

Fortranplus

## Compiler conformance to the Fortran 66, 77, 90, 95, 2003 and 2008 standards

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## Handout

Compiler support for Fortran 2003 & 2008 standards

[http://www.fortranplus.co.uk/resources/fortran\\_2003\\_2008\\_compiler\\_support.pdf](http://www.fortranplus.co.uk/resources/fortran_2003_2008_compiler_support.pdf)

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## History

- Fortran 66/ Fortran 77
  - 40+ compilers
- Fortran 95
  - all Fortran compilers covered the standard plus extensions
- Fortran 2003 standard published at end 2004
  - many new features
  - John Reid's list of features report N1648 *The new features of Fortran 2003*

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## Fortran 2003

- Slow introduction of Fortran 2003 features into Fortran compilers
- April 2007 – to help Fortran users
  - 1<sup>st</sup> compiler support table published in Fortran Forum
    - based on John Reid's report N1648
    - information taken from vendors' websites & then contacted for verification
    - Cray, gfortran, g95 and NAG

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## Compiler table updates

- Table revised every 3 months
- Vendors are contacted/ they contact us!
  - information now for 8 compilers
  - Fortran Forum – latest version
  - Fortranplus – previous version

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## Fortran 2008

- August 2009 we added a section on Fortran 2008 features based on
  - John Reid's papers
    - N1828 *The new features of Fortran 2008*
    - N1824 *Coarrays in the next Fortran Standard*
  - standard will be published by end of 2010
- We are now seeing many Fortran 2003 & Fortran 2008 features in the compilers
  - Some Fortran 2008 but not all Fortran 2003!

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## Fortran compilers not in the table

- We don't have information for the following compilers:
  - Absoft \*
  - Salford ftn95/ Silverfrost
  - Lahey
  - Path Scale \*
  - PGI

\* Information just received for next revision



## References

- Fortran Forum  
[http://portal.acm.org/browse\\_d1.cfm?coll=&d1=ACM&idx=J286&linked=1&part=newsletter](http://portal.acm.org/browse_d1.cfm?coll=&d1=ACM&idx=J286&linked=1&part=newsletter)
- John Reid's papers on WG5 website  
<http://www.nag.co.uk/sc22wg5/>  
N1648: <ftp://ftp.nag.co.uk/sc22wg5/N1601-N1650/N1648.pdf>  
N1824: <ftp://ftp.nag.co.uk/sc22wg5/N1801-N1850/N1824.pdf>  
N1828: <ftp://ftp.nag.co.uk/sc22wg5/N1801-N1850/N1828.pdf>



## More references/web addresses

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- Electronic lists/ discussion groups:
  - comp-fortran-90
  - comp.lang.fortran