Over the past ten years standards development has moved from the formal Standards Development Organizations such as ANSI and the IEEE to consortia such as IETF and W3C. Many people say the reason for this shift is to speed up the process. A study* was made to determine:

1. What can be done to overcome the slow pace of committee work?

2. What can be done to insure effective coordination of committee activities?

3. What can be done to avoid the introduction of irrelevant standards?

One result stood out among the many results of the study, that is the chairperson of the working group is key to what and how fast a standard is produced.

The study generated a wealth of data. The interested reader is referred to the original documents for details and analysis. Space limitations here make it possible only to share the major findings. Four points constituted a leit motif for the study.

1. The success of any given standardization effort is tightly coupled with the quality of the leadership provided. While it is possible that this leadership will come from an individual other than the chair of the committee, it is most likely that this responsibility will fall to the formally appointed/elected chair.

2. The characteristics expected of the chairperson of a standards committee differ significantly from the characteristics of members of the committee. While technically competence was most important for members, chairpersons should demonstrate leadership, diplomacy, and negotiating skills.

3. The single most important problem that must be addressed by the chairperson is the resolution of conflicts which may be technical, political, or personal in nature.

4. There was general agreement that technology is being underused in the standardization process as a tool to overcome the slowness and generally unstructured nature of the process.

The study focused on the human dimensions of standards development. Quality issues included things such as; shortest possible development time, a focused endeavor that results in widely used products based on the approved standards, and a high degree of satisfaction among the standards participants and the organizations that sponsor them. The data was analyzed to find mechanisms for improving the process in the areas of management skills and personal characteristics that might be influenced via training. Experts and technical committee chairpersons were interviewed. A series of individuals who have made theoretical and practical contributions to the field were selected for interviews

The study revealed strong support for a variety of changes that would improve the process. Included among these changes were the following recommendations:
Regarding the Development Process…
The chairs agreed that more structure would help the committee process. We particularly like five stages in the development process as defined by Roger Fujii. The first is the “courtship dance” where each member tries to figure out the others position and their hidden agendas while the chair outlines the scope of the project. The second phase involves creating a draft “outline” where the document structure is crafted. The third step is to generate a first, complete, “written draft”. The fourth stage is “quality time”. Here various levels of flexibility and generality are added to standard. The final stage is the “lawyer phase”, where the legality of the document must be studied phrase by phrase and any visible ambiguities resolved. Being conscious of the process as one with structure can help to relieve the interpersonal burdens and conflicts.

Several suggestions were made for changes to the process. They included using a formal decision log to keep track of all decisions made by the committee, using PC based technology to display documents and decision logs to the group in real time to reduce disagreements and speed the process, encouraging the use of e-mail to reduce the down time between meetings and to speed up the communications process, making documents available online, and allowing the chairperson/editor to make minor editorial changes to the standards document after balloting without requiring a reballoting.

Regarding Due Process…
There was some feeling that the strict adherence to due process rules is largely responsible for slowing standards development. The paper and signature based processes limit the ability to distribute information and perform balloting in a timely fashion. Consortia have encouraged the development of a variety “fast track” approaches. The dichotomy between remaining staunchly consensus oriented and reducing time to market limits the realm of possible recommendations for process improvement. However, there is growing agreement that the pendulum must swing more to favor speed, even at the expense of some due process rules.

Regarding Committee Composition…
The study showed committee members were not only technical experts but observers, “intelligence gatherers” and obstructionists. The obstructionists were of two distinct types – Bulldogs who had a particular technical approach they held to, and Turtles who slowed the committee process down to allow their sponsor to move forward in the marketplace. In all of this, understanding the composition of a committee will be important to the chairperson in developing strategies to improve the efficiency of the standards process. The study also suggested that training for standards participants in areas such as effective strategies for participation and negotiation would probably be well received. Experts and chairperson had suggestions about committee composition and the training of committee members. First, there was strong agreement among the TC chairs that all members must be educated on what standards are and are not. Training should stress that a good standard is a victory for all companies and not just a marketing tool for one or even a few. Every member should understand how to accept and hold views without being judgmental or critical too early in the “idea” stage.

Regarding the Editorial Role
Several interviewees mentioned the importance of the editor and the editorial process. The position of editor seems to have particular importance in today’s standards arena. Some suggested the real delay in standard’s development lies not in the balloting procedure, but in the intervening period when the document is supposedly coming together. A good editor or editorial group greatly enhances the standards process and should therefore be sought out and encouraged. Unfortunately, it seems that the task of correcting hundreds of pages of material between committee meetings is causing high attrition among editors, as they have trouble defending to their superiors at home additional time spent working on the document. It is not easy to identify individuals with a mastery of language and a desire to oversee the assembly of a report. They need a degree of freedom that allows them to work diligently towards completion of the document. It would seem that training in editing might be offered to interested members along with appropriate recognition in the process. Chairs need to be alert for candidates for the editorial role.
Regarding the Chairperson’s Role
The chair of the committee acts as a facilitator with little power to legislate. The chair must be knowledgeable about the subject but also know how a standard may be used by various segments of the industry. A chairperson should be a leader-diplomat-observer, in equal proportions. Also, the chairperson should not be a doer, perfectionist or obstructionist. This is consistent with the view of the chairperson as a skilled leader with strong negotiation skills who delegates. The interviews suggested several skills that might be developed in chairpersons:

1. Skills in problem definition so that underlying issues are uncovered, without forcing excessive constraints that favor a given solution.

2. Skills in avoiding conflict, such as identifying the problem before proposing solutions, maintaining open communications, and avoiding back-room decision making.

3. Skills in group dynamics to help identify when to rein things in and avoid conflicts, how to develop win-win situations by getting agreement on pieces of the problem and then piecing their way back to a solution, and how and when to coax shy members into giving their opinions and when to control others so they do not disrupt the rest of the group.

There was also a suggestion that a mentoring program should be available for chairpersons that would involve an “expert” (perhaps an experienced peer) sitting-in on meetings to provide advice. The effectiveness of the chair can probably be increased through training. Video tapes might be used effectively as a means of demonstrating various techniques for handling conflicts and managing “turtles” or “bulldogs”. They would also make it easier to handle some aspects of chairperson training on an individual basis. A mentoring program involving an experienced peer sitting-in on meetings to provide advice to a new chairperson could help to ease the “break-in” for new chairs who experience difficulty managing the process.

There are many conclusions from the study for which the reader is referred to the original documents. The participants were encouraged to share “rules of thumb” that worked for them. By way of conclusion, here are five simple strategies that seem as useful in today’s environment as they did then:

Meta-issues When there are two valid points in opposition, the strategy is to move the group away from polarity. This can be done by raising the meta-issue—“Does the group believe that a decision needs to be made?” Agreement on that question focuses the group on reaching consensus to resolve the impasse.

What it Ain’t Educate members on what standards are and are not!

Creeping Featurism Avoid add-ons, new features that would be “nice” as opposed to “necessary”—features that get added after the die has been cast.

Two Hats When the chair needs to shift from a management focus to make a technical point, put on a baseball cap with the company logo and move from the head of the table to another seat, signifying that he now wishes to be seen as taking a “company” position on a particular issue. This makes it very clear where he stands and eliminates confusion about what role he is fulfilling at the time. When at the chair’s position, he is perceived as wearing the chairs’ hat by default.

The Duelists When two individuals are vehemently opposed or dead-locked on an issue and it appears to be disrupting the group process, send them off to a separate room. The winner will come back to present their position which has been “forged under fire”. A similar suggestion would have the chair form ad hoc groups out of parties in conflict forcing disputing stakeholders together and charging them with resolving their disagreement as a precondition to the committee proceeding with development of the standard. This places the burden on the antagonists to subordinate their individual differences to that of the group.
* In April of 1993, the Long Range Planning Committee of X3, now NCITS, met at the University of Pittsburgh. The committee proposed a study of the characteristics of successful technical committee chairpersons with an eye to improving the process. Pitt undertook the study gathering data from experts in the field, existing and former chairpersons of technical committees, members of X3 technical committees, and readers of selected internet newsgroups who had participated in standards development efforts.

Analysis of the interviews and the surveys generally confirms several beliefs about the traditional standards development process and yields insights into several mechanisms that might be used to improve the process. One outcome of the study was a multi-year effort to develop specialized software for the development of standards. Details on how the system worked may be found at http://www.sis.pitt.edu/~cascade. The results of the study were published in Standards Policy for Information Infrastructure, B. Kahin and J. Abbate (Eds.), Cambridge, MA: MIT Press, 1995, pp 220-252. A copy of the full paper may be accessed on the web at: http://www.lis.pitt.edu/~spring/papers/improve.pdf.