ISO/TR 11462-4:2022-02 (E)

Guidelines for implementation of statistical process control (SPC) - Part 4: Reference data sets for measurement process analysis software validation

Contents

Page

Foreword ..... **iv**

Introduction ..... **v**

1 Scope **1**

2 Normative references **1**

3 Terms and definitions, and symbols and abbreviated terms **1**
3.1 Terms and definitions 1
3.2 Symbols and abbreviated terms 2
3.3 Abbreviated terms 4

4 Overview of the test examples **4**
4.1 Overview 4
4.2 Notes 5
4.2.1 Notes on the accuracy of the test examples and results 5
4.2.2 Note on outlier detection 5
4.2.3 Note on capability indices 5
4.2.4 Note on the model of the measurement and correlations 5
4.2.5 Note on other reference data sets 5
4.2.6 Note on systematic errors 6

5 Reference data sets description and evaluation **6**
5.1 Test data set 1 – example of linearity study with at least three standards 6
5.1.1 Test data set 1 – information 6
5.1.2 Test data set 1 – data, calculations and results 6
5.2 Test data set 2 – attribute measurement process – operator influence (ISO 22514-7) 12
5.2.1 Test data set 2 – information 12
5.2.2 Test data set 2 – data, calculations and results 12
5.3 Test data set 3 – attributive measurements – capability calculations using reference values – calculation of the uncertainty range (ISO 22514-7) 13
5.3.1 Test data set 3 – information 13
5.3.2 Test data set 3 – data, calculations and results 13
5.4 Test data set 4 – measurement process capability with three reference standards (VDA 5) 16
5.4.1 Test data set 4 – information 16
5.4.2 Test data set 4 – data, calculations and results 16
5.5 Test data set 5 – Measurement Process Capability of a CMM (VDA 5 and ISO 15530-3) 19
5.5.1 Test data set 5 – information 19
5.5.2 Test data set 5 – data, calculations and results 20
5.6 Test data set 6 – measurement process capability of automated test device 23
5.6.1 Test data set 6 – information 23
5.6.2 Test data set 6 – data, calculations and results 23
5.7 Test data set 7 – measurement process capability of a multiple-point measuring Instrument (VDA 5) 27
5.7.1 Test data set 7 – information 27
5.7.2 Test data set 7 – data, calculations and results 27

Bibliography **32**