ThinkScripts Creations:

Indicators & Columns

Volume Script (indicator):

Definition: *Volume Bars Actual Buy/Sell.*

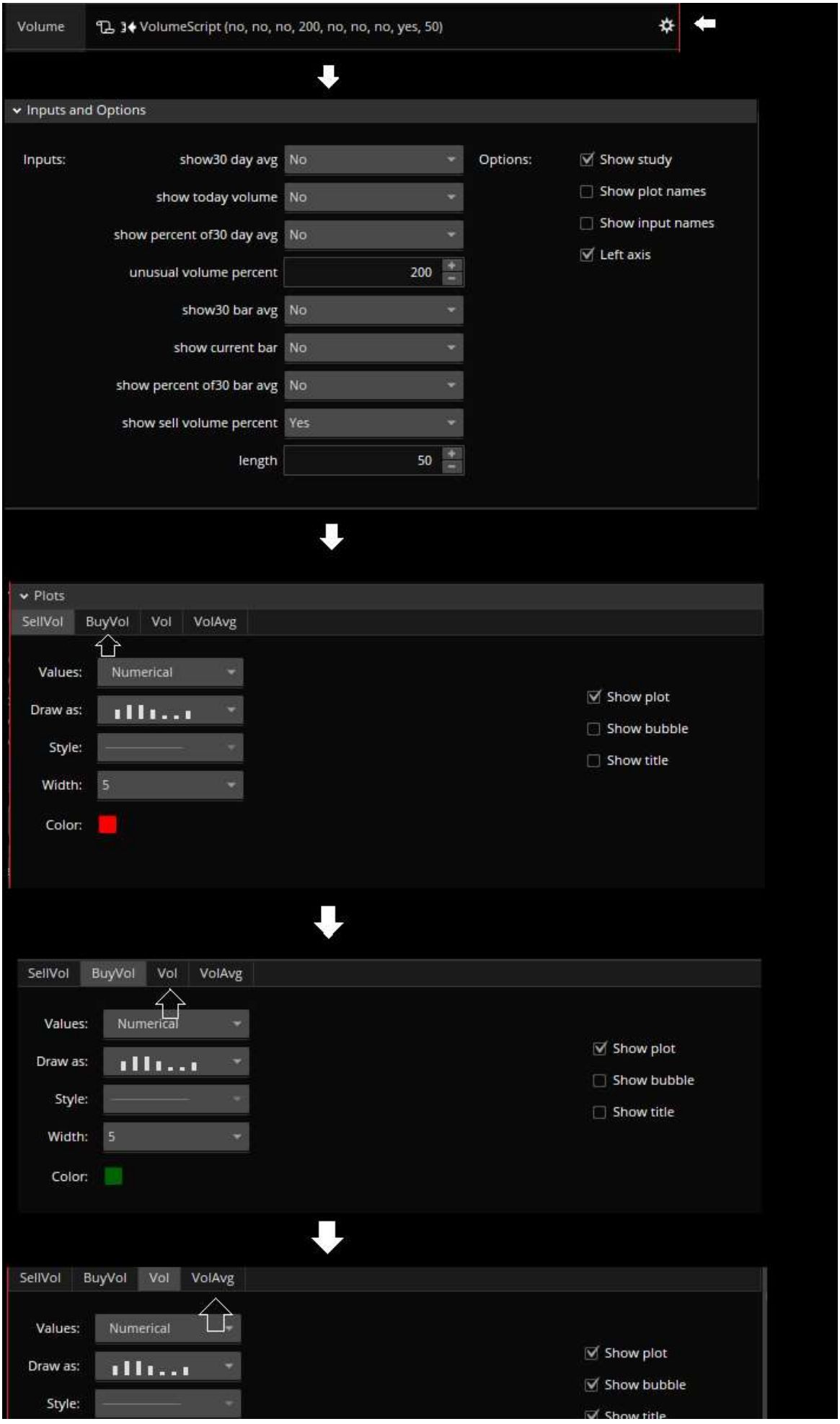
Right click chart > select *Edit Studies" > select "New" > select "Script":

```
input Show30DayAvg = yes;
input ShowTodayVolume = yes;
input ShowPercentOf30DayAvg = yes;
input UnusualVolumePercent = 200;
input Show30BarAvg = yes;
input ShowCurrentBar = yes;
input ShowPercentOf30BarAvg = yes;
input ShowSellVolumePercent = yes;

def O = open;
def H = high;
def C = close;
def L = low;
def V = volume;
def buying = V*(C-L)/(H-L);
def selling = V*(H-C)/(H-L);

#% Sell Volume

Plot SellVol = selling;
SellVol.setPaintingStrategy(PaintingStrategy.Histogram);
SellVol.SetDefaultColor(Color.Red);
SellVol.HideTitle();
SellVol.HideBubble();
SellVol.SetLineWeight(5);

#% Total Volume

Plot BuyVol = volume;
BuyVol.setPaintingStrategy(PaintingStrategy.Histogram);
BuyVol.SetDefaultColor(Color.Dark_Green);
BuyVol.HideTitle();
BuyVol.HideBubble();
BuyVol.SetLineWeight(5);

#% Volume Data

def volLast30DayAvg = (volume(period = "DAY")[1] + volume(period =
"DAY")[2] + volume(period = "DAY")[3] + volume(period = "DAY")[4] +
volume(period = "DAY")[5] + volume(period = "DAY")[6] + volume(period
= "DAY")[7] + volume(period = "DAY")[8] + volume(period = "DAY")[9] +
```

```
volume(period = "DAY")[10] + volume(period = "DAY")[11] +
volume(period = "DAY")[12] + volume(period = "DAY")[13] +
volume(period = "DAY")[14] + volume(period = "DAY")[15] +
volume(period = "DAY")[16] + volume(period = "DAY")[17] +
volume(period = "DAY")[18] + volume(period = "DAY")[19] +
volume(period = "DAY")[20] + volume(period = "DAY")[21] +
volume(period = "DAY")[22] + volume(period = "DAY")[23] +
volume(period = "DAY")[24] + volume(period = "DAY")[25] +
volume(period = "DAY")[26] + volume(period = "DAY")[27] +
volume(period = "DAY")[28] + volume(period = "DAY")[29] +
volume(period = "DAY")[30]) / 30;
def today = volume(period = "DAY");
def percentOf30Day = Round((today / volLast30DayAvg) * 100, 0);
def avg30Bars = (volume[1] + volume[2] + volume[3] + volume[4] +
volume[5] + volume[6] + volume[7] + volume[8] + volume[9] +
volume[10] + volume[11] + volume[12] + volume[13] + volume[14] +
volume[15] + volume[16] + volume[17] + volume[18] + volume[19] +
volume[20] + volume[21] + volume[22] + volume[23] + volume[24] +
volume[25] + volume[26] + volume[27] + volume[28] + volume[29] +
volume[30]) / 30;
def curVolume = volume;
def percentOf30Bar = Round((curVolume / avg30Bars) * 100, 0);
def SellVolPercent = Round((Selling / Volume) * 100, 0);

#% Labels

AddLabel(Show30DayAvg, "Avg 30 Days: " + Round(volLast30DayAvg, 0),
Color.LIGHT_GRAY);

AddLabel(ShowTodayVolume, "Today: " + today, (if percentOf30Day >=
UnusualVolumePercent then Color.GREEN else if percentOf30Day >= 100
then Color.ORANGE else Color.LIGHT_GRAY));

AddLabel(ShowPercentOf30DayAvg, percentOf30Day + "%", (if
percentOf30Day >= UnusualVolumePercent then Color.GREEN else if
percentOf30Day >= 100 then Color.ORANGE else Color.WHITE) );

AddLabel(Show30BarAvg, "Avg 30 Bars: " + Round(avg30Bars, 0),
Color.LIGHT_GRAY);

AddLabel(ShowCurrentBar, "Cur Bar: " + curVolume, (if percentOf30Bar
>= UnusualVolumePercent then Color.GREEN else if PercentOf30Bar >=
100 then Color.ORANGE else Color.LIGHT_GRAY));

AddLabel(ShowPercentOf30BarAvg, PercentOf30Bar + "%", (if
PercentOf30Bar >= UnusualVolumePercent then Color.GREEN else if
PercentOf30Bar >= 100 then Color.ORANGE else Color.WHITE) );

AddLabel(ShowSellVolumePercent, "Cur Bar Sell %: " + SellVolPercent,
(if SellVolPercent > 51 then Color.RED else if SellVolPercent < 49
then Color.GREEN else Color.ORANGE));

input length = 50;
```

```
plot Vol = volume;
plot VolAvg = Average(volume, length);

Vol.SetPaintingStrategy(PaintingStrategy.HISTOGRAM);
Vol.SetLineWeight(3);
Vol.DefineColor("Up", Color.UPTICK);
Vol.DefineColor("Down", Color.DOWNTICK);
Vol.AssignValueColor(if close > close[1] then Vol.color("Up") else if
close < close[1] then Vol.color("Down") else GetColor(1));
VolAvg.SetDefaultColor(GetColor(8));
```

Volume Script Customization:


Volume
VolumeScript (no, no, no, 200, no, no, no, yes, 50)
Inputs and Options
Inputs:
show30 day avg
No
show today volume
No
show percent of30 day avg
No
unusual volume percent
200
show30 bar avg
No
show current bar
No
show percent of30 bar avg
No
show sell volume percent
Yes
length
50
Options:
Show study
Show plot names
Show input names
Left axis
Plots
SellVol
BuyVol
Vol
VolAvg
Values:
Numerical
Draw as:
Style:
Width:
5
Color:
Show plot
Show bubble
Show title
SellVol
BuyVol
Vol
VolAvg
Values:
Numerical
Draw as:
Style:
Width:
5
Color:
Show plot
Show bubble
Show title
SellVol
BuyVol
Vol
VolAvg
Values:
Numerical
Draw as:
Style:
Show plot
Show bubble

Close Price (indicator):

Definition: *Last Day Close Price.*

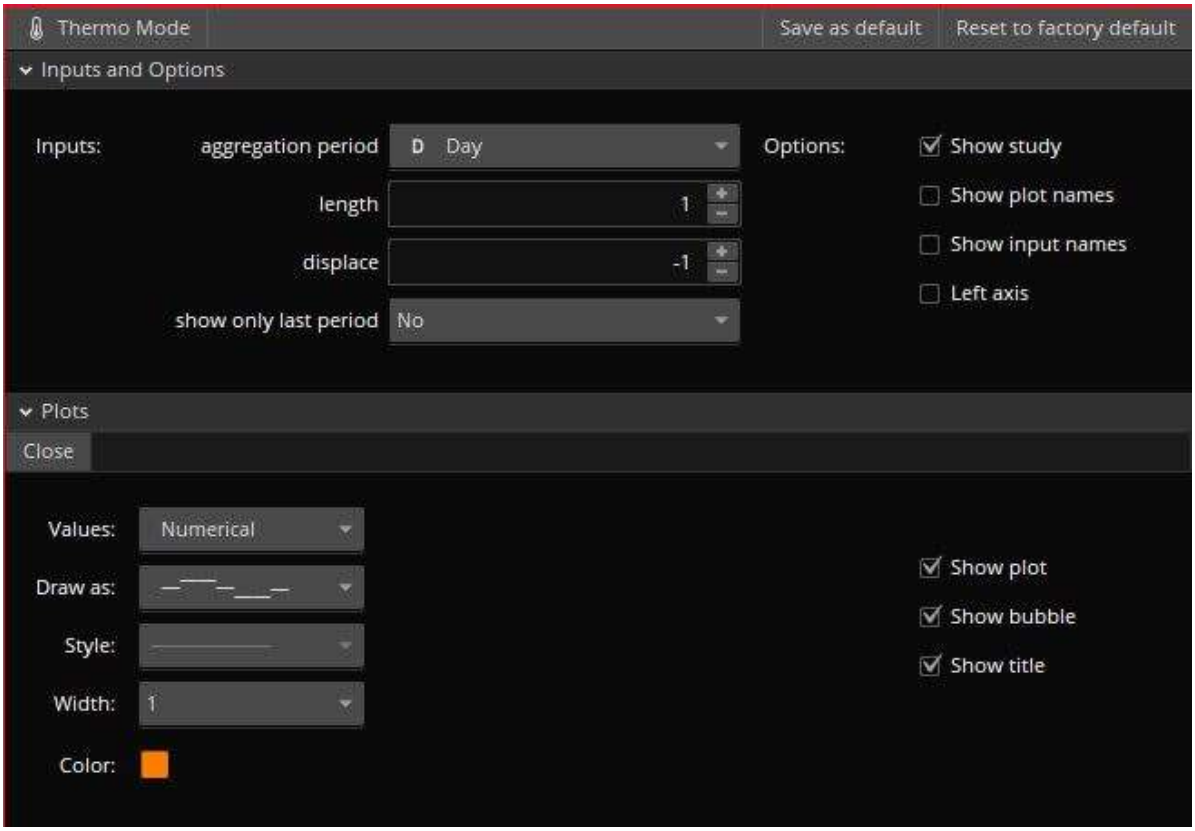
n ***Aggregation Periods***: *AggregationPeriod.three_min, AggregationPeriod.ten_min, AggregationPeriod.Hour, AggregationPeriod.Day, AggregationPeriod.Week, AggregationPeriod.Month, AggregationPeriod.Year;*

```
input aggregationPeriod = AggregationPeriod.DAY;
input length = 1;
input displace = -1;
input showOnlyLastPeriod = no;
plot Close;
if showOnlyLastPeriod and !IsNaN(close(period = aggregationPeriod)
[-1]) { Close = Double.NaN;
} else { Close = Highest(close(period = aggregationPeriod)[-
displace], length);
}
Close.SetDefaultColor(GetColor(9));
Close.SetPaintingStrategy(PaintingStrategy.HORIZONTAL);
```

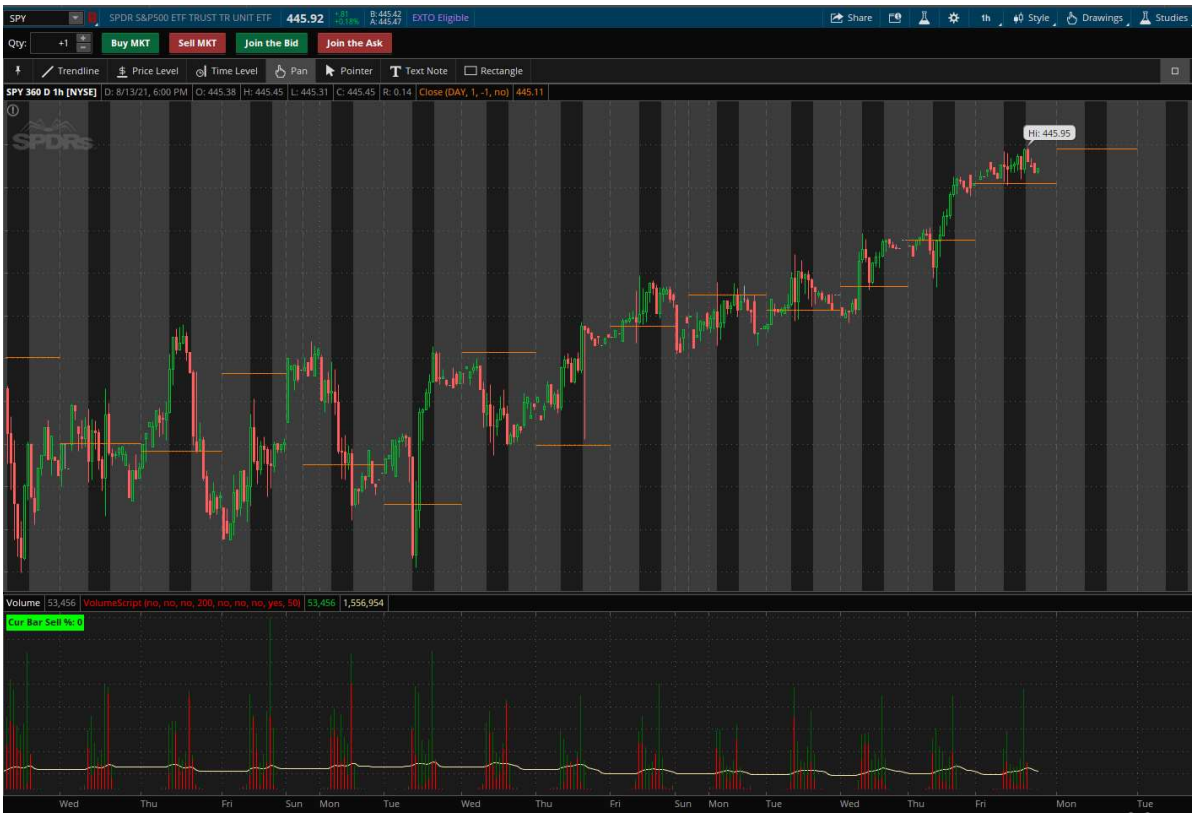
Note:

𝑛 ***Aggregation Periods***: *AggregationPeriod.three_min, AggregationPeriod.ten_min, AggregationPeriod.Hour, AggregationPeriod.Day, AggregationPeriod.Week, AggregationPeriod.Month, AggregationPeriod.Year;*

Close Price Customization:



Results:

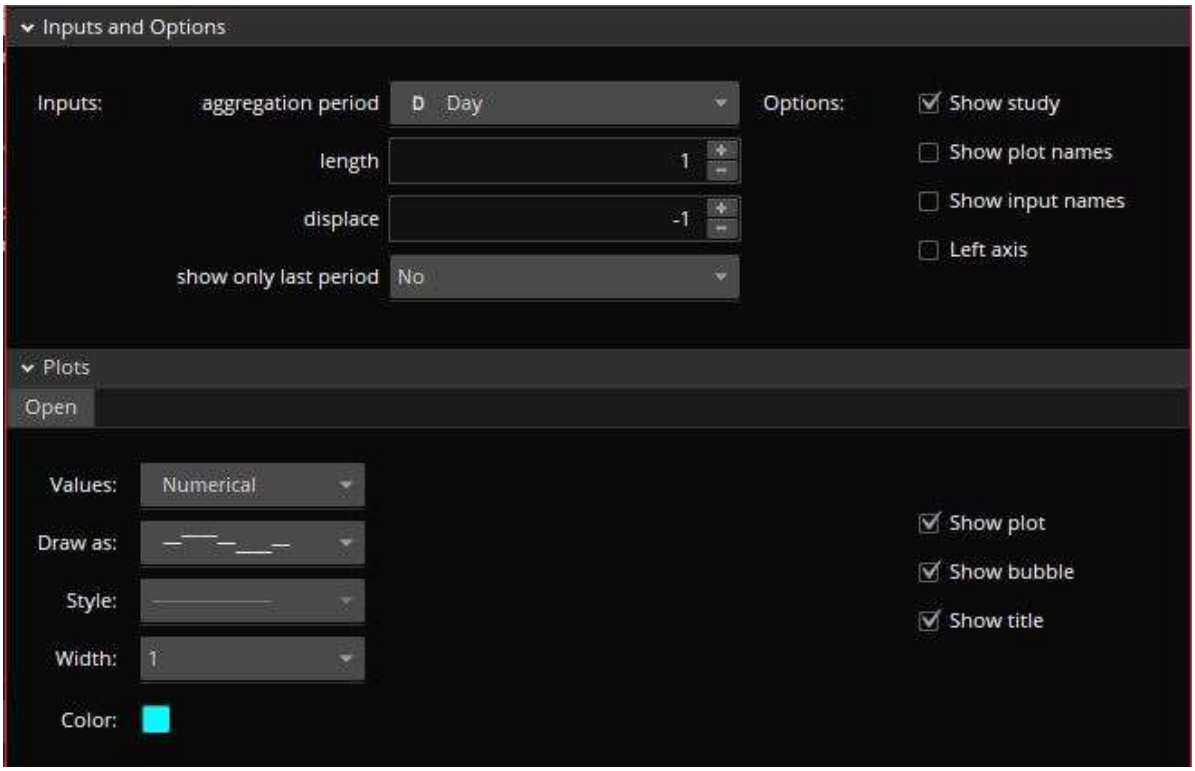


Open Price (indicator):

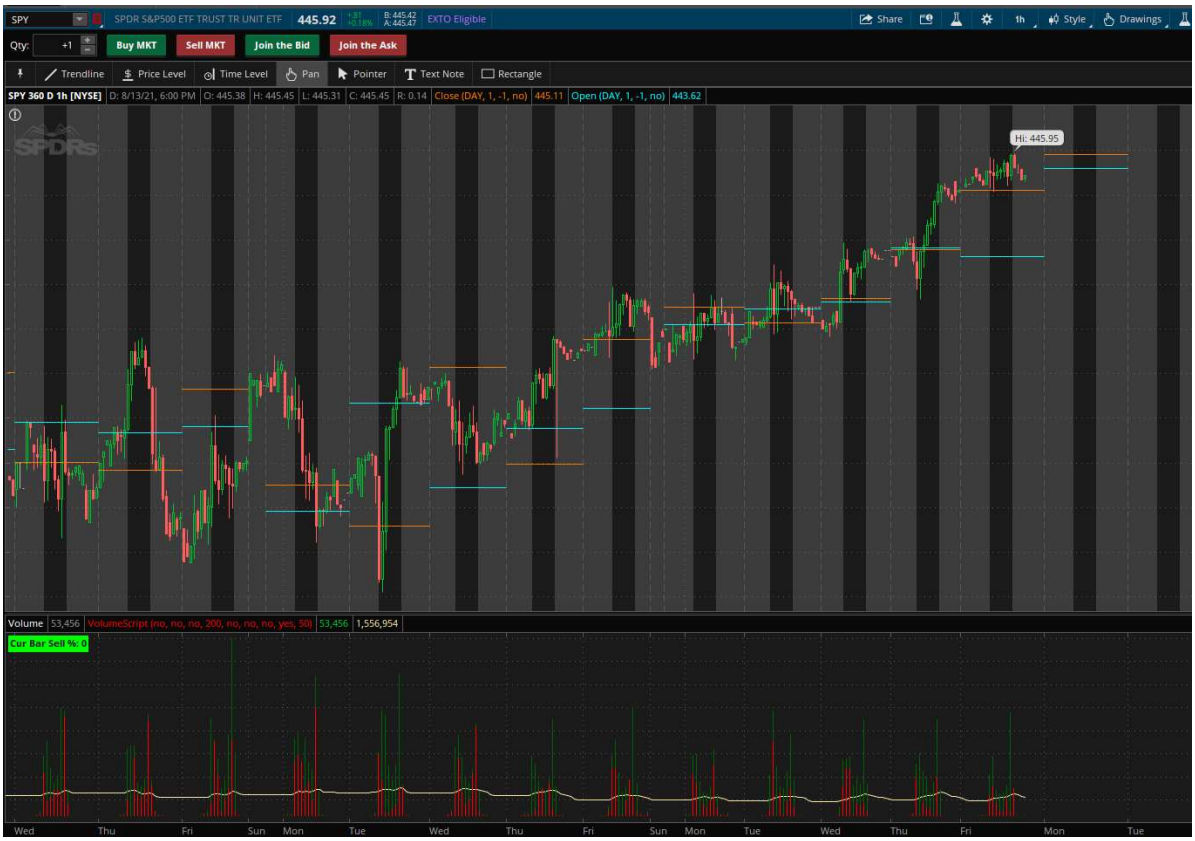
Definition: Current Market Open Price *(no premarket)*.

```
#% Open Price
input aggregationPeriod = AggregationPeriod.DAY;
input length = 1;
input displace = -1;
input showOnlyLastPeriod = no;
plot Open;
if showOnlyLastPeriod and !IsNaN(open(period = aggregationPeriod)
[-1]) { Open = Double.NaN;
} else { Open = Highest(open(period = aggregationPeriod)[-displace],
length);
}
Open.SetDefaultColor(GetColor(9));
Open.SetPaintingStrategy(PaintingStrategy.HORIZONTAL);
```

Open Price Customization:



Results:



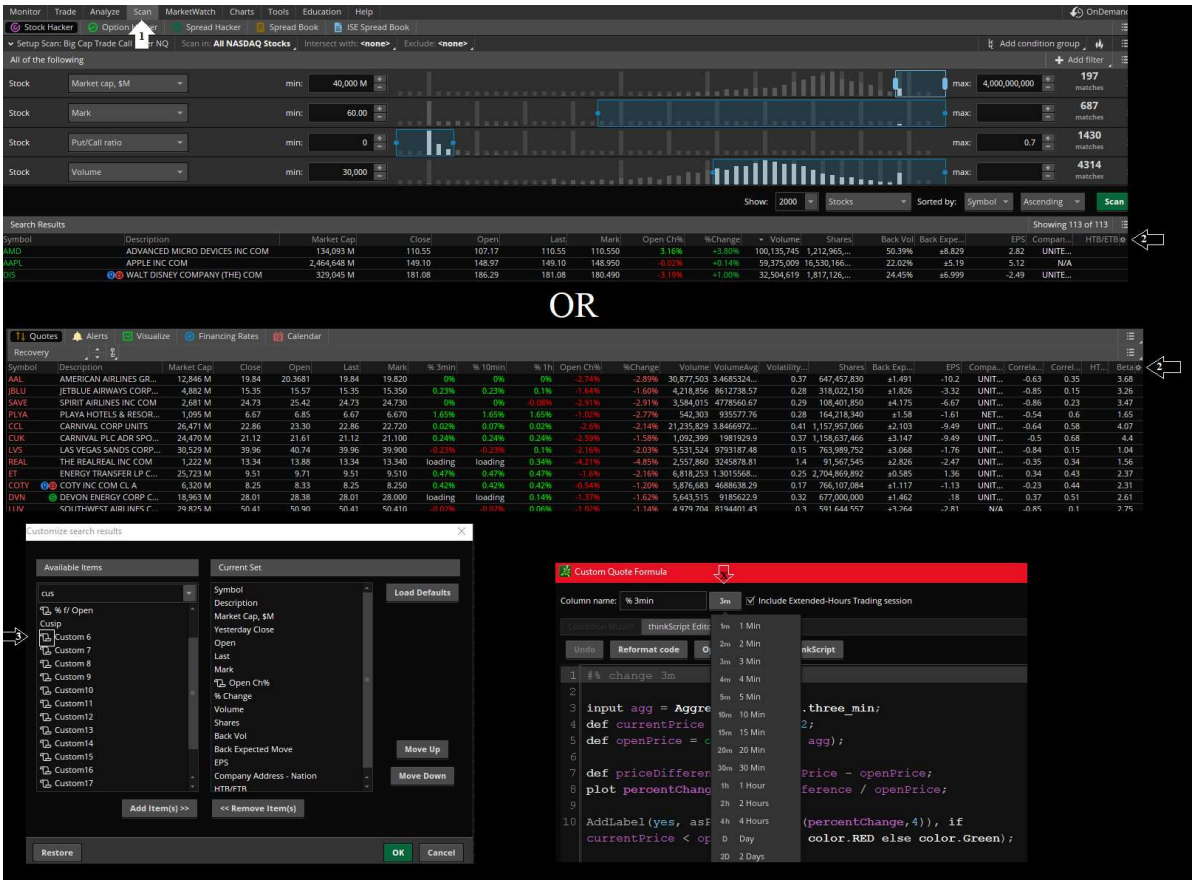
Price Change from x_{1-1} to x_i (column):

Definition: *Add Price Changes to Columns in Scanners/Watchlists.*

Select Scan tab > Settings" > add Customi > *Edit Name* > *add Price Change from $x*{1-1}*to*x_i$:

```
#%Three_min
input agg = AggregationPeriod.three_min;
def currentPrice = (ask+bid)/2;
def openPrice = open(period = agg);

def priceDifference = currentPrice - open;
plot percentChange = priceDifference / open;

AddLabel(yes, asPercent(round(percentChange,4)), if currentPrice <
open then color.RED else color.Green);
```

Note: n ***Aggregation Periods***:



Results:

ARKK

Symbol	Description	Market Cap	Close	Open	Last	Mark	% 3min	% 10min	% 1h	Open Ch%	%Change
TSLA	TESLA INC COM	710,009 M	717.17	723.71	717.17	716.750	0.01%	0.09%	0.07%	-0.96%	-0.70%
BIDU	BAIDU INC ADR	52,977 M	152.45	157.72	152.45	152.440	-0.03%	-0.18%	-0.18%	-3.42%	-4.50%
JD	JD.COM INC ADR	108,911 M	69.86	69.95	69.86	69.860	0.15%	0.15%	0.17%	-0.24%	-0.95%
NNDM	NANO DIMENSION LTD ...	1,483 M	5.78	6.25	5.78	5.900	0.17%	-0.51%	-0.17%	-5.44%	-8.83%
KTOS	KRATOS DEFENSE & SEC...	2,759 M	22.26	24.93	22.26	22.320	-0.4%	-0.4%	-0.4%	-10.11%	-10.39%
TSM	TAIWAN SEMICONDUCT...	598,983 M	115.50	115.07	115.50	115.500	-0.08%	-0.04%	0.04%	0.25%	-0.17%
SPCE	VIRGIN GALACTIC HLDG...	6,527 M	25.37	25.23	25.37	25.370	0.04%	-0.16%	-0.35%	0.32%	-2.20%
NIU	NIU TECHNOLOGIES ADR	1,622 M	21.27	22.49	21.27	21.270	-0.88%	-0.88%	-0.88%	-4.85%	-5.42%
ARKK	ARK ETF TR INNOVATIO...	0	120.10	121.96	120.10	120.100	0.06%	0.06%	0.06%	-1.5%	-1.44%
MTLS	MATERIALISE NV ADR	1,229 M	21.12	22.53	21.12	21.120	0.59%	0.59%	0.59%	-5.7%	-5.88%