

APPENDIX J

SWITCH SUMMARIES

J.1 DSKINT Switches

<u>Switch</u>	<u>Name</u>	<u>Example</u>	<u>Operation</u>
****NORMAL MODE SWITCHES****			
/L	List	#DP0:/L	Lists the contents of the BADB.SYS file at the printer for the specified RP03 disk.
/M	Enter MARK Mode	#DP1:/M	Changes DSKINT to MARK mode; DSKINT indicates MARK mode with * at the terminal. The RP03 will also be initialized.
/R	Retain	#DP2:/V/R	Retains BADB.SYS file on an initialized disk, and includes that information in the new BADB.SYS file when re-initializing the disk.
/V	Verify	#DP:/V	Verifies and zeroes an entire disk.
/Z	Zero	#DP3:/Z	Performs basic disk initialization: - Verify blocks 0 and 1, and any other blocks reserved for DOS/BATCH file structure. - Zero the entire disk. - Write file directories, bit maps, and BADB.SYS onto the disk. Enter [1,1] and the current UIC into the MFD.
****MARK MODE SWITCHES****			
/D	Done	*65/M/D	Causes DSKINT to leave MARK mode, but continue disk initialization; at completion, control returns to Monitor.

¹Used in the following formats: bbbbbb/M (or U) and ccc:tt:ss/M (or U) where bbbbbb is an octal block address; and ccc, tt, and ss are octal cylinder, track, and sector addresses.

<u>Switch</u>	<u>Name</u>	<u>Example</u>	<u>Operation</u>
/L	List	*DPØ:/L	Lists contents of BADB.SYS file at printer for the specified disk.
/M ¹	Mark	*43/M *43:32:3/M	Directs DSKINT to enter the BADB.SYS file at the specified address.
/U ¹	Unmark	*64/U *47:4:2/U *73/M/U	Deletes a specified address from the BADB.SYS file, <u>or</u> ignores a previously specified /M switch on a command line.

J.2 FILCOM Switches

<u>Switch</u>	<u>Name</u>	<u>Example</u>	<u>Operation</u>
****LOCAL SWITCHES****			
/BL	Blank Lines		When OFF, blank lines are compared in files; when ON, blank lines are ignored during comparison.
/DE	Delete Existing		When present, existing dataset of same name as that specified in command is deleted; when not present, deletion is not performed.
/MB	Multiple Blanks		When present, reduces multiple blanks to a single space during comparison; when not present, multiple blanks are compared individually.
/SC	Source Compare		Specifies the number of consecutive lines to be compared to establish a successful comparison.
/TR	TRailing Blanks		When ON, trailing blanks are ignored during comparison; when OFF, trailing blanks are compared.
****GLOBAL SWITCHES****			
/DF	Define DeFault		Allows user to specify default conditions for one or more LOCAL switches.

¹Used in the following formats: bbbbbb/M (or U) and ccc:tt:ss/M (or U) where bbbbbb is an octal block address; and ccc, tt, and ss are octal cylinder, track, and sector addresses.

<u>Switch</u>	<u>Name</u>	<u>Example</u>	<u>Operation</u>
/IN	INdirect commands		Specifies dataset containing file to be read and interpreted as FIL-COM commands.
/LO	LOg dataset		Specifies log dataset for subsequent commands.
/LS	LiSt dataset		Specifies list dataset for subsequent commands.

J.3 FILDMP Switches

****INPUT SWITCHES****

<u>Switch</u>	<u>Name</u>	<u>Example</u>	<u>Operation</u>
/BL	BLock	LP:<DT1:/BL:3:7	Dumps blocks 3, 4, 5, 6, and 7 from DT1 to line printer in octal word format.
/CH	CHain	KB:<DKØ:FILE/CH	Lists the numbers of the blocks which FILE occupies.
/FA	Formatted ASCII	LP:<DKØ:FILE/FA	Dumps FILE to the line printer in octal word format, but reads FILE in formatted ASCII mode.
/FB	Formatted Binary	LP:<DF:FILE/FB	Dumps FILE to the line printer in octal word format, but reads FILE in formatted binary mode.
none	Unformatted Binary	LP:<DFØ:FILE	Dumps FILE to the line printer in octal word format, but reads FILE in unformatted binary mode.

****OUTPUT SWITCHES****

/AS	ASCII	LP:/AS<DF:FILE	Reads FILE in unformatted binary mode and dumps to the line printer in ASCII mode; i.e., one ASCII character per byte.
/BY	Octal Bytes	LP:/BY<DKØ:FILE	Reads FILE in unformatted binary mode and dumps to the line printer as a sequence of octal bytes.

<u>Switch</u>	<u>Name</u>	<u>Example</u>	<u>Operation</u>
/OC	Octal words	LP:/OC<DF:FILE	Reads FILE in unformatted binary mode and dumps it to the line printer as a sequence of octal words.
/RA	Unpacked Radix-50	LP:/RA<DK0:FILE	Reads FILE in unformatted binary mode and dumps it to the line printer in unpacked Radix-50 form format, i.e., 3 characters per word.
None	Octal Words	LP:<DK0:FILE	Same as /OC.

J.4 FORTRAN Switches

/AS and /LI may appear only on the output side of a FORTRAN command string. All other switches must appear only on the input side.

<u>Switch</u>	<u>Name</u>	<u>Example</u>	<u>Operation</u>
****OUTPUT SWITCHES****			
/AS	Assembly Output		Produces assembly code. output instead of an object module; default filename extension is .PAL, not .OBJ.
/LI:n	List Control		Default, n=1. n=0, lists block summaries only; n=1, source listing and block summaries; n=2, assembly code, source listing, and block summaries; n=3, symbol table, assembly code, source listing, and block summaries.
****INPUT SWITCHES****			
/CK	Check Bounds		Checks all array subscripts for <u>upper</u> bound, as dimensioned in program.
/CO:n	Continuation		Sets maximum allowable continuation lines; 0<n<99; default, n=5.

<u>Switch</u>	<u>Name</u>	<u>Example</u>	<u>Operation</u>
/ER	Special Error Listing		Prints special advisory diagnostics (S codes) on questionable or certain non-ANSI statements.
/GO	Go		Calls LINK after compilation for compile-load-go; any F error during compilation aborts this action and gives the message EXECUTION DELETED.
/ON	One		Allocates one storage word (instead of two) for all integer and logical variables. (PDP-11 FORTRAN integers have only one word of precision, even if two are allocated.) Use this switch carefully relative to EQUIVALENCE statements.
/OP:n	Optimization		Generates code for the most efficient hardware use; default, n=1. n=0, no optimization; use with TRACE. n=1, optimizes integer add and subtract operations, and array references. n=2, optimizes integer add, subtract, multiply, and divide operations (requires PDP-11/10, or PDP-11/20 with Extended Arithmetic Element, or PDP-11/40 with Extended Instruction Set, or PDP-11/45). n=3, optimizes floating-point arithmetic operations (requires PDP-11/45 with Floating-point Processor), and integer operations.
/SU	Suppress		Suppresses statement sequence numbers; saves two storage words per statement. Run-time error messages identify subroutine but not line number.

J.5 LIBR Switches

<u>Switch</u>	<u>Name</u>	<u>Example</u>	<u>Operation</u>
/D /D:v1...:vn	Delete	#DT1:LIBR.1<DT2:LIBR.Ø/D:M1:M2	Deletes one or more object modules (v1...vn) from the input library; do not use with /I or /R.
/I /I:v	Insert	#DT1:LIBR.1<DT2:LIBR.Ø,FIL.1/I:2,FIL.2/I	Inserts one or more object modules into the input library; v is a decimal integer relative to the input library; modules are inserted starting at position v, otherwise they are appended to the end of the input library.
/LO	List Object Module	#,LP:FIL.LST/LO<DT1:LIB.1	Produces an object module listing to compare against an input library directory listing.
/R	Replace	#DT1:LIBR.1<DT2:LIBR.Ø,FIL.1/R,FIL.2/R	Replaces one or more object modules in the input library; the object modules must have the same name as the ones they replace.

J.6 LINK Switches

LINK switches comprise three groups: input, map and load module output. The input switches are B, CC, E, EX, GO, IN, L MP, O, OD, T, and TR; the map switches are CR, LG, and SH; and the load module output switches are CO and SQ.

Any extraneous value assigned to a switch is ignored. No switch except /OD should appear alone in an input specification; i.e., /E is illegal, but filename /E is legal.

<u>Switch</u>	<u>Name</u>	<u>Example</u>	<u>Operation</u>
****INPUT SWITCHES****			
/B:n	Bottom		Controls placement or relocation of object program; n=unsigned octal number that defines the bottom address of the object program.

<u>Switch</u>	<u>Name</u>	<u>Example</u>	<u>Operation</u>
/CC	Concatenate		Indicates that a file is a concatenation of several files.
/E	End		Indicates end of input; should appear with last input file; should not be used with /GO.
/EX:xxxxxx	Exclude	LIBRY/IN:ABC/EX:QKQ	Excludes specified library modules on library files; no effect if specified for nonlibrary files.
/GO	Go		Indicates end of input, and, after linking, the loading and execution of the load module; should appear with the last input file, and should not be used with /E.
/IN:xxxxxx	Include	FTNLIB/IN:\$PSHØ1	Includes specified library modules on library files; no effect if specified for nonlibrary files.
/L	Library		Indicates that an input file is a library; not needed for correct library functioning with LINK; provides compatibility with old linker.
/MP	Overlay Mapping Description		Specifies the associated file as an ASCII overlay description; no other input files, values, or switches (other than /E are allowed in a command string with this switch.
/O	Option		Specifies that LINK options are required; replaces /E.
/OD	ODT	SY:DEBUG.LDA<SY:ODT.OBJ[1,1]/OD	Links ODT with user's object modules; identifies associated input file as ODT for transfer addresses. Example shows equivalent of "/OD appearing alone as an input file.

<u>Switch</u>	<u>Name</u>	<u>Example</u>	<u>Operation</u>
/T:n	Top		Controls placement or re-location of object program; n-unsigned octal number that defines address of object program; default=top of available core.
/TR	Transfer		Without a value, directs LINK to take the transfer address (even or odd) of the first object module in the associated file as the transfer address of the load module. With n, uses value of n as transfer address of load module. With xxxxxx (global symbol), uses value of symbol as transfer address of load module. (If xxxxxx does not exist, transfer address=1 and an error message is issued.)
/TR:n	Address		
/TR:xxxxxx			

****MAP SWITCHES****

/CR	Global Cross Reference		Produces global cross-reference table on map listing device.
/LG	Long Map		Produces long map form on specified map file; includes entry points, globals, and externals referenced by the module.
/SH	Short Map		Produces short map on specified map file; includes only heading, program size description, and section allocation synopsis.

****LOAD MODULE OUTPUT SWITCHES****

/CO	Contiguous		Specifies load module output file in contiguous format; required with overlaid programs.
/CO:n	Output		
			Using n (n=multiple of 64) generates a contiguous file for another device whose blocksize does not equal the blocksize of the current output device.

<u>Switch</u>	<u>Name</u>	<u>Example</u>	<u>Operation</u>
/SQ	Program Section Sequencing		Stores program sections (.PSECT, .CSECT) in the order encountered by LINK, instead of alpha- betically.

J.7 MACRO Switches

Switch options specified on the output side apply to both the object and listing files. Switch options specified on the input side apply to the file that precedes the switch and all subsequent files.

<u>Switch</u>	<u>Name</u>	<u>Example</u>	<u>Operation</u>
/LI	List	#OBJFIL,LP:/LI<DT1:ABC	Lists any source code normally suppressed.
/LI:arg	List	#OBJFIL,KB/LI:SRC<DF:SRCFIL	Formats the assembly listing to the argument specified.
/NL	Nolist	#OBJFIL,SYM/NL<ABC	Suppresses assembly listing.
/NL:arg	Nolist	#OBJFIL,KB:/NL:BEX:COM<...	Deletes the portion of the listing indicated by the argument.
/EN:arg	Enable		Overrides any arguments specified on a .ENABL directive.
/DS:arg	Disable		Overrides any arguments specified on a .DSABL directive.
/CRF	Cross- Reference	#,LP:/CRF<FILE1,FILE2	Calls CREF immediately after assembly; prints both assembly and CREF listing at line printer
/CRF:arg	Cross- Reference	#,LP:/CRF:NG<FILE1,FILE2	Postpones CREF action; prints only assembly listing and saves CREF listing creates FILE2.CRF containing CREF listing.
/PA:1	Pass 1		Assembles file during pass 1 only.
/PA:2	Pass 2		Assembles file during pass 2 only.

J.8 PIP Switches

<u>Switch</u>	<u>Name</u>	<u>Example</u>	<u>Operation</u>
/AL	Allocate	#DF:FILE/AL:1Ø	64Ø (1Ø x 64) contiguous words of file storage is allocated on disk.
/BR	Brief Directory	#DTØ:/BR	Lists all filenames and extensions in directory for DECTape Ø on the user's teleprinter.
/CK	Checksum	#DT:/DI/CK	Adds checksum information to each line of directory listings.
/CO	Contiguous	#DTØ:<ABC/CO	Transfers file ABC as contiguous file from system disk to DECTape Ø.
		#DTØ:AD/CO<ABC,DEF	Merges files ABC and DEF (on system disk) as one contiguous file on DECTape Ø.
/DE	Delete	#MAIN/DE	Deletes file MAIN from system disk.
		#DTØ:ABC,DT1:DEF/DE	Deletes files ABC and DEF from DECTapes Ø and 1 respectively.
/DI	Directory	#DTØ:/DI	Lists all filenames, extensions, size, creation date, and protection codes in directory for DECTape Ø onto the user's teleprinter.
/EN	Enter	#DF:/EN	Enters current user's UIC in MFD on the specified disk (device).
/FA	Formatted ASCII	#LP:/FA<DTØ:ABC	Copies file ABC from DECTape Ø to line printer in formatted ASCII mode.
/FB	Formatted Binary	#DTØ:<ABC/FB	Copies file ABC from system disk to DECTape Ø in formatted binary mode.
/FC	Fast Copy	#DT1:<DT2:/FC	Data on DECTape #2 is fast copied onto DECTape #1.
/FC/VE	Fast Copy and Verify	#DT1:<DT2:/FC/VE	Data on DECTape #2 is fast copied and verified onto DECTape #1.
/FR	Free	#DT1:/FR	Lists the number of free blocks remaining on DECTape unit 1.

<u>Switch</u>	<u>Name</u>	<u>Example</u>	<u>Operation</u>
/IN	Inspect	<u>#</u> *./DE/IN	Used in conjunction with file transfers and /SU, /DE, and /RE switches. Allows user to selectively perform the primary function. (User gives Y to perform action on the displayed file or types the RETURN key to leave file intact.)
/PR	Protect	<u>#</u> ABC/PR:355	Change protection code of system disk file ABC to 355.
/RE	Rename	<u>#</u> ABC/RE<DEF <u>#</u> DTØ:GHI/RE<DTØ:JKL	Rename file DEF to ABC. Rename DECTape Ø file JKL to GHI.
/RU	Rewind and Unload	<u>#</u> MT1:/RU	Causes the tape on mag-tape unit #1 to be wound back on its reel and the unit to be switched off-line.
/RW	Rewind	<u>#</u> MT1:/RW	Causes the tape on mag-tape unit #1 to be wound back on its reel. The unit can still be addressed.
/SU	Supersede	<u>#</u> dev:<dev1:A,B,C/SU	Causes files on the input side (DEV1) to replace files of the same name which may already be on the output device (dev).
/UA	Unformatted ASCII	<u>#</u> LP:/UA<DTØ:ABC	Copies file ABC from DECTape Ø to line printer in unformatted ASCII mode.
/UB	Unformatted Binary	<u>#</u> DTØ:<ABC/UB	Copies file ABC from system disk to DECTape Ø in unformatted binary mode.
/UN	Unlock	<u>#</u> DF:FILE.OLD/UN	Unlocks FILE.OLD after a system failure so that FILE.OLD can be accessed.
/VE	Verify	<u>#</u> DT1:<DT2:/VE	Data on DECTape #1 and DECTape #2 are compared block-by-block; disagreements are shown by printing block and word numbers at the console.
/VW	Verified Write	<u>#</u> CT:VW<CT1:FILE.MAC	Verify a write operation by reading it after writing it.
/ZE	Zero	<u>#</u> DTØ:/ZE	Erases all files from directory of DECTape Ø by initializing the file structure.

J.9 ROLLIN SWITCHES

<u>Switch</u>	<u>Name</u>	<u>Example</u>	<u>Operation</u>
/BO:dev	Bootstrap	#/BO:DK	Bootstraps DOS/BATCH; loads the first 256 words of core from the specified device and branches to location 0.
/DA:dd-mmm-yy	Date	#/DA:1-FEB-74	Enters specified date in FILE LABEL on magtape.
/FI	Find		Magtape use only: when reading, /FI rewinds the tape and searches for the specified file; when dumping, /FI skips all previously written files.
/FO	Format		Used on the output side of a transfer command string to format a DECpack cartridge on an RK03/05 disk drive, or a disk pack on an RP11-C/RP03 disk drive before the transfer operation begins.
/HE	Help		Types a brief explanation of ROLLIN options on the console.
/NO	Nolabel		When dumping disk to DECTape this switch inhibits the REEL LABEL from being written.
/NU:n	Number		n specifies the total number of units of disk space to transfer; a unit is 1K processor words (K=1024); n may assume a maximum value as shown here. RC11 RF11 RK03/05 RP03 64 256 1200 20000
/PL:n	Platters		With RF11 and RC11 disks only, n is the number of disk platters to load or dump; default, n=1.
/RW	Rewind		Rewinds magtape before reading or writing.
/SK:n	Skip		Skips past n end-of-file marks before starting to read or write on magtape.
/TR:n	Track		n specifies the unit of disk space at which to begin a transfer operation; see /NU for values n may assume; default, n=0.
/VE	Verify		Used in image copy operations to ensure a correct and readable copy.
/WL	Write Lock		Used with a DECpack device designator to force a write lock on an input drive unit.