

RELEASE NOTES

MCM — RMS1551-01-I

These release notes contain important information about the new firmware and how it will affect the performance of instruments in which it is installed. Please read the notes before attempting to use the new firmware.

1 PROBLEMS CORRECTED

- 1.1 A problem could arise when a TIM or SCSI module is busy and can not accept a tape or disk write operation. Although very unlikely after introduction of the 15-page data buffer in these modules, the problem could occur on the first write (from B.O.T.) to the tape drive (on an HDS system), when (a) the main scan is running quite fast (e.g., 10 x/sec), and (b) the system was started using the "quick start" option. Instead of simply reporting a Code 6 error, the system would crash.
- 1.2 It was found that control of the keyboard and display could be lost if while running the main scan (#1) at 10 x/sec, one encountered the group of Code 6 errors caused by the first write to tape (see also 1.1). The problem was in the handling of the (scan-time) error queue.
- 1.3 Generic Binary with Fourth Difference pseudo traces were originally implemented with the fourth difference algorithm applied after scaling of the signal (as per the syntax entered). This would work fine for signal excursions within the range covered, but would generate (full-scale) spikes when going beyond it. The fourth difference algorithm is now applied to the original signal (sign-extended, if needed, to 32 bits), with the scaling taking place at the end.

2 IMPROVEMENTS ON DISK/TAPE RECORDING

- 2.1 Better support of removable disks. [Requires SCSI revision RMS1530-01-K]
When a removable disk is changed in the RHD (data recording unit) the operator is reminded to open a file on the new device if he attempts any other disk operation first.
- 2.2 Safer operation. [Requires SCSI revision RMS1530-01-K]
If the HDS or RHD has lost power without the entire data system being reset, disk write operations are disabled, and the operator is warned to open a file on the new device.
- 2.3 Faster disk formatting. [Requires SCSI revision RMS1530-01-K]

The **F-Format** item in the Disk Functions menu is much faster than in previous versions. This is because the SCSI module no longer performs low-level disk formatting as part of the formatting operation. A low-level format of the larger disks can take more than half an hour. The low-level format operation remains available for those who require it; please contact RMS Instruments for more information.

3 SPECTRUM PLOT ADDITIONS

The **accumulate** option of the spectrum plot utility now works for both disk and tape. The syntax of the accumulation argument "/A" has been expanded as follows:

```
/AR ..... Accumulate from tape  
/AK ..... Accumulate from disk
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Notice that use of "R" and "K" is consistent with other utilities that distinguish between tape and disk operations. For backward compatibility, "/A" functions as it did previously (i.e., accumulate from tape), although this compatibility is not guaranteed in any future releases.

The "Z" character, previously unavailable because of limited memory space, has now been added to the spectrum plot character set.