

ScalES-PPM - Bug #343

ACX_FORTRAN_RUN_CHECK_SIZEOF in acx_fc_real_size.m4 does not check size of its argument

09/25/2017 06:29 PM - Matthew Krupcale

Status: Closed	Start date: 09/25/2017
Priority: Normal	Due date:
Assignee:	% Done: 100%
Category:	Estimated time: 0:00 hour
Target version:	

Description

The function ACX_FORTRAN_RUN_CHECK_SIZEOF in m4/acx_fc_real_size.m4 does not actually check for the size of the real type passed as its argument, similar to the analogous function _ACX_FORTRAN_CHECK_SIZEOF_INTEGRAL_TYPE_RUN in m4/acx_fc_integer_size.m4 for integer types.

Furthermore, when using this function, the bits division arithmetic,

```
AS_VAR_SET([acx_fortran_sizeof],[`expr ]AS_VAR_GET([acx_fortran_sizeof])[ / $acx_cv_c_char_bits`]]
```

was returning some shell errors stating that expr was missing an operator, and that / is a directory. This seems to be due to the multiple nests of eval which come with AS_VAR_SET and AS_VAR_GET. It was easier to just do what was intended using the specifically designed method AS_VAR_ARITH, rather than using the more general AS_VAR_SET with expr.

The attached patch fixes these two issues.

History

#1 - 10/14/2017 05:25 PM - Matthew Krupcale

- File scales-ppm-1.0.5-acx_fc_real_size.patch added

The latest release of 1.0.5 fixes the second issue noted regarding the division arithmetic, but the first issue remains: the real type passed as the first argument to ACX_FORTRAN_RUN_CHECK_SIZEOF is not checked for its size; rather, the specific type real is checked.

The attached patch is updated for the latest release 1.0.5 to fix this issue.

#2 - 08/05/2020 09:48 AM - Thomas Jahns

- Status changed from New to Resolved

- % Done changed from 0 to 100

The following commits address this issue:

- commit:d66a744e01a4b simplifies the shell expression so it works effectively without requiring AS_VAR_ARITH (not present in 2.63 which we support for old XC30 systems)
- commit:47631e994ffb1 fixes the type under test

#3 - 03/18/2022 10:09 AM - Thomas Jahns

- Status changed from Resolved to Closed

Files

scales-ppm-acx_fc_real_size.patch	893 Bytes	09/25/2017	Matthew Krupcale
scales-ppm-1.0.5-acx_fc_real_size.patch	498 Bytes	10/14/2017	Matthew Krupcale