TECHNICAL REPORT

ISO/TR 17534-2

First edition
2014-08-01

Acoustics — Software for the calculation of sound outdoors —

Part 2: General recommendations for test cases and quality assurance interface

Acoustique — Logiciels pour le calcul des bruits à l'air libre —

Partie 2: Recommandations générales pour les cas d'essai et l'interface d'assurance qualité



Reference number
ISO/TR 17534-2:2014(E)

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Published in Switzerland

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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

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For an explanation on the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the WTO principles in the Technical Barriers to Trade (TBT) see the following URL: Foreword - Supplementary information

The committee responsible for this document is ISO/TC 43, *Acoustics*, Subcommittee SC 1, *Noise*.

ISO 17534 consists of the following parts, under the general title *Acoustics — Software for the calculation of sound outdoors*:

— *Part 1: Quality requirements and quality assurance*

— *Part 2: General recommendations for test cases and quality assurance interface* [Technical report]

The following parts are under preparation:

— *Part 3: Recommendations for quality assured implementation of* ISO 9613-2 *in software according to* ISO 17534-1 [Technical report]

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Introduction

The general structure of the ISO 17534 series consisting of ISO 17534-1 and various Technical Reports is shown in Figure 1. The series itself describes the measures necessary to assure a high quality calculation methods implemented in different software products with respect to correctness and precision. The requirements and specifications included are obviously independent from a specific calculation method, because they should be applied for all of them.

This Technical Report contains generally applicable recommendations to be taken into account in the formulation of such recommendations in the method-specific Technical Reports. Further, a set of test cases is presented that can be supplemented with method-specific parameters to be applied in these Technical Reports.

This Technical Report is a first step. Contents will be supplemented step by step, and or even withdrawn due to newer technical or scientific expertise.

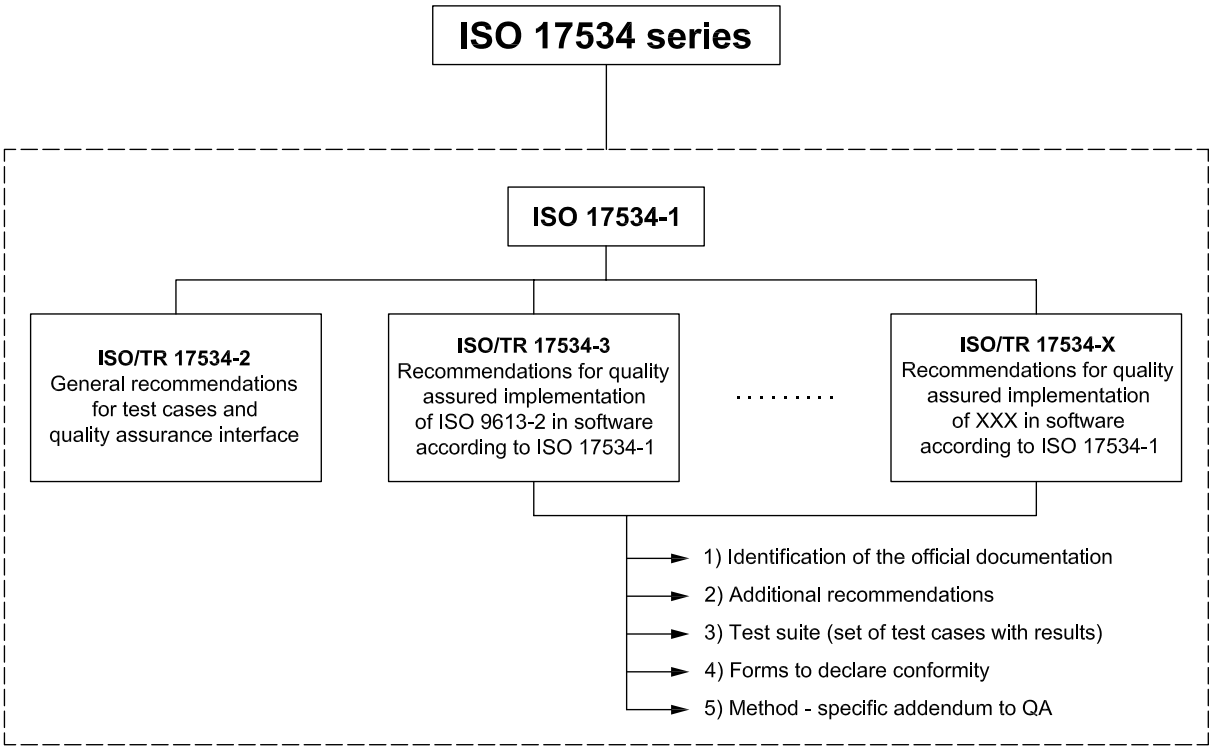


Figure 1 — Structure of the ISO 17534 series consisting of the main Part 1 and subordinated Technical Reports

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Acoustics — Software for the calculation of sound outdoors —

Part 2: General recommendations for test cases and quality assurance interface

1 Scope

This Technical Report contains general additional recommendations for the implementation of calculation methods in software, a general applicable set of test cases described geometrically, and a description of the QA (Quality Assurance Interface) that allows the exchange of data between software programs quality assured according to ISO 17534-1.

ISO 17534 series contains identification of the official documentation.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 17534-1:—, *Acoustics — Software for the calculation of sound outdoors — Part 1: Quality requirements and quality assurance*[1)]

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 17534-1:— apply.

4 Additional recommendations

This chapter is only a place holder, it shall be decided from time to time if due to experience with method specific recommendations. These shall be taken as a general recommendation and transferred to this Technical Report.

5 Test cases (T)

5.1 General

All aspects of a method shall be covered by test cases. It is to ensure that the test cases cover the main issues which can significantly affect results.

These test cases are described with exact geometry, but generally with respect to parameters that might be different with different calculation methods.

For the precisely defined test cases, according to A.2 in ISO 17534-1:—, these general parameter descriptions can be concretized and supplemented by step-by-step results.

1) To be published.

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