



INTERNATIONAL TELECOMMUNICATION UNION

# ITU-T      H.264 Sub-series Implementors' Guide

TELECOMMUNICATION  
STANDARDIZATION SECTOR  
OF ITU

(6 July 2007)

SERIES H: AUDIOVISUAL AND MULTIMEDIA SYSTEMS  
Coding of moving video

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**Implementors' Guide for the H.264 Sub-series of  
Recommendations:  
*H.264, H.264.1 and H.264.2***

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## **Summary**

This document is a compilation of reported defects identified in ITU-T Recommendations H.264.1 and H.264.2, which are auxiliary Recommendations relating to Recommendation H.264. It must be read in conjunction with the Recommendations to serve as an additional authoritative source of information for implementers.

This Implementors' Guide contains all updates submitted up to and including those at Study Group 16 meeting in Geneva, 26 June – 6 July 2007.

This new Implementors' Guide was approved by ITU-T Study Group 16 on 6 July 2007 (TD 437/Plen) and it does not obsolete any other Implementors' Guides.

## Document History

Version	Date	Description
1	6 July 2007	Initial version - completed at the ITU-T Study Group 16 meeting, Geneva, 26 June – 6 July 2006

## Contact Information

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# **IMPLEMENTORS' GUIDE FOR THE H.264 SUB-SERIES OF RECOMMENDATIONS: H.264, H.264.1, H.264.2**

## **1 Introduction**

This document is a compilation of reported defects identified in ITU-T Recommendations H.264.1 and H.264.2, which are auxiliary Recommendations relating to Recommendation H.264. It must be read in conjunction with the Recommendations to serve as an additional authoritative source of information for implementors. The changes, clarifications and corrections defined herein are expected to be included in future versions of H.264.1 and H.264.2.

Upon discovering technical defects with H.264, H.264.1, or H.264.2, please provide a written description directly to the editor of the Recommendation with a copy to the Q6/16 Rapporteur. The template for a defect report is located at the end of the Guide. Contact information for these parties is included at the front of the document. Return contact information should also be supplied so a dialogue can be established to resolve the matter and an appropriate reply to the defect report can be conveyed. This defect resolution process is open to any interested party. Formal membership in the ITU is not required to participate in this process.

## **2 Scope**

This guide resolves defects in the following categories:

- editorial errors
- technical errors, such as omissions and inconsistencies
- ambiguities

In addition, the Implementors' Guide may include explanatory text found necessary as a result of interpretation difficulties apparent from the defect reports.

This Guide will not address proposed additions, deletions, or modifications to the Recommendations that are not strictly related to implementation difficulties in the above categories. Proposals for new features should be made in through contributions to the ITU-T.

## **3 References**

This document refers to the following ITU-T Recommendations:

- ITU-T Recommendation H.264 (2005-03) *Advanced video coding for generic audiovisual services* (indirectly affected)
- ITU-T Recommendation H.264.1 (2005-03) *Conformance specification for H.264 advanced video coding*
- ITU-T Recommendation H.264.2 (2005-03) *Reference software for H.264 advanced video coding*

## **4 Nomenclature**

In addition to traditional revision marks, the following marks and symbols are used to indicate to the reader how changes to the text of a Recommendation should be applied:

Symbol	Description
<u>[Begin Correction]</u>	Identifies the start of revision marked text based on extractions from the published Recommendations affected by the correction being described.
<u>[End Correction]</u>	Identifies the end of revision marked text based on extractions from the published Recommendations affected by the correction being described.
...	Indicates that the portion of the Recommendation between the text appearing before and after this symbol has remained unaffected by the correction being described and has been omitted for brevity.
--- SPECIAL INSTRUCTIONS --- {instructions}	Indicates a set of special editing instructions to be followed.

## 5 Technical and Editorial Corrections to H.264, H.264.1, and H.264.2

### 5.1 Defect corrections of H.264.1 conformance test bitstreams

<b>Description:</b>	<p>The conformance testing bitstream set published as an electronic attachment to Rec. H.264.2 is maintained by Question 6 of ITU-T Study Group 16. Defects in some bitstreams have been identified and corrected in that work since the development of H.264.1 (2005-03) and its Corrigendum 1 (2005-09), as follows:</p> <ul style="list-style-type: none"> <li>– The following auxiliary coded picture bitstream has been renamed and replaced with a corrected bitstream as follows: <ul style="list-style-type: none"> <li>– alphaconformanceA replaced with alphaconformanceG</li> </ul> </li> <li>– The following High Profile bitstreams have been replaced: <ul style="list-style-type: none"> <li>– HCBP1_HHI_A</li> <li>– HCBP2_HHI_A</li> </ul> </li> <li>– The following High 4:2:2 Profile bitstreams have been replaced: <ul style="list-style-type: none"> <li>– Hi422FREXT16_SONY_B</li> <li>– Hi422FREXT17_SONY_B</li> <li>– Hi422FREXT18_SONY_B</li> <li>– Hi422FREXT19_SONY_B</li> <li>– Hi422FR1_SONY_A</li> <li>– Hi422FR2_SONY_A</li> <li>– Hi422FR3_SONY_A</li> <li>– Hi422FR4_SONY_A</li> <li>– Hi422FR6_SONY_A</li> <li>– Hi422FR7_SONY_A</li> </ul> </li> </ul>
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- Hi422FR8\_SONY\_A
- Hi422FR9\_SONY\_A
- The following High 4:4:4 Profile bitstreams have been removed (for alignment with Rec. H.264 (2005-09)/Amd.1 (2006-06)):
  - FREXT9\_Dolby\_C
  - FREXT10\_Samsung\_A
- The following rows corresponding to the above-listed deprecated High 4:4:4 Profile bitstreams are to be removed from Table 2:

4:4:4 12 bit	FREH444-1	Dolby	FREXT9_Dolby_C				X	4 and higher	24
	FREH444-2	Samsung AIT	FREXT10_Samsung_A				X	4 and higher	24

The replacement bitstreams are available on line at the following URL:

[http://ftp3.itu.int/av-arch/jvt-site/draft\\_conformance/](http://ftp3.itu.int/av-arch/jvt-site/draft_conformance/)

## 5.2 Defect corrections of H.264.2 reference software

<b>Description:</b>	<p>The reference software published as an electronic attachment to Rec. H.264.2 is maintained by Question 6 of ITU-T Study Group 16. A number of defects in this software have been corrected in that work since the development of Rec. H.264.2 (2005-03).</p> <p>As of 6 July 2007, the latest version of the software is referred to as JM 12.3. Along with the software itself, documentation providing additional information about the software has been developed. This software and documentation is available on line at the following URL:</p> <p><a href="http://iphome.hhi.de/suehring/tml/">http://iphome.hhi.de/suehring/tml/</a></p>
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<b>Annex: ITU-T Rec. H.264 / H.264.1 / H.264.2 Defect Report Form</b>
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<b>DATE:</b>	
<b>CONTACT INFORMATION</b>  <b>NAME:</b> <b>COMPANY:</b> <b>ADDRESS:</b>  <b>TEL:</b> <b>FAX:</b> <b>EMAIL:</b>	
<b>AFFECTED RECOMMENDATIONS:</b>	
<b>DESCRIPTION OF PROBLEM:</b>	
<b>SUGGESTIONS FOR RESOLUTION:</b>	

NOTE - Attach additional pages if more space is required than is provided above.

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