TickIT

Reference List

An extension of the standards list in appendix 5 of Issue 5 TickIT Guide. Including details of standards databases, an extensive reading list and procurement information.

TickIT Reference List

This is an extension of the standards list in Appendix 5 of the Issue 5.0 TickIT Guide. Also included are details of standards databases, an extensive reading list and procurement information.

Please activate the 'Navigation Panel' button on your Acrobat Reader to view document structure and select sections of interest. The document also contains active links to end notes and web sites.

1 International and European standards

1.1 Definitions

ISO/IEC 2382-1:1993 (BS ISO/IEC 2382-1:1993) Information technology - Vocabulary - Part 1: Fundamental terms

ISO/IEC 2382-4:1999 Information technology – Vocabulary - Part 4: Organization of data

ISO/IEC 2382-5:1999 Information technology – Vocabulary - Part 5: Representation of data

ISO/IEC 2382-8:1998 Information technology – Vocabulary - Part 8: Security

ISO/IEC 2382-14:1997 (BS ISO/IEC 2382-14) Information technology - Vocabulary - Part 14: Reliability, maintainability and availability

ISO/IEC 2382-20:1990 (BS ISO/IEC 2382-20:1990) Information technology - Vocabulary - Part 20: System development

1.2 Quality management systems standards

ISO 9000:2000 (BS EN ISO 9000:2000) Quality management systems - Fundamentals and vocabulary

ISO 9001:2000 (BS EN ISO 9001:2000) Quality management systems - Requirements

ISO 9004:2000 (BS EN ISO 9004:2000) Quality management systems - Guidelines for performance improvement

ISO 9000-3:1997 Guidelines for application of ISO 9001:1994 to the development, supply, installation and maintenance of computer software, is currently (January 2001) being updated

1.3 Quality management and quality system elements

ISO 10005:1995 (BS ISO 10005:1995) Quality management - Guidelines for quality plans

ISO 10007:1995 (BS ISO 10007:1996) Quality management - Guidelines for configuration management

ISO/DIS 10013 Quality management - Guidelines for developing quality manuals

1.4 Guidelines for auditing quality systems

ISO 10011-1:1990 (BS EN 30011-1:1993) Part 1: Auditing

ISO 10011-2:1991 (BS EN 30011-2:1993) Part 2: Qualification criteria for quality systems auditors

ISO 10011-3:1991 (BS EN 30011-3:1993) Part 3: Management of audit programmes

ISO 10011 will be superseded by ISO 19011 Guidelines for auditing quality systems

1.5 Quality assurance requirements for measuring equipment

ISO 10012-1:1992 (BS EN 30012-1:1994) Part 1: Metrological confirmation system for measuring equipment

ISO 10012-2:1997 Part 2: Guidelines for control of measurement processes

1.6 General criteria for certification bodies

EN 45012:1989 (BS 7512:1989) General criteria for certification bodies operating quality system certification

EN 45013:1989 (BS 7513:1989) General criteria for certification bodies operating certification of personnel

1.7 Life cycle management

ISO/IEC 12207:1995 (BS ISO/IEC 12207:1995) Information technology – Soft-ware life cycle processes

ISO/IEC 12207:1995 AM1, currently (January 2001) under development -this will align the processes listed with the process model in ISO/IEC TR 15504-2:1998

ISO/IEC TR 15271:1998 (BS ISO/IEC TR 15271: 1998) Information technology – Guide for ISO/IEC 12207 (Software life cycle processes)

ISO/IEC TR 15504-1:1998 (BS ISO/IEC TR 15504-1:1998) Software process assessment – Part 1: Concepts and introductory guide (informative)

ISO/IEC TR 15504-2:1998 (BS ISO/IEC TR 15504-2:1998) Software process assessment – Part 2: A reference model for processes and process capability (normative)

ISO/IEC TR 15504-3:1998 (BS ISO/IEC TR 15504-3:1998) Software process assessment – Part 3: Performing an assessment (normative)

ISO/IEC TR 15504-4:1998 (BS ISO/IEC TR 15504-4:1998) Software process assessment – Part 4: Guide to performing assessments (informative)

ISO/IEC TR 15504-5:1999 (BS ISO/IEC TR 15504-5:1999) Software process assessment – Part 5: An assessment model and indicator guidance (informative)

ISO/IEC TR 15504-6:1998 (BS ISO/IEC TR 15504-6:1998) Software process assessment – Part 6:Guide to competency of assessors (informative)

ISO/IEC TR 15504-7:1998 (BS ISO/IEC TR 15504-7:1998) Software process assessment – Part 7: Guide for use in process improvement (informative)

ISO/IEC TR 15504-8:1998 (BS ISO/IEC TR 15504-8:1998) Software process assessment – Part 8: Guide for use in determining supplier capability (informative)

ISO/IEC TR 15504-9:1998 (BS ISO/IEC TR 15504-9:1998) Software process assessment – Part 9: Vocabulary (informative)

1.8   Support of life cycle processes

ISO/IEC TR 15846:1998 (BS ISO/IEC TR 15846: 1998) Information technology - Software life cycle processes - Configuration management

1.9   System software documentation

ISO/IEC 6592:2000 (BS ISO/IEC 6592:2000) Information technology – Guidelines for the documentation of computer based application systems

ISO 9127:1988 (BS 7137:1989) Information processing systems - User documentation and cover information for consumer software packages

ISO/IEC TR 9294:1990 (BS ISO/IEC TR 9294: 1990) Information technology - Guidelines for the management of software documentation

ISO/IEC 15910:1999 (BS ISO/IEC 15910:1999) Information technology – Software user document-ation process

1.10   Tools and environment

ISO/IEC 14102:1995 Information technology – Guide-line for the evaluation and selection of CASE tools

ISO/IEC TR 14471:1999 (BS ISO/IEC TR 14471: 1999) Information technology - Software engineering - Guidelines for the adoption of CASE tools

1.11   Evaluation and metrics

ISO/IEC FDIS 9126-1 Information technology – Software product quality – Quality model

The following additional parts of ISO/IEC 9126 Information technology – Software product quality are under development:

Part 2: External metrics

Part 3: Internal metrics

Part 4: Quality in use metrics

ISO/IEC 14598-1:1999 (BS ISO/IEC 14598-1:1999) Information technology – Software product evaluation – Part 1: General overview

ISO/IEC 14598-2:2000 (BS ISO/IEC 14598-2:2000) Information technology – Software product evaluation – Part 2: Planning and management

ISO/IEC 14598-3:2000 (BS ISO/IEC 14598-3:2000) Information technology – Software product evaluation – Part 3: Process for developers

ISO/IEC 14598-4:1999 (BS ISO/IEC 14598-4:1999) Information technology – Software product evaluation – Part 4: Process for acquirers

ISO/IEC 14598-5:1998 (BS ISO/IEC 14598-5:1998) Information technology – Software product evaluation – Part 5: Process for evaluators

ISO/IEC DIS 14598-6 Information technology – Software product evaluation – Part 6: Documentation of evaluation modules

1.12   Other definitions and guidance

ISO 9241-10:1996 (BS EN ISO 9241-10:1996) Ergo-nomic requirements for office work with visual display terminals (VDT)s - Part 10: Dialogue principles

ISO 9241-11:1998 (BS EN ISO 9241-11:1998) Ergo-nomic requirements for office work with visual display terminals (VDT)s - Part 11: Guidance on usability

ISO 9241-12:1998 (BS EN ISO 9241-12:1999) Ergo-nomic requirements for office work with visual display terminals (VDTs) - Part 12: Presentation of information

ISO/IEC 12119:1994 (BS ISO/IEC 12119:1994) Information technology – Software packages - Quality requirements and testing

ISO/IEC TR 12182:1998 (BS ISO/IEC TR 12182: 1998) Information technology - Categorization of soft-ware

ISO/IEC 14143-1:1998 (BS ISO/IEC 14143-1:1998) Information technology – Software Measurement - Functional Size Measurement - Part 1: Definition of Concepts

The following additional parts of ISO/IEC 14143 Information technology - Software Measurement – Functional Size Measurement are under development:

Part 2: Conformity evaluation of software size measurement methods to ISO/IEC 14143-1:1998

Part 3: Verification of functional size measurement methods

Part 4: Reference Model

Part 5: Determination of Functional Domains for Use with Functional Size Measurement

ISO/IEC 14568:1997 (BS ISO/IEC 14568:1997) Information technology DXL: Diagram eXchange Language for tree-structured charts

ISO/IEC 14756:1999 Information technology – Measurement and rating of performance of computer-based software systems

ISO/IEC TR 14759:1999 (BS ISO/IEC TR 14759: 1999) Software engineering - Mock up and proto-type - A categorization of software mock up and prototype models and their use

ISO/IEC 14764:1999 (BS ISO/IEC 14764:1999) Information technology - Software maintenance

ISO/IEC 15026:1998 (BS ISO/IEC 15026:1998) Information technology - System and software inte-grity levels

ISO/IEC TR 16326:1999 (BS ISO/IEC TR 16326: 1999) Software engineering - Guide for the appli-cation of ISO/IEC 12207 to project management

ISO/IEC 17799:2000 (BS 7799-1:Version 2000) Information technology – Code of practice for infor-mation security management

2   National standards and publicly available specifications

2.1   British standards

BS 4884:Part 2:1993 Technical manuals - Guide to content

BS 6079: Part 1:2000 Guide to project management

BS 6238:1982 (1999) Code of practice for performance monitoring of computer-based systems

BS 6548-5:1994 (IEC 60706-5:1994) Guide on maintainability of equipment - Diagnostic testing

BS 7000:Part 1:1999 Design management systems - Guide to managing innovation

BS 7649:1993 (1999) Guide to the design and preparation of documentation for users of application software

BS EN ISO 14001 Environmental management systems - Specification with guidance for use

BS 7799: Part 2:1999 Specification for information security management systems

BS 7830:1996 (1999) Guide to the design and preparation of on screen documentation for users of application software

BS 7850: Part1:1992 Total Quality Management - Guide to management principles

BS 7850: Part2:1994 Total Quality Management - Guidelines for quality improvement

BS 7925-1:1998 Software testing – Vocabulary

BS 7925-2:1998 Software testing – Software component testing

Published British Standards cross-referenced to their International counterparts are listed in the British Standards Institution's 'Products and Services Catalogue'. Equivalent information may be obtained from the British Standards Online (www.bsi-global.com)

2.2   ANSI/IEEE standards

The 1999 edition of the IEEE 'Software Engineering Standards Collection' comprises 49 different ANSI/ IEEE standards published in 4 volumes covering a wide range of software engineering topics. Up-to-date details of the 'Collection' may be found in the ANSI or IEEE Standards Catalogues or in the listing available at the IEEE web site (Internet: standards.ieee.org)

The 1999 'Collection' includes:

ANSI/IEEE 610.12-1990 Standard Glossary of Software Engineering Terminology

ANSI/IEEE 828-1998 Software Configuration Management Plans

2.3   Australian standards

AS/NZS 3905.8:1996 Quality system guidelines - Guide to AS/NZS ISO 9001:1994 for the software industry

(Further information on Australian Standards is available from Internet: www.standards.com.au)

2.4   Publicly available specifications and standards

AQAP–150 (Edition 2) NATO quality assurance requirements for software development

(Further information on NATO standards and downloads may be obtained from Internet: www.nato.int/docu/stanag/aqap150)

Def Stan 05-95 (Issue 3) 1995 Quality system requirements for the design, development, supply and maintenance of software

(Further Information on Defence Standards and downloads may be obtained from Internet: www.dstan.mod.uk)

ESA Software Engineering Standards are detailed in:

MAZZA et al: *Software Engineering Standards* (Prentice-Hall, 1994, ASIN 0131065688)

MAZZA et al: *Software Engineering Guides* (Prentice-Hall, 1996, ISBN 0134492811)

2.5   Safety-related specifications and standards

Def Stan 00-55 (Issue 2) 1997 Requirements for Safety Related Software in Defence Equipment - Part 1: Requirements and Part 2: Guidance

Def Stan 00-56 (Issue 2) 1996 Safety Management Requirements for Defence Systems - Part 1: Requirements and Part 2: Guidance

(Further Information on Defence Standards and downloads may be obtained from via Internet: www.dstan.mod.uk)

Development Guidelines for Vehicle-Based Software (MISRA, November 1994, ISBN 0952415607)

DO-178B/ED-12B - December 1992 Software Considerations in Airborne Systems and Equipment Certification. Issued in the USA by the Requirements and Technical Concepts for Aviation (document RTCA SC167/DO-178B) and in Europe by the European Organization for Civil Aviation Electronics (EUROCAE document ED-12B)

IEC 61508-1:1998 (BS IEC 61508-1:1998) Functional safety of electrical/electronic/programmable electronic safety-related systems – Part 1: General requirements)

IEC 61508-2:2000 (BS IEC 61508-2:2000) Functional safety of electrical/electronic/programmable electronic safety-related systems – Part 2: Requirements for electrical/electronic/programmable electronic safety-related systems

IEC 61508-3:1998 (BS IEC 61508-3:1998) Functional safety of electrical/electronic/programmable electronic safety-related systems – Part 3: Software requirements

IEC 61508-4:1998 (BS IEC 61508-4:1998) Functional safety of electrical/electronic/programmable electronic safety-related systems – Part 4: Definitions and abbreviations

IEC 61508-5:1998 (BS IEC 61508-5:1998) Functional safety of electrical/electronic/programmable electronic safety related systems – Part 5: Examples of methods for the determination of safety integrity levels

IEC 61508-6:2000 (BS IEC 61508-6:2000) Functional safety of electrical/electronic/programmable electronic safety-related systems – Part 6: Guidelines on the application of IEC 61508-2 and IEC 61508-3

IEC 61508-7:2000 (BS IEC 61508-7:2000) Functional safety of electrical/electronic/programmable electronic safety-related systems – Part 7: Overview of techniques and measures

SEMSPLC Guidelines: Safety related application software for programmable logic controllers (IEE Technical Guidelines 8:1996, ISBN 0 85296 887 6)

3 Further information and procurement sources for standards

3.1 British Standards Institution

To obtain further information about and purchase international, European and national standards, please contact:

British Standards Institution (BSI)
Standards Sales and Customer Services
Tel: +44 (0)20 8996 9001
Fax: +44 (0)20 8996 7001
email: info@ bsi-global.com
Internet: www.bsi-global.com

Information on ISO Standards, including listings and brief descriptions, is available from Internet: www.iso.ch

Information on IEC Standards, including listings and brief descriptions, is available from Internet: www.iec.ch

3.2 Swedish Standards Institute

In Sweden, please contact:

SIS - Standardiseringen i Sverige
Tel: +46 (0)8 610 30 00
Fax: +46 (0)8 30 77 57
E-post: info@sis.se
Internet: www.sis.se

3.3 Agencies

A number of agencies specialize in standards procurement and can also provide details of worldwide standards. UK-based agencies include:

Infonorme London Information (ILI)
Tel: +44 (0)1344 636400
Fax: +44 (0)1344 291194
Internet: www.ili.co.uk

Technical Indexes (including Rapidoc)
Tel: +44 (0)1344 426311
Fax: +44 (0)1344 424971
Internet: www.techindex.co.uk

Technical Standards Services
Tel: +44 (0)1462 453211
Fax: +44 (0)1462 457714
Internet: www.techstandards.co.uk

American Technical Publishers Ltd (ATP)
Tel: +44 (0)1462 437933
Fax: +44 (0)1462 433678
Internet: www.ameritech.co.uk

4 Databases

There are some 25 databases from around the world dedicated to standards information.

4.1 CD-ROM & Internet-based services

The main databases available on CD-ROM and via the Internet, which include references to all information technology standards are:

- PERINORM, a multinational and multilingual bibliographic database of standards and regulations, available in two versions:

  – PERINORM Europe covering European and International standards, including ISO, IEC, CEN and CENELEC, and national standards from various European countries.

  – PERINORM International which contains all the PERINORM Europe information plus ASTM, IEEE, UL, ANSI, ASME, JIS and AS standards.

  To purchase or subscribe to PERINORM, contact the BSI Electronic Products help desk:
  Tel: +44 (0)20 8996 7333
  Fax: +44 (0)20 8996 7997
  Internet: www.bsi-global.com

- Global Engineering Documents

  Global Engineering Documents, an IHS Group Company, is a worldwide distributor of collections of standards, specifications and technical publications. Global maintains one of the most extensive collections of documents from more than 460 standards-developing organizations throughout the world, including ASTM, ANSI, ASME, BSI, DIN, IEEE, ISO, and JIS.

  Further information about Global Engineering Documents and how to access them may be obtained from Internet: global.ihs.com or by contacting:

  Rapidoc, Tel: +44 (0)1344 861666, Fax: +44 (0)1344 714440, email: rapidoc@techindex.co.uk

  IHS Nordic A.S., Tel: +45 3940 2244, Fax: +45 3940 2300, email: info@ihsnordic.com

  Global Engineering Documents, Tel: +1 800 854 7179, Fax: +1 303 397 2740, email: global@ihs.com

- ILI Standards Database

  Bibliographical information on a wide range of national, international and industry standards from Europe, USA and other countries, including Japan, Australia and Brazil. Includes some military standards. Further information may be obtained from Infonorme London Information (ILI), see section 3.3.

CD-ROM-based information on US Department of Defense specifications and standards is available through the Department of Defense Single Stock Point for Specifications and Standards (DoDSSP). The DoDSSP also maintains the Acquisition Streamlining and Standardization Information System (ASSIST) management/research database.

For information on ASSIST, contact +1 215 697 6257. On-line access to ASSIST and other DoDSSP services is available via Internet: www.dodssp.daps.mil/dodssp.htm The text of MIL standards and specifications is available from Internet: stinet.dtic.mil/str/dodiss4_fields.html

4.2 Internet access to standards organizations

The World Standards Services Network (WSSN), is a network of publicly accessible World Wide Web servers of standards organizations around the world. Through the Web sites of its members, WSSN provides information on international, regional and national standardization and related activities and services. WSSN may be accessed from Internet: www.wssn.net/WSSN

A more complete reference list of the home pages of international and national standards organizations is contained in a BSI publication 'Finding standards information on the Internet' which may be obtained from:

BSI Resource Centre
Tel: +44 (0)20 8996 7004
Fax: +44 (0)20 8996 7005
email: library@bsi-global.com
Internet: www.bsi-global.com

4.3 Other standards information

Few databases cover international standards under development. Information about these standards has to be gleaned from a variety of sources; your national standards body can probably assist.

The BSI Resource Centre (see 4.2) also publishes two useful guidance booklets for those who are new to the standards scene:

Introduction to Standards (BSI, 2000, Reference TH42120)

The BSI library guide to abbreviations and acronyms (BSI, 1999, Reference TH42095)

5 Reading material and videos

5.1 Best practice and total quality management

AZHASHEMI & HO: *Business process redesign and total integrated management* (The TQM Magazine, Volume 8, Number 6, 1996, pp 42-47)

CHASE: *Winning with quality - a practical approach to the development of a total quality strategy* (IFS Publications, 1989)

CROSBY: *Quality is free: the art of making quality certain* (Re-issued by Mentor Books, 1992, ISBN 0451625854*)*

CROWNOVER: *Take it to the next level* (Next Level Press, 1998, ISBN 0966751906)

HUTTON: *From Baldrige to the bottom line - A road map for organizational change and improvement* (American Society for Quality, 2000, ISBN 0873894731)

NIVEN: *When times get tough, what happens to TQM?* (Harvard Business Review, May-June 1993, pp 20-34)

OAKLAND: *Total Quality Management - the route to improving performance* (Butterworth-Heinemann, 1994, ISBN 0750609931)

SHERGOLD & REED: *Striving for excellence - how self-assessment using the Business Excellence Model can result in step improvements in all areas of business activities* (The TQM Magazine, Volume 8, Number 6, 1996, pp 48-52)

TAYLOR: *Quality control systems: procedures for planning quality programmes* (McGraw Hill, 1988, ISBN 0070631603)

RapidScore - a quick and easy series of questions ideal for an organisation's first self-assessment (British Quality Foundation, 1999, ISBN 189935817X)

TeamScore - a detailed and comprehensive questionnaire designed for a team approach to self-assessment (British Quality Foundation, 1999, ISBN 1899358188)

ZAIRI: *A survey on integrated management through BPR and TQM* (The TQM Magazine, Volume 8, Number 6, 1996, pp 58-65)

5.2 Process assessment, process capability and process improvement

A detailed comparison of the SEI software maturity levels and technology stages to the requirements for ISO 9001 registration (Software Systems Quality Consulting, 1993)[1]

CMM[SM]- based appraisal for internal process improvement (Software Engineering Institute, 1996, Report SEI 96-TR-007)[2]

Capability Maturity Model for software (Version 1.1) (Software Engineering Institute, 1993, Report SEI 93-TR-024)[2]

CAPUTO: *CMM implementation guide – choreographing software process improvement* (Addison-Wesley, 1998, ISBN 0201379384)

COALLIER: *A method for the assessment of telecom software system development capability* (Proceedings of the ASQC 1st International Conference on Software Quality)

DORLING: *SPICE: Software Process Improvement and Capability determination* (Software Quality Journal, Volume 2, 1993, pp 209-224)

DYMOND: *A guide to the CMM - understanding the Capability Maturity Model for Software* (Process Transition International, Inc., 1995, ISBN 0964600803)

EL ENAM: *Costs and benefits of software process improvement* (Software Engineering Research Network, Technical Report ISERN-97-12, 1997)

EL ENAM, DROUIN & MELO: *SPICE the theory and practice of software process improvement and capability determination* (IEEE Computer Society, ISBN 0818677988)

EL ENAM & MADHAVI: *Elements of software process assessment and improvement* (IEEE Computer Society, ISBN 0818685239)

HARRISON, RAFFO & SETTLE: *Process improvement as a capital investment - risks and deferred paybacks* (Proceedings of the Pacific Northwest Software Quality Conference, Portland, Oregon, October 1999)

HARRISON, RAFFO & SETTLE: Measuring the value *from improved predictions of software process improvement outcomes using risk-based discount rates* (International Conference on Software Engineering, Los Angeles, California, May 1999)

How ISO 9001 Compares With the CMM (IEEE Software, January 1995)

JALOTE: *CMM in practice - processes for executing software projects at Infosys* (Addison-Wesley, 1999, ISBN 0201616262)

Key Practices of the Capability Maturity Model for Software (Software Engineering Institute, 1993, Report SEI-93-TR025)[2]

KUVAJA, BICEGO & DORLING: *SPICE: the software process assessment model* (Proceedings ISCN'95: Practical Improvement of Software Processes and Products)

KUVAJA, SIMILÇ, KRZANIK, BICEGO, KOCH & SAUKKONEN*: Software process assessment and improvement - the 'Bootstrap' approach* (Blackwell Business, 1994)

PAULK: *A comparison of ISO 9001 and the Capability Maturity Model for Software* (Software Engineering Institute, 1994, Report SEI-94-TR012)[2]

PAULK: A perspective on the issues facing SPICE (*Proceedings of the Fifth International Conference on Software Quality,* Austin, TX, 23-26 October 1995, pp 415-424)

PAULK: *Effective CMM-based process improvement* (Proceedings of the 6th International Conference on Software Quality, Ottawa, Canada, 28-31 October 1996, pp 226-237)

PAULK: *The rational planning of (software) projects* (Proceedings of the First World Congress for Software Quality, ASQC, San Francisco, CA, 20-22 June 1995, section 4)

PAULK et al: *The Capability Maturity Model – guidelines for improving the software process* (Addison-Wesley, 1995, ISBN 0201546647)

PAULK, GARCIA & CHRISSIS: *An architecture for CMM version 2?* (Proceedings of the 8th Software Engineering Process Group Conference, Atlantic City, NJ, 20-23 May 1996, Volume: Tuesday Papers)

PAULK & KONRAD: *Measuring process capability versus organizational process maturity* (Proceedings of the 4th International Conference on Software Quality, ASQC, Washington, DC, October 1994)

PAULK, KONRAD & GARCIA: *CMM versus SPICE architectures* (Software Process Newsletter, IEEE Computer Society Technical Council on Software Engineering, Number 3, Spring 1995, pp 7-11)

TINGEY: *Comparing ISO 9000, Malcolm Baldrige, and the SEI CMM for Software – a reference and selection guide* (Prentice Hall, 1996, ISBN 0133762602)

ZAHRAN: *Software process improvement – practical guidelines for business success* (Addison-Wesley, 1998, ISBN 020117782X)

5.3 Costs and benefits analysis

A survey of quality management in IT – progress since the introduction of TickIT (Logica, 1994)[3]

BOEHM: *Software engineering economics* (Prentice Hall, 1981, ISBN 0138221227)

DeMARCO: *Why does software cost so much?* (IEEE Software, Volume 10, Number 2, March 1993, pp 89-90)

SLAUGHTER, HARTER & KRISHNAN: *Evaluating the Cost of Software Quality* (Communications of the ACM, August 1998, pp 67-73)

5.4 General interest

CUSUMANO: *Japan's software factories* (Oxford University Press, 1991, ISBN 0195062167)

KRASNER: *A state of the union report on software quality in the United States - status, impact and the potential for improvement* (Keynote Address at the 4th International Conference on Software Quality, October 1994)

MASAAKI: *Kaizen - the key to Japan's competitive success* (McGraw Hill, 1986, ISBN 007554332X)

5.5 Planning and management

British Computer Society Industry Structure Model (ISM3.2) (British Computer Society)[4]

BROOKS: *The mythical man-month - essays on software engineering* (Addison-Wesley, 1975, ISBN 0201835959)

DeMARCO & BOEHM: *Controlling software projects - management, measurement and estimation* (Yourdon, 1986, ISBN 0131717111)

DEURSCH & WILLIS: *Software quality engineering - a total technical and management approach* (Prentice-Hall Series in Software Engineering, 1988, ISBN 0138232040)

GENUCHTEN: *Why is software late? An empirical study of reasons for delay in software development* (IEEE Transactions on Software Engineering, Volume 17, Number 6, June 1991, pp 582-590)

GILB: *Principles of software engineering management* (Addison-Wesley, 1988, ISBN 0201192462)

Guide to software quality audit (Electronic Engineering Association, 1988)[5]

HOLLOCKER: *Software reviews and audits handbook* (Wiley Series in Software Engineering Practice, John Wiley & Sons, 1990, ISBN 0201192462)

HUMPHREY: *Managing the software process* (Addison Wesley, 1989, ISBN 0201180952)

MANNS & COLEMAN: *Software quality assurance control* (MacMillan Education, 1988, ASIN 0333459911)

MILLS: *The quality audit - a management evaluation tool* (McGraw Hill, 1989, ISBN 0070424284)

OULD: '*Managing software quality and business risk*' (John Wiley, 1999, ISBN 047199782X)

RONE: *Quality estimation and planning* (Proceedings of the Fourth International Conference on Strategic Software Systems, The University of Alabama in Huntsville, March 1992, pp 2/48-59)

SAYLE: *Management audits - the assessment of quality management systems –3rd edition* (American Society for Quality, 1997; ISBN 0951173901)

The SPIRE Handbook - better, faster, cheaper software development in small organisations (ISBN 1874303037, 1998)[6]

5.6 Purchasing guidance

Managing risk in open systems procurement - a practical guide (The Stationery Office, 1996, ISBN 0115154272)[7]

The STARTS Purchasers' Handbook (The National Computing Centre)[8]

5.7 Risk Analysis

BOEHM: *Software risk management* (IEEE Computer Society Press, 1989, ISBN 0818689064)

HUMPHREYS, MOSES & PLATE: *Guide to BS 7799 risk assessment and risk management* (DISC PD3002, 1998, ISBN 0580295516)[9]

5.8 Software engineering

BIRREL & OULD: *A practical handbook for software development* (Cambridge University Press, 1988, ISBN 0521347920)

BOOCH: *Object Solutions: Managing the object-oriented project* (Addison Wesley, 1995, ISBN 0805305947)

CCTA IT infrastructure library – many titles available (The Stationery Office)[7]

COOK & DANIELS: *Designing object systems* (Prentice Hall, 1994, ISBN 0132038609)

Dynamic Systems Development Method - version 3 (DSDM Consortium)

Dynamic Systems Development Method and TickIT - guidance to assist software developers using DSDM to meet the requirements of ISO 9001 (BSI-DISC, ISBN 0580270815)[9]

GAUSE & WEINBERG: *Exploring requirements: quality before design* (Dorset House Publishing, 1989, ISBN 0932633137)

Guidelines for the documentation of computer software for real-time and interactive systems (Second edition, Institution of Electrical Engineers, 1990, ISBN 0863412335)[10]

HUMPHREY: *'A discipline for software engineering'* (Addison-Wesley, 1995, ISBN 0201546108)

IBM: *Developing object-oriented software - an experienced-based approach* (Prentice Hall, 1996, ISBN 0137372485)

JACOBSON: *Object-oriented software engineering - a use case driven approach* (Addison-Wesley, Second edition due 2001, ISBN 0201403471)

SAWYER & GUINAN: *Software development – processes and performance* (IBM Systems Journal Volume 37, Number 4, 1998, pp 552-569)

SIEGEL: *Object oriented software testing - a hierarchical approach* (John Wiley, 1996, ISBN 0471137499)

SMITH & WOOD: *Engineering quality software - second edition* (Chapman & Hall, 1989; ISBN 1851663584)

Software configuration management (Electronic Engineering Association, 1988)[5]

5.9 Software inspection and testing

Guidelines for assuring testability (Institution of Electrical Engineers, 1988, ISBN 0863411290)[10]

EBENAU & STRAUSS: *Software Inspection Process* (McGraw Hill Text, 1993, ISBN 0070621667)

HETZEL: *The complete guide to software testing* (John Wiley, 1993, ISBN 0471565679*)*

OULD: *Testing in software development* (Cambridge University Press, 1987, ISBN 0521337860*)*

MYERS: *The art of software testing* (John Wiley, 1979, ISBN 0471043281)

5.10 Software quality assurance and quality management

CCTA Quality management library (The Stationery Office, 1992, ISBN 0113305699)[7]

EVANS & MARCINIAK: *Software quality assurance and management* (John Wiley, 1987, ISBN 0471809306)

HAMBLING: *Managing Software Quality* (Mc Graw Hill, 1996, ISBN 007709039X)

HUMPHREY: *Process fitness and fidelity* (Proceedings of the Seventh International Software Process Workshop, October 1991)

ISHIKAWA: *Introduction to quality control* (Productivity Inc., 1990, ISBN 490622461X)

JURAN: *Strategies for world-class quality* (ASQC Quality Progress, March 1991, pp 81-85)

KAN: *Metrics and models in software quality engineering* (Addison Wesley, 1995, ISBN 0201633396)

MACKIE & RIGBY: *Practical experience in assessing the health of the software process* (Software Quality Journal, Volume 2, Number 4, December 1993, pp 265-276)

MAYS, JONES, HOLLOWAY & STUDINSKI: *Experiences with defect prevention* (IBM Systems Journal, Volume 29, Number 1, 1990, pp 4-32)

SCHULMEYER & McMANUS: *Handbook of software quality assurance - third edition* (Prentice Hall, 1999, ISBN 0130104701)

SCHAEFER: *Making software quality assurance happen - experiences with the introduction of SQA* (Proceedings of ISQE92, Juran Institute, March 1992, pp 4C-33-46)

Software quality assurance - model procedures (Institution of Electrical Engineers, 1990, ISBN 0863412300)[10]

Good Automated Manufacturing Practice (GAMP) Supplier Guide on the Validation of Automated Systems - Third edition (International Society for Pharmaceutical Engineering)[11]

WHITTEN: *Managing software development projects - formula for success - Second edition* (John Wiley, 1995, ISBN 047107683X)

5.11 Software quality metrics

AMI Handbook (Addison-Wesley, 1996, ISBN 0201877465)

BURR & OWEN: *Statistical methods for software quality using metrics for process improvement* (1996, ASIN 185032171X)

FENTON & PFLEEGER: *Software metrics – a rigorous and practical approach* (International Thomson Publishers, 1998, ISBN 0534954251)

GOODMAN: *Practical implementation of software metrics* (McGraw Hill Text, 1993, ISBN 0077076656)

GREENE: *Sizing and controlling incremental development* (Managing System Development, November 1996, pp 1-4)

GRADY: *Practical software metrics for project management and process improvement* (Prentice Hall, 1992, ISBN 0137203845)

GRADY & CASWELL: *Software metrics – establishing a company-wide program* (Prentice Hall, 1989, ISBN 0138218447)

WALLMUELLER: *Application and experiences with software metrics* (Second European Conference on Software Quality Assurance, Oslo, 1990)

WEINBERG: Requirements as the foundation of measurement (Quality Software Management, Volume 2: First-order Measurement, Chapter 19, pp 295-306, Dorset House Publishing, 1993)

5.12 Software reliability

MUSA: Tools for measuring software reliability (IEEE Spectrum, February 1989)

MUSA, IANNINO & OKUMOTO: Software reliability - measurement, prediction, application (McGraw Hill College Div, 1987, ISBN 007044093X)

MUSA & MUDA: Software reliability engineering - more reliable software, faster development and testing (McGraw Hill Text, 1998, ISBN 0079132715)

5.13 Quality management standards

PFLEEGER, FENTON & PAGE: Evaluating software engineering standards (IEEE Computer, Volume 27, Number 9, September 1994, pp 71-79)

Quality management standards for software – (A study for the DTI by Logica, April 1988)[3]

5.14 Video

Just the TickIT (DISC TickIT Office)[9]

5.15 Procurement information

Most of these publications listed above can be obtained via the Internet or from booksellers. Publications with reference numbers are available from the following:

[1] Software Systems Quality Consulting
Tel: +1 408 985 4476
Fax: +1 408 248 7742
email: ssqc@concentric.net
Internet: www.ssqc.com

[2] SEI Publications may be downloaded from
Internet:
www.sei.cmu.edu/publications/search.html

[3] Logica Enterprise Performance practice
Tel: +44 (0)20 7446 1276
Fax: +44 (0)20 7344 3635
email: SlaterJA@logica.com
Internet: www.logica.com

[4] British Computer Society (BCS)
Tel: +44 (0)1793 417424
Fax: +44 (0)1793 417473
email: marketing@bcs.org.uk
Internet: www.bcs.org.uk

[5] Electronic Engineering Association, now known as:
Federation of the Electronics Industry (FEI)
Tel: +44 (0)20 7331 2000
Fax: +44 (0)20 7331 2040
Internet: www.fei.org.uk

[6] National Centre for Software Engineering
Dublin University
Tel: +353 1 700 5750
Fax: +353 1 700 5605
email: admin@cse.dcu.ie
Internet: www.cse.dcu.ie/cse

[7] The Stationery Office
Tel: +44 (0)870 600 5522
Fax: +44 (0)870 600 5533
email: esupport@theso.co.uk
Internet: www.theso.co.uk

[8] The National Computing Centre Limited
Tel: +44 (0)161 228 6333
Fax: +44 (0)161 242 2499
email: enquiries @ncc.co.uk
Internet: www.ncc.co.uk

[9] DISC TickIT Office
Tel: +44 (0)20 8996 7427
Fax: +44 (0)20 8996 7429
email: tickit@bsi-global.com
Internet: www.tickit.org

[10] The Institution of Electrical Engineers
Tel: +44 (0)20 7240 1871
Fax: +44 (0)20 7240 7735
email: postmaster@iee.org.uk
Internet: www.iee.org.uk

[11] ISPE - International Society for Pharmaceutical Engineering – European Office,
Tel: +32 2 743 4422
Fax: +32 2 743 1550
Internet: www.gamp.org