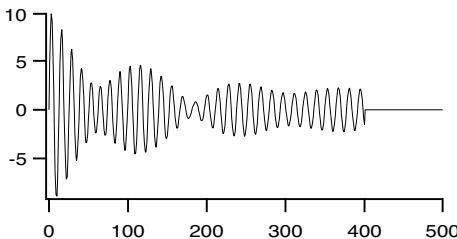


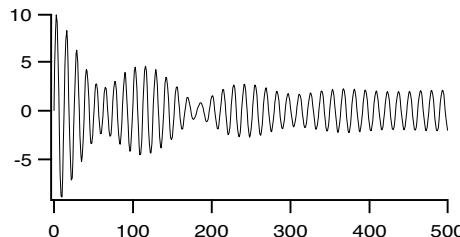
The calculation has been done for points 0-300. Note the comma in /R=[,300], which sets 300 as the end point, not the start point. Now you can restart at 300 and continue to the 400th point:

```
IntegrateODE/M=1/R=[300,400] Harmonic, HarmPW, HarmonicOsc
```



or finish the entire 500 points. Perhaps you need to start from an earlier point:

```
IntegrateODE/M=1/R=[350] Harmonic, HarmPW, HarmonicOsc
```



Stopping IntegrateODE on a Condition

Sometimes it is useful to be able to stop the calculation based on output values from the integration, rather than stopping when a certain value of the independent variable is reached. For instance, a common way to simulate a neuron firing is to solve the relevant system of equations until the output reaches a certain value. At that point, the solution should be stopped and the initial conditions reset to values appropriate to the triggered condition. Then the calculation can be re-started from that point.

The ability to stop and re-start the calculation is a general solution to the problem of discontinuities in the system you are solving. Integrate the system up to the point of the discontinuity, stop and re-start using a derivative function that reflects the system after the discontinuity.

There are two ways to stop the integration depending on the solution values.

The first way is to use the /STOP={*stopWave*, *mode*} flag, supplying a *stopWave* containing stopping conditions. *StopWave* must have one column for each equation in your system. Each column can specify stopping