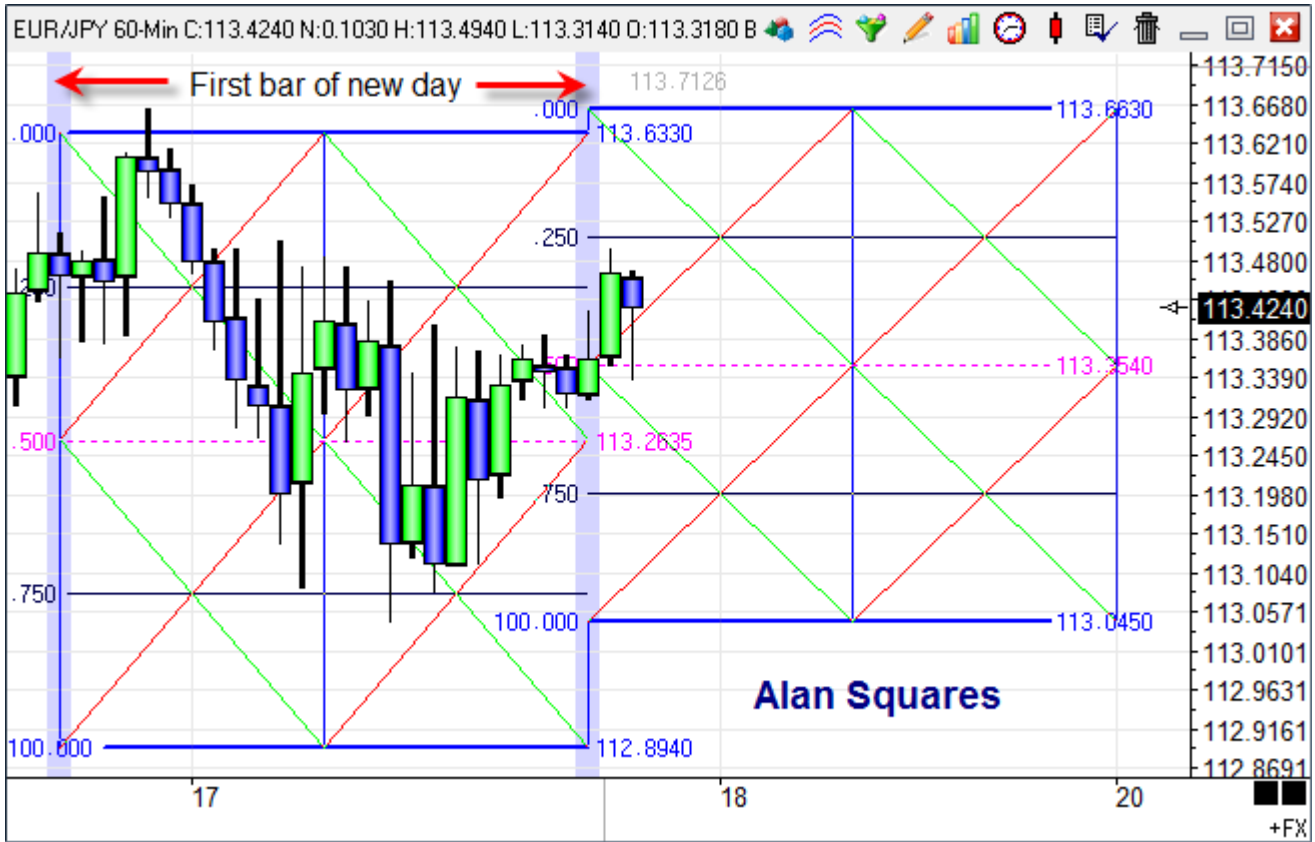


Move Alan Square

A DYO can relocate draw tools, such as Fibonacci Levels, Gann Square, Draw Lines, and Alan Square. This example will relocate 2 Alan Squares so they automatically move forward each day to be positioned on the day just completed and on the day in progress. The two prices used in the relocation will be the High and Low from the prior day.



The chart has 2 Alan Square draw tools, and 2 DYOs. The DYO that manages the placement of the Alan Square on the right will be discussed first.

Category	Variable	Selection #1 & #3	Op. [#]	Selection #2 & #4
Action	0	= object(#2).Set Point A(#3,		[Handle]
		{ Bar Index		Yesterday High
A	Flag	[0] := 1st bar of Session 2		<input type="checkbox"/> ZON
B	Expression	[0] := Yesterday High		<input type="checkbox"/>
C	Branching	if Not [A] then abort execution		<input type="checkbox"/>
D	Expression	[EndIndex] := Bar Index + 24		<input type="checkbox"/>
E	Study	[Handle] := Alan.Handle		<input type="checkbox"/>
F	Action	object([Handle]).Set Point A(Bar Index, Yesterday High)		<input type="checkbox"/>
G	Action	object([Handle]).Set Point B([EndIndex], Yesterday Low)		<input type="checkbox"/>

A – This flag is the trigger event for when to relocate the Alan Square.

B – Row B expression does not appear to be used by the DYO, but it is necessary to force the chart to maintain Yesterday values. Otherwise, lacking such a reference, the chart in its efficiency would skip calculating and maintaining daily values for Yesterday and Today.

C – This branching statement aborts this DYO's execution when line A is false.

D – The row calculates the Index for the 2nd construction point for the Alan Square. This ending location is 24 bars into the future on this hourly chart which has 24 bars per day. If the example is used on some other time frame chart, the number of bars between the ending point and the beginning point will need to be used in the expression.

E – The Alan Square was selected in the drop down selection list for studies in the Selection #1 field. The Handle selection was picked from the bottom of the Selection #2 list box. The handle is a pointer to the chart object and exposes access to the object's properties. The handle returned was assigned to a Variable named [Handle].

F- This statement from the bottom of the Action selection list sets the properties for the 1st construction point for the Alan Square. The object handle is the Selection #2 parameter. The Selection #3 field passes the Index for locating the point horizontally on the chart. The Selection #4 field passes the Price for locating the point vertically on the chart. The Bar Index parameter is the index of the bar being evaluated, and would be the index of the trigger event which is the index of the 1st bar of the 2nd session. Yesterday's High is used as the price.

G – This statement is similar to Row F. The 2nd construction point for the Alan Square is set to the ending index calculated on Row D, and Yesterday's Low is the price.

Insufficient lines remain in this DYO to implement locating the 2nd Alan Square, so another DYO is used, which will be discussed next.

Category	Variable	Selection #1 & #3	Op. [#]	Selection #2 & #4			
Action	244 ResetFlag	= if ## then V := #2		False			
	Not	[A]					
A	Flag	[0] := 1st bar of Session 2			<input checked="" type="checkbox"/>	ZON	Stuc
B	Action	if (Not [A]) then [ResetFlag] := False			<input type="checkbox"/>		
C	Branching	if Not [A] then abort execution			<input type="checkbox"/>		
D	Branching	if [ResetFlag] then abort execution			<input type="checkbox"/>		
E	Study	[Handle] := Alan.Handle			<input type="checkbox"/>		
F	Action	object([Handle]).Set Point A([PriorIndex], [PriorYH])			<input type="checkbox"/>		
G	Action	object([Handle]).Set Point B(Bar Index, [PriorYL])			<input type="checkbox"/>		
H	Expression	[ResetFlag] := True			<input type="checkbox"/>		
I	Expression	[PriorIndex] := Bar Index			<input type="checkbox"/>		
J	Expression	[PriorYH] := Yesterday High			<input type="checkbox"/>		
K	Expression	[PriorYL] := Yesterday Low			<input type="checkbox"/>		

Row A and C are the same as discussed in the 1st DYO.

The chart maintains daily value for Today and Yesterday but not for the day before Yesterday.

Therefore, this DYO will capture the values for Yesterday before they are replaced at the start of a new session. These old values for Yesterday High and Yesterday Low will be remembered in variables named [PriorYH] and [PriorYL].

Rows B, D and H work together to manage a ResetFlag so that the transfer of Yesterday's High and Low into the [PriorYH] and [PriorYL] happen a single time. If subsequent executions were not blocked, the current YH and YL would be transferred and the PriorYH and PriorYL would lose their values of the day before Yesterday.

B – Reset the flag to False when the chart is on any bar following the trigger bar.

D – Abort this DYO's execution on a subsequent tick update. The Alan Square has already been moved on the first tick of the new session, and the YH and YL values were already moved.

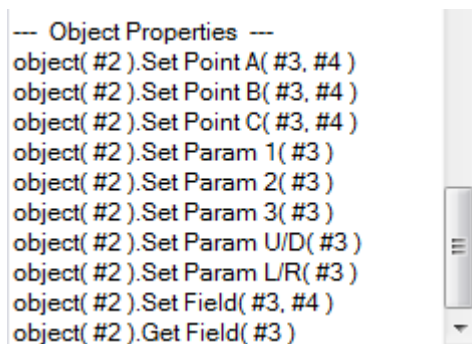
H – Set the flag on the pass through the DYO that moves the Alan Square and updates the PriorYH and PriorYL values. By setting the [ResetFlag] to True, subsequent calls will be blocked.

E – Find the handle to the Alan Square object. Though it is not apparent from the script, the 2nd Alan Square was selected in the study drop down list. This the handle points to a different object than used in the 1st DYO.

F - G – These rows are similar to the discussion in the 1st DYO. [PriorIndex] is one of the variables remembered by this DYO, and is the index of the session bar 1 day earlier.

I - J - K – These rows update the Variables that are used to remember the values for the day ahead of Yesterday. Yesterday values are captured before they are changed to the new day.

A DYO can be used to read or write other properties from study and draw tool objects. These selections are in the Action category.



```
-- Object Properties --
object( #2 ).Set Point A( #3, #4 )
object( #2 ).Set Point B( #3, #4 )
object( #2 ).Set Point C( #3, #4 )
object( #2 ).Set Param 1( #3 )
object( #2 ).Set Param 2( #3 )
object( #2 ).Set Param 3( #3 )
object( #2 ).Set Param U/D( #3 )
object( #2 ).Set Param L/R( #3 )
object( #2 ).Set Field( #3, #4 )
object( #2 ).Get Field( #3 )
```

Set Point A, B and C take 2 parameters, an Index passed in #3 and a Price passed in #4.

Set Param 1, 2, 3, U/D, and L/R have one parameter and that is the value to assign. Parameter 1 for a Moving Average study would be the 1st average parameter on the study property form. U/D is the up / down price adjustment. L/R is the horizontal offset adjustment.

Set Field can assign any of the object's properties. See the GetStudy documentation in the ESPL manual for a list of selection values to use in field #3. #4 is the value to assign.

Get Field can read any of the object's properties. See the GetStudy documentation in the ESPL manual for the selection values to pass in the #3 field.

Move Andrews Pitchfork

This example uses swing points from the Pesavento Patterns study to automatically position the Andrews Pitchfork, which has three construction points. The chart contains an Andrews Pitchfork, a Pesavento Patterns study, and a DYO.

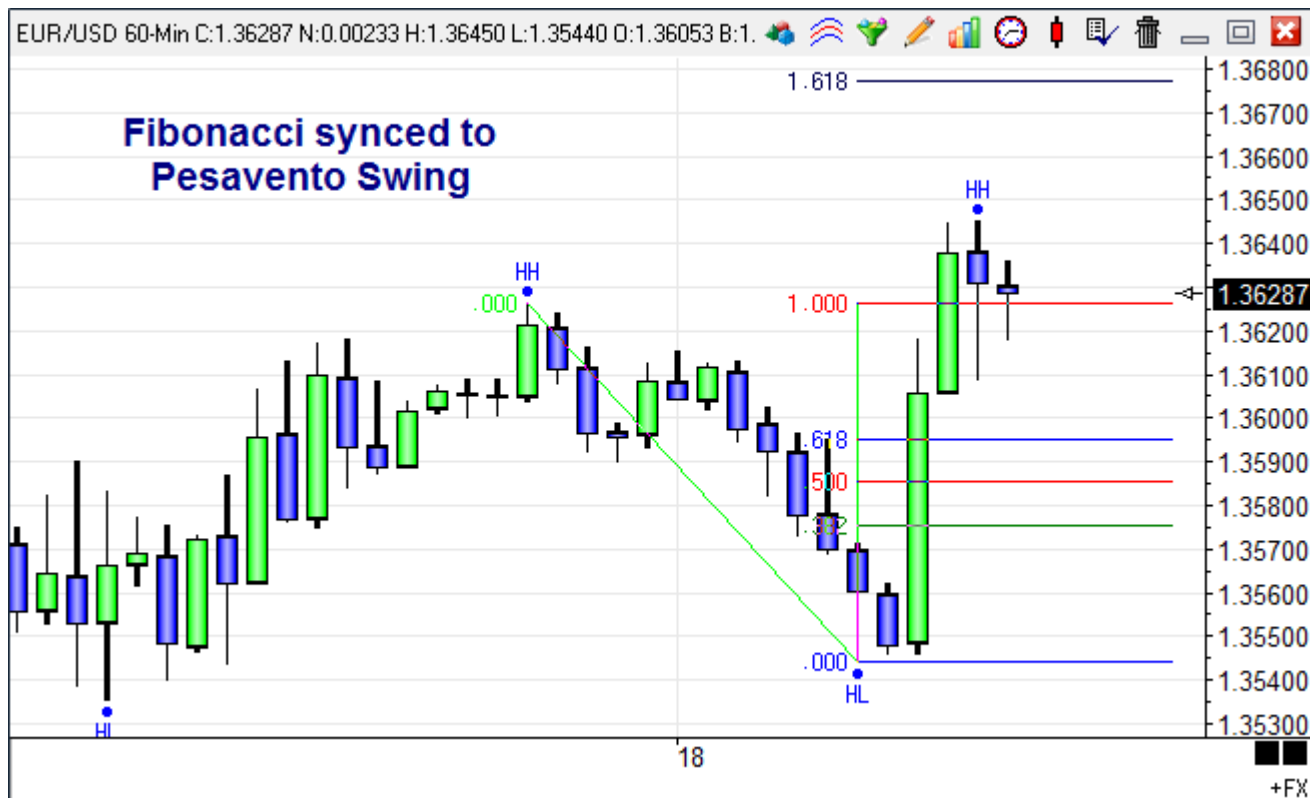


Category	Variable	Selection #1 & #3	Op. [#]	Selection #2 & #4
Study	0	= Pesavento	g	Swing bar
<div style="display: flex; align-items: center;"> ↶ ↷ ↻ (↵ ↶ ↷ ↻ </div>				
A	Study	[0] := Pesavento.Swing bar		<input type="checkbox"/>
B	Branching	if Not [A] then abort execution		<input type="checkbox"/>
C	Study	[PointAprice] := Pesavento.Swing 4 value		<input type="checkbox"/>
D	Study	[PointBprice] := Pesavento.Swing 3 value		<input type="checkbox"/>
E	Study	[PointCprice] := Pesavento.Swing 2 value		<input type="checkbox"/>
F	Study	[PointAindex] := Pesavento.Swing 4 index		<input type="checkbox"/>
G	Study	[PointBindex] := Pesavento.Swing 3 index		<input type="checkbox"/>
H	Study	[PointCindex] := Pesavento.Swing 2 index		<input type="checkbox"/>
I	Study	[Handle] := Andrews.Handle		<input type="checkbox"/>
J	Action	object([Handle]).Set Point A([PointAindex], [PointAprice])		<input type="checkbox"/>
K	Action	object([Handle]).Set Point B([PointBindex], [PointBprice])		<input type="checkbox"/>
L	Action	object([Handle]).Set Point C([PointCindex], [PointCprice])		<input type="checkbox"/>

The DYO reads 3 swing points from the Pesavento and sets the Andrews Pitchfork points.

Move Fibonacci Levels

This example is similar to the Move Alan Square example. A DYO will move a Fibonacci Levels draw tool to be positioned on a recent Pesavento swing. The chart contains a Fibonacci Levels draw tool, a Pesavento Patterns study, and a DYO.



Category	Variable	Selection #1 & #3	Op. [#]	Selection #2 & #4
Action	0	= object(#2).Set Point A(#3,		[Handle]
		([PointAindex]		[PointAprice]
A	Study	[0] := Pesavento.Swing bar		<input type="checkbox"/> ZON
B	Branching	if Not [A] then abort execution		<input type="checkbox"/>
C	Study	[PointAprice] := Pesavento.Swing 3 value		<input type="checkbox"/>
D	Study	[PointBprice] := Pesavento.Swing 2 value		<input type="checkbox"/>
E	Study	[PointAindex] := Pesavento.Swing 3 index		<input type="checkbox"/>
F	Study	[PointBindex] := Pesavento.Swing 2 index		<input type="checkbox"/>
G	Study	[Handle] := Fibonacci.Handle		<input type="checkbox"/>
H	Action	object([Handle]).Set Point A([PointAindex], [PointAprice]		<input type="checkbox"/>
I	Action	object([Handle]).Set Point B([PointBindex], [PointBprice]		<input type="checkbox"/>

C-F – These rows read the prices and bar indexes of the prior Pesavento swing.

G-I – These rows find the Fibonacci tool and set its two construction points.