

Certificate

The certification body of TÜV Informationstechnik GmbH hereby awards this certificate to the company

T-Systems International GmbH
Friedrich-Ebert-Allee 140
53113 Bonn, Germany

to confirm that its software product

Mobilithek R1.5.3

fulfils all requirements of the evaluation criteria TIOBE/TÜVIT

Trusted Product Maintainability
ISO/IEC 25010 Quality Model, v1.2
Level: ABCDEF

of TIOBE Software B.V. and TÜV Informationstechnik GmbH. The requirements are summarized in the appendix to this certificate.

The appendix is part of the certificate with the ID 6483.24 and consists of 3 pages.

Essen, 2024-02-02

Dr. Christoph Sutter, Head of Certification Body



Certificate validity:
2024-02-02 – 2026-02-02



Certification scheme

The certification body of TÜV Informationstechnik GmbH performs its certification based on the following certification scheme:

- German document: "Zertifizierungsprogramm (nicht akkreditierter Bereich) der Zertifizierungsstelle der TÜV Informationstechnik GmbH", version 1.1 as of 2020-03-01, TÜV Informationstechnik GmbH

Evaluation report

- "TIOBE-20231227.001: TIOBE TÜVIT Trusted Product Maintainability Evaluation Report for Mobilithek R1.5.3", Version 1.5 as of 2024-01-25, TIOBE Software B.V.

Evaluation requirements

- "Evaluation Criteria TIOBE/TÜVIT Trusted Product Maintainability ISO/IEC 25010 Quality Model", version 1.2 as of 2021-12-16, TIOBE Software B.V. and TÜV Informationstechnik GmbH

Evaluation target

Software product "Mobilithek R1.5.3" of T-Systems International GmbH as of 2023-10-17

Evaluation result

The evaluation was conducted using specific versions of coding standards and compilers with assigned severity levels as indicated in the evaluation report.

- The overall code quality level of characteristic maintainability for the evaluated product is level C out of 6 possible quality levels A-F according to the evaluation criteria.

- The overall code quality level was calculated from the code quality levels of the measured product properties. These are indicated in the following table:

Product property	Quality level
Cyclomatic complexity	Level: ABCDEF
Compiler warnings	Level: ABCDEF
Coding standards compliance	Level: ABCDEF
Code duplication	Level: ABCDEF
Fan out	Level: ABCDEF
Total (maintainability)	Level: ABCDEF

Table: Rating of the product properties and total score

Summary of the evaluation requirements

The evaluation criteria TIOBE/TÜVIT Trusted Product Maintainability ISO/IEC 25010 Quality Model specify six decreasing code quality levels of the software quality characteristic maintainability. The different levels are represented by letters A (highest quality level) to F (lowest quality level).

The determination of the code quality levels is based on the measurement of five source code product properties. These product properties are cyclomatic complexity, compiler warnings, coding standards compliance, code duplication, and fan out.

To obtain the rating, the measurements of the product properties are mapped to an absolute scale between 0 (lowest possible code quality level) and 1 (highest possible code quality level), expressed in percent. The score for the characteristic maintainability is calculated as the average of the scores of the five product properties.

Six code quality levels A-F are defined for the product properties and for the characteristic maintainability as follows:

ABCDEF: score \geq 90 %

ABCDEF: $80\% \leq$ score $<$ 90%

ABCDEF: $70\% \leq$ score $<$ 80%

ABCDEF: $50\% \leq$ score $<$ 70%

ABCDEF: $40\% \leq$ score $<$ 50%

ABCDEF: score $<$ 40%

A certificate can be issued for software products having successfully passed the evaluation and reaching an overall code quality level of at least C.