German Comment on JTC 1 N 8037

With reference to §13.4 of the JTC1 Directives, 4th edition, DIN brings to the attention of the JTC1 secretariat that we perceive a contradiction between document JTC 1 N 8037 "30 Day Review for Fast Track Ballot ECMA-372 1st edition C++/CLI Language Specification"and the JTC1/C++ standard ISO/IEC 14882:2004 "Programming language C++" and related technical reports.

We propose that the document is input into SC22 as a regular New Work Item Proposal and assigned to WG21 for further processing.

On a technical level, there are some rather different approaches between C++ and C++/CLI which can easily cause considerable confusion when both languages are considered to be "C++" or add unnecessary overhead when trying to write C++ code usable with C++ and C++/CLI. Below are a few example although if there were sufficient time to to thorough analysis of the C++/CLI document more could probably be found.

For writing templates, it is essential to use one notation for all applicable types. For templates which are not involved in life-time management of objects, e.g. algorithmic functions, one template should be sufficient but the standard is silent about how to cope with the different pointer and reference notations for managed and unmanaged classes, implying that the user is forced to write unnecessarily non-portable template code.

Also, current C++/CLI adds considerable confusion by changing some of C++ rules when classes happen to be managed classes:

- Inheritance is no longer private by default but public.
- One argument constructors are no longer considered conversion functions in the absence of the "explicit" keyword (the keyword itself is ignored on constructors of managed classes).

- A different set of conversion functions is added.
- The virtual function look-up during construction and destruction differs between managed and unmanaged classes: for mananged classes the looked up function is the one of the most derived class while for unmanaged classes it is the one of the classs whose constructor or destructor is currently processed.