The purpose of this panel is to review the state-of-the-art in Data Dictionary systems and to explore future capabilities and architectures for such systems. In particular, the interface between Data Dictionary systems and Database Management systems will be discussed in relation to the following issues:

1. Architecture of Data Dictionary Systems

Current thinking regarding data dictionaries indicates that the dictionary is to be a repository of information about an enterprise. Thus, this repository, or knowledge base, not only contains information about the "semantics" of data stored in databases, but also knows about enterprise concepts such as organizational structure and dynamics, forms, memos and other documents together with their organizational flows, and the description of information resources such as hardware and software systems.

In this framework we consider the following issues:

A. Data Model for Data Dictionaries

- What data model constructs are appropriate for defining knowledge bases?
- Can current data models be used? If not, can they be extended?
- Should users be allowed to define their own constructs via extensible data models?
- Constraint specification tools?

B. Database Support for Data Dictionaries

- Can data dictionaries be supported efficiently on existing database management systems?
- What query facilities should dictionaries have?
- Privacy, integrity, and security issues.
- How can the dictionary bottleneck be ameliorated?

2. The Role of Data Dictionaries in Information Resources Management

As data dictionaries are endowed with increased intelligence and enhanced capabilities, they will play a key role in information resource management. We wish to explore several aspects of this role, namely:

A. Tools for enterprise administration.
B. Application development tools.
C. Managing computer hardware and software resources.
D. Communication mechanisms among data dictionaries.
Session 10B:

THE DATABASE/DATA DICTIONARY INTERFACE

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