Panel 3: "On the Threshold of Y2K"

Participants:

Shawn Bohner (Chair), META Group, Inc., USA  
Spencer Rugaber, Georgia Institute of Technology, USA  
Raj Sood, Dofasco, Inc., Canada  
Lee White, Case Western Reserve University, USA

Motivation

We are now at the threshold of Y2K with the debate raging as to the implications of the year 2000 for all types of information systems, imbedded or not; there seems to be only one thing everyone agrees upon, that the effects of Y2K in the period after the year 2000 are not known. The predictions of the effects of Y2K range from just constituting a nuisance to the onslaught of a series of catastrophes including the onset of a world-wide economic depression.

The purpose of the panel is to assess where the truth might lie in this spectrum of predictions, and where the source of greatest inconvenience or disaster might be found. What will be the fate of commercial firms that have either completely ignored the Y2K problem, or are woefully unprepared for its consequences? What US governmental organizations that are unprepared for Y2K will cause the greatest inconvenience or disasters for its citizens? What are the world-wide or global consequences and predictions?

Background and Credentials of Panel Members

The Chair of the panel, Shawn Bohner, is a recognized expert on the topic; he has given formal seminars sponsored by both ACM and IEEE Computer Society on this topic. He also has experience working with companies who have had to plan and execute Y2K solution activities.

Spencer Rugaber is an experienced professional in software maintenance research with a substantial interest in the consequences of Y2K on the field of software maintenance. At ICSM98 held in Bethesda, Maryland last year, he chaired the panel: "Lessons Learned from the Year 2000". During that panel, a number of interesting issues emerged; one of the most illuminating was the general lack of planning for Y2K among city, county and other municipal governmental agencies. This means that there are definite areas of risk for citizens in these local municipalities in security and police, fire and other emergency services, coming at perhaps a time when there will be a critical need for responsiveness of these services.

Lee White is also an experienced professional in the areas of software testing and software maintenance, who has given colloquia on the Y2K problem and testing techniques that can be brought to bear as a technical solution.
The fourth member of the panel is Dr. Raj Sood, who has worked at Dofasco for the past twenty years in the field of business and process control software applications. Dofasco is one of Canada's largest steel producers, serving customers throughout North America with high quality flat rolled steel from operations both in Canada and the US. Dofasco has an information systems department of 130 and a process automation department with about 80 professionals who look after all kinds of systems. Raj Sood has been an active member of the software maintenance community, and has supervised the Y2K compliance certification activities of Dofasco for the past four years. He indicates that they were in compliance for Y2K by December 31, 1998, but not without many problems. He is prepared to discuss how his company approached the Y2K problem on a broad front, the difficulties encountered, and whether Y2K is a maintenance or technology issue.

Retrospective Analysis of Y2K

With all the concern for the various impending Y2K dates and problems, we also need to adopt a retrospective view of this problem, and try to understand some of the implications of this issue for the future of software maintenance. On the down side, some maintainers worry that since Y2K can be viewed as a maintenance problem, the software and public as a whole may blame software maintenance for the entire mess and the extremely expensive process. However, there are some very positive up side aspects of Y2K as well:

1) Hopefully executives of both industry and governmental agencies will begin to see software in their organizations not as a problem, but as assets that they must continue to invest in, as it is a critical factor in the success of their organization.

2) It will be unfortunate if a number of companies may be forced out of business because of ramifications of not planning for and dealing with the Y2K problems in their software. However, in the long term, perhaps the companies and governmental agencies who did successfully cope with severe Y2K problems will emerge stronger and more competitive in the new millennium.

3) Wouldn't it be interesting if the advice, concerns and warnings of software maintenance personnel were taken more seriously by various institutions in their day to day operations with software, as well as in strategic planning for the future?

Last year at ICSM98, the third keynote address was given by Thomas McCabe of McCabe Associates. He spoke of their efforts to deal with Y2K problems of various clients, using technologies that had been developed using their perspectives on software complexity. We were struck by the respect that Tom McCabe had for this very difficult maintenance problem, and the modesty that just throwing technology at the problem would not work. What remained was a testing problem of staggering scope and difficulty. We think this might also be a fitting lesson for everyone when dealing with legacy software with intrinsic high complexity.