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User Guide for Transferring Data From NOS (Network Operating System) to Applicon Graphics System

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USER GUIDE FOR TRANSFERRING DATA FROM NOS (NETWORK OPERATING SYSTEM) TO APPLICON GRAPHICS SYSTEM

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ABSTRACT

This document is a guide for obtaining data from Sandia Central Computing site which is to be introduced into a drawing file on Applicon Graphics Systems.

CONTENTS

I.0 INTRODUCTION

Recently data generated on NOS (Network Operating System) at the Sandia Central Computing Site needed to be introduced into a Machine Aided Design Definition System (MADDS) designed by Applicon, Inc. of Burlington, Ma. for 3D applications. The steps for this transfer of coordinates in 3D-space are presented in the following pages.

2.0 EXECUTION INSTRUCTIONS

2.1 Input Generated on NOS

X, Y, Z coordinates which are generated by a program[1] on NOS may be listed on the screen of an Hewlett Packard 2645A being utilized as an NOS terminal. Standalone capability of this HP2645A is sufficient to allow one to log off NOS, then capture the data from the screen on a cassette tape.

This procedure in detail is:

(a) To set up the HP2645A for communication with NOS, the modem switch is depressed. Set the band rate switch on the HP2645A to 300. Depress the "REMOTE" key. To connect with NOS, dial 351.

(b) Log onto an NOS user area to generate an output of desired X, Y, Z coordinates displayed on the HP2645A screen. Log off NOS. Set band rate switch back to 2400.

2.2 How Input is Captured from NOS[4]

(a) Set remote switch on HP2645A to up position (local operation).

(b) Insert a cassette tape in either left or right tape position. Rewind cassette by depressing GREEN key, REWIND key.

(c) Use the ↖ key to return the cursor to the top of the data file displayed on the screen. Delete all unwanted lines from the screen file using the DELETE LINE key, leaving the cursor at the top of the file now containing only X, Y, Z coordinates.

(d) Depress GOLD key, FROM DISPLAY, to L.TAPE (or R.TAPE), RECORD in this order only. At this point the tape is written on the cassette. The flashing green light indicates tape is being written.

(e) Mark file at end of tape by depressing GREEN key, MARK FILE, L.TAPE (or R.TAPE) in this order. This step must be done so that when this tape is read, reading stops at the end of file mark.

(f) To rewind the cassette tape, depress GREEN key, REWIND TAPE. The green light to the left of each tape cavity flashes as tape is rewound.

2.3 Introduction of data into VAX

Set up the HP2645A as a VAX terminal by setting band rate to 2400 and positioning modem switch to "out" position and depress remote switch. Log on to a VAX user area. Make sure cassette tape is rewound. Execute a program MC␣HPREAD. Answer prompt with FILENAME.DAT. This transfers the data from cassette tape to a---.DAT file in the user area into which you are logged. You may name the file for the data to be stored. From VAX you may copy the data on N892::DL2: [g,u] via DECNET or it may be sent to N836::DL2: [g,u] . [g,u] will probably be [200,250] in both PDP11/34's, but you should check with Ann Yates, 2424 in 836 or Emily Young, 2454 in 892 before actual execution.

2.4 PDP11/34 Concentrator Role

The PDP11/34 is the machine where the program WRITETAPE written by B. Whittet, Division 2454 and M. Sharp, Division 4541, is executed. This program transfers the X, Y, Z coordinates to a magnetic tape readable by UCMD 99^3 in the Applicon Graphics System.

The characteristics of this magnetic tape are:

(a) 556 BPI
(b) Even parity
(c) 80 character records
(d) ASCII

To run WRITETAPE:

(a) RUN WRITETAPE

ENTER FILE NAME	(prompt to operator)
FILENAME	(operator response underlined)
556 BPI?	(default BPI)
C/R	(carriage return)
CORE DUMP?	
X	(X signifies core dump)
EVEN PARITY?	
C/R	(C/R implies "yes")

DISC RECORD LENGTH?

80

FIRST AND LAST CHARACTER TO RECORD?

1 80

(b) FILENAME.DAT which is input to program WRITETAPE is an ASCII file of format (I1,3F10.0)

Output of the WRITETAPE program is a magnetic tape which can be read by UCMD99 on the Applicon Graphics System[2].

2.5 Introduction of Data into AGS/880 System

The AGS user must now log in to a user area, mount the tape created by WRITETAPE program, and load a start file. Load the UCMD99, and invoke steps 1.4.2 or 1.4.3 of UCMD99 to actually introduce the data into the drawing file.

3.0 EXAMPLE OF OUTPUT

3.1 An Example of Data Utilization in AGS 880 System

An example utilizing step 1.4.3 in UCMD99 is the location of chain bit cutters (X, Y, Z coordinate data) from NOS Mechlib COMPAX program[1]. Data is output as an Applicon file.

(a) Execute steps 2.1 thru 2.4 above.

(b) Mount a magnetic tape on an Applicon system, and set "on line".

(c) Load a start file.

(d) Set to EDIT mode.

(e) Set use command to "USE_PNT1".

(f) Execute UCMD99 on terminal.

(g) Answer questions as prompted.

(h) Data generated on an Applicon system is shown in Fig. 1, page 9.

4.0 REFERENCES

(1) SAND77-1994, Stratapax TM Computer Program, Richard F. Ashmore, Dr. K. W. Chase, D. L. Mahlum.

(2) AGS/880 Users Guide, Volumes I, II, III, August, 1979, Applicon, Inc., Publication Services, 32 Second Avenue, Burlington, Ma. 01803.

(3) SAND80-0654, UCMD99, User Command 99, Drawing Generator, M. Sharp, Div. 4541, Bruce Whittet, Div. 2454.

(4) Hewlett Packard 2645A Owner's Manual, Catridge Tape Operations.

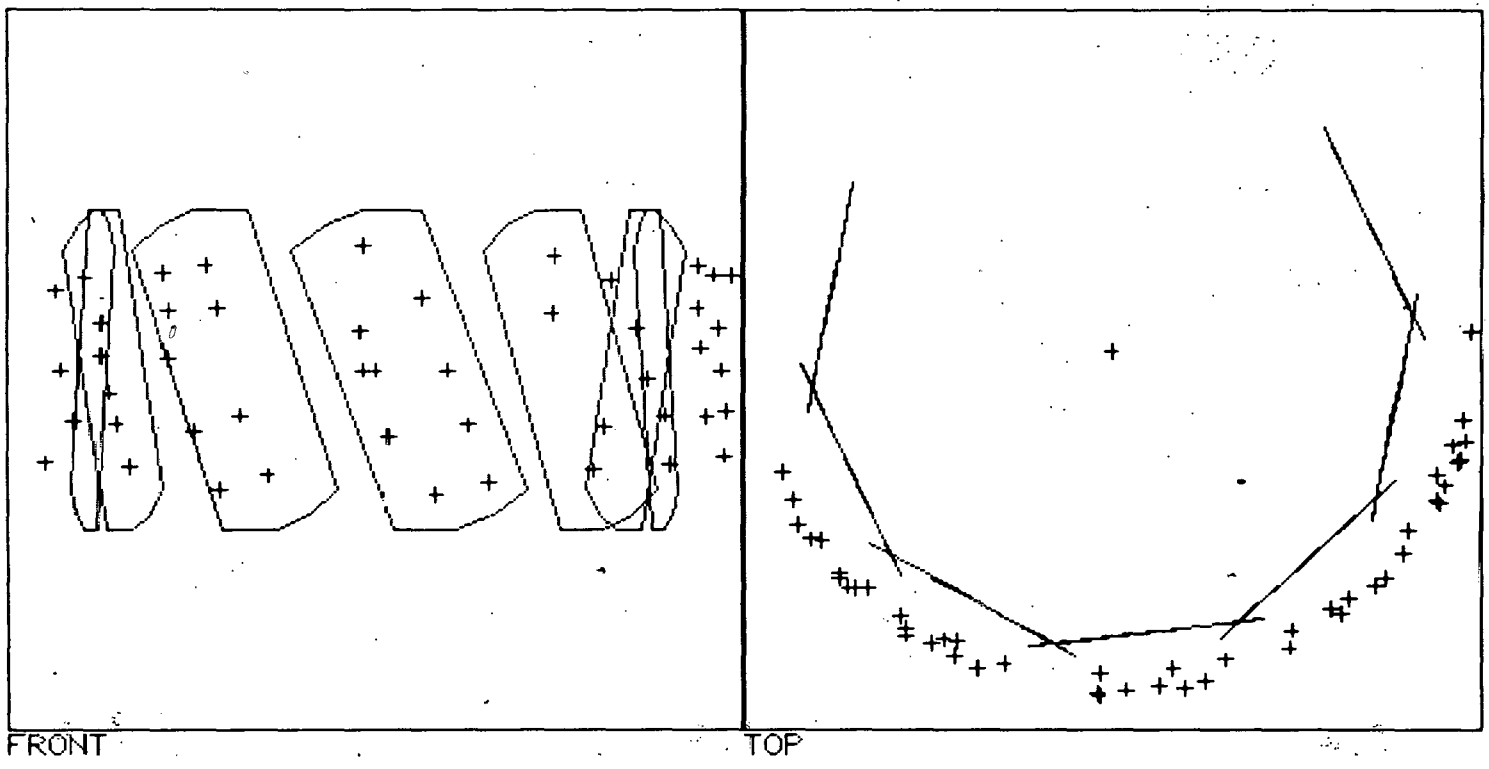

FIGURE 1

Distribution:
1545 D. Williams, Jr.
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