



DPC: 25/30489505 DC

BSI Group Headquarters

389 Chiswick High Road London W4 4AL

Tel: +44 (0)20 8996 9000

Fax: +44 (0)20 8996 7400

www.bsigroup.com

Date: 18 November 2025

Origin: European

Latest date for receipt of comments: 11 January 2026

Project No. 2024/00896

Responsible committee: ART/1 Artificial Intelligence

Interested committees:

Title: Draft BS EN ISO/IEC 24970 Artificial intelligence — AI system logging.

Please notify the secretary if you are aware of any keywords that might assist in classifying or identifying the standard or if the content of this standard

- i) has any issues related to 3rd party IPR, patent or copyright
- ii) affects other national standard(s)
- iii) requires additional national guidance or information

WARNING: THIS IS A DRAFT AND MUST NOT BE REGARDED OR USED AS A BRITISH STANDARD. THIS DRAFT IS NOT CURRENT BEYOND 11 January 2026

This draft is issued to allow comments from interested parties; all comments will be given consideration prior to publication. No acknowledgement will normally be sent. **See overleaf for information on the submission of comments.**

No copying is allowed, in any form, without prior written permission from BSI except as permitted under the Copyright, Designs and Patent Act 1988 or for circulation within a nominating organization for briefing purposes. Electronic circulation is limited to dissemination by e-mail within such an organization by committee members.

Further copies of this draft may be purchased from BSI Shop <http://shop.bsigroup.com> or from BSI Customer Services, Tel: +44(0) 20 8996 9001 or email cservices@bsigroup.com. British, International and foreign standards are also available from BSI Customer Services.

Information on the co-operating organizations represented on the committees referenced above may be obtained from <https://standardsdevelopment.bsigroup.com/>.

Responsible Committee Secretary: Ms Emelie Bratt (BSI)
Direct tel: 020 8996 7203
E-mail: emelie.bratt@bsigroup.com

Full document details: 25/30489505 DC

Introduction

This draft standard is based on national and international discussions. Your comments on this draft are invited and will assist in the preparation of the consequent standard.

For international standards, comments will be reviewed by the relevant UK national committee before sending the consensus UK vote and comments to the international committee, which will then decide appropriate action. If the international standard is approved, it is usual for the text to be published as a British Standard.

For national standards, comments will be reviewed by the relevant UK national committee and the resulting standards published as a British Standard.

UK Vote

Please indicate whether you consider the UK should submit a negative (with supporting technical reasons) or positive vote on this draft. Please indicate if you are aware of any reason why this draft standard should not be published as a British Standard.

Submission of Comments

- **Annotated drafts are not acceptable and will be rejected.**
- All comments should be submitted online at <https://standardsdevelopment.bsigroup.com/>. You will need to register in order to comment.

Template for comments and secretariat observations

Date: xx/xx/20xx	Document: ISO/DIS xxxx
------------------	------------------------

1	2	(3)	4	5	(6)	7
MB	Clause No./ Subclause No./Annex (e.g. 3.1)	Paragraph/ Figure/Table/Note	Type of comment	Comment (justification for change) by the MB	Proposed change by the MB	Secretariat observations on each comment submitted
	3.1	Definition 1	ed	Definition is ambiguous and needs clarifying.	Amend to read '...so that the mains connector to which no connection...'	
	6.4	Paragraph 2	te	The use of the UV photometer as an alternative cannot be supported as serious problems have been encountered in its use in the UK.	Delete reference to UV photometer.	



DRAFT International Standard

ISO/IEC DIS 24970

Artificial intelligence — AI system logging

Intelligence artificielle — Journalisation des systèmes d'IA

ICS: 35.240.01

ISO/IEC JTC 1/SC 42

Secretariat: **ANSI**

Voting begins on:
2025-11-18

Voting terminates on:
2026-02-10

This document is circulated as received from the committee secretariat.

ISO/CEN PARALLEL PROCESSING

THIS DOCUMENT IS A DRAFT CIRCULATED FOR COMMENTS AND APPROVAL. IT IS THEREFORE SUBJECT TO CHANGE AND MAY NOT BE REFERRED TO AS AN INTERNATIONAL STANDARD UNTIL PUBLISHED AS SUCH.

IN ADDITION TO THEIR EVALUATION AS BEING ACCEPTABLE FOR INDUSTRIAL, TECHNOLOGICAL, COMMERCIAL AND USER PURPOSES, DRAFT INTERNATIONAL STANDARDS MAY ON OCCASION HAVE TO BE CONSIDERED IN THE LIGHT OF THEIR POTENTIAL TO BECOME STANDARDS TO WHICH REFERENCE MAY BE MADE IN NATIONAL REGULATIONS.

RECIPIENTS OF THIS DRAFT ARE INVITED TO SUBMIT, WITH THEIR COMMENTS, NOTIFICATION OF ANY RELEVANT PATENT RIGHTS OF WHICH THEY ARE AWARE AND TO PROVIDE SUPPORTING DOCUMENTATION.

Reference number
ISO/IEC DIS 24970:2025(en)

Full document details: 25/30489505 DC



COPYRIGHT PROTECTED DOCUMENT

© ISO/IEC 2025

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

27 **Contents**

28	Introduction	vi
29	1 Scope	1
30	2 Normative references	1
31	3 Terms and definitions.....	1
32	4 Abbreviated terms	4
33	5 Logging and use of logs.....	4
34	5.1 AI system logs.....	4
35	5.2 Logging components.....	5
36	5.3 Logging in context	6
37	5.4 Log entries.....	7
38	5.5 AI system logging.....	7
39	5.6 General requirements.....	8
40	5.7 General	8
41	5.7.1 Security and privacy.....	8
42	5.7.2 Recording of events.....	8
43	5.8 Technical documentation.....	9
44	6 Design of the logging system	9
45	6.1 General	9
46	6.2 Traceability.....	10
47	6.3 Additional functions	10
48	6.4 Anomaly monitoring of the logging component.....	10
49	7 Triggers for logging.....	10
50	7.1 General	10
51	7.2 Triggers from operation	11
52	7.2.1 Software errors	11
53	7.2.2 Outlier input.....	11
54	7.2.3 Potential attack.....	12
55	7.2.4 User request.....	12
56	7.2.5 User request outcome.....	12
57	7.2.6 User information transmission	12
58	7.3 Triggers from automated monitoring.....	12
59	7.3.1 Adversarial attack.....	12
60	7.3.2 Unwanted bias detection.....	12
61	7.3.3 Out-of-domain inputs.....	12
62	7.3.4 Model drift	12
63	7.3.5 Logging for machine learning model development for auditability purposes	13
64	7.4 Triggers from human oversight	13
65	8 Information to log.....	13
66	8.1 Required information	13
67	8.2 Recommended information.....	14
68	9 Storing and access to logs.....	14
69	9.1 General	14
70	9.2 Requirements for third party access.....	15
71	9.3 Access for AI users.....	15
72	9.4 Access for AI providers.....	15
73	Annex A (informative) Information model	16

74 **Bibliography**..... 20

75

76 Foreword

77 ISO (the International Organization for Standardization) is a worldwide federation of national
78 standards bodies (ISO member bodies). The work of preparing International Standards is normally
79 carried out through ISO technical committees. Each member body interested in a subject for which a
80 technical committee has been established has the right to be represented on that committee.
81 International organizations, governmental and non-governmental, in liaison with ISO, also take part in
82 the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all
83 matters of electrotechnical standardization.

84 The procedures used to develop this document and those intended for its further maintenance are
85 described in the ISO/IEC Directives, Part 1. In particular, the different approval criteria needed for the
86 different types of ISO documents should be noted. This document was drafted in accordance with the
87 editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

88 ISO draws attention to the possibility that the implementation of this document may involve the use of
89 (a) patent(s). ISO takes no position concerning the evidence, validity or applicability of any claimed
90 patent rights in respect thereof. As of the date of publication of this document, ISO had not received
91 notice of a patent which may be required to implement this document. However, implementers are
92 cautioned that this may not represent the latest information, which may be obtained from the patent
93 database available at www.iso.org/patents. ISO shall not be held responsible for identifying any or all
94 such patent rights.

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

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

101 This document was prepared by Technical Committee ISO/IEC JTC 1, *Information technology*,
102 Subcommittee SC 42, *Artificial intelligence*.

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

105 Introduction

106 AI systems can log a wide range of events during operation. While some aspects of logging can be
107 defined in advance —based on the system’s known purpose and operating context — real-world needs
108 often emerge only after deployment. In practice, developers and stakeholders cannot fully know what
109 is important to log until the system is running. Additionally, the relevance of logged events is not fixed.
110 Relevance can shift over time due to changing user needs, operational conditions or even interactions
111 with other AI systems. However, it is often unclear whether AI systems can adapt their logging
112 practices themselves, or whether human intervention is required to reconfigure logging as contexts
113 evolve. This raises important considerations for auditability, transparency and long-term system
114 oversight.

115 AI system logs have the potential to support both operational tasks, such as system monitoring or
116 troubleshooting, and higher-level management functions, provided the logs are accessible, well-
117 structured and aligned with the specific needs of both technical and non-technical stakeholders. When
118 logs are properly collected, maintained and analyzed, they can inform activities such as strategic
119 planning, real-time monitoring, decision-making and process improvement. However, the
120 effectiveness of this depends on the quality of the logged data, the organization’s analytical
121 capabilities, and a clear understanding of how logged events relate to broader goals or risks.
122 Leveraging logs to align operational and management functions can contribute to cost reduction, risk
123 mitigation or compliance, if logs are reliably mapped to relevant regulatory or organizational
124 requirements, and if teams have the appropriate tools and processes in place to interpret and act on
125 the data. The benefits are contingent on consistent log quality, appropriate access controls and the
126 capacity to contextualize and validate logged information.

127 When logs are systematically collected, structured and analyzed, they can provide valuable insights
128 that help organizations and AI system operators better understand and respond to unexpected events
129 or changing conditions in dynamic environments. The timeliness required for effective response
130 depends on the specific use case. Some situations demand real-time or near-real-time access to logs,
131 while others may allow for delayed analysis. In all cases, the value of logs also hinges on their
132 interpretability and the existence of established processes or tools to act on the information
133 appropriately. Logs can also support the iterative development and refinement of AI systems by
134 highlighting issues, performance bottlenecks or emerging patterns not evident during initial training
135 or deployment. To contribute meaningfully to continuous improvement, whether through retraining,
136 optimization or other adjustments, logs can be contextually rich, validated, securely stored and
137 reviewed under responsible governance processes that account for privacy, fairness and
138 accountability. Where continuous learning is feasible, safeguards are necessary to prevent harmful
139 drift, unintended behaviours or the incorporation of biased or erroneous data.

140 Logging functions present their own complexity and costs and can reduce the performance and
141 increase the footprint of the AI system, so there are considerations on the effectiveness and efficiency
142 of logging to answer oversight needs.

143 This document defines AI system logging. Clause 5 outlines logging and the use of logs, and provides
144 general requirements for logging. Clause 6 provides requirements and guidance for design, including
145 traceability. Clause 7 details the triggers for logging in three categories: operation, automated
146 monitoring and human oversight. Clause 8 contains requirements and guidance for information to
147 include in the logs and Clause 9 contains requirements for storing and access to logs. Annex A gives an
148 example of an information model and data structure that can be used for AI system logging.

149 Artificial intelligence — AI system logging

150 1 Scope

151 This document describes common capabilities and provides requirements for logging of events in AI
152 systems.

153 2 Normative references

154 There are no normative references in this document.

155 3 Terms and definitions

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

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

158 — ISO Online browsing platform: available at <https://www.iso.org/obp>

159 — IEC Electropedia: available at <https://www.electropedia.org/>

160 3.1

161 log

162 management object, organized by *log entries* (3.2), used to store information on AI system events

163 3.2

164 log entry

165 basic unit in a *log* (3.1)

166 3.3

167 logging

168 act or process of making or recording a *log* (3.1)

169 3.4

170 model

171 physical, mathematical or otherwise logical representation of a system, entity, phenomenon, process
172 or data

173 [SOURCE: ISO/IEC 22989:2022, 3.1.3]

174 3.5

175 audit

176 systematic, independent and documented process for obtaining objective evidence and evaluating it
177 objectively to determine the extent to which the audit criteria are fulfilled

178 Note 1 to entry: Internal audits, sometimes called first party audits, are conducted by, or on behalf of, the
179 organization itself.

180 Note 2 to entry: External audits include those generally called second and third party audits. Second party audits
181 are conducted by parties having an interest in the organization, such as customers, or by other individuals on
182 their behalf. Third party audits are conducted by independent auditing organizations, such as those providing
183 certification/registration of conformity or governmental agencies.

184 [SOURCE: ISO 19011:2018, 3.1]

185 3.6

186 auditability

187 capability of collecting and making available necessary evidential information related to the operation
188 and use of an AI system, for the purpose of conducting an audit (3.5)

189 [SOURCE: ISO/IEC 22123-1:2023, 3.13.11, modified to replace cloud service with AI system]