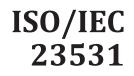
INTERNATIONAL STANDARD



First edition 2020-12

S. Cr Systems and software engineering — **Capabilities of issue management tools**

génie geton a. gestion des écarts Ingénierie du logiciel et des systèmes — Capacités des outils de



Reference number ISO/IEC 23531:2020(E)



© ISO/IEC 2020

All rights reserved. Unless otherwise specified, or required in the context of its implementation, no part of this publication may be reproduced or utilized otherwise in any form or by any means, electronic or mechanical, including photocopying, or posting on the internet or an intranet, without prior written permission. Permission can be requested from either ISO at the address below or ISO's member body in the country of the requester.

ISO copyright office CP 401 • Ch. de Blandonnet 8 CH-1214 Vernier, Geneva Phone: +41 22 749 01 11 Email: copyright@iso.org Website: www.iso.org

Published in Switzerland

Contents

Page

Fore	word		iv
Intro	duction		v
1	Scope		
2	Normative reference		
3	Terms and definitions		
4	 4.1 Overview of issue mathematical statematical operations of issue mathematical statematical statem	anagement tools anagement nagement enarios e management entity tities gement entities agement entities lanagement entities lity of issue management tool	2 3 3 4 9 9 9 9 9 9 10 10 10 11
5	Category of issue manager5.1Overview5.2Common entities5.3Work Management e5.4Defect Management e5.5IT Service Management5.6Summary of issue mage	entities entities ent entities anagement entities	13 13 13 13 13 13 13 13 13 14
6	 6.1 Overview 6.2 Common capabilities 6.3 Work management c 6.4 Defect management 6.5 IT service management 6.6 Summary of capabilities 	s s capabilities ent capabilities ties	19 20 23 24 25 27
		this document with ISO/IEC 20741	
		of the approach for this document	
		92	125

Foreword

ISO (the International Organization for Standardization) and IEC (the International Electrotechnical Commission) form the specialized system for worldwide standardization. National bodies that are members of ISO or IEC participate in the development of International Standards through technical committees established by the respective organization to deal with particular fields of technical activity. ISO and IEC technical committees collaborate in fields of mutual interest. Other international organizations, governmental and non-governmental, in liaison with ISO and IEC, also take part in the work.

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 document 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).

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO and IEC shall not be held responsible for identifying any or all such patent rights. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see www.iso.org/patents) or the IEC list of patent declarations received (see www.iso.org/patents) or the IEC list of patent declarations received (see www.iso.org/patents) or the IEC list of patent declarations received (see www.iso.org/patents) or the IEC list of patent declarations received (see www.iso.org/patents) or the IEC list of patent declarations received (see www.iso.org/patents) or the IEC list of patent declarations received (see www.iso.org/patents) or the IEC list of patent declarations received (see http://www.iso.org/patents) or the IEC list of patent declarations received (see http://www.iso.org/patents) or the IEC list of patent declarations received (see http://www.iso.org/patents) or the IEC list of patent declarations received (see http://www.iso.org/patents) or the IEC list of patent declarations received (see http://www.iso.org/patents) or the IEC list of patent declarations received (see http://www.iso.org/patents) or the list of patent declarations received (see http://www.iso.org/patents) or the list of patents received (see <a href="http://www.iso.org/paten

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation of the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT), see www.iso.org/iso/foreword.html.

This document was prepared by Joint Technical Committee ISO/IEC JTC 1, *Information technology*, Subcommittee SC 7, *Software and systems engineering*.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at <u>www.iso.org/members.html</u>.

Introduction

Issue management tools have become increasingly important in project management and been applied to a wide range of lifecycle processes, from development process to operation process. Information managed by these tools has been expanded further than ever before, such as work items and claims as well as defects. These tools need to cooperate with many other tools such as configuration management tools, build tools, etc.

There are many issue management tools on the market but with no clear definition of their category and their capabilities. Therefore, it is becoming difficult for project managers to choose the right tool.

This document provides a framework of category of issue management tools and a list of their
μ reg g
 μ reg capabilities. The capabilities are gathered from existing tools (see Annex B). This document is prepared as one of the capability series to select the appropriate tool in combination with ISO/IEC 20741 "Guideline for the evaluation and selection of software engineering tools" (see <u>Annex A</u>).

this document is a preview demendence of the document is a preview demendence of the document of the document

Systems and software engineering — Capabilities of issue management tools

1 Scope

This document defines the capabilities of issue management tools and is used to select the most appropriate one from many issue management tools. The evaluation and selection of the issue management tools is performed in accordance with ISO/IEC 20741 which defines the general evaluation selection process and evaluation characteristics. Issue management is based on the tasks described in several activities in their processes (e.g. project assessment and control, decision management, and system/software requirements definition) of ISO/IEC/IEEE 12207.

This document is independent of development methodology or approaches (e.g. Waterfall or Agile) or lifecycle processes (e.g. implementation or operation).

Normative reference 2

There is no normative reference in this document.

Terms and definitions 3

For the purposes of this document, the following terms and definitions apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- ISO Online browsing platform: available at https://www.iso.org/obp
- IEC Electropedia: available at <u>http://www.electropedia.org/</u>

3.1

defect

imperfection or deficiency in a work product where that work product does not meet its requirements or specifications and needs to be either repaired or replaced

[SOURCE: IEEE 1044:2009, 2]

3.2

incident

anomalous or unexpected event, set of events, condition, or situation at any time during the life cycle of a project, product, *service* (3.5), or system 52

[SOURCE: ISO/IEC/IEEE 15288:2015, 4.1.21]

3.3

issue

observation that deviates from expectations

EXAMPLE Potential *defect* (3.1), improvement or point needing clarification.

[SOURCE: ISO/IEC 20246:2017, 3.9]