## **MMEdit**

MMEdit is a multimedia editor/viewer that allows you to create and view an article that contains rich text, images and sound. Currently, images may be of type tiff, gif, jpeg and eps. Sound may be of type snd. An experimental video format, vdr, is also supported. MMEdit also allows you to create a hypermedia document. The hyper links may refer to articles on the NNTP server or to articles on the local disk. The links are message id's for articles stored on the NNTP server and path names for articles stored on the local disk.

Articles may be either plain text or multi/hyper media. A multi/hyper media article contains multimedia objects and hyper links to externally defined articles. Plain text articles are stored on the disk with a xnews file extension. Multi/hyper media articles are stored on the disk in a directory with a mmd file extension. Currently multimedia objects can be of type tiff, gif, jpeg, eps or snd. Other types are supported as a unknown binary type. Hyper links are allowed only to news and mmd articles.

A media object may be internal or external. An internal media object is part of the article. That is, the data for the media object is contained in the article. An external media object is not part of the article. The data for the media object is

not contained in the article. Instead a hyperlink to the media object is stored. Currently only articles may be external media objects and only non-articles may be internal media objects. External objects are retreived by double clicking on their icon. Currently, external objects must exists either on the disk or on the NNTP server.

Media objects are entered into the article by selecting an insertion point and dragging and dropping the icon for the media object. You will be asked if the object is to be made internal or external. Currently, you must choose internal for all media objects except news or mmd articles. For news or mmd articles you must choose external. The icon for the media object may come from the File Viewer or may be one of the file icons of the editor. For example, to create a hyper link to another article on the NNTP server, retreive that article from the NNTP server, select an insertion point in the editor. Copy and paste also works between MMEdit windows. The richest pasteboard format is proprietary and is not understood by other NeXT applications. However, the editor will also send and receive the standard NeXT pasteboard types ascii, rtf and tiff formats.

Image media object may be resized and edited by double clicking on the image. Image media objects are of type tiff, gif, jpeg or eps. A resize/edit mark will be displayed in the lower right corner. The image may be resized by pressing mouse button down in the resize/edit mark and dragging the resize/edit mark. The mouse location is the location of the new lower right corner. The gray rectangle has the same aspect ratio as the original. A subimage may be cut from the image by pressing the mouse button down at the upper left corner of the subimage and dragging out a rectangle. The mouse location again is the location of the lower right corner of the subimage. The purple numbers indicate the new width and height. Either operation may be aborted by dragging the mouse past the top edge or pass the left edge. The resulting image will be converted to jpeg or TIFF jpeg format depending on your selection in the preference panel. The quality factor is different for jpeg and TIFF jpeg. The quality factor for JPEg runs from 0 to 100 with 100 giving the highest quality. The quality factor for TIFF jpeg in the recommended factor for jpeg is 75 and the recommended factor for jpeg in tiff is 10. To do a format conversion only without resizing you can single click on the edit/resize mark. Double clicking on the image toggles the edit mode on and off. The edit mode is indicated by the edit mark in the lower left corner.

Non-image data objects such as sound and video are activated by double clicking. Double clicking toggles the object between is active and non active state.

The article may be saved to disk by dragging the file icon to a folder. Media objects may be save to disk by holding the mouse down on the image or icon and dragging to a folder. A selection may be saved by dragging the selection icon to a folder. Since each of these operations require that a temporary copy be made to the disk there is a small delay from the time the mouse button is pressed to the

time the icon can be dragged. Please be patient.

If the editor is being used for viewing only you can scroll by using the space bar. Space will do a forward page scroll. Alternate space will do a forward line scroll. Shift space will do a backward page scroll. Alternate shift space will do a backward line scroll. Finally, return will make the key window of the previous active application the new key window. This is useful when you are using NewsBase as a browser as in this case NewsBase will be the previous active application and a return will return you to NewsBase.

The editor supports most of the standard NeXT functions such as Open, Find, Print, Font, etc.. These functions are used as expected and require no further explanation. The Get References menu list the references of the article in the main window. You can retreive a reference by clicking on it's menu cell. The Save As MIME function allows you to save a multi/hyper media article in MIME format. The Recursive Save/Post functions allows you to save/post an entire hypermedia document. You should invoke this function only from a node that has a path to all nodes in the document. For a hypermedia document that is structured as a tree this is just the root node. For a hypermedia document that has a more general directed graph structure this is any node that has a path to all other nodes in the graph. For a hypermedia graph with nodes on the NNTP server you must first manually retreive all the nodes first before doing a recursive save. Hypermedia documents that contain loops will be handled correctly.