

TECHNICAL REPORT

ISO/IEC TR 10192-2

First edition
2000-10

**Information technology –
Home Electronic System (HES) interfaces –**

**Part 2:
Simple Interface Type 1**

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INFORMATION TECHNOLOGY – HOME ELECTRONIC SYSTEM (HES) INTERFACES –

Part 2: Simple Interface Type 1

FOREWORD

- 1) ISO (International Organization for Standardization) and IEC (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.
- 2) In the field of information technology, ISO and IEC have established a joint technical committee, ISO/IEC JTC 1. Draft International Standards adopted by the joint technical committee are circulated to national bodies for voting. Publication as an International Standard requires approval by at least 75 % of the national bodies casting a vote.
- 3) Attention is drawn to the possibility that some of the elements of this International Standard may be the subject of patent rights. ISO and IEC shall not be held responsible for identifying any or all such patent rights.

The main task of IEC and ISO technical committees is to prepare International Standards. In exceptional circumstances, a technical committee may propose the publication of a technical report of one of the following types:

- type 1, when the required support cannot be obtained for the publication of an International Standard, despite repeated efforts;
- type 2, when the subject is still under technical development or where, for any other reason, there is the future but not immediate possibility of an agreement on an International Standard;
- type 3, when the technical committee has collected data of a different kind from that which is normally published as an International Standard, for example 'state of the art'.

Technical reports of types 1 and 2 are subject to review within three years of publication to decide whether they can be transformed into International Standards. Technical reports of type 3 do not necessarily have to be reviewed until the data they provide are considered to be no longer valid or useful.

ISO/IEC 10192-2, which is a technical report of type 2, was prepared by subcommittee 25: Interconnection of information technology equipment, of ISO/IEC joint technical committee 1: Information technology.

This publication was drafted in accordance with ISO/IEC directives, Part 3.

This document is issued in the type 2 technical report series of publications (according to 15.2.2 of the Procedures for the technical work of ISO/IEC JTC 1 (1998)) as a prospective standard for provisional application in the field of the Home Electronic System (HES), because there is an urgent requirement for guidance on how standards in this field should be used to meet an identified need.

This document is not to be regarded as an International Standard. It is proposed for provisional application so that information and experience of its use in practice may be gathered. Comments on the content of this document should be sent to IEC Central Office.

A review of this type 2 technical report will be carried out not later than three years after its publication with the option of extension for a further three years or conversion either to an International Standard or withdrawal.

This document which is purely informative is not to be regarded as an International Standard.

Annexes A and B are for information only.

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INTRODUCTION

A Simple Interface (SI) is an interface between devices and a home network in the Home Electronic System (HES).

The SI type 1 connects simple devices offering and accepting only a two state signal to an HES home network. Two signals are available at the SI type 1. One is a control signal for turning the device on and off. The other is a monitor signal for checking the state of the device.

ISO/IEC 10192: *Information technology – Home Electronic System (HES) interfaces* presently consists of two parts:

- *Part 1: Universal interface class 1*
- *Part 2: Simple interface type 1*

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INFORMATION TECHNOLOGY – HOME ELECTRONIC SYSTEM (HES) INTERFACES –

Part 2: Simple Interface Type 1

1 Scope

This part of ISO/IEC 10192-2 specifies the mechanical, electrical, functional and procedural characteristics of a specific Simple Interface (SI). The SI type 1 is a physical interface realized between the SI type 1 device and the SI type 1 Network Access Unit, NAU. It also serves as a reference point.

2 Normative references

The following normative documents contain provisions which, through reference in this text, constitute provisions of this part of ISO/IEC 10192. For dated references, subsequent amendments to, or revisions of, any of these publications do not apply. However, parties to agreements based on this part of ISO/IEC 10192 are encouraged to investigate the possibility of applying the most recent edition of the normative documents indicated below. For undated references, the latest edition of the normative document referred to applies. Members of IEC and ISO maintain registers of currently valid International Standards.

IEC 60364, *Electrical Installations of buildings*

[ISO/IEC TR 10192-2:2000](https://standards.iteh.ai/catalog/standards/sist/ef1a2e179465/iso-iec-tr-10192-2-2000)

IEC 60664 (all parts), *Insulation coordination for equipment within low-voltage systems*

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IEC 60068-2 (all parts), *Environmental testing*

IEC 60950, *Safety of information technology equipment*

3 Definitions

For the purpose of this Technical Report the following definitions apply.

3.1 simple interface

interface above the application layer to be used for and by simple devices such as actuators and sensors within an HES

The SI type 1 offers only one/zero commands and accepts only one/zero entries. The specification of the SI type 1 includes the necessary mechanical, electrical, functional and procedural characteristics of the interface.

3.2 process interfaces

a family of interfaces above the application layer between a home network and the devices to be connected to it

3.3 SI network access unit, SI NAU

NAU supporting and offering an SI

3.4

SI device

device supporting and offering an SI

3.5

SI conductors

conductors connecting an SI NAU and an SI device

3.6

SI connection

connection point between the SI cable (where applicable) and the SI device

3.7

isolating functions

functions providing safety isolation between the SI device and the SI NAU

3.8

on state

state in which the SI device is performing its intrinsic function

3.9

off state

state in which the SI device is not performing its intrinsic function

3.10

control signal

signal transmitted via the SI NAU to the SI device to set the state of the SI device

3.11

monitor signal

signal indicating the state of the SI device transmitted from the SI device to the SI NAU

3.12

static monitor signal

one of two forms of the monitor signal, characterized by the high signal state during the device on state and the low signal state during the device off state

3.13

dynamic monitor signal

one of two forms of the monitor signal, in which the device on state is represented by the monitor signal continuously being switched between the high and low signal levels

4 Abbreviations

The following abbreviations are used in this Technical Report.

- HES: Home Electronic System
- NAU: Network Access Unit
- PI: Process Interface
- SI: Simple Interface

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5 Basic principles of the Simple Interface type 1 (SI type 1)

The SI type 1 is an interface between simple devices and home networks making the devices network independent. It is one of the family of Process Interfaces. The basic reference model for the SI type 1 is the same as for all Process Interfaces (see figure 1). The difference from other PIs lies in the different services offered to the device via the SI type 1.

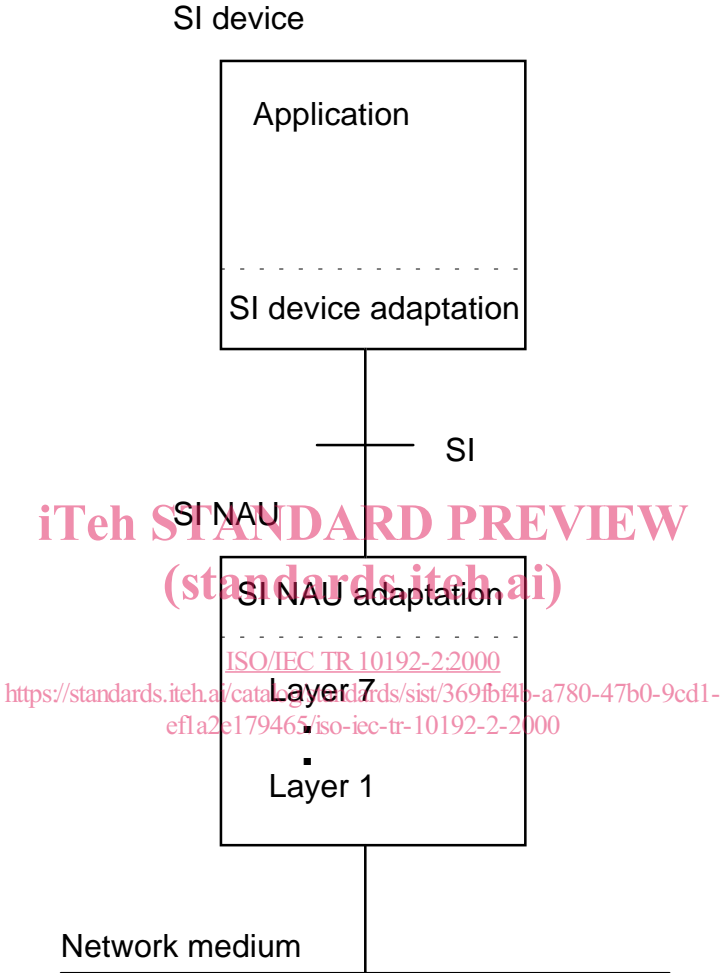


Figure 1 – Basic reference model for the SI type 1