

# MCR10147

## Add EIS Test for DPS8M Bug 18

### Revision 1.1

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## 1 Problem Description

DPS8M ticket #18 (<https://gitlab.com/dps8m/dps8m/-/issues/18>) described an issue where an unexpected size condition was signalled when running a COBOL program. That issue is described here: <https://gitlab.com/dps8m/dps8m/-/issues/18>. The issue was with the simulator and was fixed 5 years ago.

A Multics was entered 5 years ago to update the EIS test script `et_scripts` to test for the specific test case of a failed MVN instruction (on the simulator). In the old days, Honeywell would update these scripts periodically to test for Field Change Operations (FCOs) applied to Multics hardware to fix issues found by customers or TOLTS.

This proposal is to add a test for the MVN instruction that had failed on the simulator.

Multics ticket <https://multics-trac.swenson.org/ticket/204> describes the new test and requests to add it to `et_scripts`.

## 2 Proposed Fix

The proposed fix is to simply add one additional test to `et_scripts`. That test is shown below in `compare_ascii` output of the old and proposed version of the file.

---

```
cpa >t>et_scripts ==
```

```
Inserted in B:
```

```
B8155      /*              mvn27
B8156      *              Move .045000 into "pic v9(6)"; a bug in the
B8157      *              emulator causes a fault.
B8158      *              Gitlab issue 18; fixed in commit 4e5244; R2.0.1_rc2
B8159      *
B8160      */
B8161
B8162      inst      mvn      -nt "MVN zero length integer portion overflow" -io 2 -ir tn;
B8163
```

```

B8164    desc1    -nn 32 -sd f; /* 32 digit floating point, leading sign */
B8165    desc2    -nn 6 -sd n -sf -6; /* 6 digit no sign scaked, scale factor -6 */
B8166
B8167    data1     "+45000000000000000000000000000000" 341;
B8168    data2     "045000";
B8169
B8170    page      -all;
Preceding:
A8155
A8156    \014

```

Comparison finished: 1 difference, 16 lines.

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### 3 Documentation

No external documentation needs to be updated. The updated test in `et_scripts` includes documentation for the change.

### 4 Test

The changes will be tested by running the `et` command on the updated `et_scripts` script. The result should show no errors and the new test passing.

When the updated `et_scripts` is used with an emulator exhibiting the bug, the following is produced:

---

```
TEST 281 (mvn)
```

```

Error: size condition by !BBBKZJNJKQgbf.etx$test_instruction|3776 (in process dir)
size condition
Precision of target insufficient for number of integral digits assigned to it.
system handler for error returns to command level

```

---

With the current simulator (where the issue with MVN is fixed), the output is:

---

```

TEST 281 (mvn)
TEST 282 (cmpn)

```

---

The reader is directed to the above output, which shows that test 281 (the new test) executes without error.

### 5 Version History

|            |     |                                              |
|------------|-----|----------------------------------------------|
| 2025-02-09 | 1.0 | Initial version of the MCR.                  |
| 2025-02-10 | 1.1 | Updated to include output from failing test. |