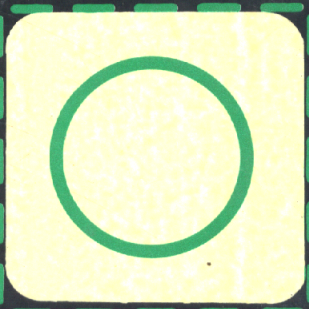
# RISS: A Relational Data Base Management System For Minicomputers



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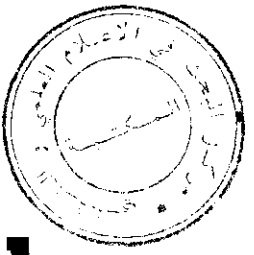

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Forest Hospital
Des Plains, Illinois

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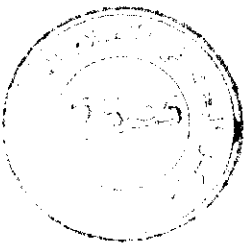

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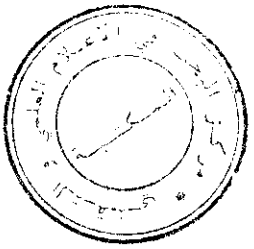
# PREFACE





RISS evolved as a necessary by-product of a project that began simply as an effort to process the Minnesota Multiphasic Personality Inventory test on a computer. Initial programming and processing were performed using a time-sharing service. After building the test-scoring system, we explored the possibility of creating a computerized system that would evaluate the quality of psychiatric care at Forest Hospital in Des Plaines, Illinois. Expanded use of the time-sharing service and increased need for data storage caused the service to become prohibitively expensive. We then installed an in-house PDP 11/40, which uses the RSTS/E operating system. With this system, we have developed a complete on-line interactive documentation system for inpatient psychiatric care.

By analyzing problems found in a preliminary data base management system called RDMS (McLeod), Dennis McLeod and Bruce Whitehead developed the physical storage strategy used in the current version of RISS. Dennis McLeod wrote the implementation modules of the RISS-user interfaces, and Robert Pellicore developed our applications programs.

As opposed to hierarchical and network data base structures, the relational model, in which the user can view data as being stored in

two dimensional tables, provides a logical design easily grasped by relatively naive users. Programmers, when designing applications, have also found that this model aids them in easily referencing stored data. Relational data bases lend themselves to any application that requires multiple similar records and where the data can be reduced to tabular form. Some of the applications that have been implemented at Forest Hospital are payroll, accounts receivable, inventory, test scoring, research studies, and statistical tabulations.

We have found the relational approach to be particularly useful in an evolving system such as ours, where new relations may be added to the data base without disturbing existing applications.

As of this edition, we recognize the need for a standard report generator in RISS. The RISS data base management system has been in use for three years, requiring only minor modifications to take advantage of improvements in the RSTS/E operating system and the Basic-Plus language.

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Monte Jay Meldman, M.D.
Des Plaines, Illinois

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