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# Data Files for SMPTE VC-2 Conformance Testing

*Release 0.1.3*

**BBC**

**Mar 19, 2021**

This `vc2_conformance_data` module contains data files and test pictures for use in conformance testing procedures.

You can find the source code (and data files) for `vc2_conformance_data` on [GitHub](#)<sup>1</sup>.

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**Note:** This documentation is also [available to browse online in HTML format](#)<sup>2</sup>.

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## 1 Static filter analysis data

**STATIC\_FILTER\_ANALYSIS\_BUNDLE\_FILENAME = "/path/to/bundle.zip"**

A `vc2_bit_widths` ([`vc2_bit_widths`], page 33) bundle containing static filter analyses for all VC-2 codec configurations with a default quantisation matrix.

## 2 Pictures

Test pictures are provided in the raw format used by the VC-2 conformance software (see `vc2_conformance.file_format` ([`vc2_conformance`], page 115)). Filenames are given for the `*.raw` file, a corresponding `*.json` metadata file is also provided with the same base name.

First, a synthetic test sprite:

**POINTER\_SPRITE\_FILENAME = "/path/to/picture.raw"**

A 128x128 sprite with the following features:

- Saturated white triangle covering the top-left half of the sprite
- A black, perfectly circular hole cut out of the middle of the triangle.
- The letters 'VC-2' in the bottom right half of the sprite on a black background.
- The letters 'V', 'C', and '2' are printed in saturated primary red, green and blue respectively. The hyphen is printed in saturated white.
- All edges are antialiased

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<sup>1</sup> [https://github.com/bbc/vc2\\_conformance\\_data/](https://github.com/bbc/vc2_conformance_data/)

<sup>2</sup> [https://bbc.github.io/vc2\\_conformance\\_data/](https://bbc.github.io/vc2_conformance_data/)



Next, a small set of natural images (from photographs) are provided for testing encoders and decoders on realistic picture content. The complete set of files is enumerated in:

**NATURAL\_PICTURES\_FILENAMES** = ["/path/to/picture.raw", ...]

A collection of natural test pictures (photographs).

And the individual files are also named as follows:

**BERRIES\_PICTURE\_FILENAME** = "/path/to/picture.raw"

A test picture of berries growing from a branch.



This shallow-depth-of-field image contains large amounts of low spatial frequency content, including nearly-flat coloured areas.

**KINGSWOOD\_PICTURE\_FILENAME** = "/path/to/picture.raw"

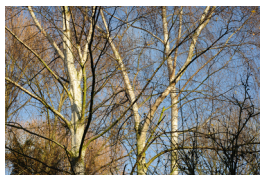
A test picture of a large white building amongst greenery.



This image is an example of a natural scene with broad general features and fine detail.

**TREES\_PICTURE\_FILENAME** = "/path/to/picture.raw"

A test picture of deciduous tree branches in winter against a blue sky.



This image contains a large amount of fine detail (i.e. high spatial frequency content).

## References

[vc2\_data\_tables] The [vc2\\_data\\_tables](#)<sup>3</sup> manual.

[vc2\_bit\_widths] The [vc2\\_bit\\_widths](#)<sup>4</sup> manual.

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<sup>3</sup> [https://github.com/bbc/vc2\\_data\\_tables/](https://github.com/bbc/vc2_data_tables/)

<sup>4</sup> [https://github.com/bbc/vc2\\_bit\\_widths/](https://github.com/bbc/vc2_bit_widths/)