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**Information technology — General  
video coding —**

**Part 1:  
Essential video coding**

*Technologies de l'information — Codage vidéo général —  
Partie 1: Codage vidéo essentiel*



Reference number  
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## **Foreword**

ISO (the International Organization for Standardization) and IEC (the 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.

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 document 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](http://www.iso.org/directives)).

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Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation of the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT) see [www.iso.org/iso/foreword.html](http://www.iso.org/iso/foreword.html).

This document was prepared by Joint Technical Committee ISO/IEC JTC 1, *Information technology*, Subcommittee SC 29, *Coding of audio, picture, multimedia and hypermedia information*.

A list of all parts in the ISO/IEC 23094 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](http://www.iso.org/members.html).

## Introduction

The International Organization for Standardization (ISO) and International Electrotechnical Commission (IEC) draw attention to the fact that it is claimed that compliance with this document may involve the use of a patent.

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# Information technology — General video coding —

## Part 1: Essential video coding

### 1 Scope

This document specifies a video coding technology known as essential video coding (EVC), which contains syntax format, semantics and an associated decoding process. The decoding process is designed to guarantee that all EVC decoders conform to a specified combination of capabilities known as the profile, level and toolset. Any decoding process that produces identical cropped decoded output pictures to those produced by the described process is considered to be in conformance with the requirements of this document.

This document is designed to cover a wide range of application, including but not limited to digital storage media, television broadcasting and real-time communications.

### 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 11664-1, *Colorimetry — Part 1: CIE standard colorimetric observers*

### 3 Terms and definitions

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

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

- ISO Online browsing platform: available at <https://www.iso.org/obp>
- IEC Electropedia: available at <http://www.electropedia.org/>

#### 3.1

##### access unit

set of *NAL units* (3.53) that are associated with each other according to a specified classification rule, are consecutive in *decoding order* (3.28), and contain exactly one *coded picture* (3.16)

#### 3.2

##### adaptive loop filter

##### ALF

filtering process that is applied as part of the *decoding process* (3.29) and is controlled by *parameters* (3.58) conveyed in an *APS* (3.4)