Guest Editors' Introduction: Digital Picture Archiving and Communication Systems in Medicine

Andre J. Duerinckx, Samuel J. Dwyer III, and Judith M. S. Prewitt

An Architectural Route Through PACS

Dietrich Meyer-Ebrecht and Thomas Wendler

Complex picture information systems require a strictly structured systems approach, beginning with the user's environment and ending with the definition of generic hardware/software modules and procedures.

Communication and Storage Protocols for PACS

Brent S. Baxter and Michael P. Zeleznik

To produce modular archiving systems, designers need interface standards to connect hardware and software components. Portability, compatibility, and storage permanence are issues they must address.

Some Design Considerations for Picture Archiving and Communication Systems

Jerome R. Cox, Jr., G. James Blaine, Rexford L. Hill, R. Gilbert Jost, and Chung-Dak Shum

PACS designers must learn to cope with—and in some cases capitalize on—the differences between PACS and conventional network architectures. New technology is making the task easier.

Performance Features for a PACS Display Console

J. Randolph Perry, B. G. Thompson, Edward V. Staab, Stephen M. Pizer, and R. Eugene Johnston

A PACS task force addresses a major area of concern to radiologists by proposing specifications and performance requirements for a prototype PACS display console.

Direct Manipulation: A Step Beyond Programming Languages

Ben Shneiderman

Direct manipulation systems offer the satisfying experience of operating on visible objects. The computer becomes transparent, and users can concentrate on their tasks.

Protecting Software and Firmware Developments

Michael A. Lechter

What is really the best safeguard for new software or firmware? This article dispels the myths surrounding patent, copyright, trademark, and trade secret protection and offers a strategy for the developer.

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