



Using multimedia with Author Plus

What sort of multimedia can I add to Author Plus?

You can add audio in the form of .mp3 files, pictures in the form of .jpg, animations in the form of .swf (Flash) and video as .flv (Flash video).

Can any .mp3 files be played?

If your audio is simple voice then we recommend that your mp3 files are compressed to 22050Hz, 32kBit/s, 16 bit mono as this gives a good balance between quality and size. If you do not have to worry about downloading times, or the sound quality is critical, then use a sample rate of 44100Hz. Author Plus uses Flash to play audio, which means that you MUST use one of these sample rates: 5500 Hz, 11025 Hz, 22050 Hz, 44100 Hz

Can any .jpg files be displayed?

If you save your .jpg file as progressive, then only students with Flash 8 will be able to see it - others will simply not see anything. So it is safest to make sure you save the image without this setting. We also recommend that you use your graphics software to make the picture the right size BEFORE loading into Author Plus as Flash will shrink it, but it will have jagged edges. Doing this will also reduce the file size a lot. Other ways to decrease file size without losing too much quality are to use .jpg compression of at least 10% (maybe more on photos, less on anything that includes text) and to reduce to an 8-bit palette rather than 24 or 32bits. As always, it is best to experiment with your particular images to get the best balance. The standard sizes that Author Plus uses are width 165 and height 250 pixels. Pictures on a split-screen are 250 x 165 pixels. Pictures in the banner position across the top of the page are 405 x 70 pixels.

Can any .swf animations be displayed?

Because Author Plus is created in Flash, running a scripted Flash animation within an exercise has the potential to cause unexpected behaviour. Therefore we recommend only running animations that stay within a rectangular frame and do not use anything other than play/stop scripting. It doesn't matter what version of Flash created the .swf, nor the frame rate.

Can any .flv Flash video be displayed?

Yes. Author Plus will shrink embedded video to fit the screen, but provide a magnifying cursor to let the student increase the size if they want. Floating video displays at its natural size. Since .flv video will automatically stream, you can have large file sizes and not worry too much about loading times. But of course massive files might not play smoothly due to buffering and might impact your bandwidth. Using video requires that students have at least the Flash 8 player, so you can use either video created for Flash 7 (the Sorenson codec) or Flash 8 (the On 2 VP6 codec). If you have the choice, you get much better quality from Flash 8 encoded video.

Can I choose to stream my audio?

Not yet (unless you are quite technical). The default setting for audio that you add to Author Plus is to download and play it. This works best for short audio clips – an instruction that takes 10 seconds to read for instance, or a sample sentence. However, for long audio this can introduce a delay while the whole file is downloaded. In this case you can need to change the setting to stream. Then the audio will start playing as soon as enough has downloaded. As with all streaming media, the downside is that you run the risk that playback might catch up with the downloading and the audio will pause mid-way. We are working on adding this feature into Author Plus, but if you really need it now, please [contact us](mailto:support@clarity.com.hk) (support@clarity.com.hk) and we will show you how (by editing the underlying xml files) you can do it.



How do I convert my existing media files to be suitable for Author Plus?

The conversion of audio, pictures and video from other formats is easy and can be done by a wide variety of tools - some of them free and available for download from the internet. This is how we recommend doing it:

Audio

TotalRecorder is an audio tool that will let you open existing audio files (including .wav and .wma) and save as .mp3. It is also a very nice tool for simple voice recording through a mic attached to your computer. It will let you set start and end points if you need to chop out just part of a recording. The standard version costs less than US\$20. However, if you are doing substantial amounts of recording and need more editing facilities, then we recommend Adobe's Audition - a pro level tool that is still easy to use. An excellent open source alternative is Audacity.

Pictures

There are hundreds of image conversion tools, one of the most popular free ones is Irfan viewer. As expected it will let you open your existing picture (including .bmp and .gif) and save as .jpg. You can resize with smoothing and crop just the part you want. Adobe's Photoshop or Elements products take this ability up a level. Author Plus Pro uses a standard image size of 165x250 pixels for pictures in the corners of pages, 405x70 for banner images and 250x165 for images in split-screens. If your picture is bigger than this, it will be shrunk (keeping the aspect ratio so it looks right). But Flash is not very good at shrinking images, it tends to make jagged lines. It is highly recommended that you resize your picture before you add it to Author Plus - at least to make it close to these sizes.

Video

This is more complex to convert - and at present we don't recommend any free tools. We use either Sorenson Squeeze (US\$250) to open video (from DV cameras, mpeg, avi etc) and then output it as .flv Flash video format. Whilst you can output as Flash .swf format, this does not work as well as pure Flash video. We also use the Flash 8 video encoder, part of the Flash development environment. The most important conversion point is to think about the size (pixel width and height) of the video you want your students to see. Then compress sound as .mp3 (see above) and video to something like 360KBits, 12 frames/sec with 2-pass VBR. But do experiment with different settings as the quality of lighting and background can make a huge difference. The Adobe developer centre has good tutorials and information on making and using video.

A much cheaper video conversion tool is SwiSH Video2, at US\$50.

URL references

Clarity contact: support@clarity.com.hk

Total Recorder: www.highcriteria.com

Adobe's Audition: www.adobe.com/products/audition/main.html

Audacity: <http://audacity.sourceforge.net>

Irfan viewer: www.irfanview.com

Adobe's Photoshop or Elements: www.adobe.com/digitalimag/main.html

Sorenson Squeeze: www.sorensonmedia.com

Adobe's developer centre video pages: <http://www.adobe.com/devnet/flash/video.html>

SwiSH Video2: www.swishzone.com