

PANEL

Scientific Data Management: Real-World Issues and Requirements

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Abstract

Managing scientific data presents many unique challenges. As scientific data management has become more sophisticated and user requirements for access to scientific data have become more complex, scientists are increasingly using commercially-available software in addition to customized software to manage scientific data.

Panel members are data management practitioners who routinely deal with scientific data management issues. They intend to present pertinent issues and explore possible solutions. Some of the issues that may be discussed are

- modeling scientific data
- developing supporting data structures not found in commercially available database management systems
- working with large volumes of data
- dealing with temporal and spatial data
- capitalizing on the impact of visualization (integrating graphics, geographic information systems, and multimedia capabilities with data management)
- modeling activities
- managing text
- querying scientific data.