PACKAGE ID - 000260SUN0000 VIEW

KWIC TITLE - Signal and Image Processing Operations

AUTHORS - Brase, J.M.
Lawrence Livermore National Lab., CA (United States)

Miller, V.J.
Lawrence Livermore National Lab., CA (United States)

Wieting, M.A.
Lawrence Livermore National Lab., CA (United States)

LIMITATION CODE -UNL **AUDIENCE CODE -** UNL

COMPLETION DATE - 08/01/1991 **PUBLICATION DATE -** 08/01/1991

DESCRIPTION - VIEW is a system for processing arbitrary multidimensional signals. It provides facilities for numerical operations, signal displays, and signal databasing. The main emphasis of the system is the processing of time-sequences and multidimensional images. VIEW's primary function is to perform signal and image processing operations. It contains a database made up of signals and sequences, a set of commands which act on the signals or sequences in the database, and a user interface that utilizes the database and user-selected commands. An image or signal may be selected from the database or from an external file. A signal is any N-dimensional set of numeric data. The database maintains information such as the data type and organization and some specific information about the data such as the minimum and maximum values. A sequence is an ordered set of signals. These are specific commands which process sequences and techniques in the user interface to apply signal commands to entire sequences. Sequences can be used in such applications as time-series of image frames from a television camera or a series of slices for a 30 tomography.

PACKAGE CONTENTS - Media Directory; Software Abstract; User's Guide; Installation Instructions; Media Includes Source;

SOURCE CODE INCLUDED? - Yes

MEDIA QUANTITY - 10 5.25 Diskettes

METHOD OF SOLUTION - The main user interface in VIEW consists of command lines which tell the system what operations to perform on signals in the database. When the command is selected the user will be prompted for appropriate command arguements. The software runs with release 11 of X-Windows and includes system, database, input/output, signal edit, display, image enhancement, filter, spectral analysis, mathematical, and simulation commands.

COMPUTER - SUN

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OPERATING SYSTEMS - UNIX System V or Berkely UNIX

PROGRAMMING LANGUAGES - C (63%), FORTRAN (37%)

SOFTWARE LIMITATIONS - VIEW is a memory-based system which means all signals must be in memory to be processed.

SOURCE CODE AVAILABLE (Y/N) - Y

UNIQUE FEATURES - VIEW has online help files for commands, sequences, and macros; a history log, which can be edited and resubmitted, of all the commands issued in the current session; and a general-purpose command macro facility.

RELATED SOFTWARE - Graphics is accomplished using the LLNL-developed DIGLIB graphics software; this software is included. VIEW is similar to SIG, a signal processing, analysis, and display program and can read files in SIG format.

OTHER PROG/OPER SYS INFO - The system is designed to be both portable and extensible. VIEW uses X-Windows (X11 Release 4). This software is not supplied.

HARDWARE REQS - VIEW uses a color monitor with the capability of displaying 256 colors. VIEW requires approximately 350 Kbytes of memory.

SUBJECT CLASS CODE - TO

KEYWORDS -
COMPUTER PROGRAM DOCUMENTATION
V CODES
IMAGE PROCESSING
DATA BASE MANAGEMENT
DIGITAL FILTERS
FOURIER TRANSFORMATION
DIGITAL FREQUENCY ANALYSIS
SIGNALS
STATISTICS

EDB SUBJECT CATEGORIES -
990200

SPONSOR - LLNL

PACKAGE TYPE - SCREENED