FLEXCELL® FLEX JR.
Tension System

Apply equibiaxial or uniaxial tension to cells in *microscope* devices.

- Computer-regulated bioreactor that applies cyclic or static tensile strains to cells cultured *in vitro*.
- Uses regulated vacuum pressure to deform flexible membranes in microscope devices.
- Simulate *in vivo* tissue strains and frequencies in cells from muscle, lung, heart, blood vessels, skin, tendon, ligament, cartilage, and bone.
- Contains state-of-the-art digital valve to automatically regulate and maintain pressure for a specified strain regimen.
- Works with StageFlexer, StageFlexer Jr., and FlexFlow microscope devices.
- Multiple frequency, amplitude and waveform changes can be programmed in one regimen (Fig. 7).
- Uses cylindrical or Arctangle Loading Posts to provide equibiaxial or uniaxial strain, respectively.
- Apply gradient biaxial strain (unconstrained distention) by removing Loading Stations.
- Better control of waveforms at low and high amplitudes.

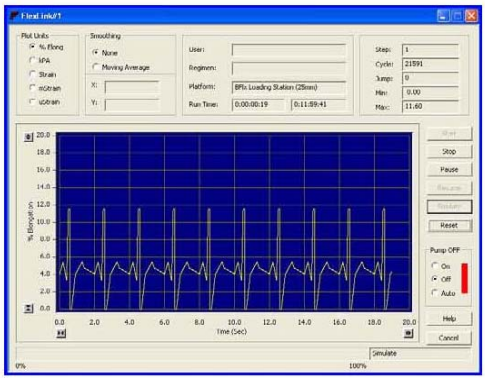

Figure 7. Waveform plot showing typical heart waveform.

Waveforms available:

- *Static*
- *Sinusoidal*
- *Heart Stimulation*
- *Triangular*
- *Square*
- *Custom*

Flex Jr. includes:

- Host computer with 17” flat panel monitor
- FlexSoft Flex Jr. software
- Flex Jr. Tension FlexLink