



# TRADE NAVIGATOR

by Genesis Financial Technologies

**Perry Kaufman's  
Market Movement  
Library**

**Finally Strategy Development and Back Testing Just Got Easier!**

**Introduction:**

This library contains four studies designed around Perry Kaufman's market movement pattern recognition studies. The user is encouraged to read Chapter 15 of Perry Kaufman's book Trading Systems and Methods for a comprehensive description of these studies.

**Library Name:**

Perry Kaufman Market Movement Library

**Library Installation:**

After purchasing the Library, use the Update Data tool (blue telephone icon) on the General Toolbar to download the library in to Trade Navigator.

**Perry Kaufman Market Movement Templates:**

Once the library is imported in to Trade Navigator the user will have access to the following Perry Kaufman templates:

Perry Kaufman Weekday Pattern Template  
Perry Kaufman Continued Trend Pattern Template  
Perry Kaufman Reversal Pattern Template  
Perry Kaufman Extreme Reversal Pattern Template

To insert a study on a chart use the "Templates" drop down menu to select the desired template. Alternately, the user can insert four separate charts in the Trade Navigator window and then insert one template on each chart.

## **Perry Kaufman Weekday Pattern Recognition Definition:**

The following is an excerpt from Perry Kaufman's book *Trading Systems and Methods*, which describes the weekday patterns.

### “Weekday Patterns

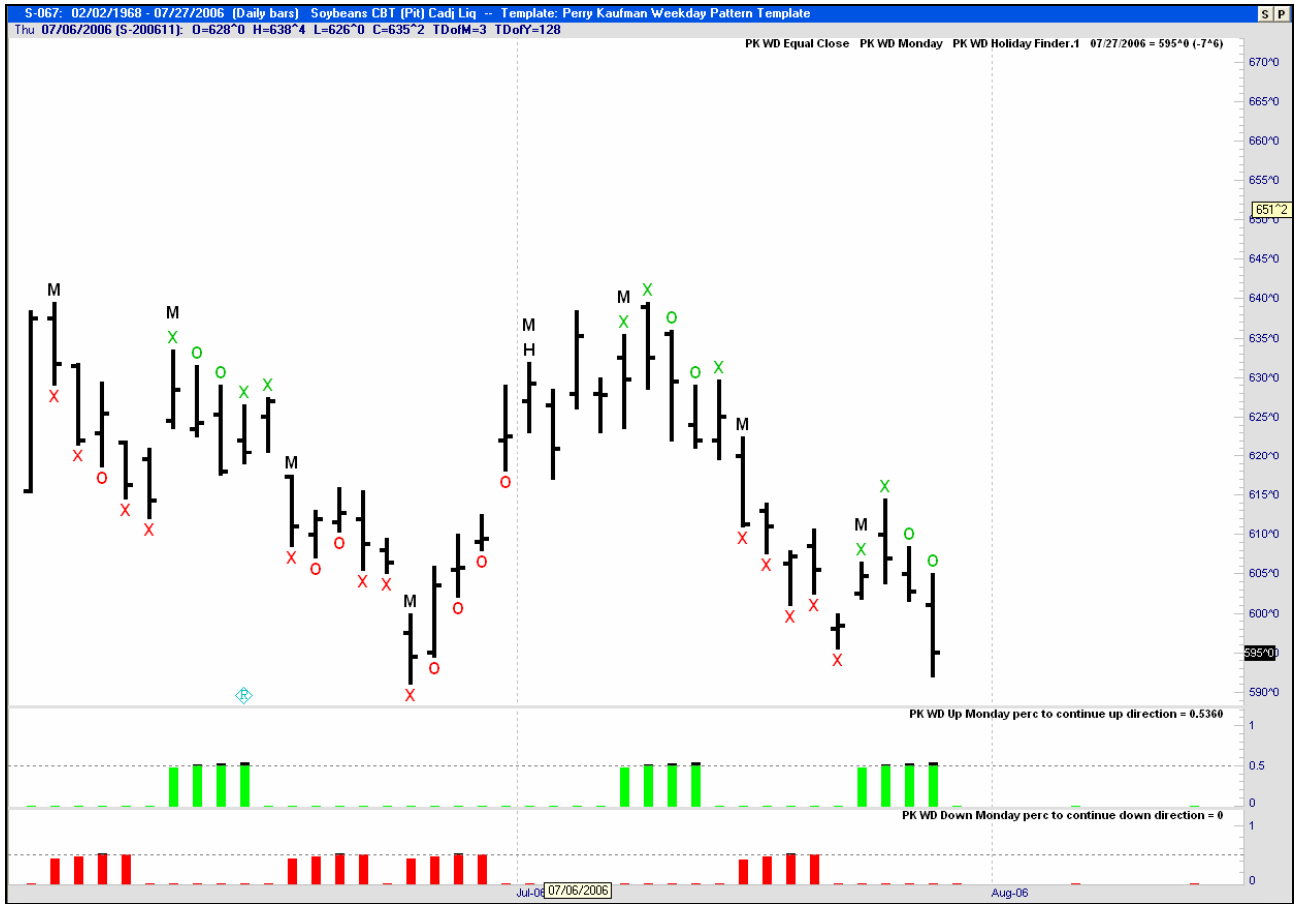
...The first aspect of the test was to define the weekday pattern. This was done in terms of the Friday-to-Monday move (close-to-close). Monday always received the value X, regardless of whether its direction from Friday was up or down. For each day that closed in the same direction as the Friday-to-Monday move, another X is used; when the close reversed direction, an O is recorded. Therefore, XOXXO means that Tuesday and Friday, represented by O, closed in the opposite direction from the prior Friday-to-Monday move, while Wednesday and Thursday were in the same direction....

It might be that there is a distinction between the weeks that begin with an upward move on Monday rather than a lower price, but both cases were combined. This assumes that the pattern, rather than the direction, is most important. It would be reasonable to have assumed that the upward bias of the stock and interest rate markets during the past 10 years would justify a separation of patterns according to their initial direction.”

The Genesis weekday pattern recognition template does in fact make distinctions between up Mondays and down Mondays so the weekday patterns are evaluated separately.

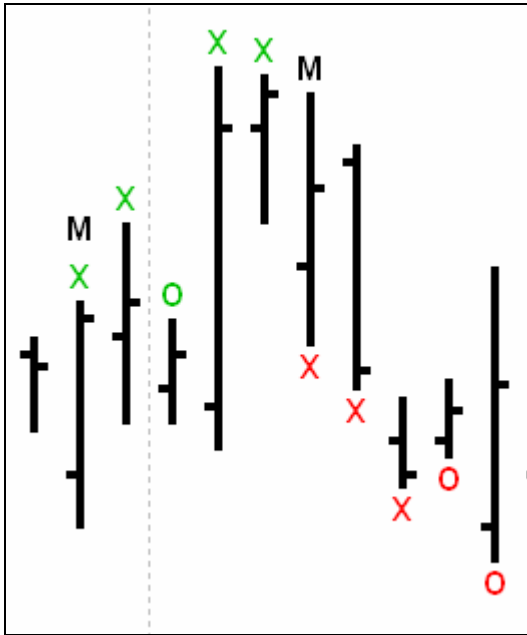
# Perry Kaufman Weekday Pattern Template Layout:

Below is a picture of what the Trade Navigator screen should look like after installing the Perry Kaufman Weekday Pattern Template.

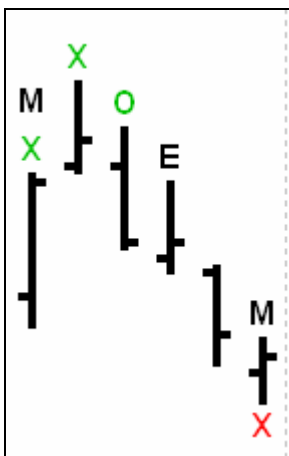


### Perry Kaufman Weekday Indicator Descriptions:

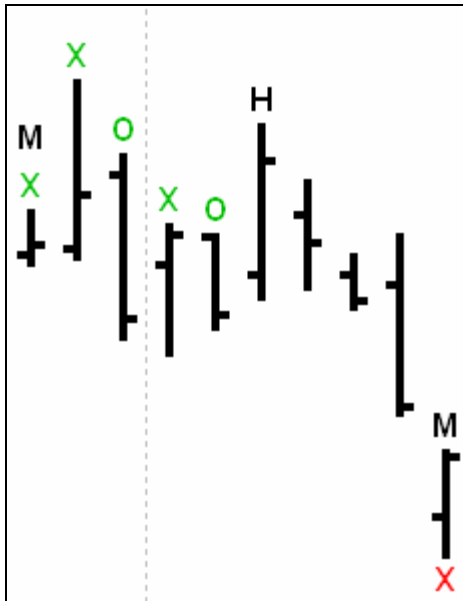
The snapshot below shows two trading weeks. The first week started with a higher Monday close from Friday's close and therefore a green X appears above the Monday bar (indicated by the M). For the balance of the week, X indicates a higher close-to-close direction and an O indicates a lower close-to-close direction. The following week started with a lower Monday close-to-Friday close so a red X appears below the Monday bar. For the balance of the second week, X indicates a lower close-to-close move and O indicates a higher close-to-close move.



The snap shot below shows an example of two days that have equal closes. As a result, an E appears above the second close and no further evaluation is done for the balance of the week.



The snap shot below shows an example of a week that contains a holiday. As a result, an H appears above the first trading day of the week and no further evaluation is done for the balance of the week.



The green bars on the top indicator display the percentage chance that the next bar will be in the reference up Monday direction given the sequence of Xs and Os displayed. The list below shows the percentage data gathered by placing the cursor on each of the green bars and then observing the percentage displayed on the top of the window.

S-067: 02/02/1968 - 07/27/2006 (Daily bars) Soybeans CBT (Pit) Cadj Liq -- Template: Perry Kaufman Weekday Pattern Template  
 Thu 07/27/2006 (S-200611): PK WD Up Monday perc to continue up direction= 0.5360

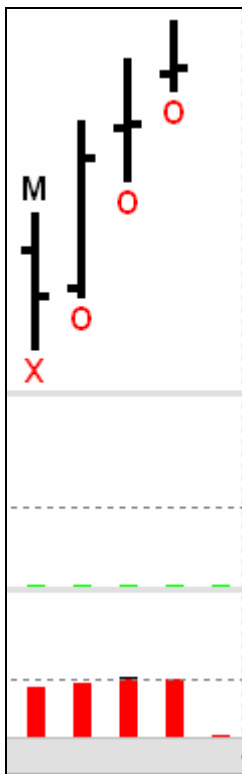
- Monday - There is a 47% chance that Tuesday's close will be higher than Monday's close
- Tuesday - There is a 51% chance that Wednesday's close will be higher than Tuesday's close
- Wednesday - There is a 52% chance that Thursday's close will be higher than Wednesday's close
- Thursday - There is a 53% chance that Friday's close will be higher than Thursday's close



The red bars on the bottom indicator display the percentage chance that the next bar will be in the reference down Monday direction given the sequence of Xs and Os displayed. The list below shows the percentage data gathered by placing the cursor on each of the red bars and then observing the percentage displayed on the top of the window.

S-067: 02/02/1968 - 07/27/2006 (Daily bars) Soybeans CBT (Pit) Cadj Liq -- Template: Perry Kaufman Weekday Pattern Template  
 Thu 06/29/2006 (S-200611): PK WD Down Monday perc to continue down direction= 0.5000

- Monday - There is a 42% chance that Tuesday's close will be lower than Monday's close
- Tuesday - There is a 45% chance that Wednesday's close will be lower than Tuesday's close
- Wednesday - There is a 52% chance that Thursday's close will be lower than Wednesday's close
- Thursday - There is a 50% chance that Friday's close will be lower than Thursday's close



## **Perry Kaufman Reversal Pattern Recognition Definition:**

The following is an excerpt from Perry Kaufman's book *Trading Systems and Methods*, which describes the reversal patterns.

### “Reversal Patterns

...The intension is to find a pattern in the open, high, low, and closing prices of the day that will help predict the next day's pattern or direction. Three combinations are tabulated here:

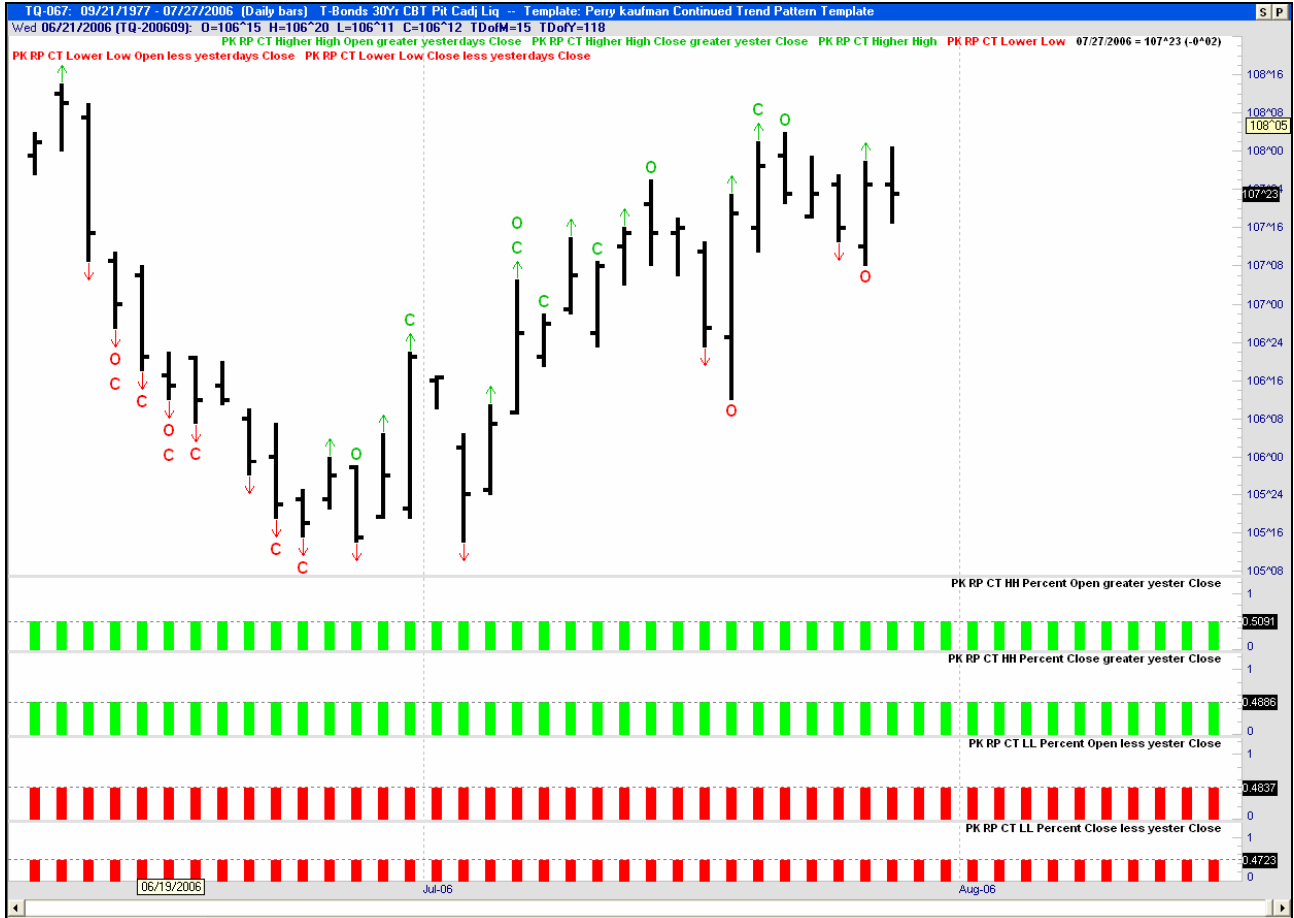
*Intraday trend continued (“Trend”).* A continued uptrend is set up when yesterday's high is greater than the previous high and yesterday's close is greater than the previous close. We then find the percentage of days that open higher or close higher than yesterday. Continued downtrends are the opposite pattern.

*Reversal day (“Reversal”).* Beginning with yesterday's pattern of a higher high but a close below the prior close, a reversal day opens lower or closes lower than the previous close. An upward reversal starts with a lower trend day.

*Extreme reversal (“Extreme”).* Yesterday's high was greater than the prior high, but yesterday's close was below the prior low. The reversal from up to down is continued if today's open or close is lower than yesterday's close.”

# Perry Kaufman Continued Trend Pattern Template Layout:

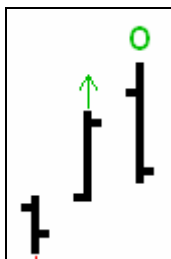
Below is a picture of how the Trade Navigator screen should look after installing the Perry Kaufman Continued Trend Pattern Template.



**Perry Kaufman Higher High Continued Trend Patterns:**

When a green up arrow appears, the histogram indicators below will display the percent chance that the next bar's open will be greater than the current bar's close or the next bar's close will be greater than the current bar's close. A green "O" or "C" will appear above the bar if either of these two patterns occur. The top two green indicators are of interest and their names begin with "PK RP CT HH"

High.1 > High.2 and  
Close.1 > Close.2 and  
Open > Close.1



High.1 > High.2 and  
Close.1 > Close.2 and  
Close > Close.1



If the green up arrow appears then there is 47% chance that the next bar's open will be greater than the current bar's close.



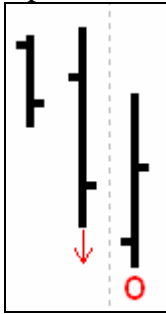
If the green up arrow appears then there is 45% chance that the next bar's close will be greater than the current bar's close.



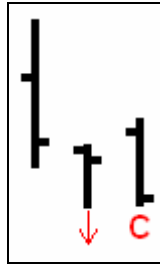
**Perry Kaufman Lower Low Continued Trend Patterns:**

When a red down arrow appears, the histogram indicators below will display the percent chance that the next bar's open will be less than the current bar's close or the next bar's close will be less than the current bar's close. A red "O" or "C" will appear above the bar if either of these two patterns occur. The bottom two red indicators are of interest and their names begin with "PK RP CT LL"

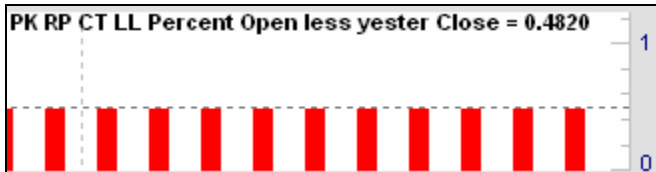
Low.1 < Low.2 and  
Close.1 < Close.2 and  
Open < Close.1



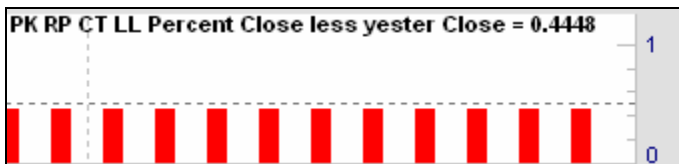
Low.1 < Low.2 and  
Close.1 < Close.2 and  
Close < Close.1



If the red down arrow appears then there is 48% chance that the next bar's open will be less than the current bar's close.

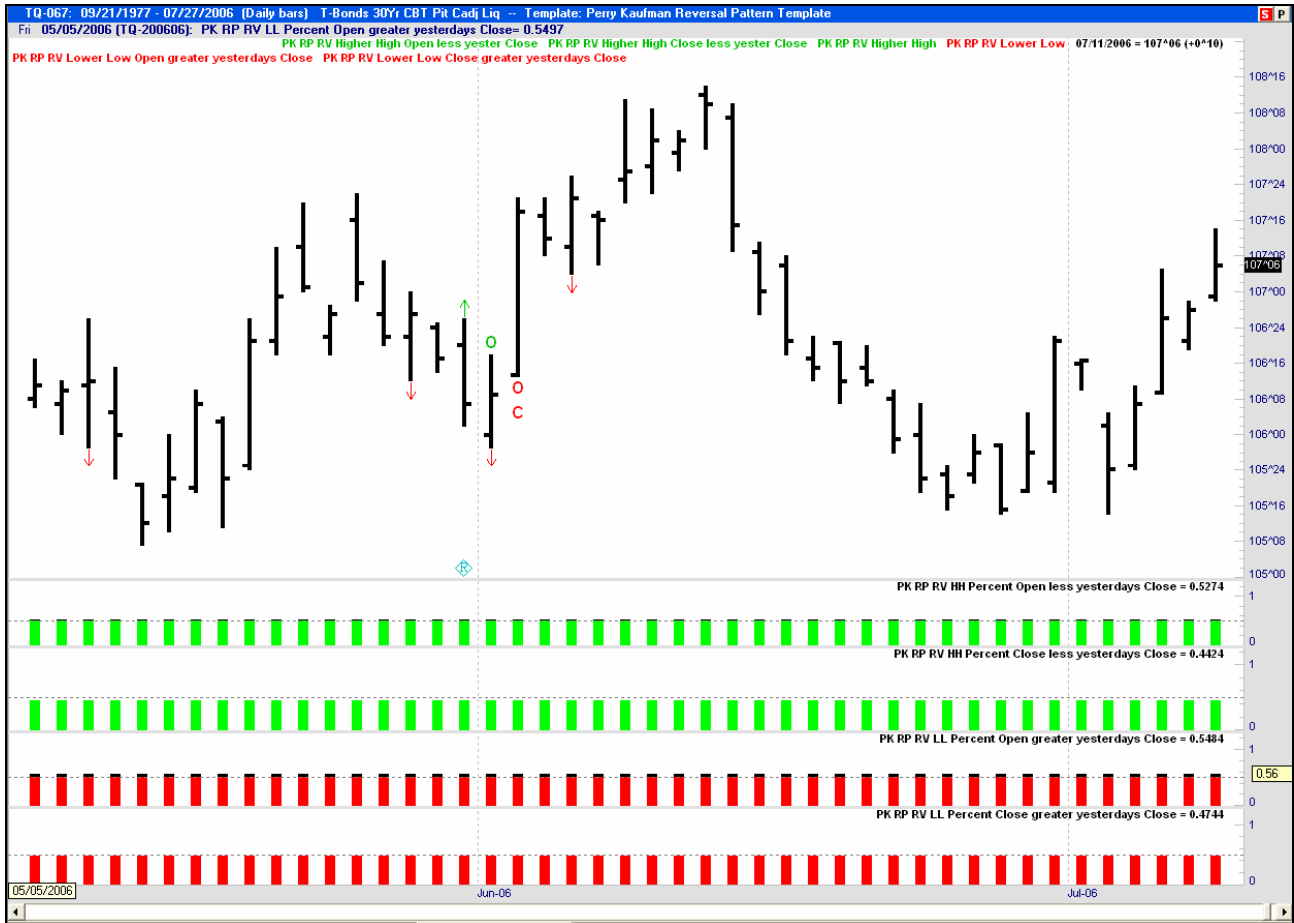


If the red down arrow appears then there is 44% chance that the next bar's close will be less than the current bar's close



# Perry Kaufman Reversal Pattern Template Layout:

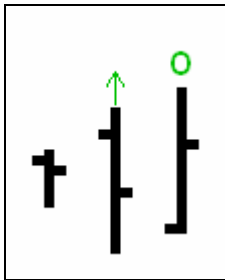
Below is a picture of how the Trade Navigator screen should look after installing the Perry Kaufman Reversal Pattern Template.



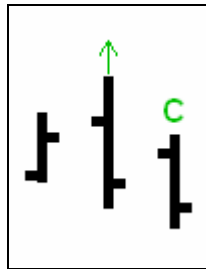
**Perry Kaufman Higher High Reversal Patterns:**

When a green up arrow appears, the histogram indicators below will display the percent chance that the next bar's open will be less than the current bar's close or the next bar's close will be less than the current bar's close. A green "O" or "C" will appear above the bar if either of these two patterns occur. The top two green indicators are of interest and their names begin with "PK RP RV HH"

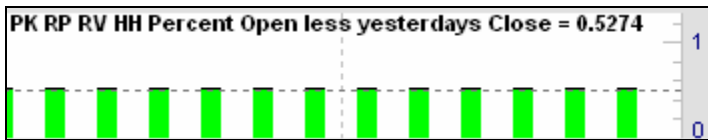
High.1 > High.2 and  
Close.1 < Close.2 and  
Open < Close.1



High.1 > High.2 and  
Close.1 < Close.2 and  
Close < Close.1



If the green up arrow appears then there is 52% chance that the next bar's open will be less than the current bar's close.



If the green up arrow appears then there is 44% chance that the next bar's close will be less than the current bar's close.

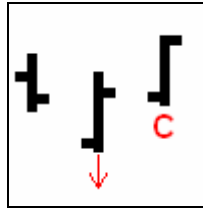
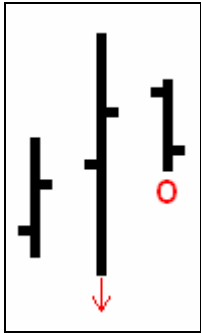


### Perry Kaufman Lower Low Reversal Patterns:

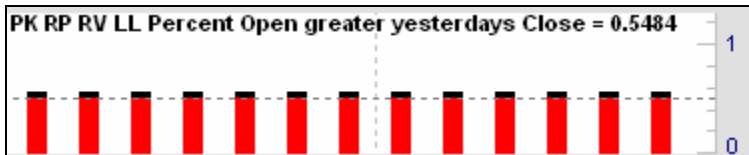
When a red down arrow appears, the histogram indicators below will display the percent chance that the next bar's open will be greater than the current bar's close or the next bar's close will be greater than the current bar's close. A red "O" or "C" will appear below the bar if either of these two patterns occur. The bottom two red indicators are of interest and their names begin with "PK RP RV LL"

Low.1 < Low.2 and  
Close.1 > Close.2 and  
Open > Close.1

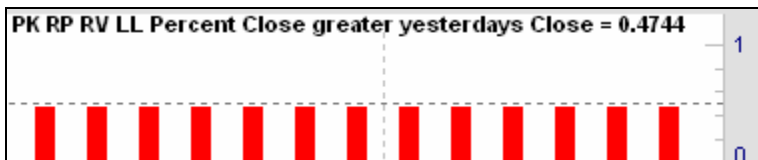
Low.1 < Low.2 and  
Close.1 > Close.2 and  
Close > Close.1



If the red down arrow appears then there is 54% chance that the next bar's open will be greater than the current bar's close.

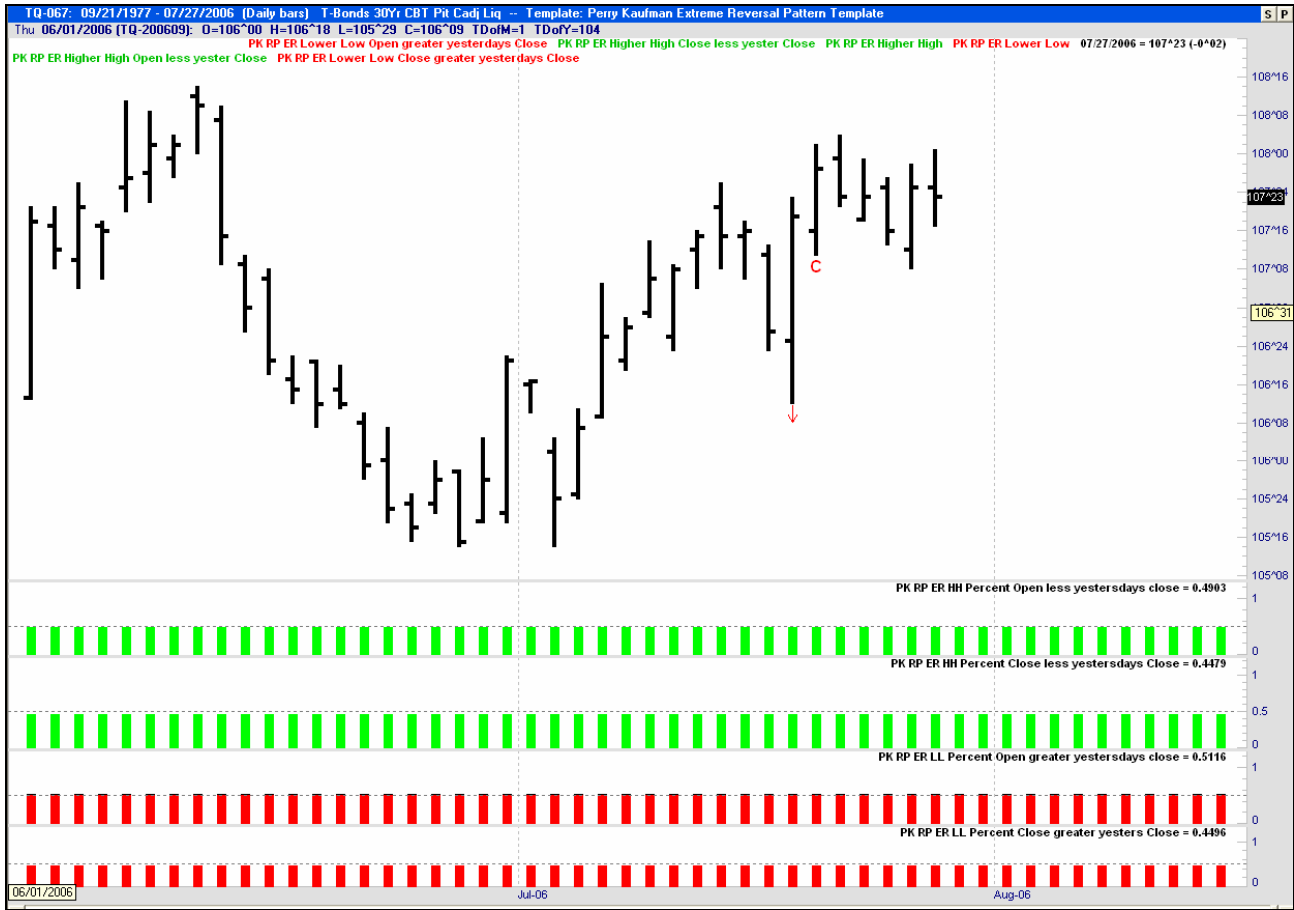


If the red down arrow appears then there is 47% chance that the next bar's close will be greater than the current bar's close



# Perry Kaufman Extreme Reversal Pattern Template Layout:

Below is a picture of how the Trade Navigator screen should look after installing the Perry Kaufman Extreme Reversal Pattern Template.

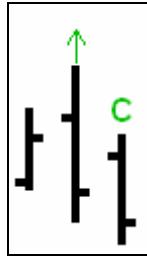
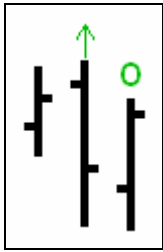


**Perry Kaufman Higher High Extreme Reversal Patterns:**

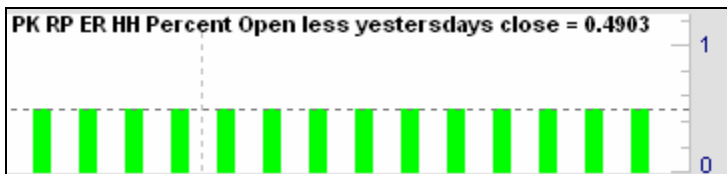
When a green up arrow appears, the histogram indicators below will display the percent chance that the next bar's open will be less than the current bar's close or the next bar's close will be less than the current bar's close. A green "O" or "C" will appear above the bar if either of these two patterns occur. The top two green indicators are of interest and their names begin with "PK RP ER HH"

High.1 > High.2 and  
Close.1 < Low.2 and  
Open < Close.1

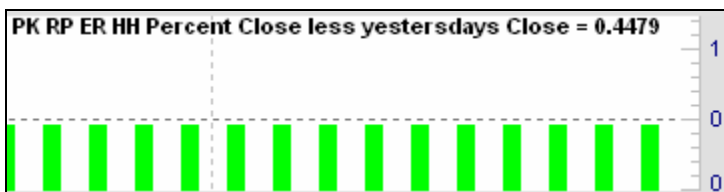
High.1 > High.2 and  
Close.1 < Low.2 and  
Close < Close.1



If the green up arrow appears then there is 49% chance that the next bar's open will be less than the current bar's close.



If the green up arrow appears then there is 44% chance that the next bar's close will be less than the current bar's close

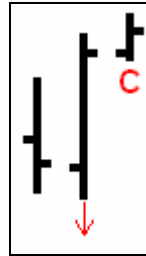
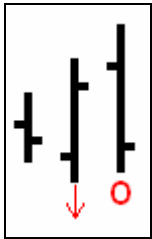


**Perry Kaufman Lower Low Extreme Reversal Patterns:**

When a red down arrow appears, the histogram indicators below will display the percent chance that the next bar's open will be greater than the current bar's close or the next bar's close will be greater than the current bar's close. A red "O" or "C" will appear below the bar if either of these two patterns occur. The bottom two red indicators are of interest and their names begin with "PK RP ER LL"

Low.1 < Low.2 and  
Close.1 > High.2 and  
Open > Close.1

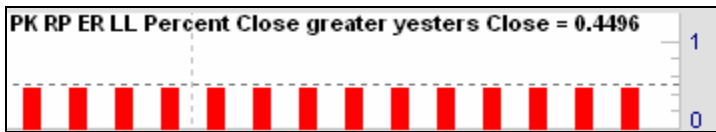
Low.1 < Low.2 and  
Close.1 > High.2 and  
Close > Close.1



If the red down arrow appears then there is 51% chance that the next bar's open will be greater than the current bar's close.



If the red down arrow appears then there is 44% chance that the next bar's close will be greater than the current bar's close



## Appendix A

### Perry Kaufman Library – Templates, Studies, and Functions list

#### Templates:

Perry Kaufman Weekday Pattern Template  
Perry Kaufman Continued Trend Pattern Template  
Perry Kaufman Reversal Pattern Template  
Perry Kaufman Extreme Reversal Pattern Template

#### Studies:

Perry Kaufman Weekday  
PK Weekday Support Study  
PK Weekday Up Monday Study  
PK Weekday Up Monday Percent Study  
PK Weekday Down Monday Study  
PK Weekday Down Monday Percent Study

#### Perry Kaufman Continued Trend

PK Continued Trend Study  
PK Continued Trend HH Percent Close greater yester Close Study  
PK Continued Trend HH Percent Open greater yester Close Study  
PK Continued Trend LL Percent Close less yester Close Study  
PK Continued Trend LL Percent Open less yester Close Study

#### Perry Kaufman Reversal

PK Reversal Study  
PK Reversal HH Percent Close less yesterdays Close Study  
PK Reversal HH Percent Open less yesterdays Close Study  
PK Reversal HH Percent Open less yesterdays Close Study  
PK Reversal LL Percent Close greater yesterdays Close Study  
PK Reversal LL Percent Open greater yesterdays Close Study

#### Perry Kaufman Extreme Reversal

PK Extreme Reversal Study  
PK Extreme Reversal HH Percent Close less yesterdays Close Study  
PK Extreme Reversal HH Percent Open less yesterdays Close Study  
PK Extreme Reversal LL Percent Close greater yesterdays Close Study  
PK Extreme Reversal LL Percent Open greater yesterdays Close Study

**Functions:**

Perry Kaufman Weekday

PK WD Holiday Finder

PK WD Equal Close

PK WD Monday

PK WD Up Monday All Tuesday combinations

PK WD Up Monday All Wednesday combinations

PK WD Up Monday All Thursday combinations

PK WD Up Monday All Friday combinations

PK WD Up Monday perc to continue up direction

PK WD Down Monday All Tuesday combinations

PK WD Down Monday All Wednesday combinations

PK WD Down Monday All Thursday combinations

PK WD Down Monday All Friday combinations

PK WD Down Monday perc to continue down direction

Perry Kaufman Weekday (Continued)

PK WD Up Monday

PK WD Down Monday

PK WD Up Monday XO  
PK WD Up Monday XX

PK WD Down Monday XO  
PK WD Down Monday XX

PK WD Up Monday XOO  
PK WD Up Monday XOX  
PK WD Up Monday XXO  
PK WD Up Monday XXX

PK WD Down Monday XOO  
PK WD Down Monday XOX  
PK WD Down Monday XXO  
PK WD Down Monday XXX

PK WD Up Monday XOOO  
PK WD Up Monday XOOX  
PK WD Up Monday XOXO  
PK WD Up Monday XOXO  
PK WD Up Monday XXOO  
PK WD Up Monday XXOX  
PK WD Up Monday XXXO  
PK WD Up Monday XXXX

PK WD Down Monday XOOO  
PK WD Down Monday XOOX  
PK WD Down Monday XOXO  
PK WD Down Monday XOXO  
PK WD Down Monday XXOO  
PK WD Down Monday XXOX  
PK WD Down Monday XXXO  
PK WD Down Monday XXXX

PK WD Up Monday XOOOO  
PK WD Up Monday XOOOX  
PK WD Up Monday XOOXO  
PK WD Up Monday XOOXX  
PK WD Up Monday XOXOO  
PK WD Up Monday XOXOX  
PK WD Up Monday XOXO  
PK WD Up Monday XOXO  
PK WD Up Monday XOXO  
PK WD Up Monday XXOOO  
PK WD Up Monday XXOOX  
PK WD Up Monday XXOXO  
PK WD Up Monday XXOXX  
PK WD Up Monday XXXOO  
PK WD Up Monday XXXOX  
PK WD Up Monday XXXXO  
PK WD Up Monday XXXXX

PK WD Down Monday XOOOO  
PK WD Down Monday XOOOX  
PK WD Down Monday XOOXO  
PK WD Down Monday XOOXX  
PK WD Down Monday XOXOO  
PK WD Down Monday XOXOX  
PK WD Down Monday XOXO  
PK WD Down Monday XOXO  
PK WD Down Monday XOXO  
PK WD Down Monday XXOOO  
PK WD Down Monday XXOOX  
PK WD Down Monday XXOXO  
PK WD Down Monday XXOXX  
PK WD Down Monday XXXOO  
PK WD Down Monday XXXOX  
PK WD Down Monday XXXXO  
PK WD Down Monday XXXXX

Perry Kaufman Continued Trend

PK RP CT Lower Low Open less yesterdays Close  
PK RP CT Lower Low Close less yesterdays Close  
PK RP CT Lower Low  
PK RP CT LL Percent Open less yester Close  
PK RP CT LL Percent Close less yester Close  
PK RP CT Higher High Open greater yesterdays Close  
PK RP CT Higher High Close greater yester Close  
PK RP CT Higher High  
PK RP CT HH Percent Open greater yester Close  
PK RP CT HH Percent Close greater yester Close

Perry Kaufman Reversal

PK RP RV Lower Low Open greater yesterdays Close  
PK RP RV Lower Low Close greater yesterdays Close  
PK RP RV Lower Low  
PK RP RV LL Percent Open greater yesterdays Close  
PK RP RV LL Percent Close greater yesterdays Close  
PK RP RV Higher High Open less yester Close  
PK RP RV Higher High Close less yester Close  
PK RP RV Higher High  
PK RP RV HH Percent Open less yesterdays Close  
PK RP RV HH Percent Close less yesterdays Close

Perry Kaufman Extreme Reversal

PK RP ER Lower Low Open greater yesterdays Close  
PK RP ER Lower Low Close greater yesterdays Close  
PK RP ER Lower Low  
PK RP ER LL Percent Open greater yesterdays close  
PK RP ER LL Percent Close greater yester Close  
PK RP ER Higher High Open less yester Close  
PK RP ER Higher High Close less yester Close  
PK RP ER Higher High  
PK RP ER HH Percent Open less yesterdays close  
PK RP ER HH Percent Close less yesterdays Close

**Bibliography:**

Kaufman, P. J. *Trading Systems and Methods* New York: Wiley, 1998; pages 400 - 416  
ISBN # 0-471-14879-2