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TECHNICAL REPORT

# ISO/IEC TR 23091-4

First edition 2019-08

Information technology — Codingindependent code points —

Part 4:

Usage of video signal type code points







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### **Foreword**

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A list of all parts in the ISO/EC23091 series can be found on the ISO website.

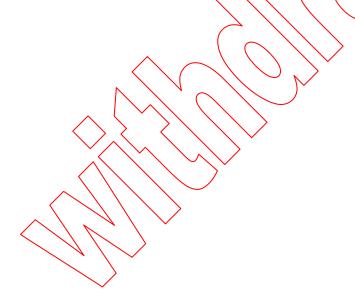
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## Introduction

This document discusses video signal property description code points and their combinations that are widely used in production and video content workflows. Video properties and values are usually expressed in "metadata" that can exist across production and distribution workflows. Knowledge of these properties and their combinations has value as content is processed in the end-to-end production-to-distribution workflow chain.

The combinations of all possible expressible video properties as code point values could hypothetically result in hundreds or thousands of permutations; but many of those combinations are rarely or never used in practice. For example, it is highly unlikely that perceptual quantization (PQ) transfer characteristics function specified in Rec. ITU-R BT.2100 would be combined with the colour primaries specified in Rec. ITU-R BT.601. Only a small subset of the possible combinations is used in practice.

This document is intended to help the producers of various content processing tools to avoid processing mistakes that can cause video quality degradation due to having incorrect assumptions made about video property combinations. There are only a few limited sets of video property combinations that are widely used in present-day video production and distribution equipment chains. This document describes these limited sets of combinations that are currently widely used and describes how the associated signal type metadata is carried to aid in the automation of content workflows across various domains of capture, production and distribution. Lastly, this document aims to help its readers, especially toolset developers, to repurpose tools to work properly across several domains (e.g., capture, production, production distribution, and service distribution) where similar video conversion functions (e.g., chroma sub-sampling or colour space conversions) may be performed.





# Information technology — Coding-independent code points —

# Part 4:

# Usage of video signal type code points

# 1 Scope

This document describes common industry representation practices for the usage of video signal type code points, as these properties are conveyed across video content production and distribution carriage systems.

### 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.

Rec. ITU-T H.264 | ISO/IEC 14496-10, Information technology — Coding of audio-visual objects — Part 10: Advanced video coding

Rec. ITU-T H.265 | ISO/IEC 23008-2, Information technology — High efficiency coding and media delivery in heterogeneous environments — High efficiency video soding

Rec. ITU-T H.273 | ISO/IEC 23091-2, Information technology — Coding-independent code points — Part 2: Video