

1 Fortran ISO standard history

Information has been taken from the ISO website. Here is their home page.

<https://www.iso.org/home.html>

Using the search facilities and Fortran as the keyword and clicking on [Standards] yields a document count of 47. A subset of these are Fortran standards.

Here is a table that summarises the situation as of 25/8/2023.

ISO reference	First date	Last date	Name	Status	Edition
ISO 1539:1980	1980		Programming languages - FORTRAN	Withdrawn	1
ISO/IEC 1539:1991 Cor 3:1997	1991	1997	Information technology - Programming languages - FORTRAN (Available in electronic form) Technical Corrigendum 3	Withdrawn	2
ISO/IEC 1539:1991	1991		Information technology - Programming languages - FORTRAN (Available in electronic form)	Withdrawn	2
ISO/IEC 1539-2:1994	1994		Information technology - Programming languages - FORTRAN Part 2: Varying length character strings	Withdrawn	1
ISO/IEC 1539:1991 Cor 1:1994	1994		Information technology - Programming languages - FORTRAN (Available in electronic form) Technical Corrigendum 1	Withdrawn	2
ISO/IEC 1539:1991 Cor 2:1995	1995		Information technology - Programming languages - FORTRAN (Available in electronic form) Technical Corrigendum 2	Withdrawn	2
ISO/IEC 1539-1:1997 Cor 1:2001	1997	2001	Information technology - Programming languages - Fortran - Part 1: Base language Technical Corrigendum 1	Withdrawn	1
ISO/IEC 1539-1:1997 Cor 2:2002	1997	2002	Information technology - Programming languages - Fortran - Part 1: Base language Technical Corrigendum 2	Withdrawn	1

ISO reference	First date	Last date	Name	Status	Edition
ISO/IEC 1539-1:1997	1997		Information technology - Programming languages - Fortran - Part 1: Base language	Withdrawn	1
ISO/IEC TR 15581:1998	1998		Information technology - Programming languages - Fortran - Enhanced data type facilities	Withdrawn	1
ISO/IEC TR 15580:1998	1998		Information technology - Programming languages - Fortran - Floating-point exception handling	Withdrawn	1
ISO/IEC 1539-3:1999	1999		Information technology - Programming languages - Fortran - Part 3: Conditional compilation	Withdrawn	1
ISO/IEC 1539-2:2000	2000		Information technology - Programming languages - Fortran - Part 2: Varying length character strings	Published	2
ISO/IEC TR 15581:2001	2001		Information technology - Programming languages - Fortran - Enhanced data type facilities	Withdrawn	2
ISO/IEC TR 15580:2001	2001		Information technology - Programming languages - Fortran - Floating-point exception handling	Withdrawn	2
ISO/IEC 1539-1:2004	2004		Information technology - Programming languages - Fortran - Part 1: Base language	Withdrawn	2
ISO/IEC 1539-1:2004 /Cor 1:2006	2004	2006	Information technology - Programming languages - Fortran - Part 1: Base language Technical Corrigendum 1	Withdrawn	2
ISO/IEC 1539-1:2004 Cor 2:2007	2004	2007	Information technology - Programming languages - Fortran - Part 1: Base language Technical Corrigendum 2	Withdrawn	2
ISO/IEC 1539-1:2004 Cor 3:2008	2004	2008	Information technology - Programming languages - Fortran - Part 1: Base language Technical Corrigendum 3	Withdrawn	2

ISO reference	First date	Last date	Name	Status	Edition
ISO/IEC 1539-1:2004 Cor 4:2009	2004	2009	Information technology - Programming languages - Fortran - Part 1: Base language Technical Corrigendum 4	Withdrawn	2
ISO/IEC TR 19767:2005	2005		Information technology - Programming languages - Fortran Enhanced Module Facilities	Withdrawn	1
ISO/IEC 1539-1:2010	2010		Information technology - Programming languages - Fortran - Part 1: Base language	Withdrawn	3
ISO/IEC 1539-1:2010 Cor 1:2012	2010	2012	Information technology - Programming languages - Fortran - Part 1: Base language Technical Corrigendum 1	Withdrawn	3
ISO/IEC 1539-1:2010 Cor 2:2013	2010	2013	Information technology - Programming languages - Fortran - Part 1: Base language Technical Corrigendum 2	Withdrawn	3
ISO/IEC 1539-1:2010 Cor 3:2014	2010	2014	Information technology - Programming languages - Fortran - Part 1: Base language Technical Corrigendum 3	Withdrawn	3
ISO/IEC 1539-1:2010 Cor 4:2016	2010	2016	Information technology - Programming languages - Fortran - Part 1: Base language Technical Corrigendum 4	Withdrawn	3
ISO/IEC TS 29113:2012	2012		Information technology - Further interoperability of Fortran with C	Withdrawn	1
ISO/IEC TS 18508:2015	2015		Information technology - Additional Parallel Features in Fortran	Withdrawn	1
ISO/IEC TR 10182:2016	2016		Information technology - Programming languages their environments and system software interfaces	Published	1
ISO/IEC TR 10182:2016	2016		Guidelines for language bindings	Published	1
ISO/IEC 1539-1:2018	2018		Information technology - Programming languages - Fortran - Part 1: Base language	Published	4

ISO reference	First date	Last date	Name	Status	Edition
ISO/IEC 1539-1:2018 Cor 1:2021	2018	2021	Information technology - Programming languages - Fortran - Part 1: Base language Technical Corrigendum 1	Published	
ISO/IEC 1539-1:2018 Cor 2:2023	2018	2023	Information technology - Programming languages - Fortran - Part 1: Base language Technical Corrigendum 2	Published	
ISO/IEC DIS 24772-1			Programming languages - Avoiding vulnerabilities in programming languages	Under development	1
ISO/IEC DIS 24772			Part 1: Language independent catalogue of vulnerabilities	Under development	1
ISO/IEC AWI TR 24772-8.2			Programming languages - Avoiding vulnerabilities in programming languages	Under development	1
ISO/IEC AWI TR 24772-8.2			Part 8: Vulnerability descriptions for programming language Fortran	Under development	1
ISO/IEC FDIS 1539-1			Programming languages - Fortran - Part 1: Base language	Under development	5

1.1 Earlier standardisation

Fortran was standardised in 1966 and 1977. Here are links to Fortran wiki pages that provide some background.

<https://fortranwiki.org/fortran/show/FORTRAN+66>

and

<https://fortranwiki.org/fortran/show/FORTRAN+77>

The BCS Fortran Specialist Group also provides additional material about earlier standardisation efforts. Here is a link

<https://fortran.bcs.org/standards/stanhome.php>

1.2 Organisations involved in Fortran standardisation

The two main organisations involved in Fortran standardisation are WG5 and J3. Here are links to their web sites.

<https://wg5-fortran.org/>

and

<https://j3-fortran.org/>

National bodies in several countries are also involved. In the UK there is the BSI, in Germany there is DIN, and in France there is AFNOR.

Here are some links:

UK - BSI

<https://www.bsigroup.com/en-GB/about-bsi/uk-national-standards-body/>

Germany - DIN

<https://www.din.de/en>

France - AFNOR

<https://www.iso.org/member/1738.html>

Japan - JISC

<https://www.iso.org/member/1835.html>

1.3 Document availability

Copyright for the standards resides with the ISO. However as can be seen from the earlier table many of the standards have been withdrawn and are no longer available from the ISO or national bodies.

J3 and WG5 are allowed to make available working drafts of the standards prior to formal publication.

Here is a link to the J3 site where documents are made available by year.

<https://j3-fortran.org/doc/year>

Here is a link to the WG5 site.

<https://wg5-fortran.org/>

and they make available documents by the name of the standard

1.3.1 Fortran 2023

<https://wg5-fortran.org/f2023.html>

1.3.2 Fortran 2018

<https://wg5-fortran.org/f2018.html>

1.3.3 Fortran 2008

<https://wg5-fortran.org/f2008.html>

1.3.4 Fortran 2003

<https://wg5-fortran.org/f2003.html>

1.3.5 Fortran 95

Here is a link from the WG5 site under the [Earlier Standards tab]

<https://wg5-fortran.org/N1151-N1200/N1191.pdf>

1.3.6 Fortran 90

Here is a link to the Fortran 90 final draft from the WG5 site.

<https://wg5-fortran.org/N001-N1100/N692.pdf>

1.3.7 Fortran 77

An html version is available from the WG5 site.

<https://wg5-fortran.org/ARCHIVE/Fortran77.html>

1.3.8 Fortran 66

A PDF of the 1966 standard is available from the WG5 site. Here is a link.

<https://wg5-fortran.org/ARCHIVE/Fortran66.pdf>