SUBJECT: 645 Multics Standard Checksum

DATE: November 2, 1967

FROM: R. K. Rathbun

MULTICS WORKING NOTES

Introduction

An implementation of the 645 Multics standard checksum procedure (as described in MSPM BB.6.01) now exists for the file system DIM. Its argument list is sufficiently general to make the procedure useful to those outside the DIM.

Use

The following (equivalent) statements may be used to compute the checksum:

        sum = checksum (ptr, count);

        call checksum (ptr, count, sum);

where:
        dcl   checksum bit (36) entry external;
        dcl   ptr pointer,
                count fixed binary (18),
                sum bit (36);

Although not implied by the declare, "sum" need not be aligned; that is, it may be part of a structure.

Effect

The full-word checksum described in MSPM BB.6.01 is computed on the "count" words starting at the location pointed to by "ptr". The resulting checksum is stashed in "sum". If count is zero, then so is "sum".

Residence

Until checksum appears on the library, the following links are relevant:

```
CHK EPLBSA    T269  8052
CHK TEXT      T269  8052
CHK LINK      T269  8052
```

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