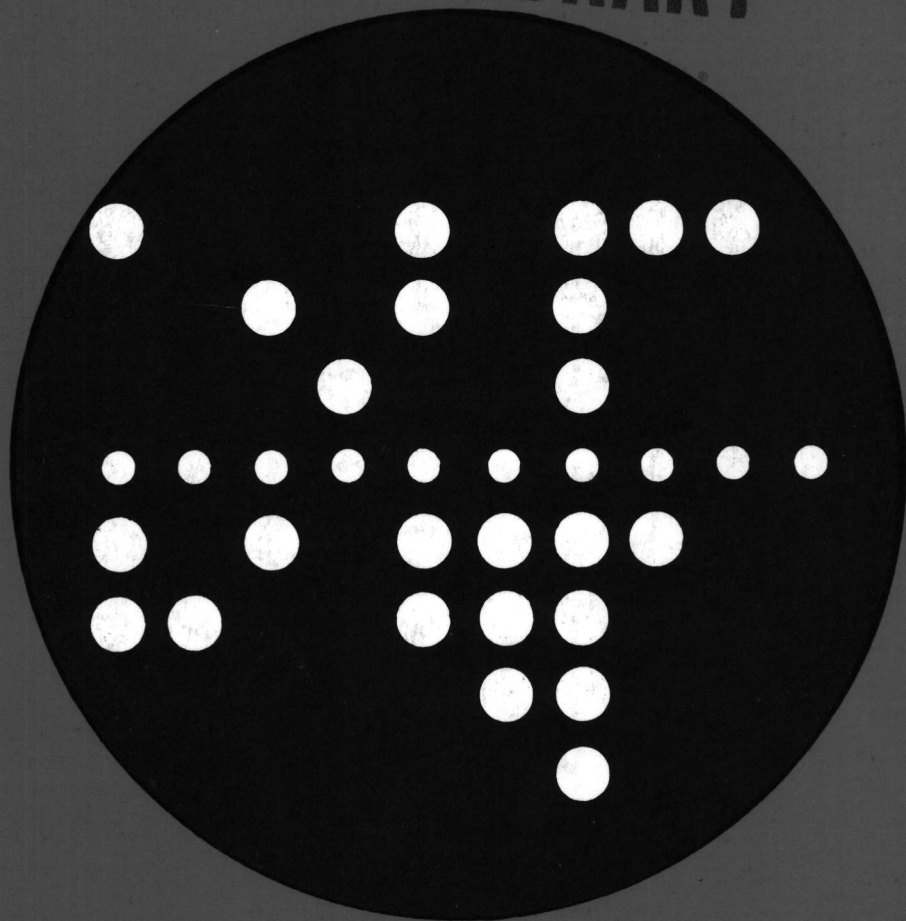


COMPUTING CENTRE NEWSLETTER

November 1979 - N. 36

LIBRARY



Commission of the European Communities



Ispra Establishment

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EDITORIAL NOTE.

The Computing Centre Newsletter is published monthly except for August and December.

It describes developments, modifications and specific topics in relation to the use of the computing installations of the Joint Research Centre, Ispra Establishment.

The aim of the Newsletter is to provide information of importance to the users of the computing installations, in a form which is both interesting and readable.

The Newsletter also includes articles which are of intellectual and educational value in order to keep the users informed of new advances in computer science topics.

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NEW FACILITIES FOR TSO-USERS

C. Daolio, D. Konig

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Introduction

Three new commands and one command procedure have recently been implemented for the users of TSO. The new commands are COMPRESS (no short form), DSPACE (short form DSP) and LISTUP (no short form).

The command COMPRESS enables the user to compress a partitioned organized dataset (see [1] or [4] (IEBCOPY) for more information).

The command DSPACE provides the user with detailed information about the data set for which it is issued. It is especially useful to find out how much of the space allocated for a data set is actually used by this data set.

The command LISTUP lists the user profile at present valid for this user and also lists its user attributes. It provides information on all the operands available for the TSO PROFILE command.

The new command procedure is called FREESPA (short form FS). It provides the user with a list of empty tracks on all USERxx disks.

The new facilities will be described in the following in such a way that a user with a basic knowledge of TSO and a working knowledge of OS/MVT can use them and interpret the results.

The syntax notation used in this article is the same as used in [3] and explained in [3] pp. 17.

The command COMPRESS

Introduction

The COMPRESS command can be used to compress "partitioned organized datasets" (libraries). If a user has a partitioned organized dataset and discovers that this dataset is "full" (see DSPACE command) he should NOT reserve more space for his dataset but compress his dataset. Only if after the compression of the dataset there are still no empty blocks (see DSPACE command) (which is very unlikely) should more space be reserved.

Usage of the command

The user can enter the command when he is in TSO-command-mode (READY-state). The command has one operand.

Syntax:

```
COMPRESS [dataset name]
```

Example:

```
READY  
compress comp.data
```

Note. When using this command it may be necessary (depending on the LOGON procedure used) to allocate the file SYSPRINT (normally to the terminal). This may be performed by typing:

```
ALLOC FILE(SYSPRINT) DA(*)
```

If the user does not specify the dataset name he will be prompted for it. The "dataset name" has to be the name of a partitioned dataset. The dataset name has to follow the TSO naming conventions. The dataset has to be catalogued. The COMPRESS command activates the IBM-utility IEBCOPY which will provide the users with the necessary information. This utility program compresses a partitioned dataset "in situ" recuperating the space within the dataset at the end of the dataset but it does not release unused extents once they are allocated to the dataset. The user should not compress partitioned datasets which contain empty members. He should first delete the empty members and then compress the dataset. If the user tries to compress a data set which is not partitioned organized he receives the messages given below. These should be self explanatory.

```
compress compt.fort      IEBCOPY MESSAGES AND CONTROL STATEMENTS
```

```
IEB120I SYSUT1  VALIDATION ERROR  
IEB123I DATA SET NOT PARTITIONED  
IEB166I NO MEMBERS COPIED TO DATA SET REFERENCED BY SYSUT2  
IEB151I JOB HAS TERMINATED WITH ERROR(S)  
IEB147I END OF JOB -08 WAS HIGHEST SEVERITY CODE  
READY
```

Interpretation of the results

The results of the command are the messages produced by the IBM-utility-program IEBCOPY as described in [4].

Example

The following example shows how the command can be used. First the user displays the status of the dataset with the DSPACE command. Then he compresses it. Thereafter he displays again the status of the dataset and discovers that he has recuperated 43 blocks.

dsp yyyy

```
xxxxxx.yyyy
VOLUME SERIAL = USER0A.
CREDIT  OS EXPDT  EU EXPDT  EXTENTS  DSORG  RECFM  BLKL  LRECL  ALLTYP
18/12/79 00/00/00 31/12/79   16      PO    FB   3120   80    BLK
PRIM(BLK) SECN(BLK) MAX.EXT.(BLK) EMPTY(BLK) DIR(BLKS) UNUSED
      8          4          68           0           2           1
READY
```

compress yyyy

```
IEBCOPY MESSAGES AND CONTROL STATEMENTS
IEB161I COMPRESS TO BE DONE USING INDD NAMED SYSUT1
IEB152I MEMB5 COMPRESSED - WAS ALREADY IN PLACE AND NOT MOVED
IEB167I FOLLOWING MEMBER(S) COPIED FROM INPUT DATA SET REFERENCED BY SYSUT1 -
IEB154I MEMB1 HAS BEEN SUCCESSFULLY COPIED
IEB154I MEMB5 HAS BEEN SUCCESSFULLY COPIED
IEB144I THERE ARE 0000010 UNUSED TRACKS IN OUTPUT DATA SET REFERENCED BY SYSUT2
IEB149I THERE ARE 0000001 UNUSED DIRECTORY BLOCKS IN OUTPUT DIRECTORY
IEB147I END OF JOB -00 WAS HIGHEST SEVERITY CODE
READY
```

dsp yyyy

```
xxxxxx.yyyy
VOLUME SERIAL = USER0A.
CREDIT  OS EXPDT  EU EXPDT  EXTENTS  DSORG  RECFM  BLKL  LRECL  ALLTYP
18/12/79 00/00/00 31/12/79   16      PO    FB   3120   80    BLK
PRIM(BLK) SECN(BLK) MAX.EXT.(BLK) EMPTY(BLK) DIR(BLKS) UNUSED
      8          4          68           43          2           1
READY
```


The command DSPACE

Introduction

DSPACE can be used as a TSO-command when the terminal is in command mode (READY-state) but it can also be used as subcommand of EDIT or QED (see note 1). The following description of the command assumes that the reader is familiar with the description of the ALLOCATE and ATTRIBUTE commands as described in [3]. The examples given below are valid for a dataset allocated under TSO and reserved under the JRC dataset reservation system. If the user wants to receive information concerning datasets not allocated under TSO, he should be familiar with the JRC-Installation Notes" section "Note Operative sulle Procedure OS 21.8" chapter H "Libraries, Programmes et Procedures Privees" and with the section IV "The DD-Statement" of the IBM-JCL Reference Manual[2].

Note 1. QED is a text-editing system which offers better facilities and improved performance when compared with the TSO-EDIT command. It has been installed on the JRC-TSO system on test basis. Since it has been enthusiastically accepted by the test users it will be made available to all users in the shortest delay possible by publishing a general description in one of the next "Computing Centre Newsletters" and by introducing the "QED users information" into the TSO-HELP dataset. Interested users may consult the QED users manual in the "Computing Support Library".

Usage of the command

The command lists for the dataset given under "datasetname" all the information which is described in the section: "Interpretation of Results".

Syntax:

```
{ DSPACE }      [datasetname]  
{ DSP          }
```

The user can enter this command when he is in TSO command mode, EDIT command mode or QED command mode, as shown in the following examples:

dsp yyyy

xxxxxx.yyyy

VOLUME SERIAL = USER0A.

CREDIT	OS EXPDT	EU EXPDT	EXTENTS	DSORG	RECFM	BLKL	LRECL	ALLTYP
18/12/79	00/00/00	31/12/79	16	PO	FB	3120	80	BLK
PRIM(BLK)	SECN(BLK)	MAX.EXT.(BLK)	EMPTY(BLK)	DIR(BLKS)	UNUSED			
8	4	68	43	2	1			

READY

e 'xxxxxx.yyyy(memb1)' data

E

dsp

xxxxxx.yyyy

VOLUME SERIAL = USER0A.

CREDIT	OS EXPDT	EU EXPDT	EXTENTS	DSORG	RECFM	BLKL	LRECL	ALLTYP
18/12/79	00/00/00	31/12/79	16	PO	FB	3120	80	BLK
PRIM(BLK)	SECN(BLK)	MAX.EXT.(BLK)	EMPTY(BLK)	DIR(BLKS)	UNUSED			
8	4	68	43	2	1			

end

READY

qed yyyy

PARTITIONED-ENTER MEMBER NAME

memb1

QED

isp yyyy

xxxxxx.yyyy

VOLUME SERIAL = USER0A.

CREDIT	OS EXPDT	EU EXPDT	EXTENTS	DSORG	RECFM	BLKL	LRECL	ALLTYP
18/12/79	00/00/00	31/12/79	16	PO	FB	3120	80	BLK
PRIM(BLK)	SECN(BLK)	MAX.EXT.(BLK)	EMPTY(BLK)	DIR(BLKS)	UNUSED			
8	4	68	43	2	1			

ED

nd

READY

qed zzzz.fort

QED

dsp yyyy

xxxxxx.yyyy

VOLUME SERIAL = USER0A.

CREDIT	OS EXPDT	EU EXPDT	EXTENTS	DSORG	RECFM	BLKL	LRECL	ALLTYP
18/12/79	00/00/00	31/12/79	16	PO	FB	3120	80	BLK
PRIM(BLK)	SECN(BLK)	MAX.EXT.(BLK)	EMPTY(BLK)	DIR(BLKS)	UNUSED			
8	4	68	43	2	1			

QED

end

READY

This command can be issued for all kinds of datasets on USERxx or private volumes. If the referenced dataset is not catalogued the user will be prompted for the volume serial number of the volume on which the dataset resides. Examples:

dsp 'zzz.kkk'

zzz.kkk

```
DATA SET NOT IN CATALOG - ENTER VOLUME SERIAL : eursy3
CREDIT  OS EXPDT  EU EXPDT  EXTENTS  DSORG  RECFM  BLKL  LRECL  ALLTYP
18/12/79 00/00/00  **      1      PO      U      13030  0      BLK
PRIM(BLK) SECN(BLK) MAX.EXT.(BLK) EMPTY(BLK) DIR(BLKS)  UNUSED
52      19      337      333      10      8
READY
```

If the "dataset-name" is omitted the user will be prompted for it. Example:

dsp

IKJ56700A ENTER DSNAME -

YYYY

xxxxxx.yyyy

```
VOLUME SERIAL = USER0A.
CREDIT  OS EXPDT  EU EXPDT  EXTENTS  DSORG  RECFM  BLKL  LRECL  ALLTYP
18/12/79 00/00/00  31/12/79  16      PO      FB      3120  80      BLK
PRIM(BLK) SECN(BLK) MAX.EXT.(BLK) EMPTY(BLK) DIR(BLKS)  UNUSED
8      4      68      43      2      1
READY
```

The "dataset-name" has to follow the TSO-dataset naming-conventions.

Interpretation of the results

After printing the full dataset-name and the volume serial number of the volume on which the dataset is stored, the following information is given:

CREDIT - creation date of the data set

OS EXPDT - OS/360 expiration date (not to be used in in the JRC installation)

EU EXPDT - JRC expiration date. This is the date when the reservation of this dataset expires. After this date the data set will be automatically scratched.

- EXTENTS** - indicates the number of "extents" (for a description of the allocation of space for datasets see [1] and [2] which are actually used for this dataset
- DSORG** - indicates the organisation of the dataset (for details see [1])
- RECFM** - indicates the record format of the dataset (for more information see the ATTRIB-command described in [3])
- BLKL** - indicates the block-length as specified in the ALLOCATE-command [3]
- LRECL** - indicates the logical-record-length as specified for this dataset in the ATTRIB-command
- ALLTYP** - indicates the type of unit in which the space for the dataset is allocated. For allocations under TSO it is only possible to use blocks.
- PRIM(BLK)** - indicates the number of blocks allocated by the system for this dataset in its primary extent. Possible differences between the number of blocks requested by the user in the QUANT operand of the TSO-command procedures, CREA and CREARES (or in the "quantity" field of the SPACE-parameter of the ALLOCATE command) and the actual number of blocks allocated are discussed in the examples below.
- SECN(BLK)** - indicates the number of blocks allocated by the system for the secondary extents of this dataset. Possible differences between the number of blocks requested by the user in the INCR operand of the TSO command procedures CREA and CREARES (or in the "increment" field of the SPACE-parameter of the ALLOCATE command) and the actual number of blocks allocated for each secondary extent are discussed in the examples below.
- MAX.EXT.(BLK)** - indicates the maximum number of blocks the system is able to allocate for this dataset.
- EMPTY(BLK)** - indicates the number of blocks which are empty. (This does not necessarily mean that secondary extents with all these empty blocks are allocated for this dataset).
- DIR(BLKS)** - indicates the number of directory-blocks of a partitioned dataset that the user specified in the CREA and CREARES command procedures (or in the ALLOCATE command).
- UNUSED** - indicates the number of free directory blocks.

Depending on the type of the organization of the dataset some of

the above information is not printed because it is not relevant, for instance only partitioned organized (PO) datasets have a directory, therefore only for PO-datasets is the information on DIR(BLKS) and UNUSED given.

Examples

The following examples are used to clarify some situations which may occur in using the command. It is not suggested that the chosen parameters are used for each allocation of datasets. Users should make their own choice considering their needs and considering their responsibility to the other users of the computer.

```

crea smallds eursy3 quant(4) incr(4) dir(2) blksize(3120)
IKJ56234I ATTR-LIST-NAME $a#4321 NOT FOUND
IKJ56247I UTILITY DATA SET NOT FREED, IS NOT ALLOCATED
SYSTSO.SMALLDS
--RECFM-LRECL-BLKSIZE-DSORG-CREATED---EXPIRES---SECURITY
FB 80 3120 PO 12/18/79 00/00/00 NONE
--VOLUMES--
EURSY3
READY

```

dsp smallds

```

SYSTSO.SMALLDS
VOLUME SERIAL = EURSY3.

```

CREDIT	OS	EXPDT	EU	EXPDT	EXTENTS	DSORG	RECFM	BLKL	LRECL	ALLTYP
18/12/79	00/00/00	**	1	PO	FB	3120	80	BLK		
PRIM(BLK)	SECN(BLK)	MAX.EXT.(BLK)	EMPTY(BLK)	DIR(BLKS)	UNUSED					
8	4	68	67	2	1					

READY

The user will sometimes discover that he does not obtain an allocation from the system of exactly the amount which he had requested. This happens (as in the above example) because the smallest unit of disk space which the system allocates to a data set is one track. Therefore, he sometimes gets more (up to one track) space than he had requested.

PARTITIONED DATA SET DSPACE EXAMPLE

dsp yyyy

xxxxxx.yyyy

VOLUME SERIAL = USER0A.

CREDIT	OS	EXPDT	EU	EXPDT	EXTENTS	DSORG	RECFM	BLKL	LRECL	ALLTYP
18/12/79	00/00/00	31/12/79		16		PO	FB	3120	80	BLK
PRIM(BLK)	SECN(BLK)	MAX.EXT.(BLK)				EMPTY(BLK)		DIR(BLKS)	UNUSED	
8	4			68		43		2		1

READY

SEQUENTIAL DATA SET DSPACE EXAMPLE

dsp zzzz.fort

kkk.zzzz.fort

VOLUME SERIAL = USER0B.

CREDIT	OS	EXPDT	EU	EXPDT	EXTENTS	DSORG	RECFM	BLKL	LRECL	ALLTYP
10/11/78	16/12/99	99/99/99		1		PS	FB	400	80	BLK
PRIM(BLK)	SECN(BLK)	MAX.EXT.(BLK)				EMPTY(BLK)				
24	24			384		377				

READY

DIRECT ACCESS DATA SET DSPACE EXAMPLE

dsp 'zzz.kkk'

zzz.kkk

DATA SET NOT IN CATALOG - ENTER VOLUME SERIAL : user0a

CREDIT	OS	EXPDT	EU	EXPDT	EXTENTS	DSORG	RECFM	BLKL	LRECL	ALLTYP
08/06/78	00/00/00	99/99/99		1		DA	F	80	80	BLK
PRIM(BLK)										
10004										

READY

the LISTUP command

Introduction

THE LISTUP-command can be used to obtain all information concerning the user profile of the currently active user identification. The user profile can be established with the PROFILE-command (see [3]). Furthermore the LISTUP-command lists the user attributes actually valid for this user identification.

Usage of the command

The user can enter the command when he is in TSO-command-mode. (READY-state). The command has one operand.

Syntax:

```
LISTUP  { (ALL)
          { UPT
          { UAT }
```

Examples:

```
READY
listup
```

```
READY
listup upt
```

If the user specifies UPT he receives the information contained in the user-profile-table. If the specifies UAT he receives the information contained in the user-attribute table. If he specifies ALL (or nothing) he receives the information contained in both tables.

Interpretation of the results

From the user profile table the following information is given (see [3] pp. 186 for a more detailed explanation):

- MSGID - indicates whether diagnostic messages include message identifiers
- PAUSE - indicates whether you want additional information when a message is issued at your terminal while a command procedure is executing
- PROMPT - indicates whether you want the system to prompt you for missing information
- INTERCOM - indicates whether you want to receive messages from other terminals
- CHAR - indicates which character you have defined as "character-delete character" for editing under TSO
- LINE - indicates which character you have defined as "line-delete character" for editing under TSO

From the user attribute table the following information is given:

- NOACT - indicates that the user cannot use the ACCOUNT command
- NOOPER - indicates that the user cannot use the OPERATOR command
- JCL - indicates that the user can use the SUBMIT, STATUS, CANCEL and OUTPUT commands.

Examples

```
listup
USER PROFILE TABLE

MSGID   PAUSE   PROMPT  INTERCOM
NO      YES     YES     YES
CHAR    LINE
BS      ATTN

USER ATTRIBUTES: NOACCT NOOPER  JCL
READY
```


listup upt
USER PROFILE TABLE

MSGID	PAUSE	PROMPT	INTERCOM
NO	YES	YES	YES
CHAR	LINE		
BS	ATTN		

READY

listup all
USER PROFILE TABLE

MSGID	PAUSE	PROMPT	INTERCOM
NO	YES	YES	YES
CHAR	LINE		
BS	ATTN		

USER ATTRIBUTES: NOACCT NOOPER JCL
READY

listup uat

USER ATTRIBUTES: NOACCT NOOPER JCL
READY

the USER ATTRIBUTES of the above example are self explanatory; the MSGID-, PAUSE-, PROMPT-, INTERCOM- parameters of the above example should be self explanatory.

The CHAR means that this user identification has the backspace (BS)-key defined as "character-delete" function when editing under TSO. The BS-character is the default definition for character deletion

The LINE means that this user identification has the ATTN-key defined as "line-delete" function when editing under TSO. The ATTN-key is the default definition for line deletion

listup
USER PROFILE TABLE

MSGID	PAUSE	PROMPT	INTERCOM
NO	YES	YES	YES
CHAR	LINE		
BS	%		

USER ATTRIBUTES: NOACCT NOOPER JCL
READY

In this example the user has defined the %-character as line-deletion character.

The command procedure FREESPA

Introduction

FREESPA has been developed to enable the user to find out on which of USERXX direct access volumes there is sufficient space for him to create and reserve a dataset. In the near future the present layout of the output of the command procedure (see section "Interpretation of the Results") will be changed since it is not necessary to know absolute addresses for reserving datasets. Furthermore the change will substantially reduce the time needed to execute this command procedure.

Usage of the command procedure

The user can execute this command procedure when he is in TSO-command-mode (READY-state). The command procedure has no operand.

Syntax: {FREESPA}
 {FS}

Interpretation of the results

As a result of the command procedure the user receives the free-space-information for all USERXX disks. For all free extents on a disk, the extents low address in decimal and hexadecimal, the extents high address in decimal and hexadecimal and the number of tracks of the extent are given. The extents are listed in ascending order of cylinders. In the new version of the command procedure which will be available in the near future, only the number of free tracks per extent will be given.

Example:

READY

fs

USEROA - FREE SPACE INFORMATIONS. (1 CYL= 19 TRK)

```
=====
      EXTENT LOWER LIMIT.      EXTENT UPPER LIMIT.      NO. OF
      DECIMAL   HEXADEC.      DECIMAL   HEXADEC.      TRACKS
-----
      587,0007 024B,0007      588,0004 024C,0004           17
      588,0006 024C,0006      592,0008 0250,0008           79
      593,0016 0251,0010      632,0002 0278,0002          728
      638,0011 027E,000B      789,0018 0315,0012         2877
=====
```

USEROB - FREE SPACE INFORMATIONS. (1 CYL= 19 TRK)

```
=====
      EXTENT LOWER LIMIT.      EXTENT UPPER LIMIT.      NO. OF
      DECIMAL   HEXADEC.      DECIMAL   HEXADEC.      TRACKS
-----
      625,0017 0271,0011      625,0018 0271,0012           2
=====
```

References

- [1] IBM System/360 Operating System Data Management, C28-6537
- [2] IBM System/360 Operating System Job Control Language Reference, GC28-6704
- [3] IBM System/360 Operating System TSO Command Language Reference, GC28-6732
- [4] IBM System/360 Operating System Utilities, GC28-6586

ERRATA CORRIGE

1. Newsletter No. 28 - February 1979

On Page 6, in the definition of the series of installation notes, the identifier which is written as CCSL should be CSSL.

2. Newsletter No. 32 - June 1979

Near the end of Page 4: please erase the item

" Assignment of initial values in type statement, but avoiding the use of the length specifier in the data type declarator. "

In fact FORTRAN 77 allows initial values to be assigned only by means of DATA statements.

Consequently the listing in Appendix B (page 23) does not conform to the standard specification in this aspect.

3. Newsletter No. 34 - September 1979

On Page 5, in the section headed "Defaults" the specification of the default for lab should read:

"If this operand is absent and the ring operand is present then the preceding ',' should be included.
If this operand is absent and the ring operand is also absent then the preceding ',' should be omitted."

On Page 6, the first line should read:

```
$OC TP9=EU0000,,N
```

Statistics of computing installation utilization.
 Report of computing installation exploitation
 for the month of October 1979.

	YEAR 1978	YEAR 1979
<u>General</u>		
Number of working days	22 d	23 d
Work hours from 8.00 to 24.00 for	16.00h	16.00h
Duration of scheduled maintenance	21.99h	26.84h
Duration of unexpected maintenance	6.08h	23.00h
Total maintenance time	28.07h	49.84h
Total exploitation time	323.93h	318.16h
CPU time in problem mode	140.02h	169.04h

Batch Processing

Number of jobs	8711	8523
Number of cards input	2182125	1493900
Number of lines printed	26855000	25907000
Number of cards punched	151000	103500
CPU time	130.42h	145.29h
Number of I/O (Disk)	20845000	22348000
Number of I/O (Magnetic tape)	5048000	4954000

T.S.O

Number of LOGON's	1783	3900
Number of messages sent by terminals	86349	227603
Number of messages received by terminals	356060	1229793
CPU time	7.40h	21.32h
Number of I/O (Disk)	1125040	2711240
Connect time	992.18h	2591.66h

IMS

Total time service is available	171.95h	210.58h
CPU time	2.20h	2.43h
Number of I/O (Disk)	424000	806500

Utilisation of computer centre by objectives and appropriation accounts for the month of October 1979.

IBM 370/165
equivalent time in hours

1.20.2	General Services - Administration - Ispra	41.34
1.20.3	General Services - Technical - Ispra	0.63
1.30.3	Central Workshop	3.04
1.30.4	L.M.A.	-
1.90.0	ESSOR	39.72
1.92.0	Support to the Commission	2.79
2.10.1	Reactor Safety	166.82
2.10.2	Plutonium Fuel and Actinide Research	0.15
2.10.3	Nuclear Materials	14.13
2.20.1	Solar Energy	0.49
2.20.2	Hydrogen	0.17
2.20.4	Design Studies on Thermonuclear Fusion	21.67
2.30.0	Environment and Resources	20.22
2.40.0	METRE	2.25
2.50.1	Informatics	51.37
2.50.2	Training	-
2.50.3	Safeguards	46.15
	TOTAL	410.94
1.94.0	Services to External Users	12.44
	TOTAL	423.38

BATCH PROCESSING DISTRIBUTED BY REQUESTED CORE MEMORY SIZE

	100	200	300	400	600	800	1000	1200	1400	>1400
No. of jobs	2703	2346	1293	934	516	110	51	20	26	-
Elapsed time	112	201	192	189	147	44	57	26	9	-
CPU time	5.0	25.9	34.2	24.5	31.2	9.8	21.2	7.5	2.6	-
"Equiv" time	34	52	63	64	49	16	22	11	4	-
"Turn" time	0.4	1.4	2.4	3.1	3.3	4.3	9.3	7.0	6.1	-
I/O (disk)	2939	3283	3950	5336	2559	833	49	525	256	-
I/O (tape)	2825	1024	236	764	31	8	-	17	3	-

NOTE.

All times are in hours.

"Equiv" means equivalent.

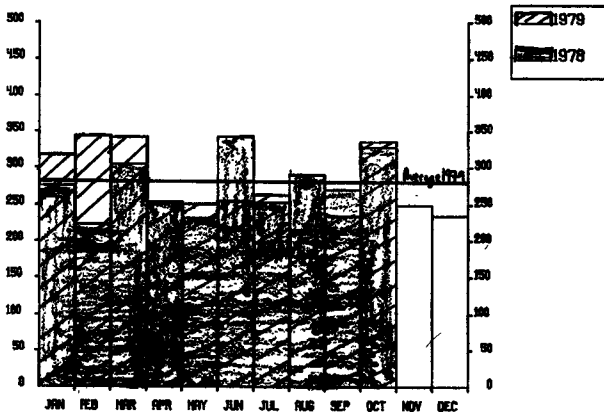
"Turn" means turn around.

All I/O transfers are measured in 1000's.

PERCENTAGE OF JOBS FINISHED IN LESS THAN

TIME	15mn	30mn	1hr	2hrs	4hrs	8hrs	1day	2day	3day	6day
%year 1978	34	51	66	79	89	94	96	100	100	100
%year 1979	33	47	60	74	89	98	99	100	100	100

HISTOGRAM OF TOTAL EQUIVALENT TIME(HRS)



Projected total for 1979 = 3330 hours(using average).
 Total for 1978 was = 3253 hours.

REFERENCES TO THE PERSONNEL/FUNCTIONS OF THE COMPUTING CENTRE.

<u>Manager of The Computing Centre</u>		J.Pire	
Responsible for User Registration	Ms. G.Rambs		
<u>Operations Sector</u>			
Responsible for the Computer Room	A.Binda-Rossetti		
Substituted in case of absence by:			
Responsible for Peripherals	G.Nocera		
<u>Systems Group</u>			
Responsible for the group	D.Konig		
Substituted in case of absence by:	P.A.Moinil		
Responsible for TSO Registration	C.Daolio		
 		Room Tele.	
<u>Informatics Support Sector</u>			
Responsible for the Sector	(f.f.) H.de Wolde	1883	1259
Secretary	Mrs. G.Hudry	1873	787
Responsible for User Support	H.de Wolde	1883	1259
General Inf./Support Library	Mrs. A.Cambon	1871	730
<u>Advisory Service/List of Consultants (See Note 1)</u>		1870	730
A.Inzaghi	A.A.Pollicini		
	H.I. de Wolde		
R.Meelhuysen	M.Dowell		

NOTE 1. The advisory service is available in the same room as the Computing Support Library (room 1870). Exact details of the advisory service times for a specific week can be found at the head of any output listing (for that week).

Any informatics problem may be raised. However, the service is not designed to help users with problems which are their sole responsibility. For example, debugging of the logic of programs and requests for information which can easily be retrieved from available documentation.

If necessary, other competent personnel from the informatics division may be contacted by the consultant but not directly by the users.

The users should only contact the person who is the consultant for that specific day and only during the specified hours. Outside the specified hours general information may be requested from Mrs. A. Cambon in the Computing Support Library.

HOW TO BECOME A REGULAR READER OF THE NEWSLETTER.

Persons interested in receiving regularly the "Computing Centre Newsletter" are requested to fill in the following form and send it to :-

Ms. A. Cambon
Support To Computing
Building 36
Tel. 73 .

Please add me to the Newsletter mailing list.

NAME

ADDRESS

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TELEPHONE

