**Encoder**

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| File Source | Read data from file |
| Unpack k bits | 8 bits to byte |
| Repeat interpolation | Repeats the 8 bits (starting with x0 to x7) the number of times specified by the repeat interpolation. |
| Throttle | The amount of samples that are taken in a second. |
| UChar to Float | Changing unsigned characters to stream of floats |
| Add constant | Adds the constant value to 1 or 0 so they can be distinguished better |
| Frequency Mod Sensitivity | Sensitivity: radians/sample = amplitude\*sensitivity  Increases or decreases the rate of the carrier signal - changed the freq of the cosine/sine waveforms - sensitivity and frequency inversely proportional  Purpose - is to help distinguish between the two signals  Frequency of the resulting signal is (bit value \* freq sens.) / (2 pi \* 1/44.k) |
| Complex to float | Changing complex to float |
| Null sink | Grounded out signal |
| Audio sink | Plays audio file |
| QT GUI Frequency sink | Creates a power vs freq graph of the signal |
| QT GUI Time sink | Amplitude vs time (ms) |
| Integrate Decimation | Decimates the integrated samples back to one sample |
| Argmax | Outputs the stream and index in which the maximum value is found |
| Short to Float | Transform a short to a float |
| Unpacked to packed bits per chunk | Packs a specified number of bits into a byte |