

Requires Honeywell's Multics

'MDBM' Backs Network, Relational Data Approaches

By Don Leavitt
Of the CW Staff

PHOENIX — Users working with the Multics Data Base Manager (MDBM) just introduced by Honeywell Information Systems can have the best of two worlds, according to the vendor: they can utilize a network or hierarchical approach with some data bases; a relational approach with others.

Permitting the use of the two approaches applied individually to the user's data bases resolves the problem of having to decide between the approaches when a data base system is being chosen.

But the dual support has a demand of its own: it only oper-

ates on Honeywell's largest gear — the Series 60/Level 68 Multics system.

MDBM is said to consist of an integrated set of functions, callable from any of the major languages available in the Multics environment, including Cobol, Fortran and PL/I. These functions support the description and processing of data bases of varying sizes and organizations, Honeywell noted.

Full Range of Capabilities

Included in MDBM is a full range of data base retrieval and update capabilities with facilities to provide a "large degree" of data independence, a spokesman

said. Data bases reside within the Multics storage system and are protected by all the security features inherent in the Multics virtual memory environment, he added.

The users' choice of approach to individual data bases is controlled by the Multics Integrated Data Store (MIDS) subsystem, for networks or hierarchies, or the Multics Relational Data Store (MRDS), for relational work in which the links between data fields are defined within the program rather than ahead of time.

Clearly an outgrowth of the Integrated Data Store (IDS/II) software introduced in late 1975, MIDS represents data rela-

tionships by means of record and set types, which can be searched and manipulated through procedure calls.

Schema, Subschema Support

Support for schemas that describe the data base and subschemas that represent user views provide the separation needed to protect the data and the user from each other, as one observer noted.

In addition to supporting schemas and subschemas, MIDS backs the opening of a data base for protected or concurrent update or retrieval, searching operations guided by "powerful" record selection expressions, and basic file maintenance facilities.

MRDS, on the other hand, rep-

resents data relationships by means of formal algebraic entities such as sets and relations; data base operations are precisely specified through expressions of first-order predicate calculus, Honeywell added.

In a relational approach, the interface between data base and user is achieved through use of a data model describing the base and data submodels describing various user views of the base, the spokesman explained.

MRDS users have a range of facilities similar to those of the MIDS user for opening, storing, updating and retrieving data from a data base, he added.

The complete MDBM rents for \$683/mo., Honeywell said.

What Have You Done With DBMS?