Version	Date
FutureSource Workstation 3.2	July 28, 2008

Workstation 3.2



Release Notes

Version	Date	
FutureSource Workstation 3.2	July 28, 2008	

New Login Dialog

Workstation's login dialog now has settings to control how Workstation starts up.



Always Use Last Workspace

When this box is checked, Workstation will also open to the Last Workspace used. When unchecked, Workstation will open to an new, blank Workspace.

Do Not Prompt For Login

When this box is checked, Workstation will automatically Login in when launched. When unchecked, the user will be prompted with the Login Parameters dialog.

Save Login Info

When this box is checked, Workstation will save the Login Credentials. When unchecked, Login Credentials are deleted and user will be prompted to enter User Name and Password.

When the "Save Login Info" is checked and "Do Not Prompt For Login" is unchecked, User Name and Password will be filled in and user only needs to click OK to continue to login.

Note: When all 3 boxes are checked, Workstation will open up in the same manner as previous versions of Workstation. All 3 boxes are checked by Default.

Forward Curve Window

A Forward Curve chart allows you to chart a set of Futures Contract Prices with different expirations, on a specific date for a given commodity.

Click the Forward Curve Button from the Toolbar

Or

Version	Date
FutureSource Workstation 3.2	July 28, 2008

From the File Menu and then New Forward Curve Window

You will be presented with a Empty Forward Curve Window From the **Toolbar** Select **Add Forward Curve** or **Add Forward Curve** Spread

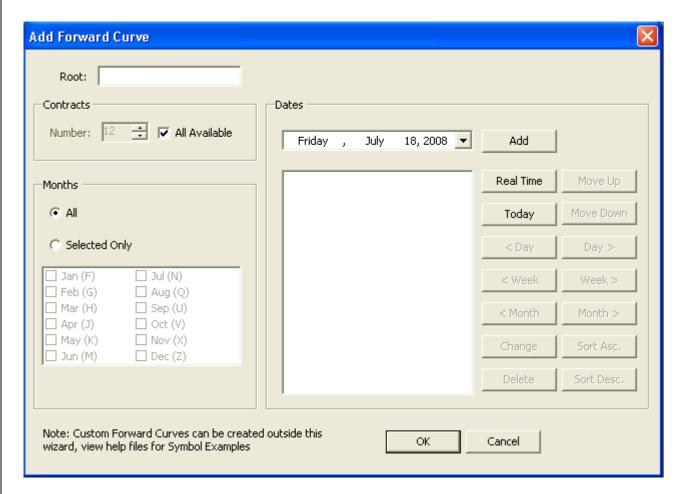
Or

From the Context Menu Select Add Forward Curve or Add Forward Curve Spread

Or

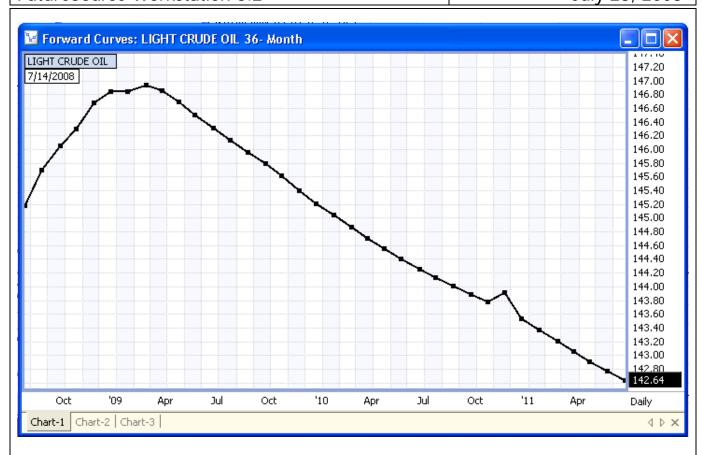
From the Forward Curve Drop Down menu above the Toolbar

Forward Curve:

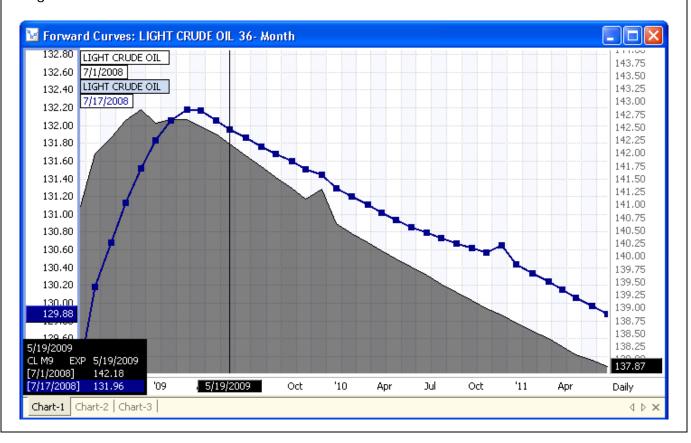


Version	Date
FutureSource Workstation 3.2	July 28, 2008

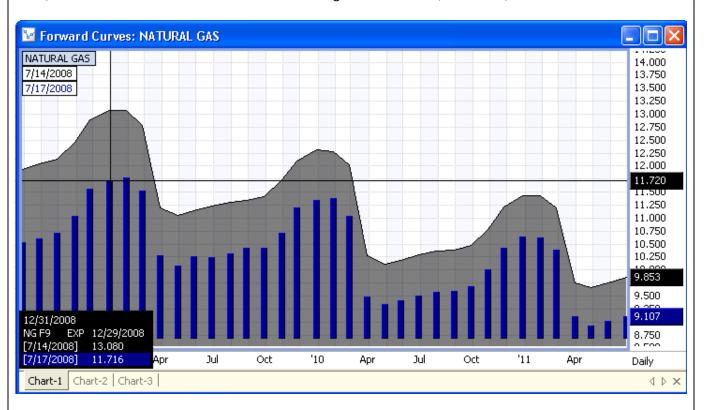
Symbol Entry	Description
Root	Input field for the commodities Root Symbol
Contracts	Description
Number	Input field for number of Contracts in the Curve
All Available	When selected, all Forward Contracts are in the Curve
Months	Description
All	All Available contract months
Selected Only	Only use the selected months in the curve
Dates	Description
Date Picker	Used to select a date for which to draw the Curve
Add	Select once a date has been selected with the Date Picker
Real Time	Select to draw a real time curve
Today	Select to draw a curve with today's date
< Day	Add a Curve that uses data from 1 Day less then selected date
< Week	Add a Curve that uses data from 1 Week less then selected date
< Month	Add a Curve that uses data from 1 Month less then selected date
Day >	Add a Curve that uses data from 1 Day ahead of selected date
Week >	Add a Curve that uses data from 1 Week ahead of selected date
Month >	Add a Curve that uses data from 1 Month ahead of selected date
Change	Change selected date
Delete	Delete selected date
Sort Asc.	Sort dates in ascending order
Sort Desc.	Sort dates in descending order
Move Up	Move selected date up in the list
Move Down	Move selected date down in the list



In the example above we are viewing a Forward Curve of Crude, 36 months out. The curve is using data from 7/14.



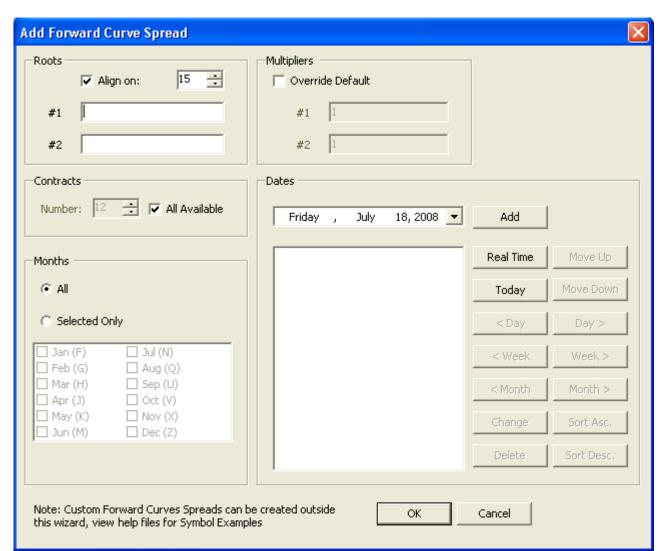
In the example above, we are viewing a Forward Curve as of the closing on 7/1/2008 (shaded area) with the Forward curve as of the closing on 7/17/08. (Blue Line)



In the example above, we are viewing a Forward Curve as of the closing on 7/14 (Shaded Area) with the Forward curve as of the closing on 7/17/08 (Blue Histogram).

Version	Date
FutureSource Workstation 3.2	July 28, 2008

Forward Curve Spread



Roots	Description
#1	Input field for the first commodities Root Symbol
#2	Input field for the second commodities Root Symbol
Align on	Used to align the date in which both curve points are plotted. To be used when roots #1 & #2 have different expiration dates.
Contracts	Description
Number	Input field for number of Contracts in the Curve
All Available	When selected, all Forward Contracts are in the Curve
Months	Description
All	All Available contract months

Version	Date
FutureSource Workstation 3.2	July 28, 2008

Selected Only	Only use the selected months in the curve
Multipliers	Description
Override Default	Select to apply multiplier. Default is 1 to 1
#1	Multiplier to apply to Commodity 1
#2	Multiplier to apply to Commodity 2
Dates	Description
Date Picker	Used to select a date for which to draw the Curve from
Add	Select once a date has been selected
Real Time	Select to draw a real time curve
Today	Select to draw a curve with today's date
< Day	Add a Curve that uses data from 1 Day less then selected date
< Week	Add a Curve that uses data from 1 Week less then selected date
< Month	Add a Curve that uses data from 1 Month less then selected date
Day >	Add a Curve that uses data from 1 Day ahead of selected date
Week >	Add a Curve that uses data from 1 Week ahead of selected date
Month >	Add a Curve that uses data from 1 Month ahead of selected date
Change	Change selected date
Delete	Delete selected date
Sort Asc.	Sort dates in ascending order
Sort Desc.	Sort dates in descending order
Move Up	Move selected date up in the list
Move Down	Move selected date down in the list



In the example above, we are viewing a Forward Curve Spread, CL to BRN-ICE. Since CL and BRN-ICE do not expire on the same day, we have aligned the Curve points to the 15th of the month.

Forward Curves Syntax:

You can also manually enter a Forward Curve as opposed to using the Wizard. Manual entry is very useful for complex spread curves or any expression you want to apply in your Forward Curve.

Syntax for entering manually (All possible parameters):

={'RootSymbol':AlingOn/MonthsIncluded/NumofForwards}:DAILY(YYYY/MM/DD).Field

'RootSymbol' - Commodity's Root Symbol

:AlignOn - Alignment date when formulating an inter-commodity expression. **

Months Included – Used when you want to specify only certain contract month. **

NumOfForwards – Number of Forward Contracts to include. **

:DAILY(YYYY/MM/DD) – Date of Historical Data to be used in Curve. **

.Field – Close field is used by default, can be overridden to use Open, High or Low. ** ** Default is used when not specified

Version	Date
FutureSource Workstation 3.2	July 28, 2008

Below are some examples that illustrate the use of the syntax.

- 1. ={'CL'//}:DAILY(2008/7/28) This example will draw a CL Forward Curve, using default exp date for AlignOn, default all forward months included, default all Month Contracts, and Close as the default field for historical data as of 7/28/2008.
- 2. ={'CL'//36}:DAILY(2008/7/25) This example will draw a CL Forward Curve, using default exp date for AlignOn, Only the first 36 Forwards Contracts, default all Month Contracts, and close as the default field for Historical data as of 7/25/2008.
- 3. ={'CL'/JKMNQUV/36}:DAILY(2008/7/25) This example will draw a CL Forward Curve, using default exp date for AlignOn, Only 36 Forward Contracts, Contract Months J-V only, and Close as the default field for historical data as of 7/25/2008.
- 4. ={'CL'//36}:DAILY(2008/7/25).HIGH This example will draw a CL Forward Curve, using default exp date for AlignOn, Only the first 36 Forward Contracts, default all Month Contracts, and High as the field for historical data as of 7/25/2008. (See image example below)
- 5. ={'CL':15//48}:DAILY(2008/7/25)-{'BRN-ICE':15//48}:DAILY(2008/7/25) This example will draw a Forward Curve of CL Minus BRN-ICE, using 15th of the month as the AlignOn, Only 48 Forward Contracts, default all Month Contracts, and Close as the default field for historical data as of 7/25/2008.
- 6. = {'CL'//36} This example will draw a CL Forward Curve, using default exp date for AlignOn, default all forward months included, default all Month Contracts, and Close as the default field. Notice there is no date specified to use to draw the curve. When you don't have the date, you get a Current Real-Time Curve using Real-Time price information.



The above example related to #4 above, showing how you can overlay the High and Low on a normal Forward Curve plot.

Forward Curves Syntax – Symbols Specified:

Using Shorthand Forward Curve Syntax or using Forward Curve Wizards, Symbols list are dynamic generated based on Current Non-Expired Forward Lists. You can also plot symbols by listing them out.

={'CL F2007','CL G2007','CL H2007','CL J2007','CL K2007','CL M2007','CL N2007','CL O2007','CL U2007','CL V2007','CL X2007','CL Z2007'}:DAILY(2006/12/18) - This example will draw a 12 month historical Forward Curve for all 2007 contracts, using data from 12/18/2006.

Customizing Forward Curves:

When using Forward Curve Plots, they can be customized just as a normal chart can. This includes:

- Plot style (Line, Area, Histogram, Level, Dot, Line & Dot
- Applying Studies
- Applying Drawing Tools
- Color and Size
- Overlay of Additional Forward Curves
- And many other features that exist for normal charts.

Version	Date
FutureSource Workstation 3.2	July 28, 2008

Charting of External Data Files

Workstation now has the capability to chart data that is outside of eSignal's Data Feed. It allows you to create custom symbols that link to the data files. These symbols can take advantage of the same charting capabilities of a normal eSignal symbol. This includes being able to handle overlays, studies, drawing tools and more.

The data in which you wish to link to Workstation must be in 1 of the following formats:

	File Format Options	
.XLS	Microsoft Excel File – All Office Versions 97-2007	
CSV	Text File where the data is Comma Separated	
TAB	Text File where the data is Tab Separated	

These files can reside either directly on the PC that is running Workstation or on any File Server that is accessible within your Computer Network.

Aggregations

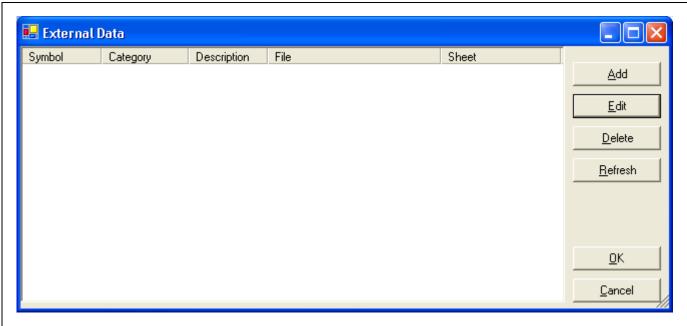
Daily, Weekly, Monthly, Intraday, and Tick Data is supported. If your data file contains Daily data it can automatically aggregate the data to Weekly and Monthly for you. Same is the case for weekly. If your data file contains Tick or Intraday, it can be aggregated to other Intraday Intervals or Daily.

Establish the Link

Before you can begin using external data within Workstation, you must first establish the link and assign a symbol to the link:

From the **Preferences** Menu, select **External Data** and you will be presented with the following dialog.





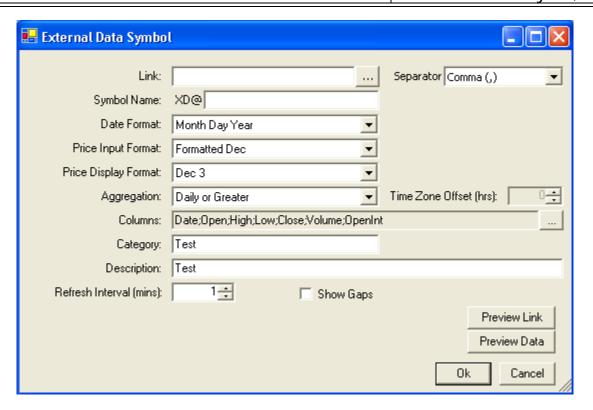
Dialog Buttons		
Add	Creates new symbol link	
Edit	Edit existing symbol link	
Delete	Delete selected symbol link	
Refresh	Refresh's Data from selected symbol links*	
Ok	Save the symbol links you have created	
Cancel	Do not save the new links or changes that you have made	

^{*} An Auto-Refresh setting is available within symbol link settings

The configuration file that stores these links are contained in a file called ExtData.xml located at UserProfile\Application Data\FutureSource Workstation Data. This file can be shared among Workstation Terminals, as long as the machine has the same directory and network paths.

Creating a Symbol Link

Version	Date
FutureSource Workstation 3.2	July 28, 2008



Dialog Options		
Link	Used to select the data file which contains data to chart. Selecting Brings up a Browse Dialog	
Sheet/Separator	Used to select which Sheet within the Excel File contains the Data. Non-Excel files you select the delimiter	
Symbol Name	Custom Symbol to use when viewing the data	
Date Format	Format that your Date is in within your data file	
Price Input Format	The existing format of the data that is in your data file	
Price Display Format	The format in which you want the data displayed inside the Workstation Chart window	
Aggregation	Type of Data that file contains (D, W, M, Tick, Intraday)	
Time Zone Offset	For Intraday and Tick data, used to define the time zone offset of the data source. Typically, the user will select his own time zone offset.	
Columns	The order in which the data is inside your data file. Data point available are Date, Time, Open, High, Low, Close Volume, Open Interest, Tick Count, Price, Size **	
Category	Field that can be used to organize your Symbol Links. This is used when you are in the Symbol Search Dialog	
Description	Assign a description to your symbol link. This is used when you are in the Symbol Search Dialog	

Version	Date
FutureSource Workstation 3.2	July 28, 2008

Refresh Interval	The time interval in which workstation will check the file and reload any new data that has been added to it
Show Gaps	When selected, white space is displayed for gaps in time on the chart.
Preview Link	Used to view the Data File as it is
Preview Data	Used to view the Data File as Workstation sees it. This is useful to make sure you have set your column fields properly

^{**} You can override these settings by denoting the field order in line 1 of your file. The abbreviates D, O, H, L, C, V, OI, T, TC, S, P (P for price in Tick Data) would be used.

Input Format Options		
Formatted Dec	Data that is in Formatted Decimal form, does not matter the number of decimal places	
Classic Dec 0 - 4	Data that is in Classic form, and N Decimals is implied**	
8ths – 64 Halfs	Data that is in Fraction, either in Classic or Formatted	

^{**} Example of Formatted versus Classic

Formatted: 91.77 Classic: 9177

Using External Data Symbol

Once you have created your symbol links, can you begin charting the data. The symbol will always contain a prefix to denote that it is External Data and not data from the eSignal Data Feed.

PrefixSymbolXD@SomeSymbol

You would enter: XD@SomeSymbol.

If the symbol name assigned had a space in it, you would enclose the symbol in single ticks.

You would enter: XD@'Some Symbol'

These symbols can be used like any other eSignal symbol. They can have studies and drawing tools applied to them. They can also be used as overlays and as part of an expression containing an eSignal symbol.

Version	Date
FutureSource Workstation 3.2	July 28, 2008

Refreshing Your Charts

Since the data is located in a "Flat File" it is not a streaming connection. This means as someone updates the file with additional data it will not automatically reflect in your chart. There are 3 easy ways to handle updates to the data files:

- 1. Use the Refresh Interval property. This is the closest to real-time, especially when set to 1 minute.
- 2. Use the Refresh Button on the Context Menu of the Chart. It is located under View > Refresh
- 3. Use the Refresh Button on the Main External Data Setup Dialog. With this button you can refresh all your external data charts at once, by selecting them all and clicking Refresh.

Note: Changes/Additions to the data file must be saved to be reflected in the chart.

Daily Charting Enhancements

Workstation now allows you to choose how your Daily Charts are drawn. Users now have the option to have the Daily Settlement or Daily Close represented within the chart.

From the **Preferences** Menu, select **Close Value For Daily Bar**. Choose from **Settle** or **Close**.

Note: In previous versions of Workstation the Settle was always used. The settle is still the Workstation Default.

Performance Improvements

Numerous performance improvements have been made within Workstation to provide a better user experience. Workstation has been enhanced to take further advantage of Dual Core Processing.

Workstation 3.2 System Requirements

Recommended

2.0 GHz Pentium IV or greater1GB of RAM or higher100MB of hard drive space1024x768 or higher screen resolution

Power User

Dual Core – 2.0 Ghz or Better Suggested 2 GB of RAM or higher 100MB of hard drive space 1024x768 or higher screen resolution