TABLE OF CONTENTS

1. GENERAL NEWS ITEMS
   PROGRAMMING ENQUIRY OFFICE SUMMER HOURS 2
   CDC-IBM TIELINE- OFFICIAL AT LAST! 2
   YFORT IS GOING TO VANISH 2
   DEATH OF A PLOTTER 3
   END OF CARD PUNCHING POOL SERVICE 3
   FUTURE INTRODUCTION OF CCL 4
   IBM DATASET NAMING CONVENTIONS 4
   ASP- AUTOMATIC SLIDE PRODUCTION 5
   EXAMPLE OF ASP OUTPUT 6
   NEW RIOS COMES INTO SERVICE 7
   ERRORS OF OMISSION AND COMMISSION 8
   CLOSING DATE- NEXT NEWSLETTER 8

2. COMPUTER CENTRE PERFORMANCE
   CDC/IBM TIMETABLES 9
   IBM SYSTEM 9
   CDC SYSTEM 10
   CDC/IBM PERFORMANCE GRAPHS 10
   SOME INTERCOM INFORMATION 11

3. WRITE-UPS
   OTHER DOCUMENTS ON THE IBM 13

4. INDEX TO OLD COMPUTER NEWSLETTER ARTICLES 15

5. IF YOU NEED HELP 16

6. VOX POPULI 17
PROGRAMMING ENQUIRY OFFICE SUMMER HOURS

With the introduction of summer working hours on April 3rd, the opening hours of the PEO (4952 or 2377 or 8-935) will become -

0830-1200 and 1330-1700

Judith Richards

CDC-IBM TELINE- OFFICIAL AT LAST!

TELINE is a facility designed to allow IBM WYLBUR or batch users to print their outputs at a CDC RIOS station, or to send print files from the IBM to an INTERCOM user on the CDC 6000's. The <destination> parameter in job submission commands or in the SET JES command may now be used to specify the CDC link, a particular CDC mainframe (by logical id), and a particular CDC RIOS or INTERCOM user. The following are the relevant forms of <destination> -

CDC11l1t  11l and tt as below  
CDC1111  11l is a logical id (CCP default)  
CDCttt  tt is a CDC RIOS or INTERCOM user id  
CDC  printer on CCP

The routing is achieved by insertion of a */ROUTE card in the submitted JCL with the following format. Note, if you insert the JCL yourself, that the format of this */ROUTE card is fixed -

10 20 30 40

.........+.........+........++

*/ROUTE PRINT CDC 11l tt uuGG

The meanings of '11l' and 'tt' are as above, and 'uuu' and 'gg' are the logged-on user and group respectively which will be used to generate a jobname on the CDC. For example -

SET JES DEST CDCCCPOC

This will cause all jobs submitted by means of RUN or LIST OFFLINE to have a */ROUTE card added to ensure routing of output to CDC via TELINE, and thence to the OC RIOS on CCP.

RUN DEST CDCCCQ8

This will cause the addition of an appropriate */ROUTE card to ensure routing to CDC mainframe CCQ and thence to INTERCOM user G8.

Warning

The TELINE link carries out conversion of EBCDIC to CDC's display code - lower case characters are converted to upper case.

Note that only SYSOUT=A may be transferred, and that if you are not using LIST OFFLINE (that is, if you use TELINE from batch) your job must contain a final */' card. You may not 're-route' your file after the job has been submitted. The nominal linespeed is 9600 bps, which is achieved in practice due to compression by JES of identical character strings. Beware of the line limits enforced at CDC RIOS stations- these are approximately 1,000 lines during the day, Monday-Friday, and 2,000 lines overnight and at week-ends. Your output will be printed at the Computer Centre, but (as in the case of CDC printouts) will automatically have the relevant RIOS delivery code added as the first two CDC jobname characters if you exceed these limits.
Note too that you get 4 banner pages- two 'CDC', and also two 'IBM'. It may prove possible to suppress the redundant IBM pages in the future. You can enquire about your output file from a CDC INTERCOM terminal, but not from the IBM itself after it has been routed.

Eric McIntosh, Les Robertson

**YFORT IS GOING TO VANISH**

The IBM procedure YFORT will be removed on Monday, 10th April. It should be replaced by executing the procedure YPATCHY followed by XFORTCG-

```fortran
// jobname JOB
// EXEC YPATCHY,PAMD$N='gg.uuu.mypam'
// Y.SYSIN DD *
. PATCHY data cards
  */
  // EXEC XFORTCG,
  // LLB1='gg.uuu.mylib',
  // LLB2='CR.PUB.GENLIB'
  // C.SYSIN DD DSN=&&ASM
  // /G.FT1FOO1 DD ...........
  // G.SYSIN DD *
. Data cards for FORTRAN program
  */
  //
```

Judith Richards

**DEATH OF A PLOTTER**

To be more accurate, three plotters. The old Computer Instrumentation drum plotters which have provided the on-line plotting service for as long as most users can remember, reach the end of their mechanical lifetimes in April. This includes the 'spare' third plotter, which has been steadily rotated with the other two to allow maintenance. Any minor or severe failure from April onwards will require a major repair- the gearboxes and bearings are extremely worn, and results are now far from accurate. It is very unlikely that such repairs will be carried out. Users have had plenty of warning, and they will just have to convert to the newer CALCOMP plotter. This is possible both for GD3 and SCOOP users as follows-

**GD3 Users**

Old control cards New control cards

XPL0T,I=1fn. ...
or...
CPPL0T,1fn. ...
and then...
DISPOSE,PLOT,PT=CP1,ST=CCP. ...
CALCOMP,I=1fn.
or...
DISPOSE,PLOT,PT=CS1,ST=CCP. ...
CALCOMP,I=1fn,PAPTYPE=SQUARE.

The CALCOMP macro is described more fully in CNL 125, p.4 and in the GD3 User's Guide.
GENERAL NEWS ITEMS

SCOOP users

These users can continue to run their old programs, but they must specify a new library containing 'new' SCOOP routines and also change their control cards-

Old control cards                  New control cards
FIND,LIB,7600LIBRARY,ID=PROGLIB. ... FIND,CERNLIB.
LIBRARY,LIB.                       ... CERNLIB,SCOOP.
and then                          ...
DISPOSE,PLOT,PT=CP1,ST=CCP.       ... FIND,CALPLOT,ID=PULIB.
or                             ... CALPLOT,I=PLOT.
DISPOSE,PLOT,PT=CS1,ST=CCP.       ... CALPLOT,I=PLOT,PAETYPE=SQUARE.

The CALPLOT macro is described more fully in CNL 126, p.9 and its parameters on p.7 and p.8 of the same Newsletter. Changing over to use of the CALCMP plotter as indicated has other benefits for graphics users. Soon a Benson drum plotter will be introduced in the Computer Centre, and will provide not only roughly the same plotting capacity as the CALCMP, but a user-transparent back-up in case either plotter is down. It is planned to run both the CALCMP and the Benson plotters under the control of a NORD-10, which will eventually be connected via the network to both the CDC and IBM systems. This will provide what is effectively an 'on-line' service.

Users can contact the PEO if they have problems, but after one year's warning they may not get much sympathy!

Charles Curran

END OF CARD PUNCHING POOL SERVICE

The Card Punching Pool Service has been used by a very small percentage of the user community in recent times. In view of this and in order to economise, we intend to discontinue the service as of 01-May-78.

If this causes a problem to any remaining users, we can put them in touch with card punching services in Geneva. Please contact G. Duruph in the Computer Centre, tel 2397.

John Ferguson, Chris Jones

FUTURE INTRODUCTION OF CCL

CCL or Cyber Control Language will be introduced after Easter (towards the end of April). CCL provides control statement manipulation selected by verbs. It allows the user-

A) To process and re-process a group of control statements (WHILE, ENDW).

B) To conditionally skip or process control statements (IFE, SKIP, ELSE, ENDIF).

C) To process control statements in a file other than the original file (BEGIN/REVERT). A group of these separate statements is called a procedure. Each CCL procedure must start with a header line of the form

.PROC, pname.  (pname is the procedure name)

Further documentation is given in the Scope 2.1 Reference Manual, 60342600
Revision L, Chapter 11. Although CCL accepts BEGIN/REVERT statements, users of BEGIN/REVERT could be affected by the introduction of CCL, since-
A) The header format is different (.PROC,pname, instead of pname)

B) The most common forms of BEGIN/REVERT statement are compatible, for example-

    BEGIN,pname.
    BEGIN,pname,pfile.
    REVERT.

On the other hand, some infrequently used forms are not compatible-

    BEGIN.
    BEGIN,pfile.
    BEGIN,pname,pfile,rvtfile.
    REVERT,ifn.

Users of such forms should contact the PEO or C. Letertre as soon as possible.

To make the transition easier, the system in production since 13/03/78 accepts both procedure header formats, but gives warning to all users of the old format. This system also gives dayfile messages for BEGIN/REVERT statements not compatible with CCL. Users are recommended to convert now their procedures to the new format. A conversion program is available from the PEO. Users of DEFCMM will not be affected by the introduction of CCL.

An example of using CCL

    jobname.
    ACCOUNT,name,group,acceso.
    FIND,CERNLIB.
    CERNLIB. (Provides 7600LIBRARY).
    F7N.
    LOAD,LOG.
    NGO0,PR0G.
    CERNLIB,NONE.
    RETURN,LOG.
    COMMENT. THIS JOB WILL EXECUTE PR0G AT MAXIMUM 3 TIMES.
    COMMENT. THE EXECUTION WILL BE STOPPED BY ANY ERROR.
    SET,R1=1.
    WHILE,R1>0,LOOP.
    DISPLAY,R1.
    PR0G.
    IFE,R1.LT.3,ENDEX.
    SET,R1=R1+1.
    SKIP,OK. EXECUTION OK, GO TO LOOP.
    EXIT. EXECUTION FAILS, ENDS THE LOOP.
    SET,R1=-1.
    ENDIF,OK.
    ENDW,LOOP.
    COMMENT. EXECUTION FAILS, LOOP INTERRUPTED.
    EXIT.
    ENDIF,ENDEX.
    COMMENT. LOOP EXHAUSTED.
    end-of-information

Note that the example above is not, in fact, a procedure. CCL statements can be added quite freely into 'normal' control card sequences. A further article containing examples of the use of CCL will appear after its introduction into the 7600 system.

Christiane Letertre

IBM DATASET NAMING CONVENTIONS

In June CERN will be taking delivery of an IBM Mass Storage System, or MSS. Once this has been installed, we shall start using a program called the
Hierarchical Storage Manager (or HSM) to control all data sets. One of its main functions will be to provide an archiving system by which little used data sets will be 'migrated' into the Mass Store, releasing disk space to the user. Migrated data sets will be automatically reloaded by the system when they are needed.

One of the requirements of HSM is that all data sets are cataloged. Cataloging of all files implies that-

A) Although a data set name may contain up to 44 characters, the name must be split into sections, separated by a dot, where each section must start with a letter and cannot be more than 8 characters long.

B) Duplicate names are disallowed. Only one can be cataloged.

C) Indexes cannot be used freely. For example, if a data set name gg.uuu.namea is cataloged, it then becomes illegal to catalog a data set name gg.uuu.namea.nameb - conversely, if gg.uuu.namea.nameb is cataloged, then it is illegal to enter gg.uuu.namea into the catalog, although the corresponding data sets can exist on the disks.

From Monday, May 1st, all data sets that cannot be cataloged will be dumped to tape and then scratched. Users who have existing data sets that cannot be cataloged will receive a warning letter before this data and should rename offending data sets (using, for instance, the WYLBUR EXEC file RENAME).

Judith Richards

ASP - AUTOMATIC SLIDE PRODUCTION

A facility for producing slides or transparencies of text according to a user's specifications has been introduced on the CDC 7600. It uses the HPLOT graphics interface package of H. Watkins to produce CALCOMP plots of the user-supplied text. It optionally CATALOGs the display file as well. Slides are, by default, of A4 size ready to photocopy to transparent forms. Some sample output is shown on the page opposite - a guide to its use (DD/US/36) can be obtained from the CDC WRITEUP facility. The job producing it was the following-

jobname.
ACCOUNT, name, group, acno.
FIND, ASP, ASP, ID=PULIB.
ASP.
end-of-section
+len
+char
2.0
ABCDEFGHIJKLMNOPQRSTUVWXYZ

+char
1.0
QRSTUVWXYZ
ABCDEFGHJKLMNOPQRSTUVWXYZ

[ABCDEFHJKLMNOPQRSTUVWXYZ]
[[ABCDEFHJKLMNOPQRSTUVWXYZ]]
+char
1.0
A'A'"<?C
[P]'="[P]'="[P]'="-
A'[AB]'"B?[LM]"
+NEXT
+QUIT
end-of-information
ABCDEFG

hijklmnp

QRSTUWXYZ

ABCDEFGHJKLMNOPQRSTUVWXYZ

ABCDEF

ABCD

0123456789

A^A

C

T^+T^-T^0

A^AB\beta_M
Note that we switch on software characters with "SOFT", and move from alphabet to alphabet (Roman, Greek, and 'Special') with '?' (to the right) and ']' (to the left). See the GD3 Long Write-up, J510, for a description of the alphabets. To change to superscript, use '^', to return to the previous scripting level, use '"' and to subscript, use '_'.

Charles Curran, Howard Watkins

NEW RIOS COMES INTO SERVICE

The North Area RIOS is now in service. It can be found in building 1-B01, tel 6501. Its CDC delivery code is X6, and its disposition code is NA. An IBM RIOS is also available in the same location.

ERRORS OF OMISSION AND COMMISSION

We nearly got the Vox Populi page right last time, but the user's name was printed right in the middle of the back page. This makes it difficult to send 'anonymous' Vox Populi, of course, and we hope to avoid it this time.

Also, under 'Divisional Representatives for Closed-shop Tapes' an error crept in. ISR's is Mme. Y. Marti (tel 2948). I confused myself between English and French ways of writing names- apologies.

Charles Curran

GRAPHIC MICROFILM DEVICE—ANY INTEREST?

The possibility of obtaining a graphic/alphanumeric microfilm device for the Computer Centre is being looked into just now. There are several suitable devices available, which permit alphanumeric output (as does the present CON device— the Quantor 105) and also graphic output (as did the Ferranti EP140 film plotter). A new device, if it were purchased, would form a part of the 'enhanced' graphics station and would be eventually connected to the CDC and IBM systems via the network.

These devices are, however, expensive. We would like to establish as far as possible the interest of users in such a device, either for present or projected applications. Please contact Chris Jones (513/1-007 tel 4884) if you are interested.

Chris Jones

CLOSING DATE—NEXT NEWSLETTER

The closing date for the next Newsletter is 15 April. Articles already in machine readable form (on CDC or IBM, at 80 characters/line and 72 lines/page—we use Pica-10 type) are far more welcome than those which have to be typed! The Computer Newsletter is produced monthly by the User Support Group in the Computer Centre, with Charles Curran as Editor together with Chris Jones and Judith Richards as sub-Editors.

Distribution of the Newsletter

The Newsletter is distributed inside CERN to all registered users of the central computer systems, and to any person requesting a subscription from—

The Computer Science Library,
CERN 1211 Geneva 23,
Switzerland.
The period covered in this article is 13 February, 1978 to 13 March, 1978. The graphs present the last 100 weeks of accounting data, prepared by Ans Oude-Moleman and output using the HPLOT package of Howard Watkins.

IBM SYSTEM

See upper figures opposite

The performance of the 168 has continued its excellent start to the year in this period with an overall availability of 99.87% and an MTBI of 211.4 hours. The workload was less than last month with 4,414 jobs and 58.6 CP hours processed per week.

CDC SYSTEM

See lower figures opposite

The good performance of the 7600/6400 system was confirmed in this period although last week was particularly disappointing with an MTBI of 8.74 hours and an availability of 94.38%. This reduced the overall statistics to 98.34% availability and 18.45 hours MTBI. The workload has been 13,205 jobs and 96.9 CP hours processed per week, giving a slight increase in CP usage over last month.

The new 819 disks on the 7600 have had a few teething troubles but no major problems have been experienced.

Key to Figures-

Scheduled CPU time
Achieved CPU time
User CPU time
Unavailable CPU time
Jobs run
Tapes stage(7600)/mounted(370)

solid line
dotted line
dot/dash line
lower solid line
solid line
dot/dash line

John Ferguson
IBM CPU Usage

IBM Jobs/tapes

CDC CPU Usage

CDC Jobs/tapes
From statistics collected by P. Benassi and others, we can see quite a lot of detail about usage of INTERCOM at CERN. For example, we know which commands are most popular (see table) and how many users we can expect to be working at any time (see graph). We hope to show a similar set of figures for WYLBUR in a future Newsletter.

### Commands Per Session

<table>
<thead>
<tr>
<th>Rank</th>
<th>MFB Commands</th>
<th>MFA Commands</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>RETURN 8.2</td>
<td>RETURN 4.7</td>
</tr>
<tr>
<td>2</td>
<td>ATTACH 3.5</td>
<td>JOBS 3.0</td>
</tr>
<tr>
<td>3</td>
<td>JOBS 3.3</td>
<td>ATTACH 2.6</td>
</tr>
<tr>
<td>4</td>
<td>REWIND 3.0</td>
<td>FILES 2.5</td>
</tr>
<tr>
<td>5</td>
<td>FILES 2.5</td>
<td>REWIND 2.2</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>BATCH 1.6</td>
<td>BATCH 1.4</td>
</tr>
<tr>
<td>7</td>
<td>FETCH 1.3</td>
<td>SCAN 0.95</td>
</tr>
<tr>
<td>8</td>
<td>SCAN 1.2</td>
<td>PURGE 0.83</td>
</tr>
<tr>
<td>9</td>
<td>CONNECT 0.79</td>
<td>AUDIT 0.77</td>
</tr>
<tr>
<td>10</td>
<td>AUDIT 0.75</td>
<td>FETCH 0.76</td>
</tr>
<tr>
<td>11</td>
<td>CATALOG 0.71</td>
<td>CONNECT 0.73</td>
</tr>
<tr>
<td>12</td>
<td>PURGE 0.65</td>
<td>CATALOG 0.66</td>
</tr>
<tr>
<td>(</td>
<td>EDITOR 0.63</td>
<td>EDITOR 0.60</td>
</tr>
<tr>
<td>13</td>
<td>COPY 0.62</td>
<td>COPY 0.45</td>
</tr>
<tr>
<td>14</td>
<td>EXECUTE 0.49</td>
<td>EXECUTE 0.39</td>
</tr>
<tr>
<td>15</td>
<td>REQUEST 0.41</td>
<td>FINT 0.34</td>
</tr>
<tr>
<td>16</td>
<td>LDSET 0.40</td>
<td>LOAD 0.32</td>
</tr>
<tr>
<td>17</td>
<td>DENSE 0.37</td>
<td>G.E. 0.27</td>
</tr>
<tr>
<td>18</td>
<td>FINT 0.36</td>
<td>EXCC 0.26</td>
</tr>
<tr>
<td>19</td>
<td>EXECUTE 0.26</td>
<td>DENSE 0.26</td>
</tr>
<tr>
<td>20</td>
<td>SUE 0.25</td>
<td>SUE 0.24</td>
</tr>
</tbody>
</table>

### Ut Features

<table>
<thead>
<tr>
<th>Rank</th>
<th>MFB</th>
<th>MFA</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>LP</td>
<td>LP</td>
</tr>
<tr>
<td>2</td>
<td>SET</td>
<td>AUD</td>
</tr>
<tr>
<td>3</td>
<td>AUD</td>
<td>SET</td>
</tr>
<tr>
<td>4</td>
<td>L</td>
<td>L</td>
</tr>
</tbody>
</table>

### Total Commands Per Session, Average

<table>
<thead>
<tr>
<th>MFB</th>
<th>MFA</th>
</tr>
</thead>
<tbody>
<tr>
<td>23.04</td>
<td>19.94</td>
</tr>
</tbody>
</table>
There are now many write-ups or User Guides available from the self-service area of the Computer Science Library (building 513, 1-024) or as indicated below from the IBM or CDC 6000's-

**EXEC FROM WRITEUP PUB**  (IBM, then follow the prompts)

**ETL,100**  
**ATTACH,WRITEUP**  
**WRITEUP,Key,NAME=abcde[,COPIES=n][,FICHE]**

The US numbering series is a coordination effort of the US group, which aims to gather useful user-documentation in one series. It is in no way intended to steal credit from the true authors of the programs or documentation, who are frequently in groups other than US.

<table>
<thead>
<tr>
<th>DD/US/n</th>
<th>Title</th>
<th>IBM key</th>
<th>CDC key</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>CDC 7600 User's Guide</td>
<td>CDC</td>
<td>CDC</td>
</tr>
<tr>
<td>2</td>
<td>INTERCOM Pocket Summary Card</td>
<td>-</td>
<td>INTERCOM</td>
</tr>
<tr>
<td>3</td>
<td>A Comparison of CDC and IBM FORTRAN</td>
<td>FORTRAN</td>
<td>FORTRAN</td>
</tr>
<tr>
<td>4</td>
<td>IBM 370 User's Guide</td>
<td>IBM</td>
<td>IBM</td>
</tr>
<tr>
<td>5</td>
<td>AR File Archiving Program</td>
<td>-</td>
<td>AR</td>
</tr>
<tr>
<td>6</td>
<td>Microfiche User's Guide</td>
<td>-</td>
<td>QUANTOR</td>
</tr>
<tr>
<td>7</td>
<td>Control Card Macros</td>
<td>-</td>
<td>MACRO</td>
</tr>
<tr>
<td>8</td>
<td>GD3 User's Guide- CDC</td>
<td>-</td>
<td>GD3</td>
</tr>
<tr>
<td>9</td>
<td>Paper Tape User's Guide</td>
<td>-</td>
<td>PTAPE</td>
</tr>
<tr>
<td>10</td>
<td>Contents of CERN Library</td>
<td>-</td>
<td>LIBRARY</td>
</tr>
<tr>
<td>11</td>
<td>PEJOB Ascii Printing Guide</td>
<td>-</td>
<td>PEJOB</td>
</tr>
<tr>
<td>12</td>
<td>FLOP User Guide (FORTRAN Parser)</td>
<td>-</td>
<td>FLOP</td>
</tr>
<tr>
<td>13</td>
<td>SUE, Single User Editor</td>
<td>-</td>
<td>SUE</td>
</tr>
<tr>
<td>14</td>
<td>HPLLOT Advanced User Guide</td>
<td>-</td>
<td>HPLOTA</td>
</tr>
<tr>
<td>15</td>
<td>HPLLOT Installation Guide</td>
<td>-</td>
<td>HPLOTI</td>
</tr>
<tr>
<td>16</td>
<td>CASTOR, Automated Abstracts</td>
<td>-</td>
<td>CASTOR</td>
</tr>
<tr>
<td>17</td>
<td>MORTAN User Guide</td>
<td>-</td>
<td>MORTAN</td>
</tr>
<tr>
<td>18</td>
<td>PASCAL User Guide</td>
<td>-</td>
<td>PASCAL</td>
</tr>
<tr>
<td>19</td>
<td>WYLBUR Reference Manual</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>20</td>
<td>On-line Support for Labelled Tapes</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>21</td>
<td>BCPL on the IBM</td>
<td>-</td>
<td>LABEL</td>
</tr>
<tr>
<td>22</td>
<td>EVENT for CDC</td>
<td>BCPL</td>
<td>-</td>
</tr>
<tr>
<td>23</td>
<td>WYLBUR Tutorial</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>24</td>
<td>WYLBUR Command Summary Card</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>25</td>
<td>NOSED Alternative Editor under INTERCOM</td>
<td>-</td>
<td>NOSED</td>
</tr>
<tr>
<td>26</td>
<td>GD3 User's Guide- IBM</td>
<td>GD3</td>
<td>GD3IBM</td>
</tr>
<tr>
<td>27</td>
<td>STICKER Label and Address Printing</td>
<td>-</td>
<td>STICKER</td>
</tr>
<tr>
<td>28</td>
<td>Listing of SYS3.PROCLIB</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>29</td>
<td>Introduction to IBM JCL</td>
<td>JCLINTRO</td>
<td>-</td>
</tr>
<tr>
<td>30</td>
<td>WYLBUR EXEC File Tutorial</td>
<td>EXECFILE</td>
<td>-</td>
</tr>
<tr>
<td>31</td>
<td>FELIX User Guide</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>32</td>
<td>CERNET User Guide</td>
<td>CERNET</td>
<td>-</td>
</tr>
<tr>
<td>33</td>
<td>HEFFI User Guide</td>
<td>-</td>
<td>HEFFI</td>
</tr>
<tr>
<td>34</td>
<td>Physics Data Handling Notes</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>35</td>
<td>ASP- Automatic Slide Production</td>
<td>-</td>
<td>ASP</td>
</tr>
</tbody>
</table>
| 36      | Also supported are the following Program Library long write-ups-

L220 BCPL Long Writeup - BCPL
Y250 HBOOK Long Writeup HBOOK
Y251 HPLLOT Long Writeup HPLLOT
Q210 ZBOOK Long Writeup - ZBOOK

**OTHER DOCUMENTS ON THE IBM**

There are several other items of useful documentation available from
WRITE-UPS

ASSEMBLR
A guide to writing IBM Assembler routines for FORTRAN programmers.

BANNER
A procedure to print lines of text using block characters similar to those used on the banner page of your outputs.

BINLIB
A short guide to use of IBM binary libraries.

COPYR
A procedure to copy records from a tape or disk dataset.

DEMON
A guide to DEMON, the interactive FORTRAN de-bugging package from SLAC.

FETE
FORTRAN execution time estimator (a simple sort of SPY).

FI0999
A FORTRAN READ/WRITE simulation (similar to ENCODE/DECODE).

GOPARM
FORTRAN callable subroutine to return the G-step parameter string (Program Library Z262).

NAMEZB
Subroutine to print eyeball-sized characters. Not the same calling sequence as on CDC (Program Library J402).

OPEN
Flexible tape reading routine.

PASSWORD
Description of dataset protection facilities using passwords. Passwords should not be used unless they are really needed.

SERLAB
FORTRAN callable subprogram to change tapes and/or files, label type and dataset name during execution of a program without having to supply a DD statement for each file of each tape used.

SFORT
A special version of the FORTRAN compiler that causes a print out of all program variables and their values if a program terminates abnormally (similar to, but not as powerful as CDC MANTRAP).

SIGN
A program to print signs in upper and lower case characters, 130 characters high along the length of the paper.

TAPECOPY
A program and EXEC file to copy labelled and unlabelled tapes, allowing a change of label type and initial positioning of both input and output tapes.

UPDTX
User manual for IEBUPDTEX, a more powerful version of the IBM program IEBUPDTE.

WLIBLEST
A procedure to list a WYLBUR file, member of a WYLBUR library or a complete WYLBUR library.

WPRESS
A procedure to convert a card image file into WYLBUR compressed format.

WUNPRESS
A procedure to convert WYLBUR compressed format into card image format.

XCPOUT
FORTRAN callable routine to write records with RECFM=U to magnetic tape.

XPACKAGE
IBM version of the CERN Program Library package Z200, but note that the IXLONG function of the IBM version returns the record length in bytes, not words.

Charles Curran, Judith Richards
This selective index to articles which have appeared in old Newsletters is meant to be used as a back reference to material which is not covered elsewhere. Thus, an article on a subject which has since been documented elsewhere will NOT appear in this index. Back issues of the Newsletter can be obtained from the self-service area of the Computer Science Library, building 513, 1-024.

<table>
<thead>
<tr>
<th>Title</th>
<th>Authors</th>
<th>CNL</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>ALGOL and SYMPL, 7600</td>
<td>W. Simon</td>
<td>120</td>
<td></td>
</tr>
<tr>
<td>AUDITIP, 7600 file audit</td>
<td>L. Robertson</td>
<td>116</td>
<td></td>
</tr>
<tr>
<td>Cataloged Procedures, 370</td>
<td>C. Curran</td>
<td>127</td>
<td></td>
</tr>
<tr>
<td>CALCOMP Graphic package- 7600</td>
<td>F. Fabiani</td>
<td>126</td>
<td></td>
</tr>
<tr>
<td>CERNLIB, 7600 libraries</td>
<td>C. Curran</td>
<td>122</td>
<td></td>
</tr>
<tr>
<td>ECAP/SCEPTRE circuit analysis</td>
<td>J. Howie</td>
<td>98/114/115</td>
<td></td>
</tr>
<tr>
<td>GEFPFILE/RETFILE, SAVELIB/RESTLIB</td>
<td>C. Letertre</td>
<td>124</td>
<td></td>
</tr>
<tr>
<td>MANTRAP with previous compilations</td>
<td>H. Watkins</td>
<td>120</td>
<td>FTN,U now</td>
</tr>
<tr>
<td>PATCHY 4- Automatic conversion</td>
<td>H. Grote</td>
<td>124</td>
<td></td>
</tr>
<tr>
<td>Programming Conventions</td>
<td>M. Metcalf</td>
<td>106/107/112</td>
<td></td>
</tr>
<tr>
<td>XPL0T- GD3 Frame Selection- 6000's</td>
<td>C. Curran</td>
<td>119/120/124</td>
<td>ID=PUBLIC</td>
</tr>
<tr>
<td>Divisional Representatives</td>
<td>-</td>
<td>128</td>
<td></td>
</tr>
</tbody>
</table>

Note that WRITEUP and EXEC FROM #WRITEUP PUB, as described elsewhere, provide modernised and more accurate descriptions of many of the items previously indexed here. Other 'old' articles are now described in the 7600 User's Guide, the INTERCOM Pocket Card, and so on.

Charles Curran
Most requests for programming help are handled by the-

**PROGRAM ENQUIRY OFFICE**
0830-1200 513/1-017 8-935 4952
1330-1700 or 2377

Questions concerning the execution of jobs are answered by the-

**COMMUNICATION OPERATOR**
513/R 4927

Most special requests, for priority or "P files are handled by the-

**COMPUTER COORDINATOR**
Mike Metcalf 8-942

The following list may be useful for people with special requests-

**PROGRAM LIBRARY**
Help with library programs
Fred James 513/1-017 4959
Torbjorn Lindelof " "
Dominique Dupraz 513/1-015 4951
Gudrun Berger " "
K. Gieselmann 27/2-020 4861

**DOCUMENTATION OFFICE**
Felicitas Morice 513/1-011 2371
Jean-Louis Penaud " "

**MAGNETIC TAPES**
Software
Judy Richards 513/1-005 4957
Operations
Georges Durupthy 513/R-033 2397
Allocation/Cleaning
Tape Reception 513/R 4939

**COMPUTER SERVICE PROBLEMS**
Operations - all aspects
John Ferguson 513/R-017 8-637
Jean-Claude Juvet " "
" - CDC service
Dave Underhill 513/R-035 8-364
Chris Jones 513/1-007 8-947
User Support
Tor Bloch 31/2-028 4949
Martin Sheehan 513/R-034 3348
Comm. Operator 513/R 4927
CERNET
Mike Gerard 31/3-012 8-951
Ian McLaren 513/1-009 5010
Focus/FOCUS Data links
Ian McLaren 513/1-009 5010
Jean-Claude Juvet 513/R-037 4935

**OTHER SERVICES**
GD3 Graphics
Michael Howie 31/2-007 2993
Computer Science Library
Jutta Megies 513/1-024 2379
Math Advisory Service
Benno Schorr 31/3-024 4120
INFOL/TOTAL Databases
Jean-Philippe Baud 31/3-019 3347
Terminal Service
Carlo Vandoni 31/2-003 8-952
FELIX
Florence Ranjard 2/1-027 8-632

**REGISTRATION**
New Users
Div. Rep- CNL 128
INTERCOM Users
Ans Oude-Moleman 513/1-003 5029
What is vox populi for?

All complaints, suggestions or problems sent in to the PEO on the form which is the last page of this Newsletter will be answered as quickly as possible (if not obscene or just a personal attack!) in these Vox Populi pages. Please note that your name will not be printed - only that of the person replying. You can send the form anonymously if you wish, but then you have to wait until the next Newsletter appears to receive an answer.

Chris Jones, Charles Curran

-----Attaching an archived file from Intercom causes the terminal to be blocked till the end of the operation - this may last up to 20 minutes. Is there no possibility to give the user a message, that he cannot use his file immediately, but let the terminal free for other operations - and perhaps give a message, when the file is restored? (In this case, for example, one could change one's still existing program-file while an archived data-file for this program is being restored, etc.)

The normal way to reload an archived file is to submit a batch job. When you try to attach an archived file from the terminal you receive the message

"REQUEST FOR ARCHIVED FILE ....."

You can suppress this request immediately by entering ESC A Then you simply submit the tiny JOB

   Jobname,CP60.
   ACCOUNT,name,group,acono.
   ATTACH,X,yourfile,IDsid.
   end-of-information.

and your terminal stays free during the restoring. The "JOBS" or "AUDIT" command will help you to find out when the restore is complete. You even could use NOTIFY (see CNL 126 p.9)

Bernd Pollermann

-----The change and delete command has 2 options

   VERIFY
   NOVERIFY

When set on "VERIFY" option it is necessary to answer "YES" or "NO" at each change. If someone modifies a big file, maybe he would like to check the first modifications and then let it go automatically up to the end of the file. Would it be possible to introduce this facility? I would suggest to add a special character in the command.

This is a good idea. As a more general solution I will modify these commands to accept a response "NOVERIFY" to the "CHANGE/DELETE OK?" prompt

Les Robertson
1) When #TV PUB is used on the IBM terminal characteristics are wrong after a normal exit, both on a T4012 and T4006. This could be simply cured by SET TERM T2 as the last line of the execfile.

2) When the switch on a T4006 is flipped to small characters, no extra lines are gained and only half a page is visible before the PTO occurs. Is there any way to get a full page, i.e. more lines?

1) If #TV PUB is used and it finishes normally, indicated by the comment "TV END", then a SET NORMAL and SET DENSE have been executed. The SET NORMAL resets all the defaults for a "T2" type terminal, including PAGE mode. I believe that this leaves the terminal characteristics in an acceptable state. However, in the current system, this generates two unnecessary PTOs and thus provokes a tendency to "BREAK" the execution. #TV PUB has been modified to remove these PTO's by replacing the commands SET NORMAL/SET DENSE with SET DENSE/SET PAGE. In addition, now that the "ON BREAK" facility is available in WILBUR, #TV PUB has been modified to execute its termination sequence if the execution is broken.

2) The Tektronix T4006 and T4012 terminals both work, by default, in a mode (NORMAL MODE) which uses 35 lines of 74 characters on the screen. Both terminals are also capable of displaying smaller sized characters (DENSE MODE) providing 64 lines of 128 characters. The WILBUR/MILTEN commands SET NORMAL and SET DENSE instruct the system to send the appropriate number of lines per page. These commands also send the necessary control characters to switch the T4012 hardware from large to small characters. Unfortunately the T4006, a somewhat cheaper terminal, is unable to recognise these control characters. The terminal operator must set the switch to correspond with the last SET NORMAL or SET DENSE.

Rob Watts

---Are you familiar with ABACUS, which is available at SLAC? I am a visitor at CERN and have been wondering whether there is an equivalent here. As a non-programmer, I find ABACUS to be very helpful for making routine computations interactively... evaluating functions, finding the roots of a polynomial, etc.

We don't have ABACUS and we are not very familiar with it either - so we will have a look at it to see whether it would be worth offering it as a service. In the meantime why don't you come and see me and I will show you what we have? Even if we do not have a precise equivalent we may be able to solve your problem.

Chris Jones
Please describe your problem, or write your suggestion. Then just fold the form and drop it into any mailbox.

DATE-  MACHINE-

SYSTEM -

(IF YOU WISH)
NAME -
DIVISION-
To- PROGRAM ENQUIRY OFFICE,
DD Division,
Building 513, CERN
=====================

----------------------------- fold here -----------------------------

To- PROGRAM ENQUIRY OFFICE,
DD Division,
Building 513, CERN
=====================