

my Apollo file

SCIENCE AND ENGINEERING RESEARCH COUNCIL
RUTHERFORD APPLETON LABORATORY

COMPUTING DIVISION

DISTRIBUTED INTERACTIVE COMPUTING NOTE 720

issued by
I D Benest

APOLLO
TECHNICAL NOTE 12

Version 4.1 Release

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1. PREFACE

Version 4.1 of the Apollo system is now running and a copy of the associated release document issued by Apollo Computer Inc is kept in a ring file on top of the machine. This technical note summarises some of the important information in that release document.

2. AEGIS ENHANCEMENTS

- * AEGIS now supports a 158Mbyte Winchester.
- * AEGIS now supports the Domain Network Registry - a distributed database for identifying users via its new login procedure.
- * Users may specify who may access their files and directories.
- * Apollo Core Graphics, based on the ACM SIGGRAPH proposed graphics standard, is now an available option.
- * Apollo Domain Distributed Data Management System, supporting data structures distributed across multiple processors and based on the CODASYL network data model, is now an available option. The system includes interactive data base design facilities, high level query and update interfaces and a report generator.

3. SHELL ENHANCEMENTS

- * INVOL and SALVOL have been modified to handle a new format for logical and physical badspot lists. -B option in SALVOL has been removed.
- * Commands: CRRGY, EDPO, EDACCT and SALRGY create and maintain the network registry.
- * Commands: ACL, EDACL, DEFACL and SALACL provide users with file and directory access control.
- * CPT A A -R now works

- * MVF works correctly across volumes
- * SIOF and SIOTF and their corresponding host-model programs have had their handshaking protocol enhanced.
- * BIND can process any number of input files at once.
- * A new compiler option - SUBCHK in FTN and PAS generates code for subscript and sub-string range checking.
- * -VAR option has been added to the LIST command in DEBUG
- * -H option has been added to the BREAKPOINT command in DEBUG
- * Two new variables to control output have been added to DEBUG

4. LIBRARY ENHANCEMENTS

- * A user may create a library /lib/userlib.private which will be installed in every process and is shared among all processes.
- * The GPIO library now supports mapped memory controllers.
- * The Graphics Primitive Library now provides:
 - (a) maximum size of main memory bit maps of 4096x4096
 - (b) main memory bit maps can use multiple planes
 - (c) individual planes may be protected from a graphics operation
 - (d) colour and intensity of text and text background may be specified.
- * Routines exist for handling mailbox, peripherals, display driver, stream and time event counts.
- * New routines exist for mapping objects, locking them, changing access and specifying which part of an object is to be mapped.

5. DISPLAY MANAGER

- * Touch pad cursor now positioned at the closest character when finger is removed.
- * L <username> command logs a user into the system
- * LO command logs the user off the system
- * CPS command enables users to create processes that run independent of user login
- * The display manager supports a start up file at login
- * Tabs and form feeds now handled correctly
- * Narrow characters in proportionally spaced fonts are edited correctly

6. FORTRAN

- * Unit 6 is now preconnected to standard output
- * rested implied DO's in I/O are now correctly compiled
- * MAX is now INTEGER*4
- * A number of PEB related bugs have been removed

7. PASCAL

- * PASCAL now supports short circuit conditions and the pre-declared function IN_RANGE (which returns TRUE if the variable argument is within the declared sub range)

8. ERRORS REMAINING

- * The substitute command in the display manager does not substitute correctly if an attempt is made to replace a bracketed expression that is followed by text e.g. /{a?*b}cde/
- * PAS does not report an error when a structure component is used as a control variable in a FOR loop
- * There are many bugs remaining in the data base management system (D3M).