OMG: ISO/IEC C++ 2003 Language DDS PSM (DDS-PSM-Cxx)

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Table 1: Data sheet for ISO/IEC C++ 2003 Language DDS PSM (DDS-PSM-Cxx)

Title	ISO/IEC C++ 2003 Language DDS PSM
Acronym	DDS-PSM-Cxx
Version	1.0
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About Specification	https://www.omg.org/spec/DDS-PSM-Cxx/
Document	https://www.omg.org/spec/DDS-PSM-Cxx/1.0/PDF

Note: The following is an excerpt from the actual document. It is provided here as a convenience and is not authoritative. Refer to the original document as the authoritative reference.

Overview

The "ISO/IEC C++ Language DDS Platform Specific Model (PSM)" (DDS-PSM-Cxx) was motivated by mainly two reasons. First the IDL-derived C++ API for DDS does not integrate well with the C++ language and it does not leverage some of the features provided by the C++ language today universally sup- ported by C++ compilers. Second, the current IDL-derived PSM suffers from the gap existing between the features available in IDL and those available in a programming language such as C++. Some examples of this gap are as simple as method overloading, yet, there are many other examples that we could make in comparing the expressiveness power of IDL versus that of native C++.

As a result this specification takes a completely fresh look at how a native C++ PSM can be derived from the DDS Platform Independent Model (PIM). In doing so, it tries to balance two forces - derive an API that is as simple and safe as possible while retaining the structure of the PIM. This specification does not require C++11 features for its implementation, yet it is designed to enable the use of C++11 features, such as the auto keyword, range-based for loops, etc.