The UCLA Department of Radiological Sciences has developed and implemented a large-scale clinical RIS/PACS. In addition, workstations have been developed for each division, organized according to the needs of the division (task-oriented). All sections can view all modalities. In addition, PACS images are available to other specialists throughout the hospital and in our outpatient facilities. While pediatric radiology was the first division to have a fully automated PACS (because of the early use of CR imaging for Peds), US was not included in the PACS network, even though it accounts for over one-fourth of pediatric diagnostic images (80% of which are portables).

In addition to pediatric usage, abdominal US, vascular US, and OB-Gyn US were not included in the PACS network. Much of this exclusion was a result of three factors: 1) the variety of US manufacturers represented at UCLA, 2) the need for high volume, immediate access, color images, including short bursts of color cine-loop needed for vascular studies, 3) the availability of DICOM compatible interfaces, both in our PACS system and in those of the commercially available PACS US systems.

Because over half the UCLA US equipment is manufactured by ATL, we elected to interface to the ACCESS™ system distributed by Kodak, but initially developed at ATL. The Access Pentium-based workstation will support color cine-loop display of an ongoing US examination, a benefit when radiologists must monitor both inpatient and outpatient facilities. While ATL HDI 3000 scanners can be linked directly to the system through a DICOM interface, other scanners will have selected images digitized by a modality acquisition unit (frame grabber). All selected images will be transferred to an Access Network Fileserver and to the UCLA PACS. The acquisition units can store 500 images before transfer to the archive.

Problems encountered during the initial trial period will be reported. Use of existing black and white workstations in pediatrics (who perform only 10% color examinations) will also be evaluated.

Teaching objectives: Problems to be solved when interfacing a large-scale PACS with commercially available PACS modules. RIS compatibility with a commercially available US PACS system.