



BSI Standards Publication

**Software engineering — Guide
for the application of ISO/
IEC 24773:2008 (Certification
of software engineering
professionals — Comparison
framework)**

National foreword

This Published Document is the UK implementation of ISO/IEC TR 29154:2013.

The UK participation in its preparation was entrusted to Technical Committee IST/15, Software and systems engineering.

A list of organizations represented on this committee can be obtained on request to its secretary.

This publication does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

© The British Standards Institution 2013. Published by BSI Standards Limited 2013

ISBN 978 0 580 73280 5

ICS 35.080

Compliance with a British Standard cannot confer immunity from legal obligations.

This Published Document was published under the authority of the Standards Policy and Strategy Committee on 31 August 2013.

Amendments issued since publication

Date	Text affected
------	---------------

TECHNICAL
REPORT

ISO/IEC
TR
29154

First edition
2013-08-01

**Software engineering — Guide
for the application of ISO/IEC
24773:2008 (Certification of
software engineering professionals
— Comparison framework)**

*Ingénierie du logiciel — Guide pour l'application de l'ISO/CEI
24773:2008 (Certification des professionnels de l'ingénierie du
logiciel — Cadre comparatif)*

Reference number
ISO/IEC TR 29154:2013(E)





COPYRIGHT PROTECTED DOCUMENT

© ISO/IEC 2013

All rights reserved. Unless otherwise specified, no part of this publication may be reproduced or utilized otherwise in any form or by any means, electronic or mechanical, including photocopying, or posting on the internet or an intranet, without prior written permission. Permission can be requested from either ISO at the address below or ISO's member body in the country of the requester.

ISO copyright office
Case postale 56 • CH-1211 Geneva 20
Tel. + 41 22 749 01 11
Fax + 41 22 749 09 47
E-mail copyright@iso.org
Web www.iso.org

Published in Switzerland

Contents

	Page
Foreword	iv
Introduction	v
1 Scope	1
2 Reference	1
3 Terms and definitions	1
4 Concepts and interpretation guide	2
4.1 Concepts and background regarding ISO/IEC 24773:2008.....	2
4.2 Relationship between ISO/IEC 24773:2008 and ISO/IEC 17024.....	2
4.3 SWEBOK Guide and software engineering bodies of knowledge.....	2
4.4 ISO/IEC 24773:2008, Clause 5.1.1 - mapping of bodies of knowledge to SWEBOK Guide... 3	3
4.5 ISO/IEC 24773:2008, Clause 5.2 - cognitive levels.....	3
4.6 ISO/IEC 24773:2008, Clause 6 - concepts relating to skills and competences.....	3
5 Applying ISO/IEC 24773:2008	4
5.1 Overview.....	4
5.2 Application cases / use cases for the IS.....	4
6 Use of the International Standard	6
7 Certification of software engineering specialists	6
Annex A (informative) Case study details - application of ISO/IEC 24773	7
Bibliography	14

Foreword

ISO (the International Organization for Standardization) and IEC (the International Electrotechnical Commission) form the specialized system for worldwide standardization. National bodies that are members of ISO or IEC participate in the development of International Standards through technical committees established by the respective organization to deal with particular fields of technical activity. ISO and IEC technical committees collaborate in fields of mutual interest. Other international organizations, governmental and non-governmental, in liaison with ISO and IEC, also take part in the work. In the field of information technology, ISO and IEC have established a joint technical committee, ISO/IEC JTC 1.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of the joint technical committee is to prepare International Standards. Draft International Standards adopted by the joint technical committee are circulated to national bodies for voting. Publication as an International Standard requires approval by at least 75 % of the national bodies casting a vote.

In exceptional circumstances, when the joint technical committee has collected data of a different kind from that which is normally published as an International Standard ("state of the art", for example), it may decide to publish a Technical Report. A Technical Report is entirely informative in nature and shall be subject to review every five years in the same manner as an International Standard.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO and IEC shall not be held responsible for identifying any or all such patent rights.

ISO/IEC TR 29154 was prepared by Joint Technical Committee ISO/IEC JTC 1, *Information technology*, Subcommittee SC 7, *Systems and software engineering*.

Introduction

ISO/IEC 24773:2008, *Software engineering — Certification of software engineering professionals — Comparison framework*, establishes a framework for comparison of schemes certifying software engineering professionals. ISO/IEC 24773:2008 (also referred to in this Technical Report as “The International Standard” or “the IS”) will facilitate the portability of software engineering professional certifications by facilitating comparison of such certification schemes.

Many individual qualification and certification schemes exist in the area of software engineering or software development; or a related speciality. In order to evaluate and compare between software engineering certifications for individual professionals, it is necessary to define a common framework for comparison. For multi-national organizations that require software engineering professionals, ISO/IEC 24773:2008 will facilitate the evaluation and comparison between various certifications.

The International Standard has a number of intended users, including:

- Educators;
- Examining bodies;
- Industry and professional bodies;
- Government bodies.

This Technical Report contains guidance and elaboration of several clauses of ISO/IEC 24773:2008. It also contains a more extensive set of potential uses of the International Standard by various users.

[Annex A](#) to this Technical Report contains several detailed illustrations of sample uses of ISO/IEC 24773.

The IEEE Computer Society cooperated with ISO/IEC JTC 1/SC 7 as a Category A liaison in the production of this Technical Report and is the publisher of the Guide to the Software Engineering Body of Knowledge (SWEBOK Guide). Any reference to SWEBOK or SWEBOK Guide in this Technical Report can be interpreted as a reference to ISO/IEC TR 19759, the adoption of the SWEBOK Guide.

Currently in preview, click buy full version

Software engineering — Guide for the application of ISO/IEC 24773:2008 (Certification of software engineering professionals — Comparison framework)

1 Scope

This Technical Report is a guide for the application of ISO/IEC 24773:2008. This guide addresses terminology used in ISO/IEC 24773:2008. It also includes interpretive guidance on several clauses of ISO/IEC 24773:2008, as well as a review of potential typical scenarios for use of ISO/IEC 24773:2008.

[Annex A](#) contains several more detailed examples of the application of ISO/IEC 24773:2008. They are examples of the most significant use cases identified in [Clause 5](#).

2 Reference

ISO/IEC 24773:2008, *Software engineering — Certification of software engineering professionals — Comparison framework*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO/IEC 24773:2008 and the following apply.

3.1

certification process

all activities by which a certification body establishes that a person fulfils specified competence requirements, including application, evaluation, decision on certification, surveillance and recertification, use of certificates and logos/marks

[SOURCE: ISO/IEC 17024]

3.2

certification scheme

specific certification requirements related to specified categories of persons to which the same particular standards and rules, and the same procedures apply

[SOURCE: ISO/IEC 17024]

3.3

competence

demonstrated ability to apply knowledge and/or skills, and where relevant, demonstrated personal attributes as defined in the certification scheme

[SOURCE: ISO/IEC 17024]

3.4

continuing professional development

CPD

set of activities undertaken by an individual professional in order to maintain professional competence, knowledge, and skills