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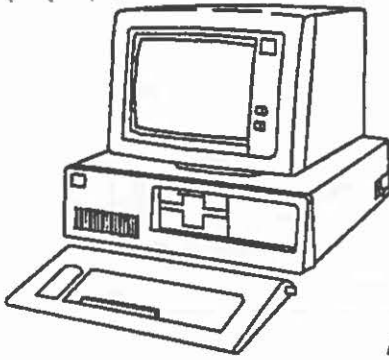
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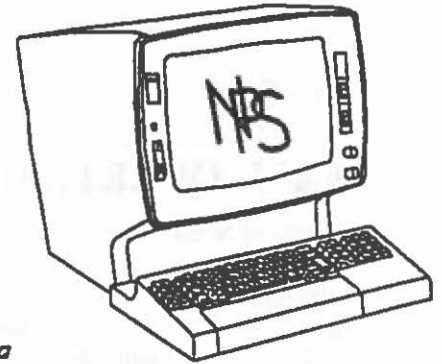
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Computer Center BULLETIN



Naval Postgraduate School Monterey, California

NPS Computer Center

September 22, 1988

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POSTGRADUATE SCHOOL

FALL QUARTER TALKS

The User Services Group will give twenty-five talks at the beginning of this quarter to acquaint users with the various facilities of the VM/CMS time-sharing and MVS batch systems available on the mainframe and with the services available in the Center's Microcomputer Lab. In addition, Prof. P. A. W. Lewis (OR) will present two introductory talks about interactive statistical/graphical services using APL.

The following six talks will be given in the Sp-101 lecture hall. Signup for these sessions is not required.

INTRODUCTION TO VM/CMS: SP-101

1510 Wednesday	28 September	June Favorite
1410 Thursday	29 September	June Favorite
1510 Monday	3 October	June Favorite

This talk is given three times; it assumes no prior knowledge of the Center's computer. Topics to be covered include the use of the 3278 terminal, how to logon and logoff, use of the function keys, the HELP facility, and various general-purpose commands. It is strongly recommended for all new users of the Center and covers information which may not be provided in an introductory programming class. Be sure to bring a copy of Technical Note VM-01, *User's Guide to VM/CMS at NPS* (A copy of this publication is usually provided when a new user registers in In-147.)

INTRODUCTION TO XEDIT: SP-101

1510 Thursday	29 September	Jane Kretzmann
1410 Monday	3 October	Jane Kretzmann
1410 Tuesday	4 October	Jane Kretzmann

This talk is presented three times. It provides elementary information about the XEDIT full screen editor. The main emphasis is on methods for creating and changing programs and other files. Use of the PF keys and HELP facility in XEDIT are mentioned. The talk assumes little or no familiarity with XEDIT, but prior attendance at Introduction to VM/CMS is recommended.

All other talks, described below, will be given in In-119 or In-224. Those interested in attending should sign up in the Consulting Office, In-146, to reserve a seat.

APL AND RELATED PROGRAMS ON MICROCOMPUTERS: IN-119

1510 Wednesday 28 September Prof. P.A.W. Lewis

This talk presents STSC's APL+plus product for microcomputers as well as their new implementation of APL2. STATGRAPHICS, an APL based graphics and statistics package for microcomputers, and various other programs are also discussed. WSTRAN, a program for mainframe to microcomputer transmission of workspaces will be demonstrated.

INTRODUCTION TO GRAFSTAT: IN-119

1510 Thursday 29 September Prof. P.A.W. Lewis

This talk will give a brief introduction to GRAFSTAT, an APL package for interactive scientific-engineering plotting, graphics output development, applied statistics, and data analysis. The program features a full-screen interface, complete on-line help, color graphics capability and effectively combines computation and graphics. Complete routines for least squares fitting, fitting of probability distributions, design and implementation of quality control charts, regression and time series analysis are available.

INTRODUCTION TO MS-DOS: IN-224

1310 Friday	30 September	Donna Schoenecker
1510 Wednesday	5 October	Donna Schoenecker

This is a combination 75-minute talk and lab session; it will be given twice. It is designed for beginners who are interested in learning how to use the operating system of any IBM or IBM-compatible microcomputer. Various elementary IBM Disk Operating System commands will be discussed. Use of, and naming conventions for,

DOS files and other basic concepts will also be covered. Participants will be given information on using the Micro Lab's Ungermann-Bass/Novell network. Enrollment for these two sessions is open only to students and faculty. Other sessions for School staff will be scheduled.

MICRO/MAINFRAME COMMUNICATIONS: IN-224

1510 Monday	3 October	Donna Schoenecker
1510 Thursday	6 October	Donna Schoenecker
1410 Tuesday	11 October	Donna Schoenecker

The first 25 minutes of this talk is a discussion of the SIM3278/VM protocol converter running on the IBM 3033 mainframe. SIM3278/VM converts an incoming data stream from asynchronous ASCII devices to 3278 terminal screen images, thus permitting microcomputer and ASCII terminal users to dial up and use the mainframe. Consequently they can use all the full-screen programs and utilities of VM. The second half is a discussion of SIM/PC, a companion product, for IBM PC and PC-compatible users. It provides asynchronous communications, including keyboard definition of 3278 PF keys on the PC keyboard. SIM/PC is available to all authorized users at NPS. This talk will be given three times this quarter.

INTRODUCTION TO SPSS-X: IN-119

1510 Wednesday	5 October	Dennis Mar
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SPSS-X, the Statistical Package for the Social Sciences, is a comprehensive tool for managing, analyzing, and displaying information. The speaker will describe the required data formats and SPSS-X control statements for a simple problem. Both batch and timesharing modes of execution will be demonstrated. This talk is intended for new users of SPSS-X.

INTRODUCTION TO MINITAB: IN-119

1510 Wednesday	12 October	Dennis Mar
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Minitab is an interactive statistical computing sys-

tem available on VM/CMS. It is designed for moderate-size data sets which can be stored on a CMS A-disk. Minitab is quick and especially useful for exploring data, plotting, and regression analysis. Attendees should be familiar with the timesharing system.

INTRODUCTION TO WORDPERFECT: IN-224

First Series:

1610 Wednesday	12 October	Kathy Strutynski
1610 Thursday	13 October	Kathy Strutynski
1010 Friday	14 October	Larry Frazier

Second Series:

1610 Monday	17 October	Kathy Strutynski
1610 Wednesday	19 October	Kathy Strutynski
1610 Thursday	20 October	Larry Frazier

Enrollment for these two series is open only to students and faculty. Other sessions for School staff will be scheduled. Seminars are given in two identical series. All enrollees should attend at least the first two sessions of either set which are hands-on tutorials about WordPerfect in general. The third session of each set is a special presentation concerning use of WordPerfect to produce a thesis in NPS-approved format. WordPerfect is fast becoming the favorite word-processor of many companies and universities. These talks will introduce you to most of its fundamental features. You will also be shown how to use some of its special features — the spelling checker, the thesaurus, and outlines/tables/indices.

INTRODUCTION TO GML: IN-119

1510 Thursday	13 October	Larry Frazier
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Generalized Markup Language (GML) provides a set of commands that simplifies the task of using the DCF document composition facility of ScriptVS to prepare papers and other research publications. It takes care of footnotes, figures, tables, and formulas and will also generate a Table of Contents for your paper. GML provides the same type of functions as the old SYSPUB facility of Waterloo Script, but GML commands are easier to use.

INTRODUCTION TO DISSPLA: IN-119

1510 Monday 17 October Jane Kretzmann

DISSPLA is a device-independent graphics package for use by FORTRAN programmers. It allows convenient generation of a large variety of graphs, charts, text, etc. It may be used at NPS both on MVS (batch) and VM/CMS (timesharing). This talk provides a general introduction and some examples of usage.

INTRODUCTION TO SAS: IN-119

1510 Wednesday 19 October Dennis Mar

SAS, the Statistical Analysis System, is a flexible program for handling all phases of data analysis: retrieval, data management, statistical analysis, and report writing. It has excellent features for merging and subsetting data sets. The speaker will describe the required data format and SAS control statements for a simple problem. Both the batch and timesharing modes of execution will be demonstrated.

VS FORTRAN TOPICS: IN-119

1510 Thursday 20 October Roger Hilleary

This talk is 90 minutes in length. It is designed to encourage FORTRAN users to familiarize themselves with more of the features of VS Fortran, the standard Fortran compiler on both the VM and MVS operating systems. VS Fortran includes Fortran 77 as one of its language levels. Newer features of Fortran 77 include CHARACTER variables, OPEN and INQUIRE statements, internal READ/WRITE, INCLUDE and PARAMETER statements, an IF-THEN-ELSE structure and much more.

INTRODUCTION TO GTHESIS: IN-119

1610 Tuesday 25 October Larry Frazier
May be rescheduled to same place, same time on 1 Nov.

The time for this talk is approximate. It will begin immediately after the Registrar's thesis briefing in

King Hall. It does not begin until the registrar's briefing is over; it isn't necessary to leave the briefing before it is over. The talk will be rescheduled if a Superintendent's lecture is scheduled for this day. Announcement will be made in the *Quarterdeck*.

GThesis is an addition to the IBM Script (DCF) document composition system that simplifies producing a thesis to NPS standards. The talk will be useful only to those with some familiarity with Script (GML). Attendees should also have read (and brought along) the first three chapters of TN VM-14, the GThesis documentation, which is available in In-146. See above for the related GML talk.

ADVANCED MS-DOS: IN-224

1510 Wednesday 26 October Kathy Strutynski

This is a combination lecture and lab session designed to increase your knowledge of the DOS operating system and help you become a more efficient user of your PC. You will learn how to use tree-structured directories to organize your files, how to create batch files to save time and keystrokes, and you will be introduced to the sophisticated commands and command filters of DOS 3.1 — ASSIGN, ATTRIB, BACKUP, FIND, MORE, SORT, etc. Enrollment for this session is open only to students and faculty. Other sessions for School staff will be scheduled.

Neil Harvey

ANNOUNCEMENTS

SIMULATION LANGUAGES GOING

For many years the Computer Center has supported three simulation languages on the MVS batch processing system: CSMP (Continuous System Modeling Package), GPSS-V (General Purpose Simulation System), and SIMSCRIPT (CACI, Inc.) The first two were IBM products which are now obsolete, *i.e.*, IBM will provide no further support. In addition CSMP and GPSS presuppose use of IBM Fortran G or H, also products no longer supported either by IBM or the Computer Center.

This article is to provide advance notice that the Center will not be able to support GPSS and CSMP on the new mainframe and MVS/XA, the new extended addressing version of MVS. Since newer and better products must exist, we are asking for suggestions on which ones we should consider for local installation. If you have any ideas, please contact the Director (Doug Williams, In-129, x2573, userid 0001p) or the Manager of User Services (Roger Hilleary, In-133, x2752, userid 0002p). We would also like your comments on whether or not we should maintain SIMSCRIPT. Recent releases of SIMSCRIPT can be installed on VM timesharing.

Roger Hilleary

CHANGES IN PL/I LIBRARIES

until recently our MVS system contained a motley collection of PL/I cataloged procedures and system libraries. We accommodated both PL/I Version 4 and Version 5, including two copies of the latter — one installed for NPS and the other for the Defense Manpower Data Center. However, on 24 September we rationalized the situation to produce a more standard system allowing more efficient maintenance and more focussed support. Specifically:

- PL/I Version 4 cataloged procedures and libraries were deleted;
- PL/I Version 5 cataloged procedures referencing unmaintained libraries were deleted; and
- PL/I Version 5 cataloged procedures referencing maintained libraries were renamed to be consistent with the conventions used in the MVS IPO distribution system.

Anyone with problems or questions on PL/I support should contact Dave Norman, In-106, x2641.

Dave Norman

VM TOPICS

MORE ON VS FORTRAN 2

In the last issue of the *Bulletin* we announced the availability of IBM's VS Fortran Version 2 for "friendly users" on both of our operating systems.

VSF2 will probably be the standard, production Fortran compiler on the new mainframe system we believe is in our future. Recall that VSF2 includes vectorization software to drive the vector hardware that is part of any of the various systems that may be bid.

One detail of the previous article should be revised. When compiling on VM, it is no longer necessary to previously issue an EXEC FORTLINK command. (The linkage to VSF2 disks is now built into the VSFORT2 exec file.) It is still necessary for the user to issue appropriate GLOBAL TXTLIB and GLOBAL LOAD commands before loading/executing.)

One feature of VSF2 should be highlighted: the Intercompilation Analyzer (ICA). To invoke ICA, use the compiler option 'ICA'. This will produce an augmented LISTING file with much useful information. This option should be used when you have a group of routines you want to process together and you want to know if there are conflicting references. ICA will tell you if an argument of a routine is of one type in the calling program and a different type in the called subroutine. It also detects conflicting classes, such as declaration as an array in one routine, but as a scalar in another.

ICA also provides a detailed analysis of each variable, including whether or not any argument is fetched (actually used in the subroutine) and/or set (actually changed in the subroutine) or is unreferenced. The ICA option also has parameters allowing previously analyzed routines to be included in the present run and/or allowing saving of the present analysis for inclusion in subsequent runs.

Intercompilation analysis is discussed in detail on pages 201-215 of *VS Fortran Version 2 Programming Guide Release 3*, SC26-4222-3, a copy of which is available for reference in the Consulting Office, In-146.

Roger Hilleary

PROPORTIONAL PRINT 2 UP

A new option has been added to the Script menu. Specifying *Two* pages per sheet of paper prints two pages of full-sized proportional print per sheet of paper on the 3800 page printer, the high-speed printer in In-140. Since a single sheet is 8½ inches wide, and the computer paper is 14 inches wide

between perforations, the left and right margins for each page are reduced. For most purposes, the margins would be too narrow for a final copy. However, the printout is excellent for proofing, trial runs, and for printing on-line documentation.

Besides specifying Two pages per sheet of paper on the Script menu, it is necessary to put the command

```
: twoup
```

at the beginning of the file to be scripted. This process is compatible with imbedded graphics, formula formatting, and GThesis.

SCRIPT NEWS

For several years, it has been possible to review late-breaking news about Script by typing LINKSCR NEWS. Early announcement of the above two-up printing was made in *linkscr news*. Users of Script, GML, and GThesis will probably be interested to read several other items added to *linkscr news* at the beginning of September.

Larry Frazier

REXX EVALUATE EXEC

The following exec is written in REXX, the most recent VM/CMS command language interpreter. We shall show it first and then discuss its use.

```
/* Evaluate exec */
arg exp
interpret say 'The value is ' exp
exit
```

This four-line exec lets a CMS user perform simple calculator functions at his or her terminal. Suppose you are putting some notes together while in XEDIT and quickly need the value of 13456/234. Just go to the command line and type:

```
====> evaluate 13456/234
```

The screen will interrupt with the response

```
The value is 57.5042735
```

Then you can go right back to your editing. The EVALUATE exec file works using any standard REXX expression. This should help to motivate users to learn REXX.

Mark Mitchell, 55Mi

NEW FEATURE OF LINKTO EXEC

The capability of the LINKTO exec has been extended beyond linking to other CMS userids. The LINKTO exec can be used to link your virtual machine to an MVS disk.

Syntax:

```
EXEC LINKTO MVSnnn
```

or

```
EXEC LINKTO MVSnnn mymode
```

where "MVSnnn" is the name of an MVS volume and "mymode" is an available mode. If the mode is not specified, LINKTO will select one. The "EXEC" preface is necessary if this command is written into an EXEC2 exec.

This linking capability allows a program executing in CMS to read input from a data set on an MVS disk. For example, assume there is a sequential data set called MSS.S1234.MYFILE on MVS disk MVS217. This data set has a fixed block record format (RECFM=FB) and logical record length of 80 (LRECL=80). The READ statements in the Fortran program MYPROG have UNIT=2.

The following exec code will link to the MVS disk, establish the file definition, execute the program, and release the link to MVS.

```
8TRACE ALL
EXEC LINKTO MVS217 G
FILEDEF 2 G DSN MSS.S1234.MYFILE
LOAD MYPROG (START
REL G (DET
```

The FILEDEF can also specify a member of a partitioned data set (PDS). Suppose MSS.S1234.MYPDS is a PDS with a member MYNAME. The member will be specified as a FILEDEF option.

```
FILEDEF 2 G DSN MSS.S1234.MYPDS (MEMBER MYNAME
```

Variable spanned (VS), variable blocked spanned (VBS), and some unformatted (U) MVS data sets cannot be read with this LINKTO/FILEDEF technique. It also cannot be used with some direct access data sets such as SAS system files.

The MVS disk name must be supplied to LINKTO. If you do not know on which MVS disk your data set resides, use Option 1 of

MVSHelp to create an informational MVS job and then submit that job. The output file you receive will list your MVS data sets and their disk locations.

For more information, type: LINKTO ?

Dennis Mar

GRAPHICS NEWS

SOLVING AN EASYPLOT MYSTERY

Suppose when using EASYPLOT, the graph you display on the Tektronix 618 looks just fine. However, when you request hardcopy output on the IBM 3800 laser page printer ("Sherpa"), you get a totally different graph — one produced in the past. What's happening?

Solution: when you request the hardcopy output, EASYPLOT creates a file called DISSPLA METAFILE on your T-disk. Then another program (DISSPOP) is invoked to send this file to the printer. The glitch occurs when you have another DISSPLA METAFILE on (typically) your A-disk. The DISSPOP program will send *that* file to the printer instead of the one intended.

To find the culprit file, type FILEL DISSPLA METAFILE * . Then either

- (a) ERASE the old file, or
- (b) RENAME that file using the command
REN / <newname> = = in filel.

HINT FOR DISSPLA USERS

If you use either EASYPLOT or the DISSPLA graphics package on the IBM 3033, you should periodically BROWSE the Disspla News. This file can be found by typing

DISSPLA ?

and selecting option #3 (See Graphic News). While examining this Help file, you may profit from looking at the other options.

Jane Kretzmann

FAST PRINT FOR MICROS

The following article originally appeared in the 26 February issue of the Bulletin. It is updated to reflect the procedural changes necessitated by switching to WordPerfect version 5.0. Users are also reminded that the 3800 printer will print draft quality documents faster than any of the printers on the Local Area Network; its use for documents longer than 10 pages is encouraged.

Files "printed" to text files may now be sent to the 3800 via the In-151 network for *fast* draft printing. In WordPerfect printing to a text file will format pages as they would appear in final form, *i.e.*, inserting auto page numbers, footnotes, etc. without using imbedded codes. This ASCII text file may then be sent to your A disk on the mainframe, then on to the 3800 for printing. This is not suitable for final form documents because font changes, including boldfacing and underlining, are not present.

The procedure for using this feature is as follows:

1. Login to a station on the PC network in In-151.
2. Start WordPerfect version 5.0
3. Retrieve your document.
4. Press <SHIFT> <F7>, for the Print Options menu.
5. Press S for Select Printer
6. Highlight the DOS Text Printer This will create a file DOS.TXT on the default drive. (This should be the network drive F: for your station.)
7. Exit WordPerfect when printing is completed.
8. Start the network 3270 emulation.
9. Logon to the mainframe and let your profile run. Make sure the mainframe is at the VM READ prompt before proceeding.
10. Switch back to the PC window.
11. Start the file transfer by typing "SENDIT" at the system prompt. SENDIT is a batch file which will send the file DOS.TXT to your A disk as PCFILE TEXT. It also sends an EXEC for the mainframe called PRINTIT which will be executed in a subsequent step.

12. When file transfer is complete switch back to the mainframe.
13. If your document exceeds 15 pages do a GETSTOR 1500K.
14. Invoke the PRINTIT EXEC. PRINTIT uses XEDIT to change the end-of-page character

imbedded in the file PCFILE TEXT from a 0Ch to a 1, sets lines-per-inch to 8, and selects the Courier 10 font.

15. Pick up your output in the distribution area.

Donna Schoenecker

OPERATIONS INFORMATION

CONSULTING HOURS

Mon-Fri 0900-1130 and 1315-1545 in In-146

Reference materials in the Consulting Office must not be removed from that room without special permission of the Consultant on duty or a Computer Operations Shift Supervisor.

HOURS OF OPERATION

VM/CMS and MVS are available 24 hours a day, 7 days a week. Preventive maintenance is normally performed 0700-1400 hours, first Sunday of each month. Systems work may occasionally be performed between 0700 and 1200 on Saturdays; advance notice is given in the VM/CMS log message.

Call 646-2713 for recorded system status.

MICRO LAB CONSULTING HOURS

1100-1200 and 1300-1700 Monday - Friday

MICRO LAB OPEN HOURS

0900-2100 Monday-Thursday

0900-1700 Friday

Weekends: as posted on Micro Lab door

See Micro Lab assistants during consulting hours for combination to access Lab when it is closed.

MVS Job Queue Restrictions

No more than 3 MVS (Batch) jobs per individual may be executing and/or waiting execution. This policy allows each individual a fair share of batch processing capacity, and prevents spooling overload problems. Excess jobs will be cancelled.

Information on Printed Output

The Computer Center has an IBM 3800 non-impact printer and a 3262 impact printer in In-140. These printers are available around the clock, 7 days a week. (See "HOURS OF OPERATION"). If you want a printer unloaded, expect to wait until an operator is available. However, if you have received instruction from a computer operator, you may remove printout from either printer. If you do, please leave separated output on the counter-top, or file it by distribution code. Please observe these rules:

Press the READY button after removing output.

Make sure output is folding correctly in the output hopper.

Separate all jobs in the batch of output removed from the printer.

Avoid unnecessary printing. Return output to your terminal for review and editing prior to printing. Use the default output class, SYSOUT=A, for general output from MVS. This produces two output pages per sheet of paper on the 3800 page printer.

Budget restrictions and good computing practice dictate that only one final copy of a thesis be produced on any of the Center's printers. If more than one copy is required, use of duplication facilities on campus is recommended. But please note that the NPS printshop will not cut or bind more than one personal copy.

Please put unwanted printout in any trash container in In-140, In-141, or In-151, for recycling.

This publication is published as required and is written by members of the staff, W. R. Church Computer Center (Code 0141), Naval Postgraduate School, Monterey, CA 93943. Send requests for information or suggestions for articles to the User Services Manager, Code 0141 (In-133), x2752 (messages: x2573). Bitnet: 0002P@NAVPGS

The Center operates an IBM 3033 Attached Processor System (16 megabytes) loosely coupled with an IBM 3033 Model U (16 megabytes) and an IBM 4381 Model P13 (16 megabytes). Interactive computing is provided under VM/SP CMS, batch-processing under MVS with JES3 networking.

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