Data Flow Systems: Guest Editors' Introduction

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Data Flow Languages

In a data flow language, locality of effect is easily achieved. But obtaining freedom from side effects requires a fundamental alteration in the execution model of the language.

Data Flow Program Graphs

Token models and structure models are two basic approaches to using graphs to represent data flow programs. The advantages of each are discussed here.

The U-Interpreter

By giving a unique name to every activity generated during a computation, the U-interpreter can provide greater concurrency in the interpretation of data flow graphs.

A Practical Data Flow Computer

Based on a tagged dynamic data flow model, this prototype machine has eight unusual matching functions for handling incoming data tokens at its computational nodes.

A Second Opinion on Data Flow Machines and Languages

Due to their simplicity and strong appeal to intuition, data flow techniques attract a great deal of attention. Other alternatives, however, offer more hope for the future.

Life-Cycle Software Validation

Two validation activities should take place during each phase of the software life cycle: analysis and test data generation. There are many ways to approach these tasks.

Architecture Management for Ensuring Software Compatibility in the VAX Family of Computers

A family of computer hardware can vary in cost, performance, and technology. The efficient architecture management approach underlying Digital's VAX series keeps that family together.

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