YCrCb_datatype

COLLABORATORS

	TITLE : YCrCb_datatype		
ACTION	*NAME*	*DATE*	*SIGNATURE*
WRITTEN BY		May 24, 2025	

REVISION HISTORY

NUMBER	DATE	DESCRIPTION	NAME

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YCrCb_datatype

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YCrCb Datatype © 1998 Paul Huxham

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Requirements

68020

Kickstart 3.x

picture.datatype 43.x

Minimum 2 megs ram

TBCPlus © 1993 GVP.

1.2   Disclaimer

Disclaimer

ycbcr.datatype and its associated files are supposed to enable TBCPlus

format images to be loaded using the V43 picture.datatype. Even though

every effort has been made to make ycbcr.datatype as stable and functional

as possible, I cannot rule out the possibility that ycbcr.datatype may

have bugs that have side effects (possibly harmful) on your system.

I hereby reject any liability or responsibility for these or any other

consequences from the use of ycbcr.datatype whatsoever. This includes, but

is not limited to, damage to your equipment, to your data, personal
injuries, financial loss or any other kinds of side effects.

ycbcr.datatype is provided as-is. This means I do not guarantee that
ycbcr.datatype is fit for any specific purpose and I do not guarantee any
bug fixes, updates or help during error recovery.

1.3   Distribution

Distribution

Distribution

The ycbcr.datatype should be distributed at no charge to the end user. It
may be included on CDs such as Fish and Aminet. The ycbcr.datatype
executable and documentation is shareware, however payment is not
required for its use.

For ANY commercial application using the ycbcr.datatype, contact the
author for further information concerning distribution.

1.4   Installation

Installation

Copy

Classes/Datatypes/ycbcr.datatype to SYS:Classes/Datatypes

Devs/Datatypes/P422 to Devs:Datatypes

Devs/Datatypes/P422.info to Devs:Datatypes

1.5   What it loads

The ycbcr.datatype loads files saved by the GVP TBCPlus timebase corrector
(in the YCrCb format) into any V43 picture.datatype aware application.
Only full frame colour image grabs have been tested on loading.

1.6   YCbCr Format

YCrCb File Format

The TBCPlus' native file format is YCbCr. This is an adaptation of the
digital video sampling standard CCIR-601 (now known as ITU-R BT601). This
is a digital television transmission color space (YIQ and YUV are the
analogue form for NTSC and PAL). It separates luminance from chrominance
(lightness from color) and is useful in compression and image processing

applications. The format is device dependent, like RGB, but it is
calibrated (ie The colour white is determined by a standards committee). Y
is the Luminance component, Cr and Cb the chrominance components R-Y and
B-Y respectivley.
Note that CCIR-601 is a sampling standard, not a recording standard.
CCIR-601 specifies the sampling mechanism to be used for both NTSC (525
line) and PAL (625 line) video signals. The sampling structure defined is
known as 4:2:2.
CCIR-601 calls for 8 to 10 bits to be devoted to each sampled signal.
Component 4:2:2 is a three part specification, directed at Y, R-Y and B-Y.
The level of brightness in the signal is called Y. This grey scale
information is referred to as luminance (Y). The colour information is
split into two signals, R-Y and B-Y, which make up the chroma part of the
signal, and are referred to as the the colour difference signals. 4:2:2
sampling means that the colour information is sampled half as often as the
luminance. Each colour pair as not one but two luma samples.
(Some parts taken from comp.graphics FAQ, other parts from
Digital Video 96 - VideoCamera March 1996)

1.7   Compiler

Compiler
The ycbcr.datatype was written and compiled using CED V3.5 and SAS/C 6.55
on an Amiga 4000/060. Cyberguard was used to detect/correct programming
errors.

1.8   Author

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1.9   History

History
V1.0
Initial release.