

TECHNICAL REPORT

**ISO/IEC
TR
19759
IEEE**

First edition
2005-09-15

Software Engineering — Guide to the Software Engineering Body of Knowledge (SWEBOK)

*Ingénierie du logiciel — Guide du corps de connaissance de l'ingénierie
du logiciel (SWEBOK)*

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Reference number
ISO/IEC TR 19759:2005(E)



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ISO/IEC TR 19759, which is a Technical Report of type 3, was prepared by the IEEE Computer Society as the *Guide to the Software Engineering Body of Knowledge*, 2004 Version, and was adopted without change by ISO/IEC JTC 1/SC 7, Software and Systems Engineering.



Introduction

The purpose of the Guide to the Software Engineering Body of Knowledge is to provide a consensually validated characterization of the bounds of the software engineering discipline and to provide a topical access to the Body of Knowledge supporting that discipline. The Body of Knowledge is subdivided into ten software engineering Knowledge Areas (KA) plus an additional chapter providing an overview of the Knowledge Areas of strongly related disciplines. The descriptions of the KAs are designed to discriminate among the various important concepts, permitting readers to find their way quickly to subjects of interest. Upon finding a subject, readers are referred to key papers or book chapters selected because they succinctly present the knowledge.

An emphasis on engineering practice leads the Guide toward a strong relationship with the normative literature. Most of the computer science, information technology and software engineering literature provides information useful to software engineers, but a relatively small portion is normative. A normative document prescribes what an engineer should do in a specified situation rather than providing information that might be helpful. The normative literature is validated by consensus formed among practitioners and is concentrated in standards and related documents. From the beginning, the SWEBOK project was conceived as having a strong relationship to the normative literature of software engineering. The two major standards bodies for software engineering (IEEE Computer Society Software and Systems Engineering Standards Committee and ISO/IEC JTC1/SC7) are represented in the project. Ultimately, it is hoped that software engineering practice standards will contain principles directly traceable to the Guide.

The Guide is oriented toward a variety of audiences, all over the world. It aims to serve public and private organizations in need of a consistent view of software engineering for defining education and training requirements, classifying jobs, developing performance evaluation policies or specifying software development tasks. It also addresses practicing, or managing, software engineers and the officials responsible for making public policy regarding licensing and professional guidelines. In addition, professional societies and educators defining the certification rules, accreditation policies for university curricula, and guidelines for professional practice will benefit from the SWEBOK Guide, as well as the students learning the software engineering profession and educators and trainers engaged in defining curricula and course content.

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1 Scope

This Technical Report characterizes the boundaries of the software engineering discipline and provides topical access to the literature supporting that discipline.

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