
* Absoft Pro Fortran 2014 for Mac OS X
* Release Notes
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* Version 14.0.6
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--- Fixed in 14.0.6 ---

- Default initialization in arrays of user defined types

--- Fixed in 14.0.5 ---

- AbsoftTools SMP analyzer fails for source files with '(' characters in path
- Compilation failure for IMPORT list with more than two items
- IMPORT statements in FUNCTION interface hides intrinsic functions
- SELECTED_CHAR_KIND in specification/initialization statements
- AbsoftTools speed_math option not synced between Target and FORTRAN pages
- BIND statement with COMMON names
- AbsoftTools saving files in dual screen display mode
- AbsoftTools projects saved dual screen mode do not reopen dual screen mode
- Memory leak for TRIM() in ELSEIF condition, when condition is false
- I Edit descriptor without W.D (extension) would not output a zero value
- Code generation failure for array of allocatable components in COMMON
- Error not caught for allocatable array in COMMON
- Enable inlining of MATMUL intrinsic with O3 optimization
- AbsoftTools Clear All Bookmarks in dual screen display mode

--- Fixed in 14.0.4 ---

- Targeting previous OS X versions when building on OS X Mavericks
- OpenMP environment variables in AbsoftTools project files
- Compilation failure with -Rp option
- Compilation failure for INDEX intrinsic with KIND argument
- Incorrect result for HYPOT intrinsic function
- Parse error for STRUCTURE keyword outside declaration section
- Code generation failure for vector shift optimization
- ENCODE/DECODE statements now accept list directed format specification
- AWE program hang if terminated during a READ statement
- INTEGER constant conversion overflow with -i2 option
- AbsoftTools hangs during Replace All in Files operation
- AbsoftTools displays "file has been edited" after Replace All operation
- Compiler drivers distinguish source code errors and compiler failures
- AWE program hang when calling STOP from AWE_addMenu callback routine
- Error on optional argument type function returns array passed to PRESENT()
- CHARACTER declarations where LEN specified with nested intrinsic functions
- Memory fault with auto deallocation of arrays with allocatable components
- Memory leak with auto deallocation of arrays with allocatable components
- Optimization failure for READ and WRITE using IOMSG= specifier

--- Fixed in 14.0.3 ---

- TYPE statement with both PUBLIC and BIND(C) specifiers
- PUBLIC objects appearing in BIND statement
- Multiple AWE_FormDialog instances
- AWE_AlertBox is not modal when called from primary FORTRAN thread
- Race condition in AWE_writeXYPlot, AWE_writeBarChar, AWE_writePieChart
- Deploying AWE applications to FAT32 file systems

- *AbsoftTools* File and Edit menu actions not disabled on launch
- Spurious ANSI compatibility warning
- Code generation for allocatable local in RECURSIVE routine with -s option
- Debug line info and error line reporting for C preprocessed files

--- Fixed in 14.0.2 ---

- Default mono-space font added to Fx3 and AbsoftTools
- Compilation failure for in-lining INDEX intrinsic
- Incorrect debug information for PROCEDURE pointers in modules
- Added new AWE_clearXYPlot() routine to AWE library

--- Fixed in 14.0.1 ---

- Cmplx/DCmplx intrinsic with mixed type constant arguments
- Legacy ENCODE/DECODE transfer length limit increased
- ENCODE/DECODE code generation error
- Code generation with pointer checking (-Rp) and optimization
- SUBROUTINE/FUNCTION names beginning with "BIND"
- O3 optimization failure with LOGICAL*2 variables
- READ statements in AWE applications using %100 CPU time
- AbsoftTools parse error for Xcode 5 linker output

--- New in Pro Fortran 2014 ---

- Absoft Window Environment - AWE-Chart
- Absoft Window Environment - AWE-Plot
- Absoft Window Environment - AWE-Form
- Enhanced AVX Instruction set performance
- Support for 999 continuation lines
- F2003 ABSTRACT INTERFACE
- F2003 PROCEDURE pointers
- F2003 enhanced TYPE initialization
- F2003 POINTER bounds remapping
- F2003 recognizes ASYNCHRONOUS I/O specifiers
- F2008 empty CONTAINS section
- F2008 BESSEL_J0, BESSEL_J1, and BESSEL_JN intrinsics
- F2008 BESSEL_Y0, BESSEL_Y1, and BESSEL_YN intrinsics
- F2008 BGE, BGT, BLE, and BLT intrinsics
- F2008 DSHIFTL and DSHIFTR intrinsics
- F2008 SHIFTA, SHIFTL and SHIFTR intrinsics
- F2008 MASKL, MASKR and MERGE_BITS intrinsics
- F2008 EFC_SCALED, GAMMA and LOG_GAMMA intrinsics
- F2008 EXECUTE_COMMAND_LINE intrinsic
- F2008 IS_IOSTAT_END and IS_IOSTAT_EOF intrinsics
- F2008 SELECTED_CHAR_KIND intrinsic

--- Obtaining and Installing Apple's Development Tools ---

Absoft Pro Fortran 2014 requires installation Apple's command line development tools. These are available from Apple as part of their Xcode development environment. Instructions on obtaining and installing the latest version of these tools are available in the Macintosh section of the Absoft User Forums at

<http://forums.absoft.com/>

--- 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
```

--- Contacting Absoft Technical Support ---

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