

Duke Data Bank

NASA computerized image processing techniques are an integral part of a cardiovascular data bank at Duke University Medical Center. Developed by Dr. C. F. Starmer and colleagues at Duke, the data bank documents the Center's clinical experience with more than 4,000 heart patients as an aid to diagnosis and treatment of heart disease. Data is stored in a computerized system that allows a physician to summon detailed records

of former patients whose medical profiles are similar to those of a new patient. A video display (photo) and printed report shows prognostic information for the new patient based on similar past experience.

In developing the data bank, the Duke team encountered some difficult problems with respect to need for an input mechanism for graphic data, and for a data storage system capable of using the accumulated information to develop prognoses. NASA's

Biomedical Applications Team at Research Triangle Institute, North Carolina, suggested that image processing techniques developed by NASA's Jet Propulsion Laboratory (JPL) might solve these problems. Dr. Starmer took several months of training in image processing at JPL and incorporated the NASA techniques in the data bank.

The system, proving effective at Duke, has also been installed at the Harvard School of Public Health.

