Certificate

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

KPMG IT Service GmbH
Klingelhöferstraße 18
10785 Berlin, Germany

to confirm that its scheduling software

PEPSY/mySkills/myDispo, version 1.9

fulfils all relevant requirements of the criteria

DIN EN ISO 9241-11:1999
DIN EN ISO 9241-110:2006
ISO/IEC 25051:2014, Chapter 5

in the underlying contexts of use. The requirements and contexts of use are summarized in the appendix to the certificate.

The appendix is part of the certificate and consists of 5 pages.

The certificate is valid only in conjunction with the corresponding evaluation report until 2017-11-30.

Usability PQ6235.15 TÜVIT® 2015 Trusted Product

Voluntary Validation

Certificate-Registration-No.:
TUVIT-PQ6235.15

Essen, 2015-11-13

Dr. Christoph Sutter
Head of Certification Body

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Certification System

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

- German document: ”Zertifizierungsprogramm (nicht akkreditierter Bereich) der Zertifizierungsstelle der TÜV Informationstechnik GmbH“, version 1.0 as of 2015-08-24, TÜV Informationstechnik GmbH

Evaluation Report

- German document: “Prüfung der Dispositionssoftware PEPSY/mySkills/myDispo, Version 1.9 vom 03.09.2015 der KPMG IT Service GmbH auf Gebrauchstauglichkeit gemäß der DIN EN ISO 9241-11, -110 und ISO/IEC 25051“, version 1.0 as of 2015-11-11, Evaluation Lab for IT Usability of TÜV Informationstechnik GmbH

Evaluation Requirements

- DIN EN ISO 9241: “Ergonomics of human-system interaction”

  Part 11: “Guidance on usability” (1999)

  Part 110: “Dialogue principles” (2006)

- ISO/IEC 25051: “Software-Engineering – Software product Quality Requirements and Evaluation (SQuaRE) – Requirements for quality of Ready to Use Software Product (RUSP) and instructions for testing” (2014)

  Chapter 5: “Requirements for Ready to Use Software Product (RUSP)”

- German document: “Leitfaden Usability – DAkkS-Prüfverfahren für die Konformitätsprüfung interaktiver Systeme auf Grundlage von DIN EN ISO 9241, Teile 11 und 110”,

version 1.3, 2010, DAkkS Deutsche Akkreditierungsstelle GmbH

Chapter 4: Test Procedure for conformity testing of interactive systems according to DIN EN ISO 9241, parts 11 and 110

Chapter 5: Test modules for operability according to ISO/IEC 25051

The evaluation requirements are summarized at the end.

Evaluation Target

Target of evaluation is the scheduling software:

- PEPSY/mySkills/myDispo, version 1.9 as of 2015-09-03.

The evaluation is based on following contexts of use:

- Planner,
- Dispatchers and
- Project employees.

Evaluation was commissioned by KPMG IT Service GmbH.

The certificate holder KPMG IT Service GmbH has committed to consider ergonomic requirements in a defined procedure for the maintenance and care process. An appropriate process has been established and is demonstrably effective.

Evaluation Result

Requirements for the evaluation were derived from DIN EN ISO 9241, parts 11 and 110 in the context of use of the tested product.

The testing showed that there are no significant deviations when the product was tested according to the test procedure for interactive systems.

Summary of the Evaluation Requirements

Part 11 of the DIN EN ISO 9241 describes following key criteria for software usability:

- **Usability**

  Extent to which a product can be used by specified users to achieve specified goals with effectiveness, efficiency and satisfaction in a specified context of use.

- **Effectiveness**

  Accuracy and completeness with which users achieve specified goals.

- **Efficiency**

  Resources expended in relation to the accuracy and completeness with which users achieve a specific goal.

- **User satisfaction**

  Freedom from discomfort, and positive attitudes towards the use of the product.

Part 110 of ISO 9241 describes the following principles for interfaces between user and software (dialogue design):

- **Suitability for the task**

  An interactive system is suitable for the task when it supports the user in the completion of the task, i. e. when the functionality and the dialogue are based on the task characteristics (rather than the technology chosen to perform the task).

- **Self-descriptiveness**

  A dialogue is self-descriptive to the extent that, at any time, it is obvious to the users which dialogue they are in, where they are within the dialogue, which actions can be taken and how they can be performed.

- **Conformity with user expectations**

  A dialogue conforms with user expectations if it corresponds to predictable contextual needs of the user and to commonly accepted conventions.

- **Suitability for learning**

  A dialogue is suitable for learning when it supports and guides the user in learning to use the system.

- **Controllability**

  A dialogue is controllable when the user is able to initiate and control the direction and pace of the interaction until the point at which the goal has been met.

- **Error tolerance**

  A dialogue is error-tolerant if, despite evident errors in input, the intended result may be achieved with either no, or minimal, corrective action by the user.

- **Suitability for individualisation**

  A dialogue is capable of individualization when users can modify human-system interaction and presentation of information to suit their individual capabilities and needs.

Chapter 5 of ISO/IEC 25051 contains:

- **Quality requirements of product description, user documentation and software product**

  The product description explains to the user the intended use of the product. Within the user documentation the essential work tasks and necessary work steps with respect to the product are described. The functions of the product which are necessary for the execution of the work tasks are practicable and lead to correct and complete results.

The „DAkkS Leitfaden Usability“ contains:

- **Test procedure for the conformity test of interactive systems based on DIN EN ISO 9241, parts 11 and 110**

  The test procedure serves to determine the usability of interactive software in the specified context of use. It is tested that in case of detected use problems they do not decrease the effectiveness or efficiency of the task processing or user satisfaction. Possible use problems are traced back to the breach of design principles.

- **Test modules for operability based on ISO/IEC 25051**

  ISO/IEC 25051 defines basic quality requirements for software products (functional correctness, presence of correct user documentation) which are precondition for the attainment of the objectives of usage.