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\* Absoft Pro Fortran 2012 for Linux  
\* Release Notes  
\*  
\* Version 11.5.0  
\*  
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--- New in 11.5 ----

- 1) Absoft Window Environment (AWE), Qt based application framework for Fortran
- 2) AVX Instruction set support
- 3) Fx3 Debugger Matrix Display Mode for 2 dimensional arrays
- 4) AbsoftTools IDE plugin architecture for third party libraries and tools
- 5) Fortran 2003 ACOS, ASIN, and ATAN generics accept complex arguments
- 6) Fortran 2003 COSH, SINH, and TANH generics accept complex arguments
- 7) Fortran 2003 MOVE\_ALLOC statement
- 8) Fortran 2003 GET\_COMMAND, GET\_COMMAND\_ARGUMENT and COMMAND\_ARGUMENT\_COUNT
- 9) Fortran 2003 FLUSH statement
- 10) Fortran 2003 GET\_ENVIRONMENT\_VARIABLE
- 11) Fortran 2003 IS\_IOSTAT\_END and IS\_IOSTAT\_EOR
- 12) Fortran 2003 NEW\_LINE

--- Installation Notes ---

The file INSTALL\_PROBLEMS.txt provides solutions to getting Absoft Pro Fortran running on specific Linux distributions.

Build Platform

The 11.5 release was built on:

Open Suse 10.2 with gcc version 4.1.2 and glibc-2.5-34.13

The 11.5 release has been validated on:

Open Suse 10.2

Ubuntu 11.04

Fedora Core 14

Redhat Enterprise Linux 6.1

--- Implementation Notes ---

- 1) VAL intrinsics and CHARACTER arguments.

When the compiler encounters a CHARACTER variable or expression as the argument to a VAL intrinsic, it passes the address of the storage for the string. This may not be the desired behavior when interfacing with a C or C++ routine. If a C/C++ routine expects C/C++ char value, the appropriate way to pass a CHARACTER\*1 FORTRAN variable (or a single character inside a larger FORTRAN CHARACTER expression) is to use the ICHAR function along with the VAL intrinsic. The following example illustrates this:

```
PROGRAM MAIN
CHARACTER*1 fortran_char_variable
fortran_char_variable = 'A'
CALL c_routine(VAL(ICHAR(fortran_char_variable)))
END
```

--- NOTE ON UPGRADES FROM 10.0 AND EARLIER ---

The default external name decoration was changed in Absoft Fortran 95 10.1 to enhance interoperability with other compilers and third party libraries. Users upgrading from releases prior to 10.1 should be aware of the following information.

The new name decoration is fold to lower case and append a single trailing underscore to function and subroutine names. This name decoration is the default for all three compiler drivers: f77, f90, and f95.

The following option sets can be used to match the behavior of previous Absoft compilers

Code compiled by previous Absoft f77 compiler drivers:

-YEXT\_NAMES=ASIS -YEXT\_SFX=""

Code compiled by previous Absoft f90 and f95 compiler drivers:

-YEXT\_NAMES=UCS -YEXT\_SFX=""

--- Contacting Absoft Technical Support ---

To report issues you encounter while using this product, please contact Absoft Technical Support.

Absoft Technical Support engineers are available Monday-Friday, 9 a.m. - 3 p.m. EST at 248-853-0050 or via [support@absoft.com](mailto:support@absoft.com).

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