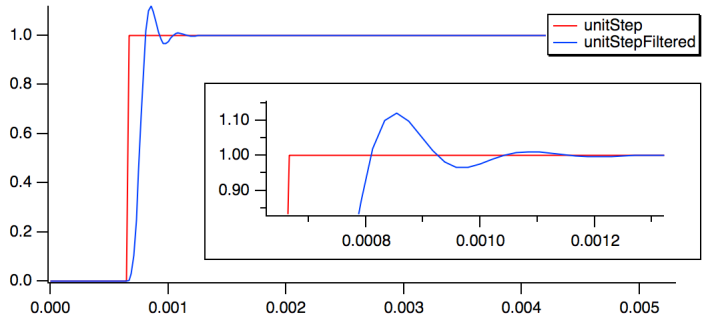
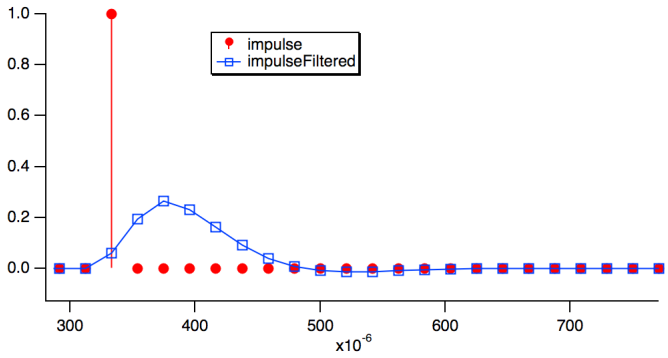
```
Duplicate/O unitStep, unitStepFiltered
FilterIIR/DIM=0/COEF=savedIIRDF1filter unitStepFiltered
Display unitStep, unitStepFiltered
```

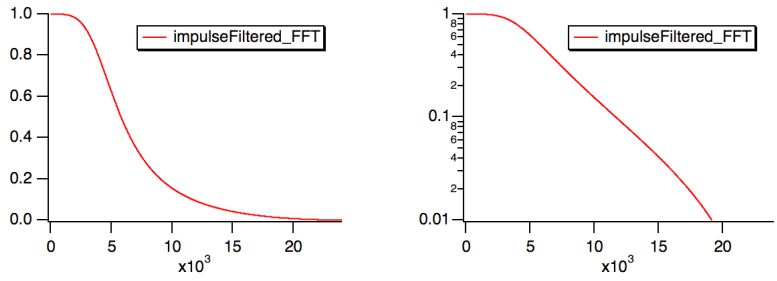


The next example shows how the filter responds to an ideal "unit impulse" waveform and display it's FFT magnitude, as the Filter Design and Application dialog does:

```
Make/O/N=2048 impulse = p == 16     // Unit step wave for causal IIR filters
CopyScales/P yourData, impulse
Duplicate/O impulse, impulseFiltered
FilterIIR/CASC/DIM=0/COEF=savedIIRDF2filter impulseFiltered // DF II
implementation needs /CASC
Display impulse, impulseFiltered
```




```
FFT/MAG/DEST=impulseFiltered_FFT impulseFiltered   // Magnitude of response
Display impulseFiltered_FFT
Display impulseFiltered_FFT      // A logarithmic axis has the same shape
ModifyGraph log(left)=1          // as computing 20*log(response)
```



Applying an IIR Filter to Other Data

You can reuse a filter if you keep a copy of the design's output coefficients. For example:

```
Duplicate/O coefs, savedIIRfilter // Keep a copy of the filter design.
```