

Preface

The protection of computing systems and the information they maintain and process has been of concern since the early days of computing. Summers provides an overview of computer security, including the concepts, techniques, and measures that may be applied to the protection of information systems assets. This paper offers the reader an excellent survey of both the technical and the administrative measures which should be considered in developing a strategy for the protection of computer-based systems.

Systems developers are involved in a continual search for tools and techniques that can improve the quality and productivity of programmers and systems analysts. Cowlshaw presents the design of REXX, which is a computer language that addresses the needs of the expanding population of general users. The key design criterion for REXX was that it be easy to use, whereas the priority in the design of most computer languages is that they be easy to interpret or compile. The result is a language that is easy to learn and use, and that in addition provides sufficiently powerful constructs to meet the needs of many professional applications.

Studies of the systems development life cycle have long shown that in terms of resources applied, duration, and contribution to the success of development projects, the design phase stands out. In contrast to the significance of the design phase is the availability of tools to assist the analyst in the development and verification of his design. Ambrosetti, Ciriani, and Pennacchi describe an interactive design tool that supports the design process by providing a "natural" view for specifying and analyzing an application or business area. In addition the tool meets the needs of data processing professionals by providing unambiguous machine-readable documentation. In this way it can serve as an effective bridge between the user, application analyst, and data processing professional.

Local area networks offer the potential of providing higher degrees of connectivity between systems and workstations within a single site than were previously available. Bux presents the performance issues inherent in the development of such networks, with respect to their architecture, design, and implementation.

At the IBM Thomas J. Watson Research Center, VM/370 is used to meet the interactive needs of a wide variety of users. Tetzlaff and Buco present the methodology and results of a performance study which analyzed the Center's VM multiprocessor environment. As a part of the study, a series of performance improvements were developed and evaluated. The results of this study are reflected in a new option of the VM/System Product control program called the High Performance Option.

In response to a number of requests from readers we have prepared a cumulative index of *Systems Journal* papers for the years 1975-1984. Most of the papers and volumes included are still available and may be ordered from IBM branch offices, using the order numbers listed.

John Lacy
Editor