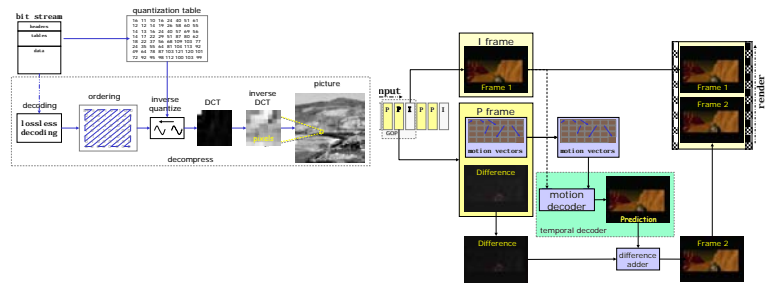


Understanding MPEG

Image Processing training

Benefits

- Understand visual perception
- Understand still image compression
- Understand video compression
- Understand MPEG Profiles and Levels
- Understand MPEG bit-streams



Understanding MPEG

We show you how MPEG relates to the way people perceive video, and explain the tools that are used to compress the video content with minimal perceived loss. We also explain how an MPEG bit-stream is encoded, and clarify how the computational requirements are encoded in the bit-stream.

Class aims

The end result of this class is that you will understand how MPEG works and how an MPEG bit-stream is constructed.

Class topics

The class covers visual perception, perceptual compression, motion-based compression, and MPEG bit-stream encoding.

- Visual perception
- Still images
- Image sampling
- Color
- Color spaces
- Perceptual compression
- Color sub-sampling
- YUV422 etc
- Video compression
- Motion compensation
- MPEG decoder layers
- B-Frames
- H.264
- Profiles, Levels and Verifiers
- MPEG bit-streams
- Audio/video synchronization

Visual perception

How we perceive images and color.

- Visual perception
- Color vision
- Optical illusions
- Perceptual enhancement

Color

Color and color spaces.

- Color vision
- Color spaces
- YUV422 etc
- Color sub-sampling

Compression

JPEG and MPEG compression.

- Video bandwidths
- Perceptive compression
- JPEG and MPEG
- Difference coding
- Motion compensation
- MPEG Layers and Levels
- B-Frames
- H.264
- Profiles, Levels and Verifiers

Bit-streams

- MPEG bit-streams
- Broadcast streams
- Packetized streams
- Program and Transport Streams
- Stream Headers
- Program Association Tables
- Program Map Tables
- Stream de-multiplexing

Synchronization

- Audio/video synchronization
- Synchronization windows
- Clocks and latency
- Trick modes

Target audience

This class is aimed at programmers, engineers and managers designing products which will use MPEG, and who wish to fully understand and be able to apply the techniques of specifying, designing and implementing MPEG systems.

Time and arrangements

This class takes 5 days. Check our schedule at:

www.bores.com/index_schedule.htm

It can also be presented 'on site' by special arrangement and the material can be adapted if you have specific needs.

Booking and questions

Call us by phone or send an email to book or to ask questions:

- contact Dr Chris Bore
- mobile +44 7921 153219
- email: chris@bores.com

About Us

BORES Signal Processing train managers, engineers and programmers to understand and use DSP and streaming media processing.

- established 24 years
- excellent reputation
- worldwide activities
- www.bores.com