Scoreboard

This example reads bar and study values from 5 charts and displays these values on a spreadsheet.

	ES #F	B	C	D	E	F	G	H	I	J
1	1173.00	High	Low	prior High	prior Low	STO %K	%K/%D	RSI	RSI/AVE	TREND
2	5 min bar	1173.50	1173.00	1173.50	1172.75	93.65	Below	61.85	Above	↑
3	60 min bar	1173.50	1169.75	1171.50	1168.25	27.41	Above	43.04	Above	↓
4	Daily	1186.25	1167.75	1193.00	1180.50	71.35	Below	56.38	Below	↑
5	Weekly	1193.00	1167.75	1186.25	1155.50	93.10	Below	65.91	Below	↑
6	Monthly	1193.00	1127.00	1153.50	1050.75	54.48	Above	59.39	Above	↑

Here is the property form for the spreadsheet.

Spreadsheet Properties

Regular Cells
- Font Color
- Grid Color
- Cell Color

Decimal Format: 2

Fixed Cells
- Font Color
- Grid Color
- Cell Color

Bands
- First Band Color — 1 Rows
- Second Band Color — 5 Rows
- ☑ Enable Bands

Color Theme

Save   A Font

Calculate

Mode
- ○ Manual
- ○ On Cell Change
- ◉ Timer

10 Number of Columns
6 Number of Rows
3 Timer Frequency 1/3rd second

Style
- ◉ A1
- ○ RxCy

The next image shows the cell formula used.

	ES #F	B	C	D	E	F	G	H	I	J
1	=Last("ES	High	Low	prior High	prior Low	STO %K	%K/%D	RSI	RSI/AVE	TREND
2	5 min bar	=Get(100)	=Get(101)	=Get(102)	=Get(103)	=Get(104)	=IF(Get(1	=Get(106	=IF(Get(	↑
3	60 min bar	=Get(110)	=Get(111)	=Get(112)	=Get(113)	=Get(114)	=IF(Get(1	=Get(116	=IF(Get(	↓
4	Daily	=Get(120)	=Get(121)	=Get(122)	=Get(123)	=Get(124)	=IF(Get(1	=Get(126	=IF(Get(	↑
5	Weekly	=Get(130)	=Get(131)	=Get(132)	=Get(133)	=Get(134)	=IF(Get(1	=Get(136	=IF(Get(	↑
6	Monthly	=Get(140)	=Get(141)	=Get(142)	=Get(143)	=Get(144)	=IF(Get(1	=Get(146	=IF(Get(	↑

Most cells are showing Variable values using the =Get(index) function. The variables are being set by a DYO present on each of the 5 charts. An example DYO will be shown later.

Cell A1 has the function: =Last("ES #F","ES")

The rest of the cells on row 1 and in column A contain text as shown.

Column G and I use the =IF function to display text based on a Boolean value. The formula in those 2 columns are shown next. Note how a function is used in the 1st parameter position.

G
%K/%D
=IF(Get(105),"Above","Below")
=IF(Get(115),"Above","Below")
=IF(Get(125),"Above","Below")
=IF(Get(135),"Above","Below")
=IF(Get(145),"Above","Below")

I
RSI/AVE
=IF(Get(107),"Above","Below")
=IF(Get(117),"Above","Below")
=IF(Get(127),"Above","Below")
=IF(Get(137),"Above","Below")
=IF(Get(147),"Above","Below")

Each chart contains a Stochastic, a Relative Strength, an Auto Trends study, and a DYO. The DYO on the 5-minute chart uses variables [100] through [108] to populate row 2 in the spreadsheet. The other charts have similar DYOs, where the only thing that differs are the variables being assigned. The 60-minute chart uses variables [110] through [118], etc.

A	Expression	[100] := High
B	Expression	[101] := Low
C	Expression	[102] := Prior High
D	Expression	[103] := Prior Low
E	Study	[104] := STO.%K value
F	Study	[105] := STO.%K >= %D
G	Study	[106] := RSI.RSI value
H	Study	[107] := RSI.RSI >= Average
I	Study	[108] := Trend.Swing direction
J	Action	if [108] then Marker(10, 2) := Marker
K	Action	if [108] = 0 then Marker(10, 2) := Marker

Row F and H are storing Boolean flags for use in the spreadsheet's =IF functions.

Row I is storing a Boolean flag used by row J and K to place the arrow markers in Column J. The row K test of 'if [108] = 0 then' is testing for the flag to be False.

Spreadsheet Statements

The DYO Action category has the following statements for use with a spreadsheet.

Find Spreadsheet – The text in the Label field, or Message field if the Label is blank, is the name of the spreadsheet to find. If the spreadsheet is not found, this statement will open a spreadsheet form with the name.

Cell(col, row) := Format(#2, [#]) - Use this statement to place a value from Selection #2 into a cell. The value is formatted with [#] decimals, or as a TDateTime.

```
--- Spreadsheet ---
Find Spreadsheet( Message )
Cell( #3, #4 ) := Format( #2, [#])
FontSize( #3, #4 ) := #2
FontBold( #3, #4 ) := #2 oper 0
if #2 oper 0 then FontColor( #3, #4 ) := C
if #2 oper 0 then Cell( #3, #4 ) := Messa
if #2 oper 0 then ColWidth( #3 ) := #4
if #2 oper 0 then RowHeight( #3 ) := #4
if ## then RowColor( #2 ) := Color
Label := Cell( #3, #4)
V := Cell( #3, #4 ) oper #2
V := Cell( #3, #4 ) row move #2 cells
V := Cell( #3, #4 ) col move #2 cells
Cell( #3, #4 ) := Format( V, [#]) row of #2
Cell( #3, #4 ) := Format( V, [#]) col of #2
Spreadsheet.Recalculate
Spreadsheet.Clear
Spreadsheet.Size( #3 cols x #4 rows)
```

[#]	Format
0	Integer
1 to 6	Number of Decimals
7	TDateTime hh:nn
8	TDateTime hh:nn:ss
9	TDateTime mm-dd-yy
10	Grid's default decimals

Fontsize(col, row) - Changes the font size for the cell.   Size is the Selection #2 value.

Fontbold(col, row) - Changes the font style for the cell.   Bold when the expression is True.

Fontcolor(col, row) - If the #2 oper 0 expression is True, the cell font color will be set to the DYO row's color selection. This is an override to the spreadsheet's font color.

Cell(col, row) := Message – If the #2 oper 0 expression is True, the text in the Label field, or Message field if the Label is blank, is placed in the cell.   This text could be a formula or function. The text can contain reference tags.

Also, the statement can place a Marker in a cell.   There is no control over the marker color.   Markers will show as seen on the Marker drop down list, where most markers are black.

The cell background color is set to the DYO row's color selection when the Show box is checked. This is an override to the spreadsheet's color or band coloring.

The following line writes the chart's symbol in cell(1, 0), which is the 'ES #F' in the Scoreboard example. [$S] is the reference tag for the chart's symbol.

Spreadsheet	SCOREBOARD	
ES #F	B	C
1 1174.50	High	Low

Category	Variable	Selection #1 & #3	Op. [#]	Selection #2 & #4	Offset	Show	Marker	Color
Action	0	= if #2 oper 0 then Cell(#3, #4) :		True	0	☐		
ESPL		(1		0	0	) [$S]		

Rowcolor(row) - If the ## expression is True, the row's background color is set to the DYO row's color selection. This is an override to the spreadsheet's color or band coloring.

Label := Cell(col, row) - A cell's content is assigned to a DYO Label. The DYO label text can be displayed in the margin of the chart.

V := #2 oper Cell(col, row) - A cell's value is used in the expression with Selection #2 and assigned to the variable V.

V := Cell(col, row) row move #2 cells – This statement copies a series of cell values from a spreadsheet row beginning with Cell(col,row) into the Variables array beginning with V.   #2 is the number of cells to copy.

V := Cell(col, row) col move #2 cells – This statement copies a series of cell values from a spreadsheet column beginning with Cell(col,row) into the Variables array beginning with V.   #2 is the number of cells to copy.

Cell(col, row) := Format(V, [#]) row of #2 cells - Use this statement to place a series of values from the Variables array, beginning with V into a row of cells beginning with Cell(col,row). Selection #2 is the number of cells to fill.   The values are formatted with [#] decimals, or as a TDateTime.

Cell(col, row) := Format(V, [#]) col of #2 cells - Use this statement to place a series of values from the Variables array, beginning with V into a column of cells beginning with Cell(col,row). Selection #2 is the number of cells to fill.   The values are formatted with [#] decimals, or as a TDateTime.

Spreadsheet.Recalculate – The spreadsheet update mode could be on Manual, and the DYO controls when the spreadsheet calculates.   Perhaps the DYO is updating Variables or cells on the spreadsheet, then needs the spreadsheet to calculate before spreadsheet results are read by the DYO and used in DYO expressions.

Spreadsheet.Clear – This statement will clear (erase) the contents of the spreadsheet.

Spreadsheet.Size – This statement can be used to change the number of columns and rows.