

## ORATS Menu

**ORATS Member Subscription** includes access to ORATS online research (Profile, Minder/Matrix and Finder/Pressure Reports) *PLUS* the Advanced Searcher.

# 1. Trackor application and Trackor data (AVAILABLE TO FIMAT PREFERRED AND REDSKY CUSTOMERS ONLY):

Trackor application is used to price simple and complex option trades, including OTC. All the fields that have a white background in the image below are editable:

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м	ARKET DATA				I	NPUT AREA							OPT	ION DAT	A		
Bid	Ask	Price	Amt	Symbol	FcstPrice	MktPrice	FcstEdge	FcstDelta	ImpDelta	Imp¥ega	IV	TotalDelta	Gamma	Theta	Vega	Rho	UpdateTime
3.90	4.40	4.150		44.26	4.068	4.150	-0.082	0.09	0.09	11.65	1.796	564	-8	3	12	12	7/21/06 11:14
44.25	44.26	44.265	100 BB	Y	Theo	FcstYol	Slope	Delta	Delta	Vega	IV	Expiration	Strike	Div	IR	ExDivDate	DaysToExp
1.65	1.7	1.675	-50 SE	P47.5C	1.600	40.1%	2.7	-0.37	-0.37	0.06	41.496	20060916	47.5	0.100	5.0%	9/29/2006	54
2.45	2.6	2.525	50 DE	C50C	2.450	38.1%	3.0	0.38	0.38	0.11	38.8%	20061216	50	0.100	5.0%	9/29/2006	145
1.45	1.55	1.500	-50 AU	IG45C	1.810	44.196	2.4	-0.48	-0.47	0.05	37.5%	20060819	45	0.100	5.0%	9/29/2006	26
4.7	4.9	4.800	50 JAI	N45C	5.020	40.2%	3.0	0.56	0.56	0.12	38.4%	20070120	45	0.100	5.0%	9/29/2006	180

Trackor data includes the following files:

- Autoline.txt: ORATS forecast volatility surface parameters, interest rate and dividends for all stocks, ETFs and indexes that have US listed options. Columns: Underlying Symbol, Forecast Earnings Effect Factor (FEEF), Next Earnings Announcement Date, 20 Day Asset Volatility Forecast, Short Term Forecast Slope, Short Term Forecast Derivative, Infinite Volatility Forecast, Long Term Forecast Slope, Long Term Forecast Derivative, Out of the money Call Effect Forecast, Out of the money Put Effect Forecast, Slope Forecast Standard Error, Asset Volatility Forecast Standard Error, Infinite Volatility Forecast Standard Error, Dividend Frequency (units: years), Next Ex-Dividend Date, Number of Expiration Months Currently Listed, Basis Adjustment for each expiration month (used for European style options only), Interest Rate used for each expiration month, Dividend Amount used for each expiration month.
- ORATSoptionsuniverse.txt: Descriptive data for all standard US listed options. Columns: OPRA symbol, expiration date, strike price, ORATS forecast strike volatility, open interest, div date, div amount, div frequency.
- Holidays.txt: US holidays past and future.
- Relatedstocks.txt: Each option able symbol plus the five stocks in the same industry / sector that have the highest historical volatility correlation.
- ssStrike.txt: current implied volatility surface data for each expiration month in all symbols. Columns: Underlying Symbol|Expiration Date|Interpolated Implied Volatility for the strike price that is equal to 0.0 times the stock price|Interpolated Implied Volatility for the strike price that is equal to 0.1 times the stock price| Interpolated Implied Volatility for the strike price that is equal to 0.2 times the stock price|....| Interpolated Implied Volatility for the strike price that is equal to 3.0 times the stock price | Interpolated Implied Volatility for the strike price that is equal to 3.0 times the stock price | Interpolated Implied Volatility for the strike price that is equal to 3.1 times the stock price |

## 2. ActionAlert application:



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) AXL	HV20 1.4	cst 1.2	15.32	1.2	-14.9	58.82	-19%	-13.9	61.18	-3%	-1.7				58.7	-2%			-96% A			4% 41%	Conf
	1.4	1.2	15.48	-0.7	-42.3	61.95	-17%	-12.9	57.85			Report Vi		0.1	30.7	.270	110	3120	-30% TA	AL 43.	~~ 4·	+/0 41/	
WII	1.5	0.7	3.01	-2.3	-60.3	313.05	-10%	-35	90.99														
VCI	1.3	1	15.13	-2.1	-45.2	46.42	-47%	-40.9	58.28														
KD	1.8	1.1		-1	54.7	115.92	18%	18	68.2		S.com P						w at OR		1 7 1 1		0/	Olare a	2.00
IGM	1.3	1.1	36.46	-2.4	1	61.11	-14%	-9.9	41.92	LTBG	12.32 RIDGE INC	-0.25		7/20/06 7/21/06		20 Day V Implied 2		9% 6%	L.T. Vola LongTerm			Slope Derivativ	2.0% 2.9 0.6% 4.0
NY	1.3	1	28.13	-1	-8.4	87.66	4%	3.5	39.76			mmunication				FORECA		0%	LongTer			Implied	
SUN	1.4	1	63.89	-1.5	-28.8	31.78	·27%	-11.5	42.75		SSET PRIC	E	1111	1111	1111		1111	1111	12.32 S	chrical Channel Support Re	sist Day	s in Slope	
(BH	1.2	1.1	38.28	-1.8	-50.1	63.34	12%	6.8	43.99		esistance Jupport			++++	++++		+++++	++++	40		14.8	1 0.0 73 0.0	+++++
/IX			-	0	0	0	%	0	0		aluation Chann	el	,###										
<u>SPX</u>			0	0	0	0	%	0	0	T	HT.												
<u>IFX</u>	1.3	1.1		-1	-14.2	38.97	-22%	-10.7	46.15														11
BRCM	1.3	1		-9.7	-36.7	82.1	-66%	-161.5	51.07	$M_{1}$		10											
/L0	1.5	0.7		-1.5	3.5	29.64	-26%	-10.3	38.33	Y Y	['	1 M	TAN.										
/AR	1	1		-1.6	-22.2	69.43	-16%	-13.7	39.98		/ /	W P	×- W			11	K KAN					1.4	M
<u>AN(</u>	1	0.8	78.25	-0.8	-10.2	30.08	·8%	-2.6	25.84					$\Lambda$		110						and we	
<u>SRG</u>	1.4	1.1	117.7	-1.3	-8.1	38.22	-31%	-17.5	70.97					ALL N		1				The	-		
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<u>JIS</u>	0.9	0.9	5.09	0.8	-18.2	94.57	4%	4	41.						- 4 - 1 -	4-1-1(-1							
iΥ	0.9	0.9	14.96	-1.1	-19.3	42.74	·22%	-12.2	27.	10-42	1111	49-01 64-01 604-01 846-01 846-01	4-02 (m-02 (m-02 m-02	ul-02 ang-02 er-02	04-02 44-02		10-44 10-40			1 2 2 2 3 1	10 m 10	49-05 04-05 04-05 16-05 16-05 16-05	1 2 2 2 2 2
ISRA	1	0.9	29.93	8.5	-6.8	43.6	-65%	-79.8	59.	ď		~~~~~											
<u>WER</u>	1	1	5.41	0.4	-16.3	169.6	-28%	-65.4	57.														
TBG	0.9	0.8	12.42	0.6	37.5 2.3	47.92	-24% 1 27%	-15.4	44.4Z		-2	41.63 70.6	-1% 4%	-0.6 2.4	42.05		200 546	28	618%	LIBU		48%	
<u>ASYT</u> IYSL	1	0.9	6.63 30.34	-2.9 6.9	-14.8	228.14 45.18	-75%	48.8	72.28		-3.3	70.6	4% -13%	-4.7	60.96 33.31	-3% -32%		95 617	472% 401%	ASY1 HYSI		57%	
<u>115L</u> 3G	0.8	0.7	50.07	-1.5	-14.8	29.63	-75%	-133.9	33.32		0.2	32.05	1%	-4.7	33.31		4928	1161	325%	BG	34% 40%	35%	
AMSI	0.0	0.7	13.57	-1.1	2	115.27		0.3	33.93		-0.7	34.5	%	-0.1	29.66		4320	53	325%	MMS		38%	
IMCL	1	0.0	15.28	3.2	35.3	58.68	~ -67%	-121.1	43.27	-13%	-6.5	42.62	%	-0.1	43.32			46	304%	OMC		41%	
INMX	0.9	0.8	12.45	-1.7	-15.1	17.61	-72%	-44.9	47.91	2%	0.8	48.91	·1%	-0.4	47.81	1%	211	64	229%	SNM		57%	
IBM	0.7	0.8	19.3	6.1	0.1	103.27		-30	67.07	-12%	-9.3	65.29	-6%	-4.5	62.79			189	166%	AIBM		69%	
TI	1	0.8	24.96	-4.1	33.7	24.15	-71%	-58.3	51.8	5%	2.7	51.48	4%	2.1	51.35		248	102	143%	ITI	52%	55%	
BHT	0.9	1	21.06	0.7	-8	94.49	-18%	-20.6	38.51	-2%	-0.7	35.71	%	-0.1	38.44	-3%	1221	521	134%	JBHT		33%	
MT	1	0.8	31.78	-1.1	10.3	39.16	9%	3.4	34.71	-3%	-1.2	34.22	1%	0.5	30.16	-2%	10643		101%	AMT	31%	31%	

## 3. ActionData Files:

One file for each stock, ETF and index with US listed exchange traded options. The file contains current and historical data for the following columns:

Date 8/31/2005 Close 25.6 High 25.6 24.8115 Low Open 25.1 Stock volume 955400 Option volume 399 Open interest 28357 ORATS 1-day 32.5 Month 1 ATMIV 29.8475 Month 2 ATMIV 32.8588 Month 3 ATMIV 34.1527 ORATS20 dayIV 35.6791 ORATSinfinite 27.7981 Slope 2.8316 Derivative 0.4459

## 4. ORATS Indicator files:



Explanation Header Example Symbol ZRAN Trading symbol CUSIP 98975F101 Defined by Committee on Uniform Securities Identification Procedures Date 10/4/2005 Date Close 14.31 Closing price of stock BottomChannel 13.885 Bottom (support) point from ORATS technical channel analysis. Width calculation could be used = top - bottom channel. TopChannel 17.47 Top (resistance) point from ORATS technical channel analysis. Stockvolume Stock volume 1174984 Calloptionvolume Call option volume 87 Putoptionvolume 384 Put option volume Optionvolume 471 Option volume Callopeninterest 4252 Call option open interest Putopeninterest 2483 Put option open interest Openinterest 6735 Option open interest 18.9 One day statistical or historic stock volatility based on ORATS ORATS1-day calculation. To make an average this reading should be squared, averaged, then the square root taken. ORATS20dayIV 46.9096 20 day implied option volatility. ORATSinfinite 36.1916 Infinite implied option volatility. Slope 1.2881 Average Slope of the implied volatility skew. 1.037 Average Curvature of the implied volatility skew. Derivative 49.9386 The ORATS forecast of stock volatility for the next 20 days. ORATS20dForecast Could be compared to implied volatility. ORATS20dIVForecast 31.3587 The ORATS forecast of implied volatility in 20 days. Could be compared to actual implied volatility. SlopeForecast 2.3024 The ORATS forecast of the slope of implied volatility skew. Could be compared to actual slope. ORATSinfiniteForecast 37.3272 The ORATS forecast of the infinite implied volatility. Could be compared to actual implied volatility or actual infinite. 0.7747 The ORATS forecast of the derivative of implied volatility skew. derivativeForecast Could be compared to actual derivative. 52.1456 Implied volatility for month1 IVmonth1 46.9249 Implied volatility for month2 IVmonth2 IVmonth3 44.3449 Implied volatility for month3 FcstMonth1 52.1667 Forecast of volatility for month1 FcstMonth2 54.6157 Forecast of volatility for month2 FcstMonth3 50.6222 Forecast of volatility for month3 ORATS20-day 54.6121 Twenty day statistical or historic stock volatility based on ORATS calculation. clscls20-day 54.5089 Twenty day statistical or historic stock volatility based on standard closeto-close calculation. ivEarnReturn 0.9815 The average of the volatility day of and day after earnings / implied day before divided by implied day before / implied day after.

## 5. Earn Offset Ratios:

This data set shows the best time to buy and sell 2<sup>nd</sup> month ATMIV based on various entry and exit offsets (in business days) from each earnings announcement date in history. That data is available via FTP download of the raw data files. Columns in table below:

TradeEntryDateOffsetFromEarningsDate TradeExitDateOffsetFromEarningsDate

VolatilityProfitabilityRatio (includes the effect of implied volatility changes and historical volatility during the holding period; 1.00 is break even)



-30	-1	1.2356
-30	1	1.5627
-30	5	1.5149
-25	-1	1.1298
-25	1	1.5157
-25	5	1.4562
-20	-1	1.1691
-20	1	1.3804
-20	5	1.2642
-15	-1	1.0832
-15	1	1.3087
-15	5	1.1831
-10	-1	1.0857
-10	1	1.4227
-10	5	1.2418
-5	-1	0.8656
-5	1	1.5835
-5	5	1.2555
-1	1	2.0242
-1	5	1.2736

#### 6. HistoricalEarningsMoves.csv:

This file contains one row for each stock and has four data points for each earnings announcement during the past five years: earnings date, log normal percentage move of the stock price on the day OF, log normal percentage move of the stock price on the day AFTER and time of day (Before, During, After, Unknown).

## 7. shETFDivsImplied.txt:

This file contains all expected dividend dates and amounts for ETFs. The dividend amounts are based on solving for the implied dividend from the option quotes; the dividend dates are based on past date patterns.

## 8. shETFDivsTrend.txt:

This file contains all expected dividend dates and amounts for ETFs. The dividend amounts are based on linear and exponential regression forecasting; the dividend dates are based on past date patterns.

## 9. Earnings Move Report:

The Earnings Move report is emailed each trading day at approximately noon EST. It highlight displays the current implied short term implied at the money, forecast volatilities and expected moves for all stocks that are going to report earnings during the next seven business days. For more details, see ORATS\_Earnings\_Special\_Columns\_Defined.xls – the Earnings Move Report contains the data from the first 14 columns of the Earnings Special Move Report.

## 10. Earnings Special Move Report:



The Special Earnings Move report is emailed each trading day at approximately noon EST. It highlight displays the current implied short term implied at the money, forecast volatilities and expected moves for all stocks that are going to report earnings during the next seven business days PLUS it highlights special situations that are occurring in the option environment.

Specifically it highlights significant recent moves in implied volatility, implied volatility vs. ORATS forecasts and implied slope (aka skew). For more details, see

ORATS\_Earnings\_Special\_Columns\_Defined.xls. Alternate delivery method: The CSV version of this report is also available for ftp download.

## 11. wnearnings.txt:

A file that contains the following data for each stock: symbol next earnings date last earnings date time of earnings announcement confirmed or unconfirmed A 8/14/2006 5/15/2006 After Confirmed

#### 12. earningsfactors.txt:

A file that contains the following data for each stock:Underlying Symbol,Average 20 Day Asset Volatility Forecast Since The Last EarningsAnnouncement,Expected Earnings EffectFLEX, 0.35488,2.75

## 13. ShortTermVolatilityDataAndForecasts.txt:

A file that contains the following data for each stock:

UnderlyingSymbol, 20 business day Asset Volatility Forecast, Forecast of where Short Term At The Money Implied Volatility will be trading four weeks from now, Short Term At The Money Implied Volatility (20 business days), R-squared of 20 business day Asset Volatility Forecast, Rsquared of the Short Term At The Money Implied Volatility Forecast, Implied Earnings Effect, ORATS Earnings Effect (FEEF), Next earnings announcement date, Next earnings announcement time

Sample	e row: A	0.316663	0.478	0.447153	0.696704	0.782066
3.05	2.75	8/14/2006	After			

## 14. TrackPro.

TrackPro is an Excel/VBA application that retrieves its data from ORATS web server and provides the same functionality as Trackor, PLUS Portfolio Risk Management, Portfolio Correlation Analysis, and Implied Volatility Studies (one to show you where a particular option is relative to its historical implied volatility, since inception; the other one shows you where any one of 160 sectors (20 delta bucket X 8 time to expiration buckets) of the implied volatility surface is trading relative to where that sector has traded over the past year). Note: Trackor has real time snapshot data provided by FimatPreferred or RedSky Financial; TrackPro has 30 minute delayed data from ORATS databases.

#### 15. Rulor.

Rulor is an application that is used to value multiple sources of orders. It has been tested successfully on First Traders HEAT system and is currently being developed to "listen" to the ISE complex order book and the ORATS ShoFlo natural language translation engine (used to standardize "shows" received via instant message). It can be used (a) to significantly increase



the efficiency of a "show" trading operation or (b) by an equity derivatives desk to evaluate customer order flow and determine if the desk wants to take the other side or just act as an agent.

## 16. Stock Dividends

ORATS provides a daily ftp download service of a file containing the next expected dividend amount, ex-div date, frequency and whether the dividend is Announced or Expected.

## 17. Stock Special Dividends

ORATS provides a daily ftp download service of a file containing expected upcoming special dividend amounts and ex-div dates for all stocks.

## 18. MonthlyATMIVs, Mid Market Straddle/Strangle Prices and Break Even Price Moves

This CSV file is available daily via FTP or email and has ATM IVs for all traded months. It also has the front and second month straddle (or strangle if the stock is in between strikes) mid market prices based on NBBO, strike prices, and the break even up and down lognormal percentage price moves that the straddle (strangle) prices are implying.

## 19. NextExDivs.csv

A comma delimited file that can be opened in MS Excel that contains all stocks with exchange listed options that will go ex-dividend on the next trading day. The file lists the ticker symbol, ex dividend date, dividend amount and dividend frequency.

## 20. BigMoversEarningsSoon.csv

A comma delimited file that can be opened in MS Excel that contains all stocks with exchange listed options that are expected to report earnings in the next 30 calendar days and have had average price moves greater than 5% for the last 4 earnings announcements. The file contains the ticker symbol, next earnings announcement date, average absolute log normal price move for the preceding 4 earnings announcements and the current stock price. The larger of either the absolute percentage move on the day of the announcement or the absolute percentage move on the day after the announcement is used for purposes of calculating the average earnings price move.

## 21. QuoteWidthsAndActivity.csv

A comma delimited file that can be opened in MS Excel that contains the following data for all stocks with exchange listed options. The information is useful for determining what stocks to make markets in:

Symbol, StockPrice, Implied 20 Day, Average Volatility Point Width of options listed in the front four expiration months, Out of the money price width for second month options, In the money price width for second month options, 3 Month Average Daily Volume.

# 22. Autoline.txt

Autoline.txt is updated daily and is available for FTP download. A subset is also available via a web service. The Autoline.txt file contains the following data items: ORATS forecast volatility surface parameters, interest rate and dividends for all stocks, ETFs and indexes that have US listed options. Columns: Underlying Symbol, Forecast Earnings Effect Factor (FEEF), Next Earnings Announcement Date, 20 Day Asset Volatility Forecast, Short Term Forecast Slope, Short Term Forecast Derivative, Infinite Volatility Forecast, Long Term Forecast Slope, Long



Term Forecast Derivative, Out of the money Call Effect Forecast, Out of the money Put Effect Forecast, Slope Forecast Standard Error, Asset Volatility Forecast Standard Error, Infinite Volatility Forecast Standard Error, Dividend Frequency (days), Next Ex-Dividend Date, Number of Expiration Months Currently Listed, Basis Adjustment for each expiration month (used European style options only), Interest Rate used for each expiration month, Dividend Amount used for each expiration month.

## 23. ORATSStockDivsTrend.txt

ORATS provides a daily ftp download service of a file containing all expected ex-div dates and dividend amounts between now and the farthest out listed option contract for all stocks with US exchange listed options.

## 24. Implied Earnings Effect Data

ORATS provides a daily ftp download service of a file containing Implied Earnings Effect (IEE) and monthly at-the-money implied volatility data. Three methods are used to solve for what the options market is implying for the extra volatility that will be experienced during earnings announcements in the future. This service also includes R-squared data for the implied volatility term structure equation – this is useful for quantitatively separating the "normal" earnings cycle stocks from the "event" stocks that do not have a standard term structure.

## 25. Minder/Matrix Web Service

ORATS provides the following data over the internet via web services (XML, SOAP on an http channel):

For each expiration month ---

- IMPLIED ATM IV
- Strike and Time Smoothed ATM IV
- Market Adjusted Forecast ATM IV
- Forecast ATM IV
- Forecast Earnings Effect (units: volatility points)
- IMPLIED Strike Slope
- Strike and Time Smoothed Strike Slope
- Market Adjusted Forecast Strike Slope
- Forecast Strike Slope
- IMPLIED Strike Derivative
- Forecast Strike Derivative
- Interest Rate
- Days To Expiration
- Dividend Frequency (years)
- Dividend Amount
- Next Ex-Div Date
- Basis Adjustment (used for European exercise options only)

For each exchange listed strike --

- DAYS\_TO\_EX: days to expiration
- CALL\_SYM: call OPRA symbol
- STRIKE: exercise price
- PUT\_SYM: put OPRA symbol
- IMP\_VOL: call and put delta weighted average implied volatility



- MKT\_SMOOTH\_VOL: smoothed implied volatility based on solving for the ATMIV, Slope and Derivative for each expiration month
- MKT\_FIT\_VOL: smoothed implied volatility based on solving for the 20 business day and infinite ATMIV, Slope and Derivative.
- MKT\_ADJ\_FCST\_VOL: MKT\_FIT\_VOL adjusted towards ORATS Forecast volatility based on the volatility point bid ask width of the NBBO.
- MKT\_FCST\_VOL: ORATS forecasted volatility
- CALL\_B\_PROB\_FCST: probability of profit based on buying at the ask
- CALL\_S\_PROB\_FCST: probability of profit based on selling at the bid
- PUT\_B\_PROB\_FCST: probability of profit based on buying at the ask
- PUT\_S\_PROB\_FCST: probability of profit based on selling at the bid
- CALL\_BID\_IMP\_VOL: call bid implied volatility
- CALL\_ASK\_IMP\_VOL: call ask implied volatility
- PUT\_BID\_IMP\_VOL: put bid implied volatility
- PUT ASK IMP VOL: put ask implied volatility
- MKT\_SMOOTH\_CALL\_DLT: call delta based on strike-smoothed implied volatilities
- MKT\_SMOOTH\_CALL\_GAM: call gamma based on strike-smoothed implied volatilities
- MKT\_SMOOTH\_CALL\_THT: call theta based on strike-smoothed implied volatilities
- MKT SMOOTH CALL VGA: call Vega based on strike-smoothed implied volatilities
- MKT SMOOTH CALL RHO: call Rho based on strike-smoothed implied volatilities
- MKT\_SMOOTH\_CALL\_THEO: call theoretical value based on strike-smoothed implied volatilities
- MKT\_FIT\_CALL\_THEO: call theoretical value based on strike- and term structuresmoothed implied volatilities
- MKT\_ADJ\_FCST\_CALL\_THEO: call theoretical value based on MKT\_FIT volatility leaned towards MKT\_FCST volatility
- MKT\_FCST\_CALL\_THEO: call theoretical value based on ORATS forecast volatility skew
- MKT\_SMOOTH\_PUT\_THEO: put theoretical value based on strike-smoothed implied volatilities
- MKT\_FIT\_PUT\_THEO: put theoretical value based on strike- and term structuresmoothed implied volatilities
- MKT\_ADJ\_FCST\_PUT\_THEO: put theoretical value based on MKT\_FIT volatility leaned towards MKT\_FCST volatility
- MKT\_FCST\_PUT\_THEO: put theoretical value based on ORATS forecast volatility skew
- C\_P\_DIFF: compares the theoretical value of the reversal / conversion with the market quotes to determine if the inputs (interest, dividends, and basis) are the same as what the market consensus inputs are.

## 26. HistoricalEarningsMovesAndSpreadPrices.csv

This file contains one row for each stock and has three data points for each of the earnings announcements during the past four years: earnings date, log normal percentage move of the stock price on the day OF, log normal percentage move of the stock price on the day AFTER and time of day (Before, During, After, Unknown), at the money spread that was tested for the earnings event (m1Straddle, m1Strangle, m2Straddle, m2Strangle), NBBO mid market spread price on the day BEFORE (units: dollars), NBBO mid market spread price on the day BEFORE (units: percentage of the stock price), bid ask average price of the stock on the day BEFORE and NBBO mid market spread price on the day AFTER. This file is available daily via ftp or email.

## 27. ssStrike.txt



File Description: Current implied volatility surface data (based on ORATS strike skew smoothing functions) for each expiration month in all symbols that trade US listed options. Columns: Underlying Symbol|Expiration Date|Interpolated Implied Volatility for the strike price that is equal to 0.0 times the stock price|Interpolated Implied Volatility for the strike price that is equal to 0.1 times the stock price|Interpolated Implied Volatility for the strike price that is equal to 0.2 times the stock price|....| Interpolated Implied Volatility for the strike price that is equal to 3.0 times the stock price | Interpolated Implied Volatility for the strike price that is equal to 3.1 times the stock price. This file is available daily via ftp or email.

## 28. ssForecast.txt

File Description: Forecast implied volatility surface data (based on ORATS short term asset volatility forecast and long term implied volatility forecast) for each expiration month in all symbols that trade US listed options. Columns: same as ssStrike.txt. This file is available daily via ftp or email.

## 29. ssFit.txt

File Description: Forecast implied volatility surface data (based on ORATS term structure and strike skew smoothing functions) for each expiration month in all symbols that trade US listed options. Columns: same as ssStrike.txt. This file is available daily via ftp or email.

## 30. ssFitAdjForecast.txt

File Description: Forecast implied volatility surface data (based on ssFit leaned towards ssForecast; the amount of lean is determined by the average volatility point width for each stock) for each expiration month in all symbols that trade US listed options. Columns: same as ssStrike.txt. This file is available daily via ftp or email.

# 31. ssImpliedForecast.txt

File Description: Forecast implied volatility surface data (based on ORATS short and long term implied volatility forecasts) for each expiration month in all symbols that trade US listed options. Columns: same as ssStrike.txt. This file is available daily via ftp or email.

# 32. ORATSearnings.txt :

A space-delimited file that combines all ORATS earnings date sources and contains the following data for each stock: Symbol, Next earnings date, Previous earnings date, Time of earnings announcement, Confirmed or unconfirmed. Sample row: A 8/14/2006 5/15/2006 After Confirmed

# 33. Earn.oratsIndicator.txt:

A comma-delimited file for each option able stock that contains the following data is available via ftp download:

- 1. Column headers and order: earningDateImplied assetVol Forecast earningsVol earn/frcst ivEarnReturn
- 2. Column descriptions: First part of the description applies to all rows except the last row of the file and second part of the description applies to the last row of the file:
  - a. EarningDate Date of earnings. Future earnings.
  - b. Implied Average implied volatility between earnings dates.
  - c. AssetVol Average asset volatility between earnings dates.



- d. Forecast Average forecast of asset volatility between earnings dates.
- e. EarningsVol Volatility the day of and day after earnings date.
- f. Earn/frcst Earning date volatility divided by forecast volatility between earnings dates. Future is weighted average of past earn/frcst.
- g. IvEarnReturn EarningsVol divided by implied day before earningDate divided
- by implied before earningDate divided by implied after earning Date.
- 3. Sample data:
  - a. "01/27/03",.53452,.4764,.42805,.35257,.82368,.83411
  - b. "04/21/03",.47708,.47268,.48049,.42206,.87841,.65359
  - c. "07/21/03",.44174,.31148,.32005,.5335,1.66693,.90491
  - d. "10/22/03", 29873, 23771, 32811, 40675, 1.23968, 1.45264
  - e. "02/04/04", 29638, 35955, 36552, 78665, 2.1521, 2.40223
  - f. "04/14/04",.35022,.42124,.38377,.59865,1.55991,1.40226
  - g. "07/19/04", 37924, 3951, 39488, 7285, 1.84489, 2.03232
  - h. "10/18/04",.39943,.43898,.37219,.83473,2.24273,1.41114
  - i. "02/02/05",.44516,.48685,.40147,1.10891,2.76212,2.7573
  - j. "04/20/05",.48383,.53748,.41497,.88639,2.13604,1.359
  - k. "07/18/05",.46191,.46677,.24741,.58694,2.37239,1.23676
  - $\mathsf{I}. \quad "10/19/05", 43117, 4038, 45274, 1.09071, 2.40913, 1.70293$
  - m. "01/23/06",.42973,.38858,.40675,.84155,2.06894,1.7213
  - $n. \quad "04/19/06", .43765, .47342, .47007, .73583, 1.56537, 1.26596$
  - $o. \quad "07/19/06", .50247, .53873, .52589, 1.43944, 2.73717, 2.3961$
  - p. "10/18/06",.46712,.50411,.44649,.618,1.38412,1.35941
  - $q. \quad "01/23/07", .44235, .41955, .46692, , 1.82824, 1.56625$

## 34. Searcher.txt

A comma-delimited file for each option able stock that contains the following data is available daily via ftp download or email: Symbol, impliedSlope, implied200ma, ImpliedLT, cost1kGam, impliedTurn, impliedForecast, forecastR2, Uvol1day, Uvol4wk, UvolLT, UvolMedian, Forecast, assetPx, undSlope, undBrkOut, deltaSignal, VegaSignal, InfiniteForecast, SlopeForecast, DerivativeForecast.

## 35. Earnings Sneak Attack Report:

The Earnings Sneak Attack Report generates volatility buy and sell signals based on the Earn Offset Ratios (see #5 above) and is emailed each trading day. Twenty (20) trade holding periods are back tested. The holding periods range from entering the trade 6 weeks prior to earnings and exiting one week after earnings to entering the trade on the day before earnings and exiting the day after earnings. There is a Hedged version (buy straddle, hedge position delta neutral at end of each trading day, sell straddle at the exit date) and an Unhedged version (buy straddle, hold until exit date, sell straddle, no stock trading).

## 37. Long Spread 8 Optimizor Results:

Back tested and optimized long calendar spread strategy results delivered by email at least once per trading day. Signals assume holding the trade until expiration of the front option in the spread and hedging delta neutral.

## 38. Short Spread 1 Optimizor Results:

Back tested and optimized short calendar spread strategy results delivered by email at least once per trading day. Signals assume holding the trade until expiration of the front option in the spread and hedging delta neutral.



## **39. Short 1 Optimizor Results:**

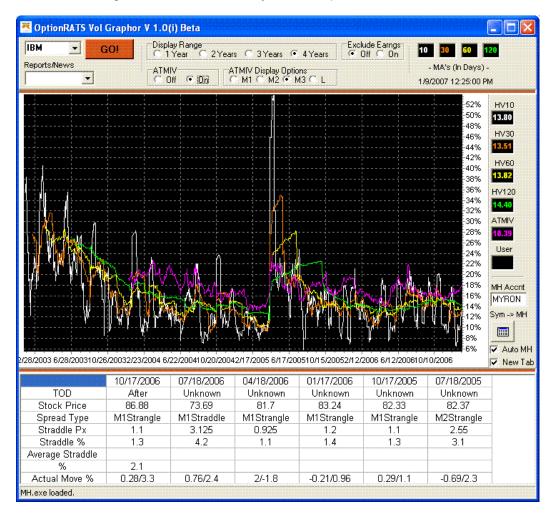
Back tested and optimized short option strategy results delivered by email at least once per trading day. Signals assume holding the trade until expiration and hedging delta neutral.

#### 40. Long45 Optimizor Results:

Back tested and optimized long option strategy results delivered by email at least once per trading day. Signals assume holding the trade for 45 trading days (9 weeks) and hedging delta neutral.

## 41. VolGraphor:

A graphing application that allows the user to include or exclude earnings event volatility (defined as the stock movement on the day of and day after earnings are announced) from historical volatility calculations. It also displays implied volatility and has a table of earnings event data covering the previous six (6) earnings announcements. It can also be configured to automatically load a MicroHedge tab each time a new symbol is required.



Notes:



If you do not see what you are need, please ask us to propose a custom project. We provide fixed bid quotes and will develop exclusively for you *(more expensive)* or on an expedite fee basis *(less expensive)*. Contact information is below.

## Prepared 1/11/2007 by:

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