Title:

DIA USERS GUIDE

Abstract:

A manual for the user of the RC3652 disc handling program 'DIA'. The program can backup and restore (labelled or non-labelled) tapes, copy, convert between RC6000/RC8000 formats and make a byte to byte comparison between two disc-kits. Enchanced functions are clearing the virtual storage or initializing the disc-kit with RC6000/RC8000 address marks.

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1. PURPOSE 1.

To provide the user with a general purpose disc program for handling RC3652 type discs.

Additional functions are added in order to ease the RC6000/RC8000 operator.

2.   FUNCTION   2.

The program can backup and restore (labelled or non-labelled)
tapes, copy, convert between RC6000/RC8000 formats and make
a byte to byte comparison between two disc-kits. Enhanced
functions are clearing the virtual storage or initializing the disc-
kit with RC6000/RC8000 address marks.

The source and destination drive can be any number (0 - 3).

3.   DESCRIPTION   3.

When loaded the following list of functions will be displayed on the system console:

0) Help !
1) Conversion from RC6000 to RC8000
2) Conversion from RC8000 to RC6000
3) Disc-copy program
4) Dump a disc to magtape
5) Restore a disc from magtape
6) Verify a disc-kit
7) Initialize a disc-kit
8) Clear the virtual storage
9) Compare two disc-kits.

0)   Help:
Is a summary of this users guide.

1)   Conversion between RC6000 and RC8000:
2)   Conversion between RC8000 and RC6000:

The input kit will first be address checked in order to catch any track off-sets. After the conversion the output or destination kit will be verified for proper address marks.

Any discrepancy will result in the error message:
'Cylinder xxx has been flagged'. The program will only convert secondary kits.

Note that the last cylinder will be lost when you convert from RC6000 to RC8000 formats. See appendix A for disc layouts.

3) Disc-copy program:

Is a two step operation. The simple copying will be followed by a byte to byte comparison assuring the input and output disc kits to be identical.

Any discrepancy will result in the errormessage:

'Cylinder xxx has been flagged'

A special feature is added to allow the user to copy RC6000 simulator only, thus leaving the data area untouched.

4) Dump a disc to magtape:

The operator is asked whether he wants to write a label tape. The label size is fixed and equal to 80 characters. The disc backup is stored as a simple file on tape terminated by an End of File mark. The block size is equal to 3072 bytes or 6 disc sectors.

The tape must be mounted and positioned at load point before calling the tape program.

5) Restore a disc from magtape:

The operator is asked whether the tape is non-labelled or labelled. In the latter case the label is first displayed to allow the operator to confirm before the disc is overwritten.

The error message 'Blockcount error' will be displayed if the operator is handling a label tape as a non-label tape or vice versa.

6) Verify a disc-kit

This function is a mere address check (and read check) for correct RC6000 or RC8000 address marks. The program can handle primary or secondary disc-kits.

7) Initialize a disc-kit:

According to operator specification the disc-kit will be provided with RC6000 or RC8000 address marks. The initialization phase is followed by a verification as described in 6).

8) Clear the virtual storage:

This allows the user to repair any incorrect address marks by clearing the virtual storage. Functions 3 and 8 are provided to correct an error in the vital area: the simulator and the virtual storage, without spoiling the data.

9) Compare two disc-kits:

Two disc-kits will be compared byte for byte. Any difference will result in an error message.

4. ERROR HANDLING 4.

Emphasis has been placed on an easy and informative operator communication. Thus all the operator correctable errors are described in detail. For the hard errors the process will be break'ed and result in the usual error messages.

The program generated messages are:

> Block count error
> Driver missing
> Write ring not mounted
> Magtape station off-line
> Driver missing
> Cylinder xxx has been flagged.

5. DOCUMENTATION

5.

RCSL: 43-GL 5168   ASCII Source

RCSL: 43-GL 5169   Listing

RCSL: 43-GL 5170   Relocatable binary.

APPENDIX A

Disc-layout (sector number)

RC6000

Primary :

0 - 127	Simulator
128 - 1151	Virtual storage
1152 - 4871	Data area

Secondary :

0 - 4871	Data area

RC6000

Primary :

0 - 599	RC3600 use
600 - 4871	Data area

Secondary :

0 - 23	Reserved for future use
24 - 4871	Data area.