NeuroShell Trader

Undersampling of the data as a smoothing technique as described by John Ehlers can be easily implemented in the NeuroShell Trader by combining some of NeuroShell Trader's over 800 indicators. To implement the Undersampled Intraday Double MA Indicator, select '**New Indicator …**' from the '**Insert**' menu, use the Indicator Wizard to create the indicators below.

```
Gap          Sub(DayOpen(Date,Open,0),DayClose(Date,Close,1))
CumGap       CumSum( IfThenElse(A not equal B(Momentum( Gap, 1), 0), Gap, 0) ,0)
Price        Sub(Close, CumGap)
SampleFreq   4
Degap        SelectiveAvg(Price,A=B(Remainder(CumSum(Add2(1,0),0, SampleFreq),0),1)
FastAvg      Hann(Degap, 20)
SlowAvg      Hann(Degap, 40)
```

Note that John Ehlers' Hann Filter indicator is created using the NeuroShell Trader's ability to call external Dynamic Linked Libraries. After moving the Hann Filter code given in the article to your preferred compiler and creating a DLL, you can insert the resulting indicator as follows:

1. Select 'New Indicator …' from the 'Insert' menu.
2. Choose the External Program & Library Calls category.
3. Select the appropriate External DLL Call indicator.
4. Setup the parameters to match your dll.
5. Select the Finished button.

Users of NeuroShell Trader can go to the STOCKS & COMMODITIES section of the NeuroShell Trader free technical support Website to download a copy of any of the traders' tips.

Figure 1: A NeuroShell Trader Chart showing the Undersampled Intraday Double MA Indicator.