HEWLETT PACKARD

COMMUNICATOR 3000/XL
XL RELEASE 1.2
(Production Release A.21.00)

COMMUNICATOR 3000

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COMMUNICATOR 3000/XL

XL RELEASE 1.2 (Production Release A.21.00)

HEWLETT PACKARD

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CONVENTIONS USED IN THIS MANUAL

NOTATION	DESCRIPTION

NOTATION   **DESCRIPTION**

nonitalics

Words in syntax statements which are not in italics must be entered exactly as shown. Punctuation characters other than brackets, braces and ellipses must also be entered exactly as shown. For example:

    EXIT;

italics

Words in syntax statements which are in italics denote a parameter which must be replaced by a user-supplied variable. For example:

    CLOSE *filename*

[ ]

An element inside brackets in a syntax statement is optional. Several elements stacked inside brackets means the user may select any one or none of these elements. For example:

$\begin{bmatrix} A \\ B \end{bmatrix}$ User *may* select A or B or neither.

{ }

When several elements are stacked within braces in a syntax statement, the user must select one of those elements. For example:

$\begin{Bmatrix} A \\ B \\ C \end{Bmatrix}$ User *must* select A or B or C.

. . .

A horizontal ellipsis in a syntax statement indicates that a previous element may be repeated. For example:

    [, *itemname*] . . . ;

In addition, vertical and horizontal ellipses may be used in examples to indicate that portions of the example have been omitted.

,

A shaded delimiter preceding a parameter in a syntax statement indicates that the delimiter *must* be supplied whenever (a) that parameter is included or (b) that parameter is omitted and any *other* parameter which follows is included. For example:

    itema [, *itemb*] [, *itemc*]

means that the following are allowed:

    itema
    itema , *itemb*
    itema , *itemb* , *itemc*
    itema , , *itemc*

CONVENTIONS (continued)

Δ   When necessary for clarity, the symbol Δ may be used in a syntax statement to indicate a required blank or an exact number of blanks. For example:

$$SET[(modifier)]\Delta(variable);$$

underlining   When necessary for clarity in an example, user input may be underlined. For example:

NEW NAME? <u>ALPHA</u>

In addition, brackets, braces or ellipses appearing in syntax or format statements which must be entered as shown will be underlined. For example:

LET *var*[<u>[</u>*subscript*<u>]</u>] = *value*

shading   Shading represents the terminal's screen or key portions of an example.
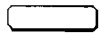
⬜   The symbol ⬜ may be used to indicate a key on the terminal's keyboard. For example, (RETURN) indicates the carriage return key.

(CONTROL)*char*   Control characters are indicated by (CONTROL) followed by the character. For example, (CONTROL)Y means the user presses the control key and the character Y simultaneously.

CONTENTS

XL Release 1.2 (A.21.00) Overview

by Myrna Allen
Commercial Systems Division

The Commercial Systems XL Release 1.2 (A.21.00) introduces several new products and contains performance enhancements to existing products. This commercial release will provide an increase in the performance, functionality, and reliability of the MPE XL operating system.

SYSTEM INFORMATION

This version of MPE XL introduces a third VUF field. This new VUF field, **USER VERSION**, is seen during the display of the "logon" and "showme" banners. The **USER VERSION** field allows you to identify any customization of your total software package.

New enhancements have been added to DUMP which improve performance and provide support for the HP7979 tape drive.

Enhancements have also been added to DAT. These enhancements include new environment variables and new STORE/RESTORE commands.

SOFTWARE PRODUCTS

Business System Plus/XL (BSP), an integrated business computer software package, is available with this release. Features of this new XL product include: a complete set of software applications for the office, simplified network configuration, simplified PC application installation, an update process for PC applications, and a fully installed and configured HP DeskManager.

Hewlett-Packard introduces HP GLANCE/XL, a real-time performance monitoring software tool for HP 3000 systems. HP GLANCE displays global, job/session, and process levels of performance data to help you identify system performance activity. An online help facility assists you in understanding and using the tool and the data which it presents.

HP BRW-Desk/XL is now available. This new product enhances HP BRW/XL by providing an HP Desk link. This link offers a way of delivering production reports and output files to end-users.

The latest version of HP BRW/XL has been enhanced to include a new Date Item type.

Enhancements have been added to AdvanceMail Host. These enhancements offer support for HP OfficeShare LAN connections to the MPE XL host, and allow configurable passwords for PCMAILON.

HP Graphics Curator/V is now available on XL Release 1.2 (A.21.00). This version of HP Graphics Curator/V replaces the version that was introduced on an earlier release.

HP Telex has been enhanced to support MPE XL in compatibility mode.

DATEBASE TOOLS

HP ALLBASE/QUERY, the newest member of the HP ALLBASE Relational Environment, is now available. This query management facility enables you to perform queries, generate reports, investigate unfamiliar databases, define complex tasks, and test applications.

Changed VUFs in MPE XL
Logon and Showme Banners

by Doug Claar/Chris Mayo/Mike Paivinen/Fred Parkes
Commercial Systems Division

This version of MPE XL introduces a third VUF field. This VUF is seen during the display of the "logon" and "showme" banners (which are produced as a result of the :HELLO and :SHOWME commands, respectively). In addition, the two VUFs seen in MPE XL versions prior to this release have been renamed and repositioned in the logon and showme banners. These changes are compatible with those introduced on MPE V/E with the V-Delta-4 release.

LOGON AND SHOWME BANNER CHANGES

The first two lines of the changed logon banner are shown below with example VUFs.

```
HP3000  RELEASE: A.21.00   USER VERSION: @.@@.@@   WED, FEB  1, 1989, 10:00 AM
MPE XL  HP31900 A.11.70  Copyright Hewlett-Packard 1987.  All Rights Reserved.
```

The second line of the changed showme banner is shown below with example VUFs.

```
RELEASE: A.21.00   MPE XL HP31900 A.11.70   USER VERSION: @.@@.@@
```

EXPLANATION OF VUFS

The **RELEASE** VUF is established by Hewlett-Packard (HP) at *build* time of the entire software release package (also known as the MIT) and provides an identity for that release. This VUF is owned by HP. In releases prior to this, it was referred to as "BASE." This VUF should be used in the "**Release ID**" field when entering a Service Request (SR).

The **MPE XL PRODUCT** VUF (the VUF which now immediately follows the HP product number 31900) is established by HP at *compile* time of the new version of MPE XL. Once established, this VUF is permanently bound to that version of MPE XL. This VUF is owned by HP and is the VUF displayed immediately after the MPE XL product number **HP31900**. This VUF, along with product number 31900, should be used in the "**Prod. number**" field when entering an SR against the MPE XL operating system product.

The **USER VERSION** VUF is owned by you, the user, and allows you to identify any customization of your total software package such as third party software, special configurations, etc. Any printable ASCII character can be used, although lower case alpha characters will be converted to upper case. This VUF is set by using SYSGEN (see following discussion). In prior releases, it was printed out in the showme banner immediately after the HP product number 31900 and was referred to as "SYSTEM ID" or simply "ID" in the SYSGEN command set. By changing its name and its position in the banners, it should now be clear who owns it, and what it means. This VUF should *not* be used when entering an SR.

SETTING THE USER VERSION VUF

Refer to the *System Configuration Reference Manual* (P/N 32650-60005) for full information about SYSGEN, the System Generator.

1. Using SYSGEN, a new software system can be generated either for the machine on which the generation is being done or for a "target" machine. Depending on your choice, attention must be paid to the selection of the proper basegroup, i.e., CONFIG, CONFG925, CONFG930, etc., or any configuration basegroup made by you. A basegroup consists of a group of files managed by SYSGEN.

2. The existing USER VERSION VUF in the configuration basegroup of choice can be shown by making the following entries when running SYSGEN:

```
>ba groupname        ** Specify basegroup
>misc                ** Puts you in Miscellaneous Configurator
>show system         ** Misc Config command showing USER VERSION VUF
                        (as well as LOGON and CI PROMPTS)
>exit                ** Exit from the Misc Config (but not from SYSGEN)
>                    ** Continue SYSGEN use
```

> **NOTE**
>
> The USER VERSION VUF from any configuration basegroup should always be checked before making a System Load Tape. You should be aware of the VUF setting, which will be written to the tape.

3. The USER VERSION VUF is set by making the following entries when running SYSGEN:

```
>ba groupname        ** Specify basegroup
>misc                ** Puts you in Miscellaneous Configurator
>sy userversion=x.yy.zz  ** Misc Config command changing USER VERSION VUF
>hold                ** Hold the change
>exit                ** Exit from the Misc Config (but not from SYSGEN)
>                    ** Continue SYSGEN use
```

4. After all changes have been made in SYSGEN, make a tape of the new system and exit from SYSGEN.

5. SHUTDOWN the appropriate system, i.e., your current system or the target system.

6. Do an UPDATE using the tape made in step 4 above. The USER VERSION VUF displayed will now be the VUF set in step 3 above. If you did not do step 3, then the VUF will be that shown in step 2.

> **NOTE**
>
> ANY subsequent UPDATE using a different tape, for example one supplied from HP, will overwrite the USER VERSION VUF.

DUMP Improvements

by Denis R. Dundiee/Mark Fulgham
Commercial Systems Division

Three new enhancements are included with this release of the DUMP program.

The first enhancement improves performance by approximately 30%. An equivalent size memory dump will now take you 30% less time to perform, which is an important performance enhancement over previous releases of MPE XL. This performance increase was achieved by adding multiple disc and tape buffers in order to improve I/O throughput to disc and tape.

The second improvement has made the program more robust. If multiple Transfer of Controls (TC's) are inadvertently entered by the operator before taking a memory dump, the integrity of memory contents will be maintained. Prior to this release, if TC was executed more than once before the memory dump was taken, memory save state would have been destroyed before the dump could have been taken.

The third enhancement provides support for the HP7979 tape drive.

New Version of DAT

by Mark Fulgham
Commercial Systems Division

In order to meet the needs of Dump Analysis Tool (DAT) users, substantial enhancements have been made to the existing product. The enhancements include several new environment variables, new STORE/RESTORE commands for faster macro execution, and new functions that enable the user to access symbols in a program file. For more detailed information, refer to the related article in the "Technical Articles" section in this *Communicator*.

SOFTWARE PRODUCTS

Introducing Business System Plus/XL

by the BSP Product Team
Office System Division

Business System Plus (BSP) is an integrated business computer software package. The goal of BSP is to provide an easy to install, easy to configure, updatable complete business solution.

PRODUCT FEATURES

BSP has the following features:

- **A complete set of software applications for the Office** that includes all of the current HP Personal Productivity Center applications that are being sold today. The following applications are included:

RESOURCE SHARING	INFORMATION ACCESS	HP DESKMANAGER
EXECUTIVE MEMOMAKER	ADVANCEMAIL	LOTUS 1-2-3®[1]
GALLERY COLLECTION	EXECUTIVE CARD MANAGER	ADVANCELINK
PAM		

- **Simplified Network Configuration** which includes configuration of the HP 3000 server (for new networks) as well as each PC workstation in the network. Configuration of the HP 3000 server is accomplished through a BSP stream job, which installs default configuration files for the network (for new networks), and through an online utility (BSPMGR) that easily allows changes to the server name, IP address and physical path to the LANIC board in the configuration. The BSP Network Setup Utility configures each PC in the network, creating installation discs and one shared disc on the HP 3000 for each PC.

- **Simplified PC Application Installation** requires only two flexible discs and takes only two minutes of attended time to begin. The BSP Distribution Utility installs all of the BSP PC applications from a shared disc on the HP 3000 server to the PC hard disc, or in the case of flexible disc workstations, onto the PC's shared disc on the HP 3000 server. Some PC application-specific configuration may need to be done after the PC application is installed.

- **Updating of PC applications** is accomplished through the BSP Update process. The PC applications which reside on the PC hard disc or on the PC's shared disc are updated from the HP 3000 server. The files on the server are updated through the MIT process and by RESTOREing the BSP PC Tape.

- **HP DeskManager fully configured and installed.** Two test users are included with HP DeskManager. Individual users must be added later.

HARDWARE ENVIRONMENT

BSP is supported on the following types of hardware:

Personal Computer Systems

- HP Vectra family of personal computers with 640KB of memory with a StarLAN10, StarLAN or ThinLAN connection.

- IBM® PC/XT/AT or PS/2 model 30[2] with 640KB of memory with a StarLAN10, StarLAN or ThinLAN connection.

- IBM® PS/2 models 50/60/70/80[2] with 640KB of memory with StarLAN10 or ThinLAN connection.

  At least one HP Vectra with hard disc or IBM® PC/XT/AT[2] with color monitor and hard disc is required on the network.

HP 3000 Systems

- HP 3000 Series 900 Computers
- Minimum of 32MB main memory.
- StarLAN or ThinLAN connection.

SOFTWARE ENVIRONMENT

BSP is supported on the following versions of system software:

Personal Computer Systems

- Vectra DOS version 3.10 through 3.3 operating system for HP Vectra computers.
- PC-DOS®[3] version 3.10 through 3.3 operating system for IBM® PC/XT/AT[2] computers.
- PC-DOS®[3] version 3.2 through 3.3 operating system for IBM® PS/2[2] computers.
- ThinLAN A.03.00 or StarLAN A.01.00 or HP OfficeShare Network Software B.xx.xx.

HP 3000 Systems

- XL Release 1.2 (A.21.00) or later.
- StarLAN/3000 Link or ThinLAN/3000 Link.

HP 3000 Office Retrofitted Systems

- XL Release 1.2 (A.20.1A).

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[1] Lotus and 1-2-3® are trademarks of Lotus Development Corporation.

[2] IBM®, PC, XT, AT and PS/2 are trademarks of International Business Machines Corporation.

[3] PC-DOS® is a trademark of International Business Machines Corporation.

HP GLANCE/XL

by Paul Primmer
Application Support Division

HP GLANCE is an interactive, real-time performance monitoring software tool for HP 3000 systems. HP GLANCE/XL provides online examination of MPE XL system activity, while HP GLANCE/V provides similar functionality for MPE V/E systems. Both software tools allow you, the System Manager, to gain a "quick look" at system performance.

Simple, quick, and easy-to-access information regarding system performance and resource utilization enables you to identify and resolve potential performance problems promptly. HP GLANCE provides immediate data upon which to make resource management decisions.

When you need to know what is happening on your system right now, HP GLANCE can mean the difference between guesswork and factual information. HP GLANCE can be used to greatly facilitate day-to-day management of your system by providing online diagnostic performance data. In essence, HP GLANCE enables you to check your system's activity quickly and easily so that you can more effectively evaluate system performance activity.

HP GLANCE is a host-based interactive tool. It requires an HP terminal which is supported on the HP 3000 system being monitored. Supported terminals include: HP262X family, HP239X family, HP 150 personal computer, HP Vectra personal computer (running terminal emulation software), and the HP 700/9X family. HP GLANCE will utilize the features of a color CRT if present, although a color CRT is not required.

CLARIFY AN ABUNDANCE OF DATA

HP GLANCE software displays three levels (Global, Job/Session, and Process) of performance data to help you quickly and easily identify system performance activity.

GLOBAL LEVEL

The GLOBAL level screen lets you see the overall system activity. Resource consumption bars at the top of this screen represent the global utilization of the three primary resources of the system: CPU, DISC, and MEMORY. Below these bars "interesting" processes are brought to your attention. A process is considered interesting when it exceeds any one of the following user configurable conditions.

- It is newly created.
- It is terminating.
- It is utilizing too much of a system resource (CPU or DISC).
- It is executing too many terminal transactions.
- It is receiving poor terminal response time.

JOB/SESSION LEVEL

The JOB/SESSION screen allows you to examine a specific JOB or SESSION. The three primary global bars remain at the top of the screen so you can compare your JOB or SESSION in relation to the entire system. Following the system wide resource bars, CPU and DISC resource bars track the selected JOB or

SESSION. Below the JOB/SESSION resource bars, detailed information about processes running within the selected JOB or SESSION are shown.

PROCESS LEVEL

The PROCESS level screen allows you to closely examine response time and disc I/Os. A STATE bar lets you see the components of response time, and file information lets you see where your disc I/Os are going.

SIMPLIFY PERFORMANCE DIAGNOSIS

The HP GLANCE simple design allows novices total system view without any complexity, yet it provides seasoned professionals the critical information they need. Online help facilities can assist you to understand quickly how to use the tool and the data presented. Hard copy output is provided with the HP GLANCE Print Facility. To make things even easier, most commands can be executed with a single keystroke.

HP BRW-Desk Now Available

by Peter Kirk
Commercial Systems Boeblingen

HP BRW-Desk/XL is now available. This new product enables HP BRW/XL users to mail reports and output files directly to HP Desk destinations. The HP BRW-Desk/XL version number is A.00.00.

HP BRW-Desk/XL enhances HP BRW/XL by providing an HP Desk link. Users can specify recipients of reports or output files at the time of specifying reports. When the reports or files are generated, they are electronically mailed to the recipients as specified.

The Key Features are:

- Reports or output files can be delivered via HP Desk.
- Reports or output files can be sent to fixed destinations or to destinations stored in the Database.
- Multiple mailings can be generated to individual HP Desk addresses in a single report run.
- Reports or files can be split and the portions mailed separately according to a specific break in the report.
- Reports can be read and printed directly in the IN TRAY of HP Desk.
- HP Desk features concerning security, urgency, and acknowledgement can be used.
- HP BRW reports, sent via HP Desk, can be deferred to optimize low usage periods.
- Delivery audit trail messages are supplied.

This new product offers a way of delivering production reports and output files to end-users, thus eliminating masses of hard-copy reports. It enables the end-user to process the data further, using office applications.

For more detailed information, refer to the related article in the "Technical Articles" section in this *Communicator*.

HP Business Report Writer/XL Enhanced

by Peter Kirk
Commercial Systems Boeblingen

The latest versions of HP BRW/XL (A.00.20) and HP BRW/V (A.02.10) are now available and include the following enhancement.

NEW DATE ITEM TYPE

HP BRW now supports a new storage type for Date Items in the System Dictionary, Dictionary/3000, Information Access Dictionary and User Defined Dictionary. The new Date Item type must be stored in a Four Byte Integer, evaluated in the form: year, month, day. The year can be specified in full.

For more detailed information, refer to the related article in the "Technical Articles" section in this *Communicator*.

AdvanceMail Host Enhancements

by Karen Costello
Office Productivity Division

The AdvanceMail Host is the HP 3000 component of AdvanceMail. It allows users of AdvanceMail on the PC to integrate with HP DeskManager on the HP 3000.

ENHANCEMENTS

The AdvanceMail Host (A. 02. 02) includes the following enhancements:

- Support for HP OfficeShare LAN connections to MPE XL host
- Configurable passwords for PCMAILON

HP OfficeShare LAN Connections to MPE XL

It is now possible to make an HP OfficeShare LAN connection to an MPE XL machine with AdvanceMail. In order to use this capability, the following are required:

- MPE XL 1. 2 (or later)
- HP DeskManager B. 03. A0 (or later) already installed
- NS 3000/XL

Configurable Passwords for PCMAILON

The "passedit" feature of HP DeskManager can now be used to configure the passwords on user ADVMAIL.HPOFFICE and account HPOFFICE. The AdvanceMail Host will pick them up automatically. This means startup of the OfficeShare version of AdvanceMail can be achieved simply by typing PCMAILON. There is no longer a need to remember passwords. User ADVMAIL.HPOFFICE and the HPOFFICE account will now be more secure.

HP Graphics Curator A.02.02

by Robert Jones
Personal Software Division

Version A.02.02 of HP Graphics Curator/V is now available on XL Release 1.2 (Production Release A.21.00), replacing version A.02.03 that was released on earlier XL releases. HP Graphics Curator allows two-way conversion between MPE figure files, and Gallery (GAL) files. The figure file format is used with products such as TDP/V, DSG/V, and HPWord Services.

Version A.02.02 differs from version A.02.03 in two respects:

1. The AGL graphics library was prepped into A.02.03. In A.02.02, it will reside in SL.PUB.SYS.

2. Version A.02.02 also has the ability to convert HPDraw (DRAW) files to Gallery (GAL) files. This capability is necessary for HPDeskManager users who work on MPE XL systems. For example, a HPDeskManager user on a MPE XL system could receive a HPDRAW (DRAW) file from a non-XL system, even though HPDRAW is not supported on MPE XL. Version A.02.02 gives that user the capability to convert the drawing into a usable format.

New Version of AGL (A.08.00)

by Robert Jones
Personal Software Division

A new version of AGL (A.08.00) is available on XL Release 1.2 (A.21.00). AGL is a graphics library, residing in SL.PUB.SYS, which is accessed by DSG/V, IFS/V, TDP/V, HPDeskManager, HP Graphics Curator/V, and HPWord Services.

Version A.08.00 of AGL supports output of thick lines from Gallery (GAL) files to host-based printers. Thick lines will only be displayed on the default orientation of the host-based printer. For example, thick lines will be printed on landscape but not portrait oriented HP2680A output. The software applications which make use of this feature include HPWord Services and HPDeskManager.

HP Telex A.02.09

by Vijay Jogia
Office Productivity Division

HP Telex A.02.09 is an upgrade release to version A.02.08. It is the first version to support MPE XL in compatibility mode.

In addition, it provides an enhancement to react to line state messages from the Telex Unit that may indicate a fault with the telex line.

HP ALLBASE/QUERY is Available

by Michael Pardy
Australian Software Operation

HP ALLBASE/QUERY is an easy-to-use query management facility for the HP ALLBASE/SQL relational database management system. It enables users to perform queries and generate reports. For advanced users, HP ALLBASE/QUERY can be used to investigate unfamiliar databases, define complex tasks, and test applications.

HP ALLBASE/QUERY is the newest member of the HP ALLBASE Relational Environment, a close-knit family of products designed to increase the productivity of application development and decision support. The foundation of this environment is HP ALLBASE/SQL, the relational part of the ALLBASE database management system. To more fully utilize the power of this true relational database, HP ALLBASE/QUERY automatically generates sets of SQL commands in accordance with screen options chosen by users. From within HP ALLBASE/QUERY, the advanced user can directly enter SQL commands to create or modify DBEnvironments, and update or delete data stored under HP ALLBASE/SQL.

Users of applications developed in HP ALLBASE/4GL can move freely between their applications and HP ALLBASE/QUERY via a function key. The similar appearance and behavior of HP ALLBASE/QUERY and HP ALLBASE/4GL applications ensures that transitions are fast and smooth.

HP ALLBASE/QUERY PRODUCT DESCRIPTION

HP ALLBASE/QUERY consists of two modules (EZAccess and SQLAccess) to perform database queries, a report writer (EZReport) to customize reports, and a command set to further increase productivity. The modules are integrated under a common interface to form a query management facility.

EZAccess: Ad hoc Queries and Reports for the End-user

The following features of EZAccess show how a user with no knowledge of the database structure (or even computers in general) can satisfy ad hoc queries and generate reports.

- **The "Next Step" function key:** Pressing this key leads EZAccess users through the screen forms they must complete to create a report.

- **Screen forms and minimal typing:** The first two screen forms list all the tables and columns in the designated DBEnvironment. On both screens, the user selects pertinent tables and columns by pointing to them with the cursor and pressing the "Return" key. To sort selected data, users type in a number or choose a screen option by typing in its initial letter. To impose selection criteria, search values can be entered in the space beneath any selected column on the "Search Values Screen". A list of possible operators and examples of correct formatting are shown by pressing "Screen Help".

- **Detailed context-sensitive help:** Context-sensitive help screens are available throughout HP ALLBASE/QUERY at the press of a function key. Help screens provide detailed answers (including examples) to a user's questions, and are an easy way to learn the product.

- **The "Display Report" function key**: Pressing this key at any time during the EZAccess selection process will display the report in its present state.

As EZAccess users become more experienced, they can utilize other features attached to function keys. These features include screen forms that enable users to create calculated fields, and insert counts, totals and averages in reports. Advanced users can directly enter SQL and HP ALLBASE/QUERY commands.

SQLAccess: Productivity for the Advanced User

Advanced users can formulate SQL queries and a variety of other database operations from within HP ALLBASE/QUERY by using the SQLAccess screen-based editor. This module can increase the productivity of software development by assisting in the design and testing stages. SQLAccess can also be used to quickly develop end-user reporting facilities. This can be done by advanced users who include variables in commands to prompt end-users for search criteria.

HP ALLBASE/QUERY Commands: True Integration

The HP ALLBASE/QUERY integrated interface increases productivity because it enables experienced users to call a "pop-up" window from almost anywhere in HP ALLBASE/QUERY and directly enter HP ALLBASE/QUERY commands. These commands can be used to catalogue, edit and execute reports, change the operating environment, examine the status of a report, move the user between the SQLAccess and EZAccess modules, redirect the listing of print devices, alter the width and length of a page, and more. Frequently used commands are made available on function keys, and for complex commands, screen forms are attached which prompt the user for entries.

EZReports: Powerful Editing Facilities

Pressing the function key "Display Report" displays the results of a query within seconds, and places the user in the EZReports module. In this module, function keys are available to edit the layout (format and spacing), edit the text (headers and footers), and edit the control break statistics. Each function key calls a screen with default report specifications.

The user can then overtype new specifications. EZReport is simple enough for end-users, yet includes powerful features like group breaks and summary prints for the advanced user. EZReport also supports calculated columns, current date and time, and left and right scrolling of the report on the terminal display.

Additional Information

HP ALLBASE/QUERY is the upgrade product from HP Visor for HP-UX and MPE XL systems. Customers with support contracts will automatically receive the first release of HP ALLBASE/QUERY. Items created and saved in HP Visor are fully compatible with HP ALLBASE/QUERY.

HP ALLBASE/QUERY User Guide (P/N 92534-90001) provides self-paced training and also includes a reference information section. In addition, most of the information needed by users who have completed the tutorial is always at their fingertips with HP ALLBASE/QUERY's online help facility.

HP BRW-Desk/XL

by Peter Kirk
Commercial Systems Boeblingen

HP BRW-Desk/XL consists of four different interdependent software elements. This article describes which elements are required for which purpose.

PRODUCT DEPENDENCIES

The four software elements are:

HP BRW-Desk/XL
HP BRW/XL
HP Desk
HP Desk Intrinsics

Check below for the tasks you wish to perform and the software required to perform each.

Task	Required Software
Develop reports and specify recipients	HP BRW/XL, HP BRW-Desk/XL
Develop reports, specify recipients Test reports	HP BRW/XL, HP BRW-Desk/XL HP Desk, HP Desk Intrinsics
Run reports with HP desk database present	HP Desk, HP Desk Intrinsics
Read reports in IN TRAY Print reports from IN TRAY Copy output files from IN TRAY	HP Desk only

The product is fully described in *HP BRW/XL Reference Manual* (P/N 35360-60002) new chapter update. in the

HP Business Report Writer/XL Enhanced

by Peter Kirk
Commercial Systems Boeblingen

The following list shows how the new Date Item type can be specified in the Dictionary/3000, System Dictionary, Information Access Dictionary, and User Defined Dictionary.

NEW DATE ITEM TYPE

The new Date Item type must be stored in a Four Byte Integer, expressed in the form: year, month, day. The year can be expressed fully. The example in the following list is: September 26, 1988.

Dictionary/3000

Long Name	Required Length	Base Type	Example/Value
! INTDATE	2 words	I, J or K	19880926 or 880926

You can specify an Item with the new Date type by using the Long Name ! INTDATE.

System Dictionary

Element-Subtype	Required Length	Base Type	Example/Value
INTDAT	2 words	I, J or K	19880926 or 880926

The Subtype belonging to the new Date Item type is defined in the command input file BRWSDEXT.PUB.SYS for HP BRW/XL or RSDEXT.PUB.SYS for HP BRW/V. Since the limit of Subtypes is already reached, the Date Item type MYY is no longer supported for System Dictionary.

Information Access Dictionary

Keyword	Required Length	Required HDPDIC Type	Example/Value
INTDATE	2 words	I or L	19880926 or 880926

You can specify an item with the new Date type in the Supporting File ACCSDEF by using the keyword INTDATE.

User Defined Dictionary

Keyword	Required Length	Required Element Type	Example/Value
INTDATE	2 words	DATE	19880926 or 880926

You can specify an item with the new Date type in your Dictionary Specification File by using the keyword INTDATE.

HP ALLBASE/QUERY User Interface
and Limits Enhancements

by Victor Veres
Australian Software Operation

This release of ALLBASE/QUERY (previously known as HP Visor) features a redesigned user interface modeled after ALLBASE/4GL. This interface provides a high level of user interaction, field-based editing, and full use of terminal features. It also helps achieve a common "look and feel" with ALLBASE/4GL, so the two products may be used together in complimentary fashion when the need arises. The fundamental design principle for the user interface is the WYSIWYG (What You See Is What You Get) philosophy.

Another feature of this release is the ability to select up to ten tables and 255 columns for reporting (up from the previous three tables and 20 column limits).

The main features of the ALLBASE/QUERY user interface on MPE XL can be summarized as follows:

- The display always provides an accurate reflection of the actual input (that is, a WYSIWYG interface).

- Field editing and terminal features, such as insert character and delete character, are available.

- ALLBASE/QUERY can display messages, and accept user responses via a message "window" at the bottom of the screen.

- Excessive system input and output load is avoided since the user interface does not use character based I/O.

This article describes the techniques used to obtain the required user interface functionality on MPE XL.

FIELD MODE OPERATION

To satisfy the user interface requirements, the MPE ALLBASE/QUERY product uses a "field mode." In this mode, user input is transmitted on a field-by-field basis when the field is "committed." A field commit is generated by the user pressing (RETURN) (end of record), or by pressing (TAB) (alternate end of record). This implies that all user input must be terminated by one of the above two characters. In this sense, user input includes cursor motion, backtab, and commands such as screen redraw ((CONTROL) L) and screen printing ((CONTROL) P).

Since ALLBASE/QUERY does not operate in block mode, the (ENTER) key is not supported. Instead, ALLBASE/QUERY uses a function key to allow the user to terminate a screen.

DISPLAY HIGHLIGHTING

ALLBASE/QUERY provides a mechanism to specify the display enhancements (such as inverse video, flashing display, or underlining). Highlighting and color attributes may be specified for screen elements such as input fields, text literals, display fields, error, and messages. This mechanism is utilized when ALLBASE/QUERY is started from within ALLBASE/4GL to inherit the ALLBASE/4GL settings, which contributes to the common look and feel.

TERMINAL REQUIREMENTS

ALLBASE/QUERY requires at least the terminal functionality provided by the HP 2622 terminal.

ALLBASE/QUERY uses terminal format mode to create "input" fields on the screen. This ensures that the user can only enter or alter data in the current input field.

Using protected fields enables the user to edit the data already in a field. This approach avoids performance limitations due to excessive I/O traffic associated with character mode, while still preserving the WYSIWYG philosophy of ALLBASE/QUERY.

Supported Terminals

The current release of ALLBASE/QUERY supports the following terminals:

- HP 2622 to HP 2628
- HP 239x
- HP 700/9x
- HP 150
- HP Vectra PC (With terminal emulation software)

Terminal Communication System

ALLBASE/QUERY uses a terminal communication system that is similar to the HP-UX *terminfo* system. This system uses a number of terminal capability files to determine the available terminal functionality and to drive the terminal. Terminal capability files for all supported terminal types are supplied with ALLBASE/QUERY. These files are in the HP4TERM.SYS group.

ALLBASE/QUERY uses an MPE XL variable to identify the terminal. This variable can be set by the command file used to start ALLBASE/QUERY, or by a logon UDC.

The ALLBASE/QUERY terminal capability files support all the normal display enhancements and features provided by HP terminals, including the line-drawing character set, color, and touchscreen operation.

New Version of DAT

by Mark Fulgham
Commercial Systems Division

This article describes the new and enhanced features of DAT (version A.04.01) and how to utilize them.

$$\boxed{\textbf{NOTE}}$$

These enhancements have been included in DATPROG. Currently DEBUG does not have any of the enhancements. DEBUG will include these enhancements in a subsequent release of MPE XL.

MACRO/VARIABLE TABLE SIZING

On OS release of 1.0 and earlier, both the macro and global variable limits were limited to 511 and 311 respectively.

DAT/DEBUG now supports user sizing of the macro and variable tables by means of new ENV variables. The top end limits to macros and global variables have been increased to 1009 and local variables are up to 501. An example of how to configure the desired sizing is shown below:

```
ENV MACROS   [ x LE. #1009]      Set maximum number of macros
ENV VARS     [ x LE. #1009]      Set maximum number of variable
ENV VARS_LOC [ x LE. #501]       Set maximum number of local variables
```

(remember macro parms are handled as locals)

These new ENV variables are defined in a new ENV Group called LIMITS and they must be set (changed from defaults) before the first user variable or macro has been declared. Once the environment variable has been set it cannot be changed for the duration of the process.

It is recommend that your DATINIT file be used to set table sizes. This will insure your desired configuration. The following DATINIT lines will work with both new and old versions of DAT:

```
ignore quiet;
{ env macros   #1009;
  env vars     #1009;
  env vars_loc #501
}
```

The absolute maximum system limits for macro and variable tables are:

```
MACROS_LIMIT = #1999      Maximum size of MACROS
VARS_LIMIT   = #3000      Maximum size of combined VARS and VAR__LOC
```

These limits should be sufficient for array of macros that DAT supports.

All defined ENV limits can be displayed by entering:

    ENVL @ LIMITS   Display all current limits

NEW STORE/RESTORE COMMANDS

DAT supports new STORE/RESTORE commands. These commands provide a very quick way to load and store macros and or variables. On previous versions it took a significant amount of time to load system macros. This enhanced version takes approximately 2 seconds to load all the OS macros. The syntax takes the following form:

    STORE   MACROS [filename] or STORE   VARIABLES [filename]
    RESTORE MACROS [filename] or RESTORE VARIABLES [filename]

        MACROS   Specifies that macros are to be stored/restored.
        VARIABLES   Specifies that variables are to be stored/restored.
                        (These keywords can be abbreviated as MAC or VAR)
        filename   The file where the macros or variables are to be stored

The :STORE command saves the currently defined macros or variables to the specified file. A new binary file is created to hold either the macros or variables. If "filename" already exists, an error will occur.

The :RESTORE command is used to restore saved macros or variables. Any currently defined macros or variables are automatically lost, and replaced entirely by the contents of the restored file. Note: The limits (ENV MACROS or ENV VARS and ENV VARS__LOC) which were in effect when the file was STOREd will be re-established when the file is RESTOREd.

    EXAMPLE:

    store macros savemac   /* save all currently defined macros
    macd @   /* delete all macros
    restore macros savemac   /* restore saved macros

DUMP DATA COMPRESSION

The new version of DAT supports compressed dumps. When the :GETDUMP command is used to read in a dump tape, a single dump file xxxxxMEM is created on disc, left in its original compressed format that was originally stored on tape. This results in a substantial disc space savings (of approximately 35%-45% of the dump size).

```
┌──────────────┐
│    NOTE      │
└──────────────┘
```

Previous versions of DAT created multiple files for each dump. This version creates only *one* file.

NEW DATSTATS FILE

DAT now collects dump access statistics and can append *stats* records to a file called DATSTATS. DAT attempts to create/append to the DATSTATS file in the PUB group. The file has variable sized, human readable ASCII records.

A new ENV variable enables/disables creating/appending of the stats record(s) to the DATSTATS file:

    ENV POST_STATS_FILE TRUE

The following example shows the contents of a typical DATSTATS file:

```
**********
STATS_VERSION_ID: A.00.00
DATE_TIME: TUE, SEP 13, 1988,  2:57 PM
USER_ID: FRED,CM.CMDEBUG
DUMP_NAME: DUMPC.DUMP.CMDEBUG
OBJ_CLASS: 0, 1, 2, 3, 8, 9, 11, 15, 16, 17, 38, 48, 75, 78, 89, 250, 327
**********
STATS_VERSION_ID: A.00.00
DATE_TIME: TUE, SEP 13, 1988,  6:29 PM
USER_ID: PAT.CMDEBUG
DUMP_NAME: D7058.DUMP.CMDEBUG
DUMP_COMPRESSION: 31
OBJ_CLASS: 0, 1, 2, 3, 6, 8, 11, 12, 15, 16, 21, 26, 27, 28, 29,
OBJ_CLASS: 31, 33, 35, 37, 42, 43, 44, 45, 48, 49, 50, 51, 52, 58,
OBJ_CLASS: 61, 63, 64, 65, 70, 72, 77, 87, 89, 90, 99, 104, 105,
OBJ_CLASS: 109, 250, 413
```

OBJECT CLASS MONITORING

The OBJ_CLASS is a list of object classes that were accessed by the user during dump analysis. This information is used to provide information on which objects and how many times they were accessed during the analysis. The list of object class numbers can be posted to the new DATSTATS file (see above).

Should the user wish to enable or disable monitoring of object class stats, a new ENV variable was created. This ENV variables syntax looks like:

    ENV GET_VSOBJ_STATS TRUE   /* enable statistics

NEW DAT FUNCTIONS

DAT supports a new dynamic procedure/function calls:

NMCALL   Dynamically calls a specified procedure passing up to four parameters. (Privileged function)

DAT supports a new HASH function:

HASH   Hashes a virtual address to return the real offset which can be added to TR1 to get the hash table entry.

DAT supports a new function for MAP command:

MAPINDEX   Returns the MAP index number of a filename, which was previously opened by the MAP command.

DAT supports a new XL command:

XL   Utilizes symbol information in a local library/program file.

THE INDIRECTION OPERATOR

The indirection operator (square brackets) has been enhanced to support a new (optional) prefix notation for virtual, real, and secondary addresses.

It is now also possible to extract 1 byte, 2 bytes, 4 bytes, or 8 bytes at a specified address.

```
                                  Default Alignment / Return Type

[ [prefix] [VIRT] virtaddr   ]     4 byte          (S32) 4 bytes

[ [prefix] REAL   realaddr   ]     4 byte          (S32) 4 bytes

[ [prefix] SEC    ldev.offset ]    4 byte          (S32) 4 bytes


    where [prefix] can be any one of the following:

    BYTE                          byte aligned     (U16)   1 byte
    U16                           2 byte aligned   (U16)   2 bytes
    S16                           2 byte aligned   (S16)   2 bytes
    LPTR                          4 byte aligned   (LPTR)  8 bytes
```

MISCELLANEOUS ENHANCEMENTS

The VARL command now displays variables sorted alphabetically.

The LOCL commands now displays local variables along with their macro locality.

The CM TR (stack trace command) supports control-Y.

The DPTREE command supports control-Y.

USE CLOSE ALL or USE CLOSE @ will close all currently opened USE files.

The MAP command now supports an optional virtual byte offset to be specified:

```
MAP myfile OFF c00003c0
  1 MYFILE.GRP.ACCT        1000.c00003c0   Bytes = 2340
```

XL Product Releases

The following provides information on the currently supported Commercial Systems XL Releases. Included are the MPE XL VUF and a list of products introduced. It also provides information on significant changes made to a release.

MPE XL Product Releases

Release	MPE XL VUF	Date Code	Product(s) Introduced/Added
A.10.00	A.10.50	R2830	XL Release 1.1 (Core Software Release) HP7937 DISC SNA LINK (HP30291) NRJE (HP30292) NLS Asian (HP32414) Virtuoso (HP30422) TRANSACT/XL (HP30138) HP Visor/XL (HP32426) Support of HP7979/HP7980
A.10.01	A.10.60	R2830	XL Release 1.1 (Patch Tape)
A.10.17	A.10.75	R2848	XL Release 1.1 (Patch Tape)
A.10.A7	A.10.75	R2907	XL Release 1.1 (Patch Tape) Includes QUERY version D.00.08 (Patch BX65)
A.20.10	A.11.61	R2915	XL Release 1.2 (Core Software Release) NS PT-PT 3000/XL Link (HP36922) HP EDIT/XL (HP32656) HP WordServices (HP27558) HP ALLBASE/4GL (HP30601) Cooperative Services (HP32571) HP DeskManager Intrinsics (HP27562) MCONTEXT (HP27514) TRANSFORM/V (HP99940) ALLBASE/NET (HP30604) Silhouette (HP30302) HP SRC/XL (HP30328) DSG Intrinsics (HP36930) RPG/XL (HP30318) NetDelivery/XL (HP32349)

MPE XL Product Releases (Continued)

Release	MPE XL VUF	Date Code	Product(s) Introduced/Added
A.21.00	A.11.72	R2926	XL Release 1.2 (Production Release) Business System Plus/XL (HP32560) HP GLANCE/XL (HP50734) HP ALLBASE/QUERY (HP32426) HP BRW-Desk (HP35361) HP Telex (HP36572)

Catalog of User Documentation

This section contains a comprehensive list of customer publications for the HP 3000 Series 900 computer systems. The contents of the Subscription Services column indicate the update services provided for a particular manual:

FOS   =   Available with the Fundamental Operating Software (FOS) subscription service.

+   =   Available on all new subscription services (e. g. 32190A+S00).

Q   =   Available on the Manual Update Services (MUS) level of support (e. g. 32190Q,S,T).

S   =   Available on the Software Material Subscription (SMS) level of support (e. g. 32190Q,S,T).

T   =   Available on the Account Management Support (AMS) level of support (e. g. 32190Q,S,T).

99   =   Indicates availability on a specified category of the Manual Update Services (MUS) level of support (e. g. 99086B+Q00).

NOTE

Most XL manuals are provided in binder kit format. The kits that contain multiple manuals include a list of the contents along with the individual manual edition/update dates in parenthesis.

GENERAL USER'S SERIES

Manual Title	Part Number	Latest Edition	Current Update	Subscription Service
SORT-MERGE/XL User's Guide (w/binder)	32214-60001	11/87	7/88	FOS
MPE XL General User's Reference Manual (w/binder)	32650-60001	4/88		
MPE XL Commands Reference Manual (w/binder)	32650-60002	11/87	7/88	FOS
MPE XL Documentation Guide and Glossary of Terms (w/binder)	32650-60003	12/88		FOS
EDIT/XL Reference Manual (w/binder)	32650-60027	8/80		FOS
FCOPY Reference Manual (w/binder)	32650-60028	11/87	10/88	FOS
Using the 900 Series HP 3000: Fundamental Skills Trng Kit	32650-60036	1/89		FOS
Kit contents:				
Begin Here		(1/89)		
Module 1		(1/89)		
Module 2		(1/89)		
Module 3		(1/89)		
Module 4		(1/89)		
Module 5		(1/89)		
Module 6		(1/89)		
Solutions		(1/89)		
Glossary/Index		(1/89)		
Using the 900 Series HP 3000: Advanced Skills Trng Kit	32650-60038	1/89		FOS
Kit contents:				
Setup Tape		(1/89)		
Begin Here		(1/89)		
Module 1		(1/89)		
Module 2		(1/89)		
Module 3		(1/89)		
Module 4		(1/89)		
Module 5		(1/89)		
Module 6		(1/89)		
Solutions		(1/89)		
Glossary/Index		(1/89)		
The HP 3000: Logging On and Off	32650-90098			

SYSTEM ADMINISTRATOR'S SERIES

Manual Title	Part Number	Latest Edition	Current Update	Subscription Service
MPE XL Asynchronous Serial Communications System Administrator's Reference Manual (w/binder)	32022-61000	12/87	12/88	FOS
MPE XL Asynchronous Serial Communications Troubleshooting Reference Manual (w/binder)	32022-61002	12/87	5/88	FOS
Using the Node Management Services (NMS) Utilities (w/binder)	32022-61005	12/88		FOS
System Startup and Shutdown (w/binder)	32650-60004	12/88		FOS
System Configuration Reference Manual (w/binder)	32650-60005	12/88		FOS
Account Structure, Security, and Volume Management (w/binder)	32650-60006	7/88		FOS
binder contents:				
Account Structure Security		(11/87)		
Volume Management		(11/87)	(7/88)	
Localizing and Customizing System Information (w/binder)	32650-60007	11/87		FOS
System Administrator's Quick Reference (w/binder)	32650-60008	11/87	12/88	FOS
System Backup, Recovery, Storing and Restoring Files (w/binder)	32650-60025	11/87	7/88	FOS
binder contents:				
Storing and Restoring Files		(11/87)	(7/88)	
System Backup and Recovery		(11/87)	(7/88)	
MPE XL System Utilities (w/binder)	32650-60029	11/87		FOS
Managing Peripheral, Jobs, and Sessions (w/binder)	32650-60031	11/87	12/88	FOS
binder contents:				
Managing Jobs and Sessions		(11/87)	(7/88)	
Managing Peripherals		(11/87)	(12/88)	

DATA COMMUNICATIONS MANUALS

Manual Title	Part Number	Latest Edition	Current Update	Subscription Service
HP SNA Products: Managers Guide	5958-8542	4/88		
HP SNA Products: ACF/NCP & ACF/VTAM Guide	5958-8543	4/88		
HP SNA Products: Job Entry Subsystems Guide	5958-8544	12/87		
HP SNA Products: IMS Guide	5958-8545	4/88		
HP SNA Products: CICS Guide	5958-8546	4/88		
HP SNA Products: DISOSS Guide	5958-8547	11/86		
HP SNA Server/Access User's Guide (w/binder)	30254-61000	5/88		
SNA Link/XL Node Manager's Guide (w/binder)	30291-61000	5/88		30291A+Q00 5751-5745 99085B+Q00 99086B+Q00 99087B+Q00
SNA NRJE Node Manager's Guide (w/binder)	30292-61000	5/88		5751-5745 99087B+Q00 99085B+Q00 99086B+Q00 30292A+Q00
SNA NRJE User/Programmer's Guide (w/binder)	30292-61001	5/88		5751-5745 99087B+Q00 99085B+Q00 99086B+Q00 30292A+Q00
SNA IMF/XL Node Manager's Guide (w/binder)	30293-61000	5/88		5751-5745 99087B+Q00 99085B+Q00 99086B+Q00 30293A+Q00

Manual Title	Part Number	Latest Edition	Current Update	Subscription Service
SNA IMF User/Programmer's Guide (w/binder)	30293-61001	5/88		5751-5745 99087B+Q00 99085B+Q00 99086B+Q00 30293A+Q00
NetDelivery/XL Intrinsics Reference Manual (w/binder)	32349-61001	11/88		
NetDelivery/XL Utility User's Guide (w/binder)	32349-61002	11/88		
NetDelivery/XL Error Message Manual (w/binder)	32349-61003	11/88		
NS3000/XL User/Programmer Reference Manual (w/binder)	36920-61000	11/88		36920A+S00,+W00
NS Cross-System NFT Reference Manual (w/binder)	36920-61003	10/86		36920A+S00,+W00
NS Cross-System Network Manager (w/binder)	36920-61004	8/87		36920A+S00,+W00
NetIPC 3000/XL Programmer's Reference Manual (w/binder)	36920-61005	11/88		36920A+S00,+W00
NS300/XL Local Area Network Configuration Guide (w/binder)	36922-61000	11/88		
NS Point-to-Point 3000/XL Network Configuration Guide (w/binder)	36922-61001	11/88		
NS3000/XL Configuration Planning and Design Guide (w/binder)	36922-61002	11/88		
NS3000/XL MNMGR Screens Reference Manual (w/binder)	36922-61003	11/88		
NS3000/XL Operations and Maintenance Manual (w/binder)	36922-61005	11/88		
NS3000/XL Error Messages Reference Manual (w/binder)	36923-61000	11/88		
Getting Started with NS3000/XL (w/binder)	36923-61001	11/88		

PROGRAMMER PRODUCTIVITY TOOLS

Manual Title	Part Number	Latest Edition	Current Update	Subscription Service
HP SRC User's Guide (w/binder)	30234-60002	11/88		
binder contents:				
HP SRC User's Guide		(11/88)		
HP SRC Implementation Guide		(11/88)		
HP SRC Quick Reference Card		(11/88)		
Getting Started with HP SRC		(11/88)		
HP EDIT Reference Manual (w/binder)	30316-60002	9/88		
binder contents:				
HP EDIT Reference Manual		(9/88)		
Learning HP EDIT		(9/88)		
HP EDIT Quick Reference Card		(9/88)		
Virtuoso Code Generator Reference Manual (w/binder)	30422-60001	5/88		
Virtuoso COBOL Sample Library Reference (w/binder)	30426-60001	5/88		
REPORT/XL Reference Manual (w/binder)	32245-60001	11/87		32245A+S00,+W00 32245Q 99082B+C00,+Q00,+V00
INFORM/XL Reference Manual (w/binder)	32246-60002	3/88		32246A+S00,+W00 32246Q 99082B+C00,+Q00,+V00
Getting Started With TRANSACT (w/binder)	32247-60002	7/88		32247A+S00,+W00 32247Q 99082B+C00,+Q00,+V00
TRANSACT/XL Reference Manual (w/binder)	32247-60003	12/87	7/88	32247A+S00,+W00 32247Q 99082B+C00,+Q00,+V00
Transaction Migration Guide (w/binder)	32247-60004	7/88		
Using Information Access	32596-90072	6/88		
Information Access: Master Index to PC Manuals	32596-90073	6/88		

Manual Title	Part Number	Latest Edition	Current Update	Subscription Service
Learning Information Access	32596-90074	6/88		
Information Access: System Management	32596-90075	6/88		
Information Access: Error Messages	32596-90076	6/88		
Information Access: Database Administration (1)	32596-90077	6/88		
Information Access: Master Index to Host Manuals	32596-90078	6/88		
Information Access: Learning the Administrator Utility	32596-90079	6/88		
Information Access: Planning and Configuring	32596-90080	6/88		
Information Access: Installation Card	32596-90084	6/88		
Information Access: Database Administration (2)	32596-90085	6/88		
HP TOOLSET/XL Reference Manual (w/binder)	36044-60001	12/87		36044A+S00,+W00

INFORMATION MANAGEMENT SERIES

Manual Title	Part Number	Latest Edition	Current Update	Subscription Service
Dictionary/3000 Reference Manual (w/binder) *binder contents:*	32244-61000	12/87		32244A+S00,+W00 32244Q
Dictionary/3000 Reference Manual		(12/87)		
Data Dictionary Managing Information Networks Primer		(11/86)		
HP System Dictionary Self-Paced Customer Training (w/binder)	32254-61000	12/87		32254A+S00,+W00 99082B+C00,+Q00,+V00
HP System Dictionary/XL SDMAIN Reference Manual (w/binder)	32256-61000	12/87	5/88	32256A+S00,+W00 99082B+C00,+Q00+V00
HP System Dictionary/XL Intrinsics Reference Manual (w/binder)	32256-61001	12/87	5/88	32256A+S00,+W00 99082B+C00,+Q00+V00

Manual Title	Part Number	Latest Edition	Current Update	Subscription Service
HP System Dictionary/XL Utilities Reference Manual (w/binder)	32256-61002	12/87	5/88	32256A+S00,+W00 99082B+C00,+Q00+V00
HP System Dictionary/XL General Reference Manual Volume 1 (w/binder)	32256-61003	12/87	5/88	32256A+S00,+W00 99082B+C00,+Q00+V00
HP System Dictionary/XL General Reference Manual Volume 2 (w/binder)	32256-61004	12/87	5/88	32256A+S00, W00 99082B+C00,+Q00,+V00
HP System Dictionary/XL COBOL Definition Extractor Reference Manual (w/binder)	32257-61000	12/87		32257A+S00,+W00 99082B+C00,+Q00,+V00
VISOR Tutorial Kit Kit contents: Introduction to VISOR Using EZAccess Using SQLAccess Reporting with EZReport Advanced VISOR Functions VISOR Reference Information	32425-60001	10/88 (10/88) (10/88) (10/88) (10/88) (10/88) (10/88)		32425A
TurboIMAGE DBCHANGE/XL User's Guide (w/binder)	36020-60002	1/87		36020A+Q00,S00,+W00
ALLBASE/XL HP SQL Reference Manual (w/binder)	36216-60005	10/88		36216A+S00,+W00 99083B+C00,+Q00,+V00
ALLBASE/XL ISQL Reference Manual (w/binder)	36216-60006	10/88		36216A+S00,+W00 99083B+C00,+Q00,+V00
ALLBASE/XL HP SQL Database Administration (w/binder)	36216-60007	10/88		36216A+S00,+W00 99083B+C00,+Q00,+V00
ALLBASE/XL HP SQL Pascal Application Programming Guide (w/binder)	36216-60008	10/88		36216A+S00,+W00 99083B+C00,+Q00,+V00
ALLBASE/XL HP SQL COBOL Application Programming Guide (w/binder)	36216-60009	10/88		36216A+S00,+W00 99083B+C00,+Q00,+V00
ALLBASE/XL HP SQL Message Manual (w/binder)	36216-60011	10/88		36216A+S00,+W00 99083B+C00,+Q00,+V00

Manual Title	Part Number	Latest Edition	Current Update	Subscription Service
ALLBASE/XL HP SQL Master Index (w/binder)	36216-60014	10/88		36216A+S00,+W00 99083B+C00,+Q00,+V00
ALLBASE/XL HP SQL FORTRAN Application Programming (w/binder)	36216-60015	10/88		
ALLBASE/NET User's Guide (w/binder)	36216-60016	10/88		
ALLBASE/XL SQL HP SQL C Application Programming Guide (w/binder)	36216-60017	10/88		
ALLBASE/QUERY User Guide	92534-90001	2/89		

MIGRATION SERIES

Manual Title	Part Number	Latest Edition	Current Update	Subscription Service
Introduction to MPE XL for MPE V Systems Administrators (w/binder)	30367-60001	11/87	7/88	FOS
MPE V to MPE XL: Getting Started (w/binder) *binder contents:*	30367-60002	7/88		FOS
MPE V to MPE XL: Getting Started Self-Paced Training		(7/88)		
MPE V to MPE XL: Getting Started Mentor's Guide		(7/88)		
Migration Process Guide (w/binder)	30367-60003	6/88		FOS
Introduction to MPE XL for MPE V Programmer's (w/binder)	30367-60004	11/87	12/88	FOS
MPE XL Languages Migration Guide (w/binder) *binder contents:*	31502-60004	10/88		FOS
HP COBOL II/XL Migration Guide		(10/88)		
HP FORTRAN 77/XL Migration Guide		(11/87)		
HP Pascal/XL Migration Guide		(11/87)		
Switch Programming (w/binder)	2650-60030	11/87		FOS

PROGRAMMER'S SERIES

Manual Title	Part Number	Latest Edition	Current Update	Subscription Service
MPE XL Asynchronous Serial Communications Programmer's Reference Manual (w/binder)	32022-61001	12/87	12/88	FOS
KSAM Reference Manual (w/binder)	32208-60001	11/87		FOS
VPLUS/XL Reference Manual (w/binder)	32209-60002	11/87		FOS
binder contents:				
Data Entry and Forms Management System VPLUS/3000		(7/86)		
Using VPLUS/V: An Introduction to Forms Design		(8/86)		
TurboIMAGE/XL Database Management System (w/binder)	32215-60002	12/87		FOS
QUERY/XL Reference Manual (w/binder)	32216-60001	12/87		FOS
Hi-Li/XL Reference Manual (w/binder)	32424-60001	11/87		FOS
Getting Started as an MPE XL Programmer (w/binder)	32650-60009	11/87	12/88	FOS
MPE XL Accessing Files, Trap Handling, and Data Types Conversion (w/binder)	32650-60010	11/87	12/88	FOS
binder contents:				
Data Types Conversion Programmer's Guide		(11/87)	(7/88)	
Accessing Files Programmer's Guide		(11/87)	(7/88)	
Trap Handling		(12/88)		
Process Management, Resource Management, and Interprocess Communication (w/binder)	32650-60011	11/87		FOS
binder contents:				
Interprocess Communication Programmer's Guide		(11/87)		
Process Management Programmer's Guide		(11/87)		
Resource Management Programmer's Guide		(11/87)		

Manual Title	Part Number	Latest Edition	Current Update	Subscription Service
Native Language, Message Catalogs, and User Logging (w/binder)	32650-60012	11/87	12/88	FOS
binder contents:				
Native Language Programmer's Guide		(11/87)	(7/88)	
User Logging Programmer's Guide		(11/87)	(7/88)	
Message Catalogs		(11/87)		
MPE XL Intrinsics Reference Manual (w/binder)	32650-60013	12/87	12/88	FOS
Compiler Library/XL Reference Manual (w/binder)	32650-60014	10/88		FOS
HP Link Editor/XL Reference Manual (w/binder)	32650-60015	10/88		FOS
System Debug Manual (w/binder)	32650-60017	11/87	7/88	FOS
System Information, Command Interpreter, and SORT-MERGE Programming (w/binder)	32650-60021	11/87	7/88	FOS
binder contents:				
Getting System Information Programmer's Guide		(11/87)	(12/88)	
Command Interpreter Access & Variables Programmer's Guide		(11/87)	(7/88)	
SORT-MERGE/XL Programmer's Guide		(11/87)	(12/88)	
MPE Segmenter Reference Manual (w/binder)	32650-60026	11/82	8/86	FOS

LANGUAGE MANUALS

Manual Title	Part Number	Latest Edition	Current Update	Subscription Service
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RPG/XL Programmer's Guide (w/binder)	30318-60001	12/88		
RPG/XL Reference Manual (w/binder)	30318-60002	12/88		
RPG/XL Utilities Reference Manual (w/binder)	30318-60003	12/88		
COBOL II Reference Manual (w/binder)	31500-60001	10/88		31500+S00,+W00 99081B+C00,+Q00,+V00

Manual Title	Part Number	Latest Edition	Current Update	Subscription Service
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HP COBOL II/XL Reference Manual Supplement		(10/88)		
COBOL II/XL Programmer's Guide (w/binder)	31500-60002	10/88		31500+S00,+W00 99081B+C00,+Q00,+V00
COBOL II Quick Reference Guide (w/binder)	31500-60003	10/88		31500+S00,+W00 99081B+C00,+Q00,+V00
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HP FORTRAN 77/XL Quick Reference Guide (w/binder)	31501-60003	12/88		31501A+S00,+W00 99081B+C00,+W00,+V00
HP FORTRAN 77/XL Programmer's Guide (w/binder)	31501-60004	10/88		31501A+S00,+W00 99081B+C00,+Q00,+V00
HP Pascal/XL Reference Manual (w/binder)	31502-60005	10/88		31502A+S00,+W00 99081B+C00,+Q00,+V00
HP Pascal/XL Programmer's Guide (w/binder)	31502-60006	10/88		31502A+S00,+W00 99081B+C00,Q00,+V00
HP Pascal/XL Quick Reference Guide (w/binder)	31502-60007	10/88		31502A+S00,+W00 99081B+C00,+Q00,+V00
HP C/XL Reference Manual (w/binder)	31506-60001	10/88		31506A+S00,+W00
binder contents:				
HP C Reference Manual		(11/87)	(10/88)	
HP C/XL Reference Manual Supplement		(11/87)		
HP C/XL Library Reference Manual		(10/88)		
HP C/XL Programmer's Guide (w/binder)	31506-60002	11/87	10/88	31506A+S00,+W00
HP Symbolic Debugger/XL User's Guide (w/binder)	31508-60001	11/87		31508A+S00,+W00
HP Symbolic Debugger/XL Quick Reference Guide (w/binder)	31508-60002	11/87		31508A+S00,+W00
Cooperative Services: Pascal Reference Manual	32570-90032	1/89		
Cooperative Services: Developer's Guide	32570-90033	1/89		

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Cooperative Services: COBOL Reference Manual	32570-90035	1/89		

SOFTWARE PRODUCT MANUALS

Manual Title	Part Number	Latest Edition	Current Update	Subscription Service
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HP Convert/DCA Document Conversion Guide	27509-90001	12/85		
Administrator's Guide to HPOffice Connect to DISOSS	27515-90001	10/86		
Using HP DeskManager Connected to DISOSS	27515-90004	10/86		
Using DISOSS Connected to HP DeskManager	27515-90006	10/86		
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HP File/Library Administration	27520-90002	8/86		
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HP Schedule Administration	27522-90002	9/86		
HP DeskManager: Intrinsics	27562-90001	8/88		
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Programmatic Access to HPWORD Documents	32119-90001	9/86		32119Q,S,T 32119A+Q00,S00,W00
HP ListKeeper User's Guide Reference Manual	32132-90029	9/86		32132A+Q00,S00,W00 32132Q,S,T
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Resource Sharing: PC Backup System Management	32597-90070	3/89		32560A+S00+W00 32561A+S00+W00 32562A+S00+W00 32563A+S00+W00
HP Business Report Writer/XL Reference Manual (w/binder)	35360-60002	4/88	12/88	35360Q,S,T 35360A+Q00,+S00,+W00
HP Business Report Writer/V Reference Manual	36070-60002	10/87	11/88	36070Q,S,T 36070A+Q00,+S00,+W00
HPSPELL Administration	36561-90002	11/84		36561Q,S,T 36561A+Q00,S00,W00 36562Q,S,T 36562A+Q00,S00,W00
HPSPELL Quick Reference Guide	36561-90003	11/84		36561Q,S,T 36561A+Q00,S00,W00 36562Q,S,T 36562A+Q00,S00,W00
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HP DeskManager: 1 Administration Tasks Manual	36570-90087	8/88		36570Q,S,T 36570A+Q00,S00,W00 32114Q,S,T 32114A+Q00,S00,W00

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Using HPSlate	36576-90030	11/86	5/86	
TDP/3000 Quick Reference Guide	36578-90003	11/80		36578Q,S,T 36578A+Q00,S00,W00
Getting Started with TDP/3000	36578-90005	8/88		36578Q,S,T 36578A+Q00,S00,W00
TDP/3000 Reference Manual	36578-90009	8/88		36578Q,S,T 36578A+Q00,S00,W00
HP Graphics Curator Manual	36926-90001	2/86		
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PROCMON/V Reference Manual (w/binder)	99941-60001	11/86		

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HP 3000 Commercial Systems

COMMUNICATOR 3000/XL, XL Release 1.2 (Production Release A.21.00)
Volume 3, Issue 10

30216-90013   JUNE 1989

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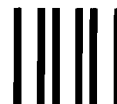**FROM:**   **Date** _____

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