

PACKAGE ID - 001279I600000 SRFGUI/SNDGUI

KWIC TITLE - Visualization Tool for Meteorological Data

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LIMITATION CODE -COPY **AUDIENCE CODE** - LIM

COMPLETION DATE - 07/06/1998 **PUBLICATION DATE** - 07/06/1998

DESCRIPTION - Graphical user interfaces (GUIs) have been built to visualize surface and upper-air meteorological data for any global location and time of interest. The user selects a domain (geographical location and bounding range) and time of interest using the GUI, and a file containing coded observations is accessed and decoded. Two styles of the GUI have been built, depending on whether surface or upper-air visualization is desired. the former indicates weather conditions near the earth's surface, while the latter illustrates a vertical profile of atmospheric conditions. If surface observations are accessed, a map of the selected region is drawn, over which the decoded surface report is plotted in the form of symbolic station models, illustrating wind speed and direction, temperature, dew point temperature, barometric pressure, and sky coverage for each reporting station. Selection of individual stations is possible whereby further information may be displayed. Hardcopy output of the map may be selected, and a data file containing tabular meteorological information is automatically created. Upper-air observations can be similarly plotted.

PACKAGE CONTENTS - Media Directory; Software Abstract; Program Documentation; Media Includes User's Guide, Executable Module;

SOURCE CODE INCLUDED? - No

MEDIA QUANTITY - 1 CD ROM

METHOD OF SOLUTION - A graphical user interface is built which prompts the user to select a time and geographical location. Depending on these selections, meteorological datafiles are accessed and decoded. The data are then displayed with the GUI.

COMPUTER - IBM RISC 6000

OPERATING SYSTEMS - Unix, Windows NT

PROGRAMMING LANGUAGES - Na

SOFTWARE LIMITATIONS - Must have IDL license to use.

SOURCE CODE AVAILABLE (Y/N) - N

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UNIQUE FEATURES - Surface and/or upper-air meteorological data are usually not archived. Thus, plots of this information are typically restricted to the current time. If data is archived, plots of the data are restricted to a given location (or station). This GUI design is unique in that the user may select any global location, domain size, and time (for which data has been archived) from which to view meteorological information.

RELATED SOFTWARE - Must have access to the meteorological database (obtained from Weather Service International).

OTHER PROG/OPER SYS INFO - Appearance of GUI may differ from one computer architecture to another.

HARDWARE REQS - For IDL v5.1, recommended minimums: IBM/RSIC/6000; 80 Mb disk space, 30 Mb RAM. PC 80 Mb disk space; 30 Mb RAM, 256 color capacity and a high resolution graphics card.

TIME REQUIREMENTS - On the order of 1 to 10 minutes

REFERENCES - Software Supporting Documentation

ABSTRACT STATUS - Released AS-IS 2/3/1999

SUBJECT CLASS CODE - Z

KEYWORDS -
COMPUTER PROGRAM DOCUMENTATION
S CODES
METEOROLOGY
DATA

EDB SUBJECT CATEGORIES -
990200

SPONSOR - DOE/DP

PACKAGE TYPE - AS - IS