SLOVENSKI STANDARD
SIST EN 62731:2013

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Pretvorba besedila v govor (govorna sinteza) za televizijo - Splošne zahteve (IEC 62731:2013)

Text-to-Speech for television - General requirements (IEC 62731:2013)

Text-zu-Sprache für Fernsehen - Allgemeine Anforderungen (IEC 62731:2013)

Synthèse vocale pour télévision - Exigences générales (CEI 62731:2013)

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EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN 62731

April 2013

ICS 33.160.25; 33.160.99

English version

Text-to-speech for television - General requirements
(IEC 62731:2013)

Synthèse vocale pour télévision -
Exigences générales
(CEI 62731:2013)

Text-zu-Sprache für Fernsehen -
Allgemeine Anforderungen
(IEC 62731:2013)

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CENELEC

European Committee for Electrotechnical Standardization
Comité Européen de Normalisation Electrotechnique
Europäisches Komitee für Elektrotechnische Normung

Management Centre: Avenue Marnix 17, B - 1000 Brussels

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Foreword

The text of document 100/2070/FDIS, future edition 1 of IEC 62731, prepared by IEC/TC 100 "Audio, video and multimedia systems and equipment" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN 62731:2013.

The following dates are fixed:

- latest date by which the document has   (dop)   2013-12-05
  to be implemented at national level by
  publication of an identical national
  standard or by endorsement

- latest date by which the national   (dow)   2016-03-05
  standards conflicting with the
  document have to be withdrawn

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IEC 62731

Edition 1.0   2013-01

INTERNATIONAL STANDARD

NORME INTERNATIONALE

Text-to-speech for television – General requirements

Synthèse vocale pour télévision – Exigences générales

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INTERNATIONAL ELECTROTECHNICAL COMMISSION
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TEXT-TO-SPEECH FOR TELEVISION – GENERAL REQUIREMENTS

FOREWORD

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International Standard IEC 62731 has been prepared by IEC technical committee 100: Audio, video and multimedia systems and equipment.

The text of this standard is based on the following documents:

FDIS	Report on voting
100/2070/FDIS	100/2109/RVD

Full information on the voting for the approval of this standard can be found in the report on voting indicated in the above table.

This publication has been drafted in accordance with the ISO/IEC Directives, Part 2.

The committee has decided that the contents of this publication will remain unchanged until the stability date indicated on the IEC web site under "http://webstore.iec.ch" in the data related to the specific publication. At this date, the publication will be

- reconfirmed,
- withdrawn,
- replaced by a revised edition, or
- amended.

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TEXT-TO-SPEECH FOR TELEVISION – GENERAL REQUIREMENTS

1 Scope

This International Standard specifies the text-to-speech functionality for a (broadcast) receiver with a text-to-speech system. Such a system may be one device, i.e. a receiver with an integrated text-to-speech generator, or may be two devices, i.e. a receiver interfacing with an external text-to-speech device. This International Standard applies only to completely functional stationary (or semi-stationary) digital TV receivers such as set top boxes, integrated digital TVs, recorders and other products whose primary function is to receive TV content. Where this standard refers to TV, this will be shorthand for all such receivers.

This International Standard does not apply to products that are capable of receiving TV as a secondary function (e.g. PCs or game consoles with digital television receivers). It also does not apply to sub-assemblies (e.g. PC tuner cards).

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.

(void)

3 Terms, definitions and abbreviations

3.1 Terms and definitions

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

**3.1.1
context**
one specific function of a TV

EXAMPLE   Watching TV, EPG, etc.

**3.1.2
DTV broadcast event**
set of related broadcast streams with a defined start and end time, commonly referred to as a TV programme

Note 1 to entry: DTV events have typically the following properties associated with them: start time, end time or duration, content synopsis, additional content information, parental rating and availability of subtitles or audio description.

**3.1.3
DTV service information**
metadata describing broadcasting content and its scheduling and timing details

Note 1 to entry: The purpose of DTV service information is to aid the end user to select and schedule viewing and recording, and also to select the equipment configuration.

3.1.4
DTV broadcast event classification
general category of programme/event content, or its classification

EXAMPLES   Movie (drama), news/current affairs, talk show, sports (football), etc.

3.1.5
EPG filter
filter that organises or reduces the list of displayed EPG items according to certain criteria

EXAMPLES   Of criteria are to show only:

* programmes with a certain content type;

* favourites;

* programmes that are audio described;

* programmes for a given time period (for instance "today", "tomorrow", "next 7 days").

3.1.6
event
trigger to start an action

3.1.7
list
collection of items

3.1.8
menu
subsequent order of items

3.1.9
receiver
device capable of receiving or handling digital television signals

3.1.10
service
sequence of programs under the control of a broadcaster which can be broadcast as part of a schedule

3.1.11
subtitle
textual representation of the dialogue (and frequently additional auditory information), typically shown at the bottom of the screen

Note 1 to entry: Subtitles can be a textual rendering in the same language as the spoken dialogue, or can provide a written translation in a different language.

Note 2 to entry: In some parts of the world subtitles are called "(closed) captions", and subtitling is referred to as "(closed) captioning".

Note 3 to entry: This standard uses the term subtitles throughout.

3.1.12
TTS audio
audio output by the TTS engine in correspondence with TTS data

Note 1 to entry: If the TV uses an external TTS converter, TTS audio is interpreted as TTS data.

3.1.13
TTS data
(text) data converted into TTS audio information by the text-to-speech engine

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3.2 Abbreviations

For the purposes of this document, the following abbreviations apply.

DTV   digital television

EPG   electronic programme guide

STB   set top box

TTS   text-to-speech

TV   television

UI   user interface

4 Guiding principles and conventions

This standard describes the required basic behaviour for a TV text-to-speech combination in a basic profile, but also provides for enhanced profiles. It also gives a short introduction into the basic problems of visually impaired people: i.e. what are the problems visually impaired people experience when using and watching TV?

Providing text-to-speech functionality for a broadcast receiver, e.g. TV or STB can be of great help to (visually) disabled people. Such speech functionality may be integrated in the receiver or may be external to the receiver in a separate device.

In general as the guiding principle, when building a TTS interface in the context of this standard, implementers should aspire to achieve functional equivalence of the user experience. This means that a person operating the device using the speech interface should have access to similar information and be able to accomplish similar tasks as with a graphical UI.

The main features of this International Standard are:

- basic functional description for a TV-TTS device combination or TV with integrated TTS;

- profiles for different levels of TV-TTS functionality;

- targeted towards the digital TV application.

In this standard mandatory requirements are specified; optional and informative features are also included.

A claim of conformity with this standard requires conformity with all mandatory requirements. A TV-TTS device combination or a TV with a TTS that is integrated may provide options for a user to enable or disable product features.

5 User requirements of visually impaired people

5.1 Users' needs

This subclause 5.1 explains the needs of visually impaired people as the primary target users for a TV with TTS. Unless these needs are met, the system is not accessible to this user group. Visually impaired people experience access barriers in the course of the following activities when watching TV:

a) following TV programming, e.g. the TV series;

b) using a remote control;

c) not being able to see subtitles;

d) navigating channels;