Time-Waveform Analysis of Pixel Vibration

Summary:

The time waveform is a graphical representation of the pixel vibration in an image. It is used to analyze the vibration caused by camera shake and other factors. The waveform shows three components:

1. Original image: Shown in red
2. Magnified image: Shown in blue
3. Vibration: Shown in green (obtained by subtracting the original waveform from the magnified waveform)

Analysis:

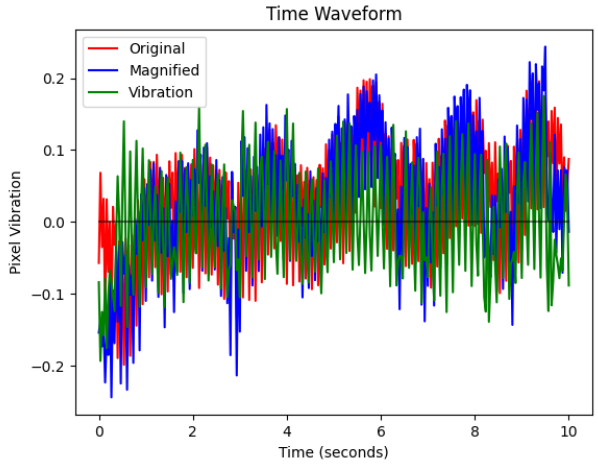
The time waveform can be used to determine the following parameters:

* **Amplitude:** Maximum displacement of the vibration
* **Frequency:** Number of vibration cycles per second
* **Period:** Time between successive peaks or troughs

Applications:

Time-waveform analysis of pixel vibration has various applications, including:

* Identifying the source of image vibration, such as camera shake or object movement
* Quantifying the severity of vibration
* Developing algorithms to reduce or compensate for vibration effects


Time Waveform
Original
Magnified
Vibration
Pixel Vibration
Time (seconds)
0.2
0.1
0.0
−0.1
−0.2
0
2
4
6
8
10