SAS users do not have to compete with the needs and priorities of other areas or departments. In essence, they are accustomed to exercising almost complete control over all aspects of their applications, including the amount of time it takes for their development and modification.

In sum, a complex division of labor allows DP organizations to address their needs for continuity and control (audit trails, standards compliance, etc.) in an effective manner. It also means that the control over an extensive development tends to be distributed among a greater number of individuals—any of whom can potentially become the source of delays or misunderstandings. To the SAS user who places a high premium on saving time (information can be, after all, an extremely perishable commodity), such a trade-off is not always accepted with equanimity.

Orientation. For the most part, DP areas can be characterized as being "process" oriented, whereas SAS users generally tend to be more "product" oriented. Traditional DP organizations deal with the integration of numerous and complex programs into large-scale systems. There concerns tend to be long-term in nature, SAS users typically deal with single programs, regardless of how complex they might be. Their concerns are of more immediate nature. In a DP area, the way things are done is usually not left to the individual's discretion. Standards and conventions are widespread and vigorously enforced. To the SAS user, on the other hand, the end (quick results) usually justifies whatever means are necessary to produce them.

Methods/Procedures. Traditional DP organizations tend to employ methods and procedures which are both structured and uniform. The idea is to render their products consistent, so
### TABLE 1
CHARACTERISTICS OF SAS USERS AND THEIR DP COUNTERPARTS

<table>
<thead>
<tr>
<th>CONTEXTUAL FACTOR</th>
<th>SAS USER</th>
<th>DP COUNTERPART</th>
</tr>
</thead>
<tbody>
<tr>
<td>Division of Labor</td>
<td>Simple</td>
<td>Complex</td>
</tr>
<tr>
<td>Orientation</td>
<td>Products</td>
<td>Process</td>
</tr>
<tr>
<td>Methods/Procedures</td>
<td>Flexible</td>
<td>Structured</td>
</tr>
<tr>
<td>Processing Cycle</td>
<td>Ad-Hoc</td>
<td>Scheduled</td>
</tr>
<tr>
<td>Comparative Advantage</td>
<td>Quick Results</td>
<td>Continuity</td>
</tr>
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</table>

that their staff can be utilized on an interchangeable basis. Complex and sophisticated approaches are usually discouraged—not because they are lacking in merit, but rather because they would be difficult if not impossible to maintain. SAS users, on the other hand, are acquiring considerable renown for their eclectic and non-traditional approaches to problems. Since they are not subject to formal maintenance constraints to the same degree that their DP counterparts are, their applications tend to be far more idiosyncratic, and considerably more creative.

**Processing Cycle.** The bulk of a DP area's applications are run on a regular, scheduled basis. Most have life expectancies of several years or more. The typical SAS user's applications, on the other hand, tend to be run on an ad-hoc basis—in many cases, only once or twice.

**Comparative Advantages.** The DP "culture" tends to be biased in favor of structure and continuity. Given the extremely complex (and rapidly changing) nature of their function, this is entirely rational. SAS users are often more interested in quick results and flexible approaches to solving their problems. Being free of many of the constraints which the DP "culture" imposes, they usually find that these goals are entirely within their reach.

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**Structural Conflict**
Conflict which results from the way in which functions and roles within a corporation are organized and defined is generally termed "structural." In rare cases, such conflict occurs if the official functions or roles of two or more organizational units overlap by design, resulting either in a duplication of effort or in a lack of consensus as to who is responsible for what in a given situation. Perhaps more frequently, structural conflict occurs when the activities of a given organizational unit threaten to take it beyond its prescribed role, thereby encroaching upon another unit's legitimate function.

By way of illustration, consider the following situation: In the course of his normal duties, a SAS user has access to data which he knows will allow a colleague in a different department to solve a pressing business problem. Furthermore, to be of any use, the information must be made available before the end of the month—a deadline which the DP area supporting the colleague's department is unable to meet, for perfectly valid reasons. On an unofficial basis, the SAS user prepares a rather complex SAS program and dispatches a report to the effusively grateful colleague within a week's time. Since the colleague had prior clearance to see the data in question, and since the better interests of the company were served, no problems were anticipated.
A month later, the SAS user's boss receives a memo from the colleague's boss, requesting a series of additional reports similar to the previous one. Furthermore, disparaging comments have been made to the head of the DP support area by the colleague's boss about how relieved he was to find someone else to get him the facts he needed, because if he had to rely on the DP area, he'd still be waiting. Clearly, a situation has developed in which the SAS user, despite the best of intentions, has infringed (however inadvertently) upon the legitimate role of the DP support area. To suggest that the consequent reassessing of functional boundaries might result in hard feelings on all sides would be an understatement.

First of all, a considerable amount of resentment can be expected whenever the DP area feels that it has been made to "look bad"—i.e., that it couldn't do the job, and therefore an "outsider" was brought in. Furthermore, since the DP "establishment" tends to be particularly sensitive to any possible encroachment upon the control which it customarily exercises, this resentment can be extremely intense and long-lived.

**Dealing with Conflict—Some Practical Guidelines**

There are many ways of dealing with conflict. For example, a universally appealing strategy would be to avoid it altogether. However, this approach is not always optimal, particularly when your own objectives would suffer as a result. In ideal circumstances, one would hope to resolve conflict as it arises, without running the risk of winning the battle but losing the war, so to speak. And since situations do arise where it is neither possible to avoid or to resolve conflict, one's strategy might be to contain it, or to at least prevent it from escalating further.

With respect to the conflict between technically self-sufficient SAS users and their DP counterparts, there are a number of variables involved which make the task of moving from the realm of generalities to a more specific level difficult indeed. For example, it has already been shown how the nature of this conflict can be complex and multi-faceted, characterized by situational, "cultural" and structural dimensions. Furthermore, neither SAS users nor their DP counterparts represent homogeneous entities, insofar as the circumstances, objectives and constraints which they are subject to vary extensively from one situation to the next. In the midst of all this diversity, however, there is a single unifying thread—one which derives from the simple fact that any strategy to prevent, resolve or contain conflict requires negotiation.

In the remainder of this paper, some practical guidelines are presented which should assist the SAS user in dealing with much of the conflict which can arise whenever he or she interacts with the DP "establishment." Although many of the principles are adapted directly from the method of principled negotiation developed by the Harvard Negotiation Project (1), they are particularly relevant here.

Basically, the guidelines presented can be grouped into the following categories:

- **Planning your approach.**
- **Separating the people from the problem.**
- **Addressing the interests rather than the positions.**
- **Exploiting options for mutual gain.**
- **Managing confrontation.**
- **Investing in an ongoing working relationship.**

**Planning your Approach**

In terms of the developing relationship between SAS users and DP staff, first impressions can become lasting impressions. Moreover, since we are dealing with a situation which is positively fraught with the potential for conflict, it would be unwise (to say the least) to approach this particular burning bush without removing one's sandals, so to speak. In other words, plan your approach carefully. In practice, this usually involves some reasonably thorough background research. For example, which specific individual(s) will be responsible for supporting your particular request? Are you perceived as a friend or as an adversary? Which preliminary contacts might facilitate subsequent interaction? At what level will decisions related to your application be made? Do prevailing political considerations require any special actions on your part?

It is also a good idea to familiarize yourself with the organization of the DP support area. Who reports to whom? What are the general procedures typically followed in their handling of requests similar to yours? What are the critical path events? Your planning should also include a careful analysis of your needs. Which constraints and deadlines are negotiable? What are your options if your proposed approach is not accepted? Do you have a fallback position? How important is the request in question relative to your overall objectives? Is it worth the risks that a major confrontation might entail? The point here is not to cast your expectations in bronze at this stage. Rather, try to anticipate all major contingencies, encompassing positive as well as negative outcomes.

**Separating the People from the Problem**

Any interaction between SAS users and their DP counterparts has two components: the immediate problem at hand and the relationship between the people involved. The bad news is that for a variety of reasons (including "cultural" differences, conflicting personalities, political rivalry, etc.), the people often become a problem in their own right. The good news is that the "people problem" can at least be dealt with directly by the parties involved.
According to the method of principled negotiation, guidelines for dealing with the "people problem" typically address two related factors: perception and communications.

Perception. The following guidelines derive from the premise that the way we perceive things to be can be just as important as how they actually are:

• Understand the other's thinking - You will be surprised at how much conflict stems from the fact that your thinking is different from theirs. While it may not always be possible to put yourself in the other's shoes, there is no excuse for not knowing what shape, color and size these shoes are, so that you can at least avoid stepping on them.

• Don't be a slave to your preconceptions - Don't rule out possible solutions in advance simply because they might appear certain to be rejected. Also, don't get hung up on how you feel things should be done. If a particular approach proposed by your counterpart will get the job done, then don't reject it simply because that's not the way you would have done it. It is surprising how few of our problems require optimal solutions.

• Use out-of-role behavior to your advantage - If you want to change others' perceptions of you, then react in a manner different from what they expect. For example, if the others' perceptions of your intentions, concerns and capabilities strike you as being somewhat less than accurate, then avoid behavior which tends to reinforce these perceptions. Or, initiate behavior which is inconsistent with their expectations.

Communications. Although much has been said about this subject elsewhere, the following points always merit repeating:

• Be a good listener - There are numerous books and articles that deal with how to go about this. For starters, pay close attention to what is being said. Make it a point to also look like you are paying attention. Do not interrupt or finish sentences for the speaker, even if you can anticipate the ending. Do not hesitate to ask for clarification of any points which you don't understand. Otherwise, acknowledge that you understand what is being said. An important point here is that is is not enough to simply understand. The other party must know that you understand.

• Articulate your points clearly - Make sure that you explicitly express your needs, constraints and perceptions. They are not as self-evident as you might imagine them to be. Illuminate the context of your message by providing background information as a matter of course. Speak to the other party, rather than for the record or for the benefit of some third party. Use written communication to address the latter audiences.

• Speak about yourself - The statement "I'm in trouble because the project is behind schedule" conveys the same information, but does not provoke a defensive response like the statement "You didn't meet your deadline" invariably does.

• Use symbolic gestures whenever appropriate - Sometimes gestures can be more convincing than words, particularly when you want to express gratitude or to apologize.

• Keep emotions in perspective - Don't react to emotional outbursts in an emotional way. Although such outbursts allow one to let off steam, resist the temptation to respond in kind.

Addressing Interests Rather than Positions

In dealing with conflict situations, it is usually beneficial to move beyond the stated positions of the parties concerned, and to come to terms with their respective interests. One's position (or "bottom line") is usually formulated in narrow terms. As such, it does not necessarily address the full range of interests which ultimately influence one's actions. This is particularly true when the conflict has political overtones.

• Address the hidden agenda - What are the other party's real concerns? Political gain? Fear of setting a precedent? Loss of control? Accountability? Whether short-term or long-term, or whether in the best interests of the organization or the individual in question, one is far more likely to reach agreement if the other's interests can be accommodated, regardless of their original position.

• Identify common interests - There are usually more common interests underlying opposing positions than you might expect.

Exploiting Options for Mutual Gain

Any DP area faced with a non-standard request from a SAS user might well ask "what's in it for me?" If complying with the request does not fall
within the support area's official duties, then it follows that a convincing answer to this question can go a long way in securing their cooperation.

- Let them know what you have to offer - Concentrate on what they need, rather than what you feel is needed. In many instances, this can involve low cost to you but high benefit to them.
- Keep it low-keyed - Treat this as you would any other type of mutual "back-scratching"-unofficial and non-binding.
- Don't promise what you can't deliver - More than your own credibility is at stake here.
- Give credit where credit is due - Nobody likes a glory hog. Do understand, however, that the nature of your support to the DP area is likely to be such that they are unable to officially acknowledge it.

Managing Confrontation

Despite your best efforts, situations will arise in which conflict leads to direct confrontation. When reaching an agreement seems out of the question, a good deal of care must be exercised if you do not want your relationship with the other party to suffer irreparable damage.

- Avoid assigning blame - Keep your sights fixed on what the problem is, rather than who is responsible for its occurrence. Assigning blame, even if justified, can be counterproductive. The simple fact is that most people become defensive when attacked, and can strike back blindly when cornered.
- Make offers instead of threats - Warning, ultimatums and threats tend to reduce conflict to a battle of wills. Since you are more interested in solutions than power struggles, stress the consequences of failing to resolve your differences, and continue to offer alternatives.
- Allow others to save face - Don't lose sight of the fact that your objective is agreement, not victory.
- Know when to refer conflict to a higher level - If an exception to standard procedures needs to be made, then the conflict should be referred to someone who has the authority to approve such an exception.
- Keep things in perspective - Make sure that your needs are important enough to warrant the risk that confrontation invariably entails. There will be times when it pays to back off, or to make unilateral concessions.

Investing in an Ongoing Relationship

In conflict situations, we deal with people as well as with problems. Although the problems tend to come and go, the people often remain the same. One of the best strategies to prevent as well as to resolve conflict is for the SAS user to cultivate ongoing working relationships with his or her DP counterparts. Whether personal or organizational, these relationships should be based upon mutual trust and respect as well as upon mutual need.

- Don't be a stranger - Keep in touch. Don't let them feel that they only hear from you when there is a problem or if you need something.
- Be sensitive to others' circumstances - Do not draw unfavorable comparisons between their software tools and SAS. A good deal of professional pride tends to be vested in the skills one has mastered. Avoid inadvertent "put-downs."
- Allow them to participate in the problem-solving process - This gives them a stake in the outcome, and exposes you to new ideas and different approaches. Try to avoid dictating solutions.
- Learn how to tell time their way - Resist the temptation to evaluate every time estimate according to how fast you could do it yourself. If someone else requires two days to complete a task, then the fact that you could do it in two hours is completely immaterial. In addition to torturing yourself, you are almost certain to alienate others if you persist along these lines.
- Know when you owe - Just because a task appears straightforward and trivial from your point of view does not mean that it doesn't require extensive effort on the part of those who actually do it. Make sure you know when somebody has done you a favor.
- Be hard on the problem but soft on the people - Treat the problem on the basis of its merits. Deal with the people as human beings.

References

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