Preparing multimedia files for EPL

Preamble

EPL encourages authors to submit multimedia attachments to enhance the online versions of published research articles. Multimedia enhancements typically consist exclusively of video clips and animations. They can add to the reader's understanding and present results in attractive ways that go beyond what can be presented in the main articles published in the journal.

Video clips and animation

Acceptable formats for video or animation clips are **MPEG**, **QuickTime**, **Windows AVI**, **Windows Media Video WMV** or **Animated GIF**.

Video or animation clips are intended for internet use via the web server, and it is necessary to consider the needs of users with slow internet connections (*e.g.* modem-based users) so that your work can be made available to the widest possible readership.

Please aim to minimize file sizes and data rates, by considering the following points:

- 480×360 pixels is the recommended maximum frame size.

- A recommended frame rate is 12–15 frames per second (fps). (Many packages output 30 fps as standard, but you can specify a lower frame rate.)

- Use a 256 colour palette if that is suitable for the presentation of the material.

- Please consider the use of lower specifications for all these points if the material can still be represented clearly. A recommended maximum file size is 3 MB. A recommended maximum data rate is 150 kB/s.

- The various formats have different characteristics that you should consider when choosing the format for your material:

  a. *MPEG*: Suitable for photo-realistic material. Users require a third party viewer.

     MPEG 1 is recommended.

     The MPEG standard is specified in terms of millions of colours and at least 24 fps, so you cannot choose lower specifications for these settings.

  b. *QuickTime and Windows AVI*: Suitable for computer-generated material. Users require a third party viewer.

     The Cinepak codec is recommended for compression. This provides good compression and, importantly, it is widely supported.

     A 256 colour palette may also be considered for computer-generated material.

     As a general rule, using a quality of 75% is advised.

  c. *Animated GIF*: Suitable for computer-generated material. Animations may be rendered directly in a browser without the need for a third party viewer.

     Please use only standard GIF functions as some browsers do not support the whole GIF 89 standard.

     Because GIF compression is not good, consider small frame sizes and low frame rates.