INTERNATIONAL STANDARD

ISO 24060-2

First edition
2023-12

Ships and marine technology — Ship software logging system for operational technology —

Part 2: Electronic service reports

Reference number
ISO 24060-2:2023(E)

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Published in Switzerland

Contents

Page

Foreword

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This document was prepared by Technical Committee TC 8, *Ships and marine technology*, Subcommittee SC 11, *Intermodal and Short Sea Shipping*.

A list of all parts in the ISO 24060 series can be found on the ISO website.

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 www.iso.org/members.html.

Introduction

In 2017, BIMCO and CIRM published an industry standard that outlined effective software maintenance procedures to support maintenance activities throughout the full software lifecycle. Based on this standard, the International Standardization Organization in July 2021 published ISO 24060 that defines a Ship Software Logging System (SSLS) for shipboard equipment software and takes steps to automate the maintenance and management of software on a ship.

The working group developing ISO 24060 understood that it needed to take a step-by-step approach in developing the standards necessary to fully address the industry needs related to ship software logging because of the widespread variance in the sophistication of shipboard IT systems. ISO 24060 laid the necessary groundwork to implement a Ship Software Logging System (SSLS) for shipboard equipment software. This document addresses requirements for ship software service reports. It builds upon the procedures/processes/approaches outlined in ISO 24060 regarding logging systems for shipboard equipment software.

Ships and marine technology — Ship software logging system for operational technology —

Part 2: Electronic service reports

1 Scope

This document specifies the content required for electronic service reports which are used in ship software logging systems for operational technology.

This document specifies a digital format for service reports intended for use after the finalization of a software maintenance event, which is completed by the service provider and submitted to the shipowner who then adds it to the ship software logging system.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 24060:2021, *Ships and marine technology — Ship software logging system for operational technology*

3 Terms and definitions

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

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

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

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

3.1
on-board equipment
shipboard equipment serviced by a technician on the ship

3.2
shore-based equipment
equipment which is removed from the ship and is serviced by a technician not on the ship

3.3
remote equipment
equipment which remains on the ship and is serviced by a technician not on the ship

4 Service report requirements

4.1 General

If there are multiple service providers, each shall provide a service report.

Clause 4 identifies the requirements for each service report.

4.2 File format and contents of service reports

4.2.1 General

Service reports shall be provided in a format in accordance with ISO 24060:2021, 4.2.1.

In a service report, sections shall be labelled using the subclause titles in 4.2.2 to 4.2.9.

In the case that any specific information required does not exist, the report shall indicate “NA” for that item.

4.2.2 General information

The following information about the ship shall be provided:

— Shipowner;

— Ship name;

— IMO number;

— Maritime Mobile Service Identity (MMSI) number.

The following information about the company and technician(s) performing the service shall be provided:

— Name of Service Provider;

— Contact information for Service Provider (address, phone, email);

— Name and employee ID of service provider technician(s).

4.2.3 Information about the shipboard equipment and software

For each piece of equipment undergoing software maintenance, the following details are required:

— Equipment manufacturer;

— Equipment model;

— Equipment type;

— Equipment serial number;

— Software version prior to maintenance;

— Date of previous software version update (installation date if no prior version update);

— Date of previous software maintenance (installation date if no prior maintenance).

4.2.4 Details and purpose of maintenance event

The following details shall be provided:

— organization that initiated the service;

— datetime maintenance completed;

— location of ship at the time of service completion (port of call or voyage between two ports or shipyard);

— location where did the technician(s) perform their work (check all that apply):

  — on-board: equipment is serviced by a technician on the ship.

  — shore-based: equipment is removed from the ship and is serviced by a technician not on the ship.

  — remote: equipment on the ship is serviced by a technician not on the ship.

For each piece of equipment undergoing software maintenance, the purpose of service (indicate all appropriate) shall be specified:

  — defect resolution (fixing flaws in software);

  — feature release (adding additional functionality);

  — compliance (maintaining conformity with regulations);

  — security (protecting against cyber threats);

  — obsolescence (addressing software and/or hardware that is no longer supported);

  — other (use this option for re-installs of existing, etc.).

It shall also be specified whether it is critical to restore proper performance of the shipboard equipment:

— Critical (Yes/No).

4.2.5 Cyber security

The service report shall document the following concerning cyber security:

— Was any removable media/storage device used to perform maintenance? (Yes/No)

— Was authorization received and from whom for use of removable media/storage device(s) used to perform maintenance prior to maintenance?

For each removable media/storage device used to perform maintenance, the following shall be indicated:

— version and make of the anti-virus/malware software used for scanning;

— last update of the anti-virus/malware database;

— confirmation and date of clean anti-virus/malware scan.

Document if there were any changes to network settings such as:

— Network IP address or other settings changes for the maintenance of the equipment.

— Final IP address and settings of network equipment after maintenance is completed.

— If a maintenance connection was opened for service, describe it and indicate if was it closed.

4.2.6 Technical report

The technical report shall include:

— detailed description of the work performed,

— the outcome of the maintenance event, and

— an indication if follow-up is necessary.