



BSI Standards Publication

Systems and software engineering — Life cycle management

Part 7000: Standard model process for addressing
ethical concerns during system design

This is a preview of "BS ISO/IEC/IEEE 2474...". [Click here to purchase the full version from the ANSI store.](#)

National foreword

This British Standard is the UK implementation of ISO/IEC/IEEE 24748-7000:2022.

The UK participation in its preparation was entrusted to Technical Committee IST/15, Software and systems engineering.

A list of organizations represented on this committee can be obtained on request to its committee manager.

This standard was produced by the US IEEE Computer Society within their committee processes and as such is a professionally produced standard. However, the UK committee have reservations about its usefulness as a standalone item for anyone interested in system design. The UK committee's reservations are as follows.

- a) It is difficult to treat ethical aspects of system design alone. BS/ISO/IEC/IEEE 15288:2015 *Systems and software engineering — System life cycle processes* already covers system design, and although it does not focus on ethical aspects specifically, it puts system design in the framework of complete system life cycle processes. BS/ISO/IEC/IEEE 15288:2015 is referenced informatively in BS/ISO/IEC/IEEE:24748-7000:2022.
- b) The UK committee did not get opportunity to provide technical review comments on this standard but hope to do so when it is reviewed in future.
- c) BS/ISO/IEC/IEEE:24748-7000:2022 can provide users with useful insight into system design. However, because it has not been widely used internationally, the UK committee urges caution to its users in applying the standard.

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**Systems and software engineering —
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Part 7000:
**Standard model process for
addressing ethical concerns during
system design**



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Foreword

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ISO/IEC/IEEE 24748-7000 was prepared by the Systems and Software Engineering Standards Committee of the IEEE Computer Society (as IEEE 7000-2021) and drafted in accordance with its editorial rules. It was adopted, under the "fast-track procedure" defined in the Partner Standards Development Organization cooperation agreement between ISO and IEEE, by Joint Technical Committee ISO/IEC JTC 1, *Information technology*, Subcommittee SC 7, *Software and systems engineering*.

A list of all parts in the ISO/IEC/IEEE 24748 series can be found on the ISO and IEC websites.

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IEEE Standard Model Process for Addressing Ethical Concerns during System Design

Developed by the

Systems and Software Engineering Standards Committee
of the
IEEE Computer Society

Approved 16 June 2021

IEEE SA Standards Board

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Abstract: A set of processes by which organizations can include consideration of ethical values throughout the stages of concept exploration and development is established by this standard. Management and engineering in transparent communication with selected stakeholders for ethical values elicitation and prioritization is supported by this standard, involving traceability of ethical values through an operational concept, value propositions, and value dispositions in the system design. Processes that provide for traceability of ethical values in the concept of operations, ethical requirements, and ethical risk-based design are described in the standard. All sizes and types of organizations using their own life cycle models are relevant to this standard.

Keywords: case for ethics, concept of operations, ethical value requirements, ethical values elicitation, ethically aligned design, IEEE 7000™, software engineering, system engineering, value-based requirements, value prioritization

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