SetupAIFFHeader   Set up a file that can be played by **SndStartFilePlay**

#include <u>SoundInput.h</u>   **Sound Manager**

<u>OSErr</u>	**SetupAIFFHeader(***fRefNum,numChannels, sampleRate, sampleSize, compressionType, numBytes, numFrames***)**;	
<u>short</u>	*fRefNum;*	a file reference number
<u>short</u>	*numChannels*;	specifies the number of channels for the sound
<u>Fixed</u>	*sampleRate*;	specifies the sampling rate for the sound
<u>short</u>	*sampleSize*;	specifies the sample size for the sound
<u>OSType</u>	*compressionType*;	specifies the compression type for the sound
<u>long</u>	*numBytes*;	specifies the number of bytes of audio data
<u>long</u>	*numFrames;*	specifies the number of sample frames for the sound
	returns	<u>Error Code</u>; 0=no error

Depending on the parameters passed, **SetupAIFFHeader** creates an AIFF or AIFF-C file header:

- Uncompressed sounds of any type are stored in AIFF format (that is, compressionType is 'NONE').

- Compressed sounds of any type are stored in AIFF-C format (that is, compressionType is different from 'NONE').

fRefNum contains a file reference number for a file that is open for writing.The AIFF header information is written starting at the current file position, and the file position is left at the end of the header upon completion.

numChannels specifies the number of channels for the sound .

sampleRate specifies the sampling rate for the sound (that is, samples per second). Note that the most significant bit of this value is interpreted as having the value 32,768 (not as a sign bit)

sampleSize specifies the sample size for the sound (that is, bits per sample)

compressionType specifies the compression type for the sound ('NONE', 'MAC3', 'MAC6', or other third-party types)

baseFrequency specifies the base frequency for the sound

numBytes specifies the number of bytes of audio data that are to be stored in the Common Chunk of the AIFF or AIFF-C file. This data should be stored right after the sound header in the file. (This value is not necessarily the same as the number of samples in the sound.)

numFrames specifies the number of sample frames for the sound. A value needs to be passed here only for third-party compression types. If you are using 'NONE', 'MAC3', or 'MAC6' compression types, you can pass a 0 in this field, and SetupAIFFHeader will calculate the number of sample frames and store it in the header..

Returns: an operating system <u>Error Code</u>.

noErr	(0)	No error
siInvalidCompression	(-223)	Invalid compression type

Notes: A good way to use this routine is to create a file that you want to store a sound in, then call **SetupAIFFHeader** with *numBytes* set to 0 to see how much room the header will take up and hence to position the file to be ready to write the audio data. Then record the data to the file, set the file position to the beginning of the file, and call **SetupAIFFHeader** again with *numBytes* set to the correct amount of sound data recorded. The file created in this way can be passed to **<u>SndStartFilePlay</u>** to play the sound.