C / C++ Standards

It is worth to check the C and C++ standard updates regarding the new and obsolete features, the future trend and getting the standard references. The following paragraphs give brief information about C, C++ and other related standards. For full information please visit their websites.

The **ISO/IEC** (International Organization for Standardization/ The International Electrotechnical Commission) Programming languages, their environments and system software interfaces documentation can be obtained at ISO/IEC Programming Language Standard Documentation. The related documentations are:

- `ISO/IEC 9899:1999` - **C**.
- `ISO/IEC 14882:2003` - **C++**.
- `ISO/IEC 9945-1:2003` - **POSIX**, Part 1.
- `ISO/IEC 9945-2:2003` - **POSIX**, Part 2.
- `ISO/IEC 9945-3:2003` - **POSIX**, Part 3.
- `ISO/IEC 9945-4:2003` - **POSIX**, Part 4.
- `ISO/IEC 23270:2003` - **C#**.

Take note that the **C#** (Microsoft) standard is available in ISO/IEC but not **Java** (Sun Microsystem). WG was standardization Working Group of the SC which is a SubCommittee of the JTC1, a Joint Technical Committee of ISO and IEC. SC22 (SubCommittee 22) is the international standardization subcommittee for programming languages, their environments and system software interfaces. Their web site is available at Open Standard. It is worth to visit the site for latest updates and the obsolete items of the standards. For C, C++ and POSIX WG information is summarized as follows:

- JTC1/SC22/WG14 is the international standardization working group for the C programming language. **Embedded C** also included under WG14.
- JTC1/SC22/WG21 is the international standardization working group for the C++ programming language.
- POSIX was under WG15 but this working group was already disbanded in September 2004. POSIX is an Operating System interface standardized by ISO/IEC, IEEE and The Open Group. A POSIX Advisory Group (PAG) was formed to take over some of the activities of WG15. WG15 is liaised by The Open Group (X/Open). The latest specification, A Single UNIX Specification Version 3 is available HERE.

  This standard incorporating the IEEE Std 1003.1 and ISO/IEC 9945 and integrating the industry's Open Systems standards. ISO/IEC 9945 consists of the following parts (The ISO/IEC codes shown above), under the general title: Information technology Portable Operating System Interface (POSIX®):

  - Part 1: Base Definitions.
  - Part 2: System Interfaces.
  - Part 3: Shell and Utilities.
  - Part 4: Rationale.

And finally the GNU C Library can be obtained HERE.

ANSI (American National Standards Institute) C and C++ are covered by the ISO/IEC standards and they are more general.

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