Toolkit II Update Record

V2.01 First full version.

V2.02 First release version.

V2.03 Patched to prevent MG initialisation problems.

V2.04 (Jeaggi only) network eof problems fixed.

V2.05 Lost channel on OPEN_NEW (file already exists) fixed.
EX EW changed so that owner is current job.

V2.06 EX EW changed for compiled programs: EX jobs owned by 0, EW jobs owned by current job and now wait!

V2.07 (Sandy only) 'bad line' character wrap problem in ED fixed.

V2.08 Empty line in ED problem (introduced in V2.07) fixed.
Unset string parameter collapse in PRINT_USING fixed.

V2.09 PUTting randomly positioned bytes over the the network should not now shuffle the contents of a file.

V2.10 RENAME with only one name does not now leave file open.
The file system prompts are now sent to #0 rather than channel 0.

V2.11 Initialisation error causing loss of replacement commands (e.g. OPEN) using JM/AH ROMs and CST QDisc V1.17 and V1.18 fixed.

V2.12 Bad error message return from opening a file name that is too long changed to return "bad name".
”Bad parameter" from special job opening a file specified as a string in an EX command fixed.
"Not complete" from SPL fixed.
Last line recall changed to reduce problems due to asynchonous modification of keyboard queue.

V2.13 Error status returned from SAVE and LIST if drive full or bad or changed medium during output.
Network fixed to prevent serial I/O buffer damage when interleaving serial I/O with window enquiries while reading from a file.

Floppy disk update Record

V1.07 (not released)
Write operations held pending (up to 20 sectors).
Direct sector IO added.

V1.08 Microdrive interleave problem with FS.LOAD call (in V1.07 only) fixed.

V1.09 Direct sector open does not now check the drive. On seek, the track register is set to the actual track number found on the track, seek errors will not be detected, so any track may be read from any part of the disk.

V1.10 Direct sector write in FM (*DnS) does not now give read/write failed (it did work before though - just ignore the error message). This does not affect those interfaces which have MFMonly.

A fatal LOAD error condition has been removed. This occurred in V1.07 onwards if:

a) a file is LOADed within .5 second of a modification to that file

and b) the file was not closed or flushed in this period

and c) the directory entry for the file has become unreadable.

(There is no logical reason for conditions a and b to be met simultaneously!)

V1.11 Version 1.11 should be functionally identical to Version 1.10.

The source code has been completely reorganised.

V1.12 The step rate detection procedure, which has not functioned well since version 1.09, has been fixed.

V1.13 The disk present detection routine has been changed to work reliably with index pulses as short as 10 us. (A problem with extreme out-of-spec Mitsubishi 3.5" drives.)

V1.14 The FLP_OPT command or the equivalent set of commands has been added. This now gives a choice of security versus speed, and extends the range of odd drives which may be used.

The disk change detection has been redesigned and the disk header handling has been improved.

The FORMAT procedure has been rewritten. It will not now detect step errors, but instead it formats and checks the disk in 5 revolutions per track (1 second, on double sided drives), or 3 revolutions per track (.6 second, on single sided drives).

The check on the 11th character of a medium name (FORMAT) is not now done unless the name is at least 11 characters long.

The error returns from direct sector reads have been tidied up.

The read operations used in direct sector reads now have their own read error recovery. This should improve the reliability of direct sector reads (see V1.09 above). Direct sector reads no longer clear the read buffer before attempting to read.

When checking for the presence of a disk, the driver now waits for just over one second before giving up.

If there are repeated seek errors, the step rate is automatically reduced.

The driver can now scatter load zero length files without getting in a knot.

V1.15 The changes in V1.15 are mainly to accomodate the 1772 control chip. Some of these may have beneficial side effects when using 1770 or 2793.

1) When first accessing a drive a check is made for 1772 step rates.

2) A compulsory 5ms settle is added after any seek: there was a problem at 2ms step rate with premature termination of a restore command.

3) The unchecked seeks at the start of the format procedure and before a direct sector read / write are now performed at a slower step rate than the normal seeks. This should reduce the chances of an undetected seek error.

The sector allocation algorithm has been changed so that the first sector of a file may be allocated in track 0 when all other tracks are full.

The internal messages have been moved to the base of the ROM.

Foreign language versions can now be made with simple patches.

The write track procedure (for format) has been changed to improve the worst case timing margin.

V1.16 A problem with repeated checks on a changed medium, when files are still open on a previous medium, has been fixed.

The FLP_EXT command clears the procedure stack.

RAM disk V1.02 incorporated where appropriate.

V1.17 RAM disk V1.03 incorporated where appropriate.

V1.18 Verify introduced on restore; additional pauses introduced on seek error recovery.

V1.19 to V1.25 Identical to V1.18