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Condition monitoring and diagnostics of machine systems — Data processing, communication and presentation —

Part 4: **Presentation**

Surveillance et diagnostic d'état des machines — Traitement, échange et présentation des données —

Partie 4: Présentation

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ISO copyright office
Ch. de Blandonnet 8 • CP 401
CH-1214 Vernier, Geneva, Switzerland
Tel. +41 22 749 01 11
Fax +41 22 749 09 47
copyright@iso.org
www.iso.org

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Foreword

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

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 ISO documents 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).

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For an explanation on the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the WTO principles in the Technical Barriers to Trade (TBT) see the following URL: Foreword - Supplementary information

The committee responsible for this document is ISO/TC 108, *Mechanical vibration, shock and condition monitoring*, Subcommittee SC 5, *Condition monitoring and diagnostics of machine systems*.

ISO 13374 consists of the following parts, under the general title *Condition monitoring and diagnostics of machine systems — Data processing, communication and presentation*:

— *Part 1: General guidelines*

— *Part 2: Data processing*

— *Part 3: Communication*

— *Part 4: Presentation*

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Introduction

The various computer software systems written for condition monitoring and diagnostics (CM&D) of machines that are currently in use cannot easily exchange data or operate in a plug-and-play fashion without an extensive communication infrastructure. The lack of an all-purpose communication system makes it difficult to integrate various CM&D sub-systems and provide a unified view of the condition of machinery to users. The intent of ISO 13374 is to provide the basic requirements for open CM&D software architecture in order to allow CM&D information to be processed, communicated, and displayed by various software packages independent of platform-specific or hardware-specific protocols.

ISO 13374-1 gives a general overview of data processing, communication, and presentation. ISO 13374-2 provides greater details into data processing methodology and requirements that should be present in today's software-enhanced systems. ISO 13374-3 provides the requirements of the data communication architecture for open CM&D systems. This part of ISO 13374 provides the requirements for the presentation of CM&D information for diagnostic analysis and decision support.

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Condition monitoring and diagnostics of machine systems — Data processing, communication and presentation —

Part 4: Presentation

1 Scope

This part of ISO 13374 details the requirements for presentation of information for technical analysis and decision support in an open architecture for condition monitoring and diagnostics. Software design professionals need to present diagnostic/prognostic data, health information, advisories, and recommendations on computer displays and in written report formats to end-users. This part of ISO 13374 provides standards for the display of this information in CM&D systems.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 13372, *Condition monitoring and diagnostics of machines — Vocabulary*

ISO 13374-1, *Condition monitoring and diagnostics of machines — Data processing, communication and presentation — Part 1: General guidelines*

ISO 13374-2, *Condition monitoring and diagnostics of machines — Data processing, communication and presentation — Part 2: Data processing*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 13372 apply.

4 Open CM&D information architecture presentation requirements

4.1 Overview

An information architecture describes all the data objects and their properties (or attributes), data types, data object relationships, reference data, and data documents for a given system or application. As specified in ISO 13374-2, an open CM&D information architecture describes the content for each of the five layers shown in Figure 1.

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