

Multimedia files

Elsevier Science is now able to accept electronic supplementary material to support and enhance your scientific research.

Supplementary files offer the author additional possibilities to publish supporting applications, movies, animation sequences, high-resolution images, background datasets, sound clips and much, much more...

Supplementary files supplied will be published online alongside the electronic version of your article in Elsevier Science web products, including [ScienceDirect](#).

Please note that the supplementary and/or multimedia files should be referred to (from the text) in the same way as for figures and tables. (E.g., "...see Movie 2...").

In order to ensure that your submitted material is directly usable, please ensure that data is provided in one of our recommended file formats. Many of the formats given are well supported either by the predominant web browsers or globally prevalent applications meaning that the majority of readers will be able to view, open or play supplementary data with minimal effort.

It is recommended that you supply supplementary material along with your article rather than referring to internet addresses from within your article text. By doing this, Elsevier can ensure that the material will always be available online.

Any supplementary material that is not directly referred to from within the text of your manuscript should be referred to via use of a footnote to the article title.

In addition, it is also recommended that a short description is provided for each supplementary file supplied. When published online, the descriptive texts will appear as captions alongside links to the relevant supplementary files.

An example layout of online supplementary material can be viewed at the end of this document.

Please note that any supplementary material supplied is subject to the normal peer review process.

Currently supported delivery methods are given here:

- 3^{1/2}" floppy disk
- CD
- Zip disk
- Jaz disk

As well as the media types outlined above, for an increasing number of Elsevier journals, electronic submission of author files may be possible. Please visit the relevant journal homepages in the [Author Gateway](#) to check availability.

Movies/animations

Supplementary movies or animation files should be provided in one of the formats listed in the table below, Elsevier recommend the submission of material in the specified 'preferred' formats if possible.

Supply of material in one of the formats outlined below will ensure that the majority of potential users have the best chance of being able to access, view or play the data both now and in the future.

If the software used for creation of your movie(s)/animation(s) does not support this then please save in one of the 'accepted' formats outlined.

Any alternative format supplied may be subject to conversion (if technically possible) prior to online publication.

Recommended upper limit

For ease of download, the recommended upper limit for the size of a single MMC file is 10 Mb. When the size of a single file is bigger than this, some users may experience problems when downloading. Whenever possible, therefore, this limit should be adhered to.

Format	Extension	Details
MPEG	.mpg	<ul style="list-style-type: none"> • Preferred movie format • MPEG-1 or MPEG-2 format required • Highest possible quality required
Apple QuickTime	.mov	<ul style="list-style-type: none"> • Acceptable movie format • Highest possible quality required
Microsoft Audio/Video Interlaced format	.avi	<ul style="list-style-type: none"> • Accepted movie format • Highest possible quality required
CompuServe GIF	.gif	<ul style="list-style-type: none"> • Preferred format for animation of rasterised (pixel-based) images • Highest possible quality required

Images

Supplementary image files should be provided in one of the formats listed in the table below, Elsevier recommend the submission of material in the specified 'preferred' formats if possible.

Supply of material in one of the formats outlined below will ensure that the majority of potential users have the best chance of being able to access, view or play the data both now and in the future.

If the software used for creation of your image(s) does not support this then please save in one of the 'accepted' formats outlined.

Any alternative format supplied may be subject to conversion (if technically possible) prior to online publication.

Recommended upper limit

For ease of download, the recommended upper limit for the size of a single MMC file is 10 Mb. When the size of a single file is bigger than this, some users may experience problems when downloading. Whenever possible, therefore, this limit should be adhered to.

Format	Extension	Details
CompuServe GIF	.gif	<ul style="list-style-type: none"> • Preferred format for max. 256 colour bitmap and greyscale images
JPEG	.jpg	<ul style="list-style-type: none"> • Preferred for 16 million colour photographs and other high-quality artwork involving halftones
Scalable Vector Graphic	.svg	<ul style="list-style-type: none"> • Preferred format for vector-based images
Portable Network Graphic	.png	<ul style="list-style-type: none"> • Allowed image format, should be converted to a preferred format if possible

		preferred format if possible
Tagged Image File Format	.tif	<ul style="list-style-type: none"> Allowed image format, should be converted to a preferred format if possible
Encapsulated PostScript	.eps	<ul style="list-style-type: none"> Allowed image format for vector-based images

Audio files

Supplementary audio files should be provided in the format listed below, any alternative format supplied may be subject to conversion (if technically possible) prior to online publication.

Supply of material in one of the formats outlined below will ensure that the majority of potential users have the best chance of being able to access, view or play the data both now and in the future.

Any alternative format supplied may be subject to conversion (if technically possible) prior to online publication.

Recommended upper limit

For ease of download, the recommended upper limit for the size of a single MMC file is 10 Mb. When the size of a single file is bigger than this, some users may experience problems when downloading. Whenever possible, therefore, this limit should be adhered to.

Format	Extension	Details
MP3	.mp3	<ul style="list-style-type: none"> Preferred audio format MPEG-1 or MPEG-2 format required Highest possible quality required

Application-specific files

Application-specific files should be provided in one of the formats listed in the table below, Elsevier recommend the submission of material in the specified 'preferred' formats if possible.

Supply of material in one of the formats outlined below will ensure that the majority of potential users have the best chance of being able to access, view or play the data both now and in the future.

If the software used for creation of your application-specific data does not support this then please save in one of the 'accepted' formats outlined.

Any alternative format supplied may be subject to conversion (if technically possible) prior to online publication.

Recommended upper limit

For ease of download, the recommended upper limit for the size of a single MMC file is 10 Mb. When the size of a single file is bigger than this, some users may experience problems when downloading. Whenever possible, therefore, this limit should be adhered to.

Format	Extension	Details
Adobe Acrobat Portable Document Format	.pdf	<ul style="list-style-type: none"> Preferred format for texts, notes, documents
Comma Separated Values	.csv	<ul style="list-style-type: none"> Preferred format for tabular material
Text/ASCII	.txt	<ul style="list-style-type: none"> Preferred for plain text material such as program listings
Microsoft Word	.doc	<ul style="list-style-type: none"> Allowed format for texts, notes, documents
Rich Text Format	.rtf	<ul style="list-style-type: none"> Allowed format for texts, notes, documents

		<ul style="list-style-type: none"> • Generic word processing format
Microsoft Excel	.xls	<ul style="list-style-type: none"> • Allowed format for spreadsheet-based data
Microsoft Powerpoint	.ppt	<ul style="list-style-type: none"> • Allowed format for presentation data

Archives

Supplementary archives should be provided in one of the formats listed in the table below, please ensure that a 'caption' describing the contents of archive is also supplied.

Supply of material in one of the formats outlined below will ensure that the majority of potential users have the best chance of being able to access, view or play the data both now and in the future.

If the software used for creation of your image(s) does not support this then please save in one of the 'accepted' formats outlined.

Any alternative format supplied may be subject to conversion (if technically possible) prior to online publication.

Recommended upper limit

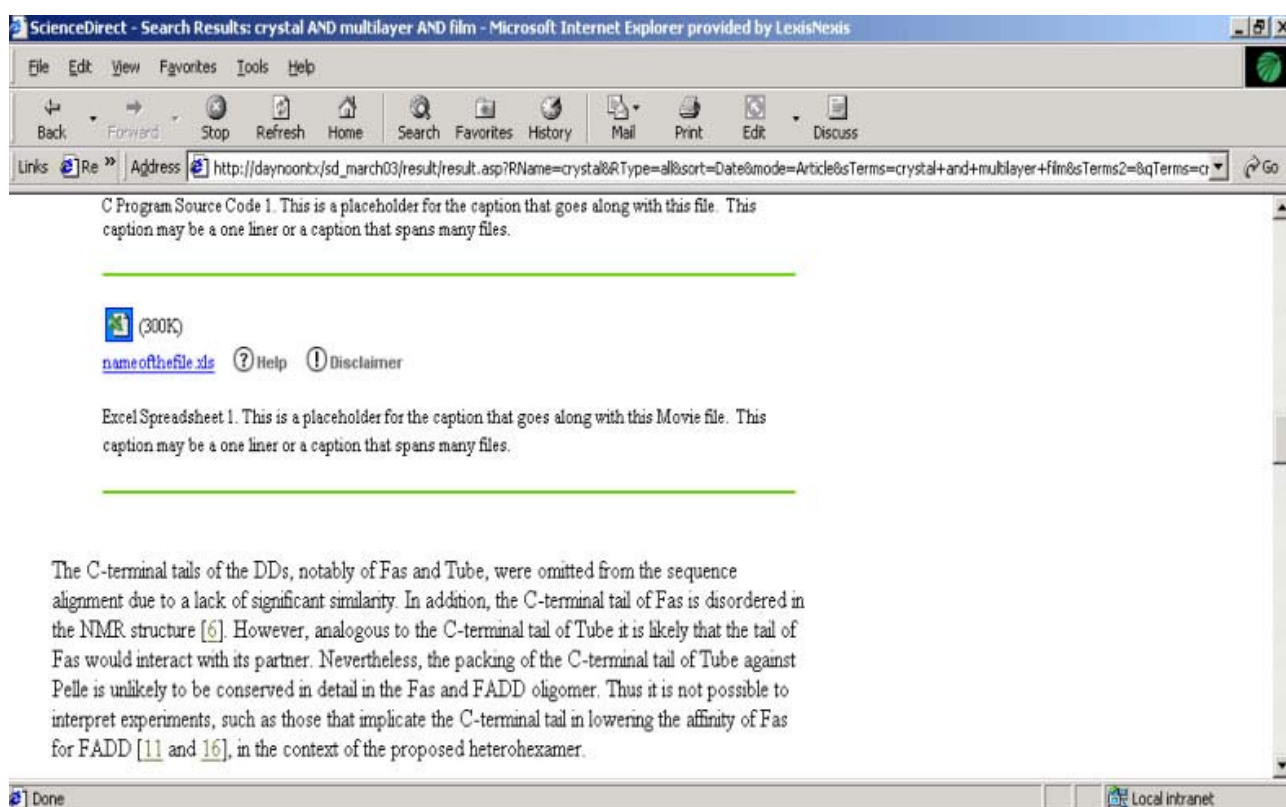
For ease of download, the recommended upper limit for the size of a single MMC file is 10 Mb. When the size of a single file is bigger than this, some users may experience problems when downloading. Whenever possible, therefore, this limit should be adhered to.

Format	Extension	Details
PK ZIP	.zip	<ul style="list-style-type: none"> • A preferred format for archives • Predominant archive format on MS DOS/Windows platforms • A description of the files contained in the archive is required
TAR	.tar, .tar.gz	<ul style="list-style-type: none"> • A preferred format for archives • TAR files are expected to be delivered in a GZipped wrapper • Predominant archive format on UNIX platforms • A description of the files contained in the archive is required

Example online rendering of supplementary material

Provided in this section are mock-up screenshots, showing examples of possible rendering of published supplementary material within Elsevier's online products.

The example below shows a Multimedia Component, in this case a MS Excel file, which is referenced from within the actual article:



It is expected that in the majority of cases supplementary material will appear in a section on its own alongside the actual article, below is an example of such a page.

