METASTOCK CODE FOR THE MIDAS DISPLACEMENT CHANNEL

For intraday use, the percentage displacement of the boundary curves will in nearly all cases be less than 1%, whereas on the daily charts it will always be greater than 1%.

The MetaStock code for plotting the channel on the daily charts and intraday charts can be seen below. The code reflects the following algorithm for the channel:

$$\text{MIDAS} = \frac{\left[y(x_i) - y(x_i - d_y)\right]}{d_{ij}}$$

where:

x_i = cumulative volume on bar

y_i = cumulative average price ((H+L)*0.5) * volume on bar

d_{ij} = cumulative volume difference between bars i and j
$= x_i - x_j$

$$\text{Upper displacement band} = \text{MIDAS}\left[1 + \frac{k}{100}\right]$$

$$\text{Lower displacement band} = \text{MIDAS}\left[1 - \frac{k}{100}\right]$$

where *k* is the user-defined displacement.

When the indicator is dropped onto a chart, MetaStock will prompt for the percentage displacement for the upper and the lower band. The fitting to the first significant swing high and low is a matter of trial and error. Readers familiar with Paul Levine's topfinder/bottomfinder indicator will appreciate the similarity between how the TB-F indicator is fitted to the first significant pullback and how the M-DC is fitted: both involve a visual fit between data inputted and the best possible connection to the price extreme.

Programming the PDB indicator in MetaStock for daily charts

```
{user defined input}
sm:=Input("startng month", 1,12,1);
sd:= Input("starting day of month", 1,31,1);
sy:=Input("starting year", 1980,2100,2000);
start:=sd=DayOfMonth() AND sm=Month() AND sy=Year();
{mid price}
pv:=MP()*V;

{Midas calculation}
denom:=If(Cum(V)-ValueWhen(1,start,Cum(V))=0,1, Cum(V)-
    ValueWhen(1,start,Cum(V)));
If(BarsSince(start), (Cum(pv)-ValueWhen(1,start,Cum(pv)))/
    denom,MP());
{Adding percent displacement bands}
M:=If(BarsSince(start), (Cum(pv)-ValueWhen(1,start,Cum(pv)))/
    denom,MP());

Q1:=Input("percentage-upper",1,50,1);
M * 1 + (Q1/100));
Q2:=Input("percentage-lower",1,50,1);
M * (1 – ( Q2/100))
```

Programming the PDB indicator in MetaStock for intraday charts

```
{user defined input}
sm:=Input("startng month", 1,12,1);
sd:= Input("starting day of month", 1,31,1);
sh:=Input("hour",1,24,1);
se:=Input("minute",0,60,0);
start:=sd=DayOfMonth() AND sm=Month() AND 2009 AND sh=Hour()
    AND se=Minute();
{mid price}
pv:=MP()*V;
{Midas calculation}
denom:=If(Cum(V)-ValueWhen(1,start,Cum(V))=0,1,Cum(V)-Val-
    ueWhen(1,start,Cum(V)));
If(BarsSince(start),(Cum(pv)-ValueWhen(1,start,Cum(pv)))/
    denom,MP());
{Adding percent displacement bands}
M:=If(BarsSince(start),(Cum(pv)-ValueWhen(1,start,Cum(pv)))/
    denom,MP());

Q1:=Input("percentage-upper",0.001,2,0.001);
M * (1 + (Q1/100));
Q2:=Input("percentage-lower",0.001,4,0.001);
M * (1 - (Q2/100))
```