## Dinkumware<sup>®</sup>, Ltd.

Genuine Software

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IAR Systems

Here is a brief summary of how Dinkumware, Ltd. validates its Standard C and C++ library products:

First, we participate in the development of both C and C++ standards, and have done so for decades (since 1983 for C, 1992 for C++). As each standard evolves, we track it with changes to our libraries. Once a standard is published, we review our product for any oversights or deviations.

Second, each of our library products has four components: source code, documentation, conformance tests, and stress tests. The first three are directly comparable to the relevant standard, while the last ensures that the library will behave properly even under many extreme circumstances. We do not freeze a product for delivery until all four components are in complete agreement. Nor do we patch a product once it is frozen; Instead we periodically repackage and retest to make an updated release.

Third, we have longstanding arrangements with Plum Hall, Perennial, and Edison Design Group. The first two supply independent validation suites for C and C++ standards. The last supplies the front end for quite a few of the commercial C and C++ compilers. We try to resolve any differences among our products before our common customers have to deal with them.

Finally, we get a considerable amount of additional testing, plus bug reports and performance issues, from Microsoft, which has been shipping our C++ libraries with VC++ since 1996. Between Microsoft's extensive internal testing and the feedback they get from a large community of users, we profit from quite a bit more testing than we could do just by ourselves.

P.J. Plauger President