Support Group Application Note
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Acorn

# ADFS Application Note

Applicable Hardware :

BBC Master Series

Related Application Notes:



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This Advanced Disc Filing System contains a hierarchical directory structure which is not compatible with the existing Disc Filing System. The new filing system is, however, compatible with Winchester drives. A Winchester drive may be used as one drive number and one or more floppy drives used as other drive numbers.

The filing system commands include:

*ACCESS <List spec> (E) (L) (W) (R) - Prevents accidental deletion or erasure of files. L - Lock, R - Read, W - Write, E - Execute only. D is a pseudo variable set if the object <List spec> is a directory. In this case R and W have no meaning and are ignored.
Default states: For a File W & R are set.
For a directory D, L & R are set.

*ADFS - starts ADFS from another filing system (A+BREAK is equivalent).

*BACK - Used to go back to the previously selected directory prior to a *DIR or *BACK.

*BYE - closes files and copies RAM buffer onto disc.

*CDIR <Ob Spec> - creates a new directory with the name Ob Spec.

*COMPACT <SP> <LP> - compacts information on a disc. <SP> is the Start Page of the memory area to be used whilst compacting and <LP> is the length in pages of the memory. If none specified, current screen used.

*COPY <List Spec> <Ob Spec> - copies files defined by <List Spec> into directory defined by <Ob Spec>.

*DESTROY <List Spec> - deletes multiple objects.

*DIR <Ob Spec> - to select a new Currently Selected Directory. If no <Ob Spec> is specified the root of the directory is selected. At start up Drive 0 and the Root directory are automatically selected.

*DISMOUNT (<Drive number>) - this command MUST be used before exchanging discs in a drive.

*FADFS - same a ADFS but starts with no directory ie no disc start-up (F+BREAK is equiv).

*FREE - displays free space left in sectors and bytes.

*LCAT - catalogue the current library as in *CAT.

*LEX - examine the current library as in *EX.

*LIB <Ob Spec> - select the current library.

*LOAD <Ob Spec> (<Load address>) - loads a file into memory at the specified start address or, if not defined, at the file's own start address.

*MAP - display the free space map for the current drive.

*MOUNT - initialises a disc.

*OPT 1 (n) - this enables or disables the display of a file's information each time a file is accessed on a disc.
n = 1 to 99 to enable
n = 0 to disable

*OPT 4 (n) - changes the auto-start action, [SHIFT] and [BREAK], of the disc in the currently selected drive.
*OPT 4 0 does nothing
*OPT 4 1 will *LOAD the file !BOOT
*OPT 4 2 will *RUN the file !BOOT
*OPT 4 3 will *EXEC the file !BOOT

*REMOVE <Ob Spec> - same as *DELETE except that no error message is produced if the object does not exist.

*RENAME <Ob Spec> <Ob Spec> - renames an object and moves it to another directory if required.

*RUN <Ob Spec> <Optional parameters> - this command loads a file into memory and then jumps to its execution address, unless the execution address is FFFFFFFF when the file is EXEC'd as a text file.

*SAVE <Ob Spec> <Start address> <Finish address> (<Execute address>) (<Reload address>) - saves an area of memory, typically a machine code program, into a file on the disc. A maximum of 47 objects can be held in a directory.

*SPOOL <Ob Spec> - opens the named file, and spools subsequent screen output to that file and closes the file when terminated with *SPOOL (cr).

*TITLE <Title> - changes the title of the currently selected directory (a maximum of 19 characters are allowed).

NOTE: See MOS spec for other common filing system commands.

The following calls are relevant for accessing files from assembly language:
OSFIND - Opens a file for reading/writing update
OSFILE - Load/Save data. Enquire after/Alter catalogue information.
OSARGS - Reads/Writes an open file's attributes.
OSGBPB - Write/Read a group of bytes to/from a specified open file.
OSBGET - Gets a byte from a specified open file.
OSBPUT - Puts a byte to a specified open file.

Four OSWORD calls are recognised by ADFS:
OSWORD with A=&70 - Read master sequence number and status byte.
OSWORD with A=&71 - Read free space.
OSWORD with A=&72 - Access disc controller.
OSWORD with A=&73 - Read last error information.