

## 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

<b>Status:</b>	Closed	<b>Start date:</b>	09/25/2017
<b>Priority:</b>	Normal	<b>Due date:</b>	
<b>Assignee:</b>		<b>% Done:</b>	100%
<b>Category:</b>		<b>Estimated time:</b>	0:00 hour
<b>Target version:</b>			
<b>Description</b>			
<p>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.</p> <p>Furthermore, when using this function, the bits division arithmetic,</p> <pre>AS_VAR_SET([acx_fortran_Sizeof],[`expr ]AS_VAR_GET([acx_fortran_Sizeof])[ / \$acx_cv_c_char_bits`]]</pre> <p>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.</p> <p>The attached patch fixes these two issues.</p>			

#### 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