

**Business Plan and Convener's Report**  
**ISO/IEC JTC1/SC22/WG14 (The Programming Language C)**

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## **1. MANAGEMENT SUMMARY**

### **1.1. JTC1/SC22/WG14 STATEMENT OF SCOPE**

Development and maintenance of ISO/IEC Standards related to the programming language C.

### **1.2. PROJECT REPORT**

#### **1.2.1. COMPLETED PROJECTS**

JTC1.22.20.01 – Programming Language C (Revision of ISO/IEC 9899:1990), this project was delivered by the publishing of ISO/IEC 9899:1999.

#### **1.2.2. PROJECTS UNDERWAY**

JTC1 NP 18037, Extensions for the programming language C to support embedded processors. This is a Technical Report type II.

JTC1 NP 19769, Specification for Additional Character Data Types to the Programming Language C. This is a Technical Report type II.

#### **1.2.3. CANCELLED PROJECTS**

None over this period.

### 1.2.4. COOPERATION and COMPETITION

Where appropriate, WG14 has established active liaisons with other SC22 working groups. There is no apparent direct competition with any other current SC22 working group.

## 2. PERIOD REVIEW

### 2.1. MARKET REQUIREMENTS

WG14 feels that it is responding to user community pressure and to implementers concerns by revising the ISO/IEC 9899 standard on schedule. WG14 believes this new ISO/IEC 9899:1999 answers these concerns and keeps the International Standard for the C programming language current with today's programming trends and market. The evolution of Object Oriented programming, numerical extensions that were proposed by J11.1, internationalization, advancements in character set standardization, cross-language standards and cross-language bindings all were considered in the newly revised standard. These issues were also taken into consideration when request for the newly approved project JTC1 NP 19769 was submitted and the approved project JTC1 NP 18037. Most of these issues were considered during the technical discussions for the original ISO C Standard ISO/IEC 9899:1999. Please, see document ISO/IEC JCT 1/SC22 N2265 "Charter for the Revision of the C Standard" for more details.

### 2.2. ACHIEVEMENTS

WG14 has worked on Defect Reports, keeping the Defect Report Log current for the 9899:1999 Standard. Good progress has been made on TR 19769 "Specification for Additional Character Data Types to the Programming Language C" with the Committee submitting WG14 N1010 for concurrent ballot, see SC22 N3579. WG14 has made very good progress on the TR 18037 "Extensions for the programming language C to support embedded processors", submitting WG14 N1005 to SC22 for the second PDTR ballot, see SC22 N3574.

### 2.3. RESOURCES

WG14 meets two times per year in co-located technical sessions with the US committee NCITS J11. Over the past year, WG14 has timed its technical sessions to coincide with WG21, allowing those technical experts that would like to attend both technical sessions the opportunity to do so. (The WG14 Convener would like to thank the WG21 Convener for the extended effort it takes to coordinate common meeting locations and liaison between the two working groups.) Twelve countries participate by attending these meetings or by being involved in the technical discussions that take place over the reflector. The countries are: Australia, Canada, Denmark, France, Germany, Ireland, Japan, Netherlands, Norway, Sweden, UK, and the USA.

WG14 has been monitoring the cross-language standards activities, and are using the ISO/IEC JTC 1/WG20 guidelines on extended characters. WG14 has also keeps apprised of the requirements of the LIA-1, 2 standards.

WG14 liaison appointments are:

Group	Name	Person assigned
WG11	Language Independent Datatypes	Keld Simonsen
WG15	Posix	Keld Simonsen <sup>1</sup>
WG20	Internationalization	Keld Simonsen
WG21	C++	Group liaison assigned <sup>2</sup>

<sup>1</sup> WG15 is no longer active, at the next WG14 meeting this liaison will be reviewed.

### 3. FOCUS NEXT WORK PERIOD

WG14 will focus on the new work item JTC1 NP 19769, a type II technical report; see ISO/IEC SC22 N3356, N3393, and N3579, and work item JTC1 NP 18037, see SC22 N3574. The Committee discussed several other possible new work items, there seems to be interest to start work on a Technical Report Type II for security. The other items identified are:

1. Conformance
2. Sequence Points
3. Time

#### 3.1. DELIVERABLES

None.

#### 3.2. STRATEGIES

WG14 believes that routine handling will suffice to complete the progress desired.

#### 3.3. RISKS

No problems are anticipated.

#### 3.4. OPPORTUNITIES

None.

#### 3.5. WORK PROGRAM PRIORITIES

WG14 will concentrate on the new work item NP 19769 and work item NP 18037, however WG14 will still respond to Defect Report logged for the current ISO/IEC 9899:1999 Standard.

### 4. OTHER ITEMS

#### 4.1. POSSIBLE ACTION REQUESTS AT FORTHCOMING PLENARY

None

#### 4.2. WG14 SUPPORTS SC22 N2718

WG14 supports the action requested in ISO/IEC JTC 1/SC22 N2718.

#### 4.3. PROJECT EDITORS

The following individuals have been appointed project editors and backup project editors:

JTC1.22.20.01 Programming Language C (Revision of ISO/IEC 9899:1990)  
 Larry Jones (Project Editor), Douglas Walls (Backup Project Editor)

JTC1 NP 18037, Extensions for the programming language C to support embedded processors.  
 Willem Wakker (Project Editor), John Benito (Backup Project Editor)

JTC1 NP 19769, Specification for Additional Character Data Types to the Programming Language C.  
 Nobuyoshi Mori (Project Editor), John Benito (Backup Project Editor)

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<sup>2</sup> Dinkumware, Glassborow, Kristoffersen, Oracle, Plum Hall, Perennial, Sun Microsystems.

#### 4.4. ELECTRONIC DOCUMENT DISTRIBUTION

WG14 has conducted much of its detailed technical discussion using email reflector provided by the Danish UNIX Users Group and Keld Simonsen.

WG14 also has an ftp and Web site provided by courtesy of the Danish UNIX Users Group and Keld Simonsen.

WG14 is now providing all the appropriate committee documents on the Committee Web site, reducing the need for paper mailings.

#### 4.5. RECENT MEETINGS

23-27	Jun 1997	London, UK	BSI, Plum Hall Europe
20-24	Oct 1997	Menlo Park, CA USA	ANSI, Sun Microsystems
02-06	Feb 1998	Frisco, CO USA	ANSI Keaton Consulting
23-27	Jun 1998	Copenhagen, Denmark	Danish Standards
05-09	Oct 1998	Santa Cruz, CA USA	ANSI, SGI/Cray
01-05	Feb 1999	Portland, OR USA	ANSI, Intel Corp.
21-24	Jun 1999	London, UK	BSI
18-23	Oct 1999	Kona, HI USA	ANSI, Plum Hall
10-14	Apr 2000	Tokyo, Japan	ITSCJ, NEC
16-20	Oct 2000	Toronto, Canada	SCC, IBM
23-27	Apr 2001	Copenhagen, Denmark	Danish Standards
16-20	Oct 2001	Redmond, WA USA	ANSI, Microsoft
15-19	April 2002	Curacao, Netherlands Antilles;	NNI, Netherlands
14-20	Oct 2002	Santa Cruz, CA USA	ANSI, Dinkumware
31-04	Mar/Apr 2003	Oxford, UK	BSI

#### 4.6. FUTURE MEETINGS

21-24	Oct 2003	Kona, HI USA	ANSI, Plum Hall
29-02	Mar/Apr 2004	Sydney, Australia	SA, Whitesmiths
__-__	Oct 2004	Redmond, WA USA	ANSI, Microsoft