

Using Aspen (Advanced) Optionalysis®

Option Books

Option Books are a **library of strategies** that allow you to define the **strategy once** and then **drag-&-drop it** into various windows or charts

Book - one or more strategies

Strategy - " " " groups

Group - " " " positions w/ a common underlying

Position - a buy or sell transaction

Entering Strategies in Option Books

- 1. Type .BOOK or .OC/menu/Option Books or Quote Menu/Option Books
- 2. Choose New Book, type in name of new book
- 3. Type name of New Strategy
- 4. Enter each **position** in your strategy, using the following syntax:

Long: <quantity> <option symbol> <price>

Short: <-quantity> <option symbol> <price>

Examples: 10 spu7935c 15.30 (Hitting b after the symbol will enter -100 sx625p 14 the position at current market price.)

REMEMBER! The syntax of the option symbol may be different than those listed above, depending upon your data provider. See page 8 of this outline for syntax examples.

5. Strategy Menu

- a. New Position enter each new position
- b. Position/Group Mode lists ea. position or groups by underlying
- c. US Dollars selects currency
- d. Min./Maximized Max. adds Time (& date) & Commission
- e. Transaction/Aggregate/Open Trades/Closed Trades Modes i) Transaction: details all transactions
 - ii) Aggregate: combines and displays all open transactions
 - iii) Open Trades: close position by selecting blue C next to symbol
 - iv) Close Trades: lists all closed trades; shows realized P&L
- f. P&L Total/Today P&L of current price-yesterday's close
- g. Sort sorting criteria in displaying Strategy Menu positions

6. Book Menu

- a. Commissions displays the Book Commissions menu
- b. Summary displays the Book Summary window

This allows you to **track the cash balance of your portfolio** by entering the initial equity, deposits & withdrawals

c. Maximized contains Realized P&L on closed trades and Commissions

Drag-and-Drop Books to Other Applications

- 1. Bring up window or page to accept strategy (strategy can be dropped into an option chart or a profit & loss page)
- Click on caret to the right of group, strategy or book (for positions, click directly on position under Symbol)
 Select w/ LEFT, Drag w/ RIGHT, Drop w/ LEFT Border of window or page changes to red when you drag Move box across it if it's the type of window that will accept Book strategies.

Option Charting

- 1. Type .oc, or from menubar, choose File/New.../Opt Charts/Default
- Drag and Drop a strategy into the option chart following steps above. The option chart **plots P&L over strike** (other options available from Ochart Menu/Study, see number 2 below)

Customizing the Options chart

- 1. **Slave Strategies** (from Strategy Menu) show the effect of varying degrees of time, volatility, (interest) rate and yield
- 2. **Study** (from Ochart menu) allows you to change the axis' to display other P&L methods, Greeks, time, volatility, rate & yield.
 - a. P&L **Total** = P&L based on price paid; initial cost **not** subtracted
 - b. P&L **Today** = Last Prev. (i.e. P&L since yesterday's close)
 - c. P&L **Market** = P&L if you entered the market @ Curr.Mkt.Price (sets P&L=0 @ curr.mkt.price); initial cost **not** subtracted
 - d. Market Value = \$ value of the strategy (Qty*Current Price*\$ value of contract)
 i) initial cost not subtracted
 - ii) this value is **always positive** for **long** positions, **negative** for **short positions**
- 3. Rescale manipulates rendering (Currency/Points, More/Less points)
- 4. **Split Horizontally** live cursor across 2 different **y-axis** studies
 - Vertically 2 cursors displayed in 2 diff. x-axis studies
- 5. Table of points plotted on option chart
- 6. Fine/Coarse Cursor controls increments that cursor moves in

Volatility Skews

Definition Skews plot VOLATILITY against STRIKE PRICES by averaging the implied volatilities of the puts and calls of the instrument, and can be used instead of implied volatility in the pricing models.

Creating a Volatility Skew

- 1. Type .vs and Enter symbol for underlying
 - a. specific symb.(ex.USZ5) plots call, put & skew, lead month only
 - b. # macro (ex.US#) includes all trading contracts; enables Rollover
 - c. @ macro includes all trading contracts; no Rollover

2. Skew Parameters

- a) **Defining** the skew (top half of Vlty Skew Parameters menu)
 - i) Rollover skew automatically rolls over @ contract expiration
 - ii) <u>Extend</u> near-month skew can be applied to distant expires
 - (handy for out-months which trade too sparsely for their own valid skew)
 - iii) <u>Name</u> how skew will be identified in database
 - iv) <u>Month</u> displays table of put & call vltys @ various strikes
 * draws/suppresses instruments used in skew's calc.
 - v) Base for short term interest rate futures, enter 100
 - vi) Stocks and Indicies only:
 - <u>Div</u>: Allows you to enter amount and distrib.date of dividend <u>xDate</u>: same menu as above; can enter both fields either place <u>Dividend Type</u>: define when distributions of dividends occur
 - Discrete: no future dividends are included in calculation
 - Yield: Annualized dividend yield
- b) Refining how the Skew is calculated (bottom half of menu)
 - i) Skew Curve- calculation method used to draw skew
 - ii) Calculate OFF retains skew shape; shifts up/dn. ON redraws
 - iii) Filter ignores erratic input points when calculating skew
 - (these points appear in lt. red when Month field is selected)
 - iv) <u>Points</u> table of strikes in their relation to at-the-\$ and the corresponding volatilities
 - v) # of Points used to calculate skew; you can modify to +/-
 - vi) <u>Base Volatility</u> relationship to at-the-\$ to be used as the volatility anchor (At-Money+- = avg of in-& out-of-\$ call)
 - 3. Save modified skew using Database Save @ bottom of Skew Parameter menu
 - 4. **Recall** saved skews
 - i) From a .vs window Vlty Skew menu/Database Skews
 - **R** column signifies Rollover, ... under Months = Extend enabled
 - ii) From an .oc or quote window, choose Params / Option Params,
 - 5. **Delete** skews from Vlty Skew menu/Database Skews/Enable Delete/ highlight skew to be deleted / tap Delete from keyboard.

Syntax of Options Symbols

A. Stock Options * <Stock symb>_<month code><strike code>

NASDAQ stock options have a different symbol root than the underlying (i.e. the stock COMS has options listed as THQ).

To find stock options symbols, bring up the **Omaster** page and type in the underlying stock. Extended Quote Codes in the lower right corner of the screen will show you the exact syntax for the at-the-money call and put. NOTE: This will <u>only</u> work if you are entitled for options!

MONTH Codes

Month	Call	Put
Jan	А	М
Feb	В	N
Mar	С	0
Apr	D	Р
May	Е	Q
Jun	F	R
Jul	G	S
Aug	Н	Т
Sep	Ι	Ū
Oct	J	V
Nov	K	W
Dec	L	X

* NOTE: No Equity Options on Bridge

Example: OEX_UH would be the OEX Sept. Put ("U") 640 Strike ("H")

STRIKE Codes

<u>Strike I</u>	Prices		Code
5	105	205	А
10	110	210	В
15	115	215	С
20	120	220	D
25	125	225	E
30	130	230	F
35	135	235	G
40	140	240	Н
45	145	245	Ι
50	150	250	J
55	155	255	K
60	160	260	L
65	165	265	М
70	170	270	Ν
75	175	275	0
80	180	280	Р
85	185	285	Q
90	190	290	R
95	195	295	S
100	200	300	Т
7 1/2			U
12 1/2			V
17 1/2			W
22 1/2			Х
27 1/2			Y

B. Futures Options

Bridge

<symb root><month><strike><CP>

<u>Bonneville, Signal & DTN</u>

<symb root><month><year><CP><strike>

Comstock

<symb root><2nd yr. month code><strike>

Comstock often uses option symbols that differ from the underlying. To find the symbol root for an option on Comstock, type the underlying in Omaster and view the Extended Quote Codes in the lower right corner of the screen.

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(for Comstock)

Month	Call	Put
Jan	F	А
Feb	G	В
Mar	Н	С
Apr	J	D
May	Κ	E
Jun	М	Ι
Jul	Ν	L
Aug	Q	0
Sep	U	Р
Oct	V	R
Nov	Х	S
Dec	Z	Т

Futures/Options Examples

(for Comstock)

Future	es	<u>Options</u>
CL	Light Crude	LO
HO	Heating Oil	OH
HU	Unleaded Gas	GO
NG	Natural Gas	ON

<u>Futur</u>	es	Calls /	<u>Puts</u>
С	Corn	CY	PY
W	Wheat	WY	WZ
S	Soybeans	CZ	PZ
LB	Lumber	KL	JL
PB	Pork Bellie	s KP	JP
LC	Live Cattle	CK	PK
US	T-Bonds	CG	PG
SP	S&P 500	CS	PS

Examples:			Bonneville & DTN	BridgeFeed	Comstock	<u>Signal</u>	<u>Reuters</u>
Sept.'00 Nat.Gas	3.000	Call	NGU0C3000	NG00UC3000	ONU300	NGU0C3000	NG5000K0
June'01 S&P	1550	Call	SPM1C155000	SP01MC1550	CSM155	SPM1C1550	SP1550L0
Dec.'01 Corn	200	Put	CZ1P2000	C01ZP200	PYZ20	CZ1P350	C200X0
May'01 Bonds	110	Put	USK1P11000	US01MKP)110	PGK10	USK1P110	US110E0

Option Macros

Macros are a way of displaying an option or options with certain relationships to the at-themoney strike or to the lead month. The three Aspen pages which demonstrate how to use macros are summarized below.

At-the-Money, Near Month,	Calls:	OEX@C
At-the-Money, Near Month,	Puts:	OEX@P
At-the-Money, Near Month,	Calls&Puts:	OEX@CP
At-the-Money, All Months,	Calls:	OEX@@C
In-the-Money, Near Month,	Calls:	OEX@+C
Out-the-Money, Near Month,	Puts:	OEX@-P
In-the-Money, Near Month,	Calls&Puts:	OEX@+CP
Out-the-Money, Near Month,	Calls&Puts:	OEX@-CP
At-the-Money, 1 Expire Away,	Calls:	OEX#1@C
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Omacro

(The macros above yield a RANGE of options)

Omacro1

At-the-Money, 1 Expire Away,	Calls:	OEX#1@C
At-the-Money, 2 Expires Away,	Puts:	OEX#2@P
At-the-Money, 1 Expire Away,	Calls&Puts:	OEX#1@CP
In-the-Money, 2 Expires Away,	Calls&Puts:	OEX#2@+CP
Out-the-Money, 3 Expires Away,	Puts:	OEX#3@-P
2 Strikes In, Near Month,	Calls:	OEX@+2C
1 Strike Out, 2 Expires Away,	Puts:	OEX#2@-1P
2 Strikes Out, 1 Expire Away,	Calls&Puts:	OEX#1@-2CP
1 Strike In, All Months,	Calls:	OEX@@+1C

(The macros above yield a **RANGE** of options)

Owild

At-the-Money, Near Month, Call: **OEX#C** In-the-Money, Near Month, Call: **OEX#+C** Out-the-Money,Near Month,Call: **OEX#+C** 2 Strikes In, Near Month, Call: **OEX #+1C** 2 Strikes Out, Near Month, Call: **OEX#-2C** At-the-Money,1Expire Away,Call: **OEX#1#C** At-the-Money,2 Xprs Away,Call: **OEX#2#C** 1 Strike In,1 Expire Away,Call: **OEX#1#+1C** 2 StrikesOut,2 XprsAway,Call: **OEX#2#-2C** At-the Money, Near Month, Put: **OEX#P** In-the-Money, Near Month, Put: **OEX#+P** Out-the-Money, Near Month, Put: **OEX#-P** 1 Strike In, Near Month, Put: **OEX #+1P** 2 Strikes Out, Near Month, Put: **OEX #+1P** At-the-Money,1Expire Away,Put: **OEX#1#P** At-the-Money,2 Xprs Away,Put: **OEX#2#P** 1 Strike In,1 Expire Away,Put: **OEX#1#+1P** 2 StrikesOut, 2 XprsAway,Put:**OEX#2#-2P**

(The macros above yield ONE **SPECIFIC** option)