

## Announcing OS-9 Version 1.2

The Version 1.2 release of OS-9 Level 1 contains fixes for many problems discovered in the previous release as well as the "bringing-back" of some Level Two features such as the improved IOMAN and the Pipe Manager.

### IMPORTANT NOTE

Due to changes in RBF affecting the bitmap and directory handling, disks created under V1.2 (or Level Two with record-locking RBF) cannot be written on by previous versions of RBF. V1.2 disks can always be read by older versions of RBF. V1.2 can read and write disks created by old RBFs. However, once written by V1.2 RBF the disk should not be written on by older versions of RBF.

The "OS9Defs" files in the DEFS directory have been revised to be more compatible with Level Two. The defs have been split into several different files to allow selective inclusion in assembler programs depending on the intended application. To allow programs to be assembled that used older Level One short-form names, a special file (li.equates) may be included in the assembly to equate the new names to the old-style names.

Announcing OS-9 Version 1.2

KERNEL:

- \* Sleep queue early wake-up problem has been fixed.
- \* An error is returned when a primary module requests a data size of zero. (Minimum required is one page for the stack.)
- \* An error is now returned when attempting to set a service call (F\$SSVC) that falls outside the allotted table area.

IOMAN:

IOMAN has been upgraded to be equivalent to the Level Two IOMAN. As a result:

- \* Some I/O queueing problems have been fixed.
- \* I/O static storage is recovered better.
- \* Static storage is allocated in 256-byte chunks.
- \* Some problems with PRINTER have been fixed.
- \* A new call (I\$DeletX) has been added to allow deletion of files on either the current working or execution directory.

RBF:

Random block file manager (RBF) has been upgraded to provide some of the features of the Level Two RBF.

- \* Multi-sector bitmaps are used to reduce the clustersizes required to access large disks. Small clustersizes allow small files to be stored with minimum wasted sectors.
- \* This version of RBF does not support record-locking or non-sharable files (the "sharable" bit in disk directories.)
- \* Disk directory search time has been decreased by updating the bytecount of the directory file and searching only those bytes rather than searching the entire allocated segment.
- \* Parent directories, for convenience, may now be referenced without the intervening "/". The first two dots refer to the parent directory. Each subsequent dot refers to the parent's parent directory.

Example:

```
chd ../../../MYDIR (is equivalent to:)
```

```
chd ....MYDIR
```

- \* The super-user (User #0) is now considered the owner of any file.

Announcing OS-9 Version 1.2

SCF:

- \* SCF will now echo the linefeed (\$0A) as "." rather than return-linefeed-"." on I\$ReadLn calls.

ACIA driver:

- \* The ACIA driver now supports incoming XON - XOFF sequences to allow serial devices that provide this feature to be used with OS-9. (See TMODE announcement for details on enabling this feature.)

PIA driver:

- \* A bi-directional PIA driver is now available.

SHELL:

- \* SHELL recognizes the "!" separator which is used to construct pipelines. For example, to view an assembly listing and direct the listing to a file simultaneously:

```
asm #10k prog.l ! tee prog.lst
```

- \* Conditions which caused SHELL to inadvertently close standard input have been fixed.

COPY:

- \* For single disk drive systems, the ability to copy files from one floppy disk to another using the same drive.
- \* COPY will attempt to pre-extend the output file and immediately report media full if the file to be copied will not fit on the output disk.

DCHECK:

- \* Ability to handle disks with up to 16.7 million sectors.
- \* Better file structure integrity verification and overall error handling.
- \* An option to print pathlists that contain questionable clusters.
- \* Builds bitmap on disk file rather than in memory to accommodate RBF multi-sector bitmaps, and, to allow possible repair of erroneous file structures.

DEL:

- \* The -x option allows deletion of a file on the execution directory without the need to specify the full execution directory pathlist.

## Announcing OS-9 Version 1.2

### DSAVE:

- \* Improved error handling.
- \* Options have been added to:
  - Include the "OS9boot" file in the copy.
  - Set the memory size for copy.

### IDENT:

- \* IDENT is a new command to display information from the header of an OS-9 memory module. This command is useful to extract from the module header information such as module size, permanent storage size, module type, edition, etc.
- \* IDENT can perform a CRC check on memory modules in disk files as well as modules already loaded into memory.
- \* A short form printout is available for quick identification and CRC verification of disk files that contain many modules (like OS9boot).

### LOGIN:

- \* LOGIN can now print a "message of the day". If the file called "SYS/motd" exists on the system disk, its contents will be displayed after logging in.

### TMODE:

- \* TMODE now prints the name of the standard input device.
- \* Terminal device descriptors are shipped with the XON-XOFF feature disabled. The XON-XOFF protocol can be enabled by:

```
tmode xon xoff quit=5
```

this command sets the XON character to ^Q, the XOFF character to ^S, and changes the quit character from ^Q to ^E. To effect a permanent change, the terminal device descriptor can be patched to contain these values.