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| **Title** | Naming conventions for raw video data |
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# Abstract

Raw video files commonly used for testing purposes do not carry metadata. It is common practice to include relevant information on most relevant parameters and characteristics of its content in the file name. This document defines a naming convention in order to give guidance to contributors submitting files. The naming convention is extensible and supports unique parsing of the included parameters.

# Naming structure

## General concept

* The file name is composed of different fields which are separated by an underscore (“\_”). The underscore is not used for other purposes;
* The fields have a defined order;
* Number fields include one or more characters indicating the meaning of the number(s);
* Revisions/variants of the sequence are indicated by appending to the sequence name;
* The file extension indicates the raw data type.
* Dots in the file name should be avoided.

## Definition

Filename.ext = <SequenceName>\_<pix>x<lin>\_<frames per second>fps\_<bitdepth>bit\_<chroma subsampling>{p,i}\_< color space - transfer function>[\_<additional information>[\_<additional information>[…]].{yuv, pyuv, rgb, gbr, yuva, uyvy, yuyv, […]}

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| No. | Field | Meaning |
| 1 | <SequenceName> | Name of sequence in camel case notation. If a variation of a sequence is generated, the version is typically indicated by an increasing number extending the sequence name (e.g. “MountainBay2”). Strictly applying camel case is encouraged. If a separation of parts of the name are inevitable, the dash (“-“) may be used. |
| 2 | <width>x<height> | Resolution of the sequence, i.e. the width (number of luma samples per line) and height (the number of lines in a frame). The “x” indicates the meaning of the field to be the resolution, e.g. “3840x2160”. |
| 3 | <frames per second>fps | Number of frames per second. |
| 4 | <bitdepth>bit | Number of bits per sample value in the colour components |
| 5 | <chroma subsampling>{p,i} | Integer “klm”, with k:l:m indicating the chroma subsampling, e.g., klm=420, klm=422, klm=444. Index “p” for progressive, “i” for interlaced video. |
| 6 | <color space - transfer function> | Specification of the applicable color space. Dots in the names of the corresponding recommendation are to be omitted, e.g., “BT709” for ITU-R BT.709, or “BT2020” for ITU-R BT.2020. For HDR: Indicate “BT2100-PQ” or “BT2100-HLG”, for the combination, or “PQ”, “HLG” to implicitly define both transfer function and color space. |
|  | <additional information> | Fields further characterizing the video, e.g.  “<value>nits” indicating the peak luminance for an HDR PQ video sequence, e.g. “1000nits”. If provided, this should be field 7.  “c<chroma sample type>” indicating the applicable chroma location specified in ITU-T H.274 | ISO/IEC 23002-7. Possible values: cst{0,1,2,3,4,5}.  “qp<QP>” indicating the integer quantization parameter applied for compression of the bitstream from which the raw file has been reconstructed. It is recommended to have this as the last field in the file name. |
|  | File extension | yuv: YCbCr video pyuv: YCbCr in the packed YUV format [1]. rgb: RGB data with the three data planes in the order R, G, B. gbr, RGB data with the three data planes in the order G, B, R. yuva: YUV data plus an additional fourth plane in luma resolution (e.g. for an alpha map) uyvy, yuyv: Interleaved luma/chroma arrangement for 4:2:2 video |

# Form and information to be provided with the raw video sequence files

Test sequences are requested to be provided in a zip file Filename.zip, including a text file with the md5 hash for the raw video sequence file following the format of the md5sum tool [2]. The file name for the hash shall be Filename.md5.

The zip shall also include a license statement in text or markdown format. The filename of this file shall be Filename\_license.{txt.md}.

# References

1. Ch. R. Helmrich, Ch. Lehmann, and B. Bross, “A Packed Planar RGB and YUV Format for Uncompressed Storage of High Dynamic Range Still Images and Videos,” Technical Report, <https://vcgit.hhi.fraunhofer.de/jvet/VVCSoftware_VTM/-/blob/master/doc/pyuv_format.pdf>, accessed 2026-02-04.
2. Free Software Foundation, *GNU Coreutils: The core GNU utilities*. Version 9.1. Available: <https://www.gnu.org/software/coreutils/>