

MCR10135

Fix `out_of_bounds` Condition in ISOLTS When Reporting Test Errors

Revision 1.0

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1 Problem Description

When ISOLTS encounters an error while running a test, it has error handling to parse the isolts error log and possibly display error information on the `error_output` stream. In some cases, such as when executing test `ps945`, it gets an `out_of_bounds` condition while attempting its error handling. This makes it impossible to continue running subsequent tests, or to find out the current test case error. The error occurs because the code attempts to index into a string at positions that exceed the bounds of the string.

Ticket <https://multics-trac.swenson.org/ticket/207> describes this issue.

2 Proposed Fix

The code that causes the `out_of_bounds` condition to be raised is trying to remove a leading newline character. The proposed fix is to simply check to make sure that the line buffer it is checking for a leading NL is not empty.

The `compare_ascii` output below shows the full change:

```
cpa [lpn isolts_err_log.pl1] ==

A407                out_str = substr (out_str, 2);          /* get rid of it */
Changed by B to:
B407                if length(out_str) < 2 then
B408                    out_str = "";
B409                else
B410                    out_str = substr (out_str, 2);        /* get rid of it */
```

Comparison finished: 1 difference, 5 lines.

The fix was found and initially tested by Charles Anthony.

3 Documentation

No changes to documentation are necessary.

4 Test

Run the entire `ci-kit` test, which in turn runs `isols` over all tests. Also, invoke test `ps945`, which should no longer get an `out_of_bounds` condition raised.

5 Version History

2023-06-17	1.0	Initial version of the MCR.
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