INSTALL PROCEDURE (revised 10/3/17)

FROM A CD:

Place the enclosed CD in your CD Drive and close it. Our Install program should begin automatically after about a minute or two.

If it doesn't, you can run it manually as follows:

Click: **START...RUN** and type: **X:\INSTALL**, where **X** = your CD Drive Letter

FROM A FILE DOWNLOADED FROM OUR WEB SITE:

The installation file downloaded (usually named ALLPIN.EXE, PINNACLE.EXE or IDXCOT.EXE) from our web site can be run from anywhere on your hard drive. Just click on it to start the installation process. You will need the KEY that was given to you when you purchased the data from our online order form. The KEY is only good for 30 days, if you need to reinstall the system after 30 days please email us at pinnacledatamail@gmail.com for a new KEY. Also, as long as you subscribe to our Update Service, you may at any time download a complete new system at no charge and load it on any computer YOU OWN at no additional charge, our downloader will keep all your computers up to date for you.

During the installation process, the following folders will be created.

Directory	Contains
\PINNACLE	Pinnacle software files
\PINNACLE\COT	COT Master data files
\PINNACLE\CLC	CLC Master data files
\PINNACLE\IDX	IDX Master data files
\PINNACLE\UPDATES	Update files and COT SM/SX files.
\PINNACLE\MAIL	System bulletins.

If you are running the Install file a second or third time (for example after purchasing additional Pinnacle databases or the update service) always install the new items ON TOP of your existing files, i.e. don't delete any files beforehand.

- IF YOU HAVE PURCHASED CLC, COT or IDX DATA:

At the end of the installation you will be prompted to run DMAKERW to create the ASCII and/or Metastock formatted data files you will use with your charting or spreadsheet software.

- IF YOU HAVE PURCHASED THE LIGHT OR DEEP HISTORY PACKAGES:

If you have ordered the individual commodity contracts, you will be shown a SETUP WINDOW in which you will have to select how and where the contracts will be stored. The options available are described within this manual.

USING DMAKERW TO
CREATE CONTINUOUSLY LINKED COMMODITY FILES

When to run DMAKERW? (Click: START...PROGRAMS…PINNACLE.... DMAKERW)

1. After installing the Pinnacle system
2. If you want to try a different linking method
3. If you experience trouble with your linked files

Our Master CLC data files are stored in the folder \PINNACLE\CLC and cannot be read directly. You must use DMAKERW to extract data from these Master files and create ASCII and/or Metastock formatted linked commodity files.

Please see APPENDIX B-1 for a complete listing of the commodities we support.

Choices of linking are:

Reverse adjusted (.LNG)
Up to recently this has been the most popular form of linking commodity contracts. It leaves the current contract alone. Prior contracts are shifted up/down to splice cleanly with their neighboring contract resulting in a series with no contract-to-contract gap.

Ratio or Percentage adjusted (.RAD)
This new method of adjustment was written up in FUTURES, June 98, ("Data Pros and Cons") and looks like an exciting technique that removes the contract to contract gap, yet will not go negative because it reduces the size of the price bars if they go lower and increases them if they go higher.

Non adjusted (.NON)
These files will show the actual prices without any adjustments being made, thus the price gaps between contracts will be present. This form of linking is good for determining actual prior price levels.

Where are the continuously linked files STORED by DMAKERW?

Our default folders are shown below:

ASCII linked series \DATA\CLCDATA (24hr Electronic & Day Session Data)

Metastock linked series\MS\DATA\CLCDATA (Day Session Data)**
“ \MS\DATA\CLCDATAE (24hr Electronic Session Data)

Because of the Metastock data format restriction of 255 data items per folder, we have created a new folder called **\CLCDATAE** that contains the Electronic Session data.

Our original folder **\CLCDATA has not been changed so as to be backward compatible with existing 3rd party software. It does contains a few Electronic Session commodities, we have left these in there for backward compatibility reasons – these few Electronic Session commodities are of course also contained in the **\CLCDATAE** folder so there is a bit of duplication here.

CSV OPTION:

Some charting programs such as EXCEL require CSV ASCII file. These are simply ASCII files that use a comma column separator character, have the extension .CSV and date format MM/DD/YYYY.

If you selected the CSV OPTION when you installed the Pinnacle system, the ASCII Continuously Linked files generated by DMAKERW will be named as follows:

Reverse Adjusted	XX_REV.CSV
Ratio Adjusted	XX_RAD.CSV
Non Adjusted	XX_NON.CSV

where XX = commodity symbol.

ROLLSTAT - Click **START...PROGRAMS...PINNACLE...ROLLSTAT**

Displays a ROLLOVER REPORT on your terminal screen. This can also be directed to a file by using the /F Option. Click **START**…**RUN** and type in:

X:\PINNACLE\ROLL /F=XXXXXXX

where X = hard drive letter PINNACLE is located on,
XXXXXXX = path and file name of file to create.

example: C:\PINNACLE\ROLL /F=D:\MYDATA\ROLLDATA.TXT

will create a file in the folder D:\MYDATA named ROLLDATA.TXT containing the ROLLOVER REPORT.

INSTALLING LIGHT HISTORY INDIVIDUAL COMMODITY CONTRACTS

If you have purchased the Light History Package of individual commodity contracts, the program DPACKER will automatically start and display a SET UP WINDOW so that you may customize how the contracts will be installed on your hard drive. Our DEFAULT settings are recommended and work with most charting software programs.

DATA FORMAT TO USE:

A = store contracts in ASCII format
M = store contracts in METASTOCK format
(Default) B = store contracts in both ASCII and METASTOCK formats

SHOULD THE ASCII CONTRACTS BE GROUPED: (METASTOCK contracts cannot be grouped and are stored with one commodity per folder)

(Default) Y = Yes, group common ASCII commodities into these folders:

GRAINS	MEATS	FOODFIBR	BONDS
OILS	METALS	INDEXES	CURRENCY

N = No, store each commodity in its own folder, ex gold in \GC, bellies in \PB, etc.

PATH TO THE DATA:

Examples for METASTOCK: \MS\DATA\ (**Default)**
\EQUIS\DATA\
\MS\PINNACLE\

Examples for ASCII: \DATA\ **(Default)**
\FUTURES\
\MYDATA\

Example: Assume you selected our default ASCII path \DATA\ then,

Grouping would produce:	\DATA\GRAINS\	(all grains stored in this folder)
	\DATA\MEATS\	(all meats stored in this folder)
	Etc.	Etc.

No grouping would produce:	\DATA\BP\	(just BP stored in this folder)
	\DATA\FC\	(just FC stored in this folder)
	Etc.	Etc.

HOW DO YOU WANT TO NAME THE CONTRACTS: (MASKS)

Here are some examples using the GOLD, DEC, 2001 contract:

TTYYYYM.CSV	=	GC2001Z.CSV	**<-Default**
TTYYM	=	GC01Z	
TT_MMMYY	=	GC_DEC01	
TTMMMYYY.PRN	=	GCDEC101.PRN	

WHERE: TT = ticker symbol GC, and,

M	=	Z	YY	=	01	(single digit year not supported)
MM	=	12	YYY	=	001	
MMM	=	DEC	YYYY	=	2001	

IF YOU ARE USING ASCII FORMAT,

DATE FORMAT TO USE IN YOUR DATA FILES

1 - MM/DD/YY	5 - MM/DD/YYYY **<Default**
2 - "MM/DD/YY"	6 - "MM/DD/YYYY"
3 - YYMMDD	7 - YYYYMMDD
4 - "YYMMDD"	8 - "YYYYMMDD"

COLUMN DELIMITER CHARACTER TO USE

(Default)	C	=	COMMA
	S	=	SPACE
	T	=	TAB

DO YOU WANT CONTRACT OPEN INTEREST OR TOTAL OPEN INTEREST?

(Default)	T	=	Total Open Interest
	C	=	Open Interest for just this contract

Below is a summary of the data fields supported:

1. OPEN	-	OPEN, we use first trade of the day
2. HIGH	-	Highest price during DAY SESSION (except for US, TY)
3. LOW	-	Lowest price during DAY SESSION (except for US, TY)
4. CLOSE	-	Settle price as established by the exchange
5. VOLUME	-	Total contract volume, sum of vol. of all contracts
6. OPEN INTEREST	-	Either contract open interest, or total open interest.

After entering the settings you want, highlight the "**SAVE & BUILD**" button and press the <**ENTER**> key. DPACKER will build your initial extended commodity files using the history data supplied. Your files will then be ready to use.

GROUPING OF COMMODITIES

If GROUPING is selected, commodities contracts will be stored into 8 subdirectories as follows:

GRAINS	MEATS	FOODFIBR	OILS
C_ & ZC	FC	CC	CL & ZU
O_ & ZO	LC	KC	RB & ZB
S_ & ZS	LH	SB	HO & ZH
SM & ZM	PB	JO	NG & ZN
BO & ZL	DA	CT	BC
W_ & ZW		LB	BG
KW			
MW			
NR & ZR			

METALS	INDEXES	BONDS	CURRENCY
GC & ZG	AX LX	ED	BN
SI & ZI	CA MD	FF	CN
PA	CR ND	MB	FX & FN
PL	DJ NK	CB	JN
HG	DX SC	US	SF & SN
	EN SP	TY	AD & AN
	ER RL	FB	MP
	ES XU	UA	
	GI XX	TA	
	HS YM	DT	
	XX AP	GS	
		SS	

MAINTAINING YOUR "FAVORITE" COMMODITY CONTRACTS

Commodity contracts you follow each day can also be grouped together in a single folder called FAVORITE. The folder will automatically be named FAVORITE and can hold has many commodity contracts you specify. You can create a FAVORITE folder for ASCII formatted data and another FAVORITE folder for Metastock formatted data.

Run FAVORITE as follows:

Click **START...PROGRAMS…PINNACLE...FAVORITE**

Any contracts specified as "favorite" contracts will still be maintained in their original appropriate group folder.
For example, if the "favorite" contracts are:

ED2002U,
C_2002U,
CL2002Z,
GC2002J

Then they will appear in both the FAVORITE folder and their normal group folder. Our downloader will update all files in all folders including FAVORITE each night.

CREATING ASCII AND METASTOCK FORMATTED COT DATA FILES

DMAKERW - Click: **START...PROGRAMS...PINNACLE…DMAKERW**

When to run DMAKERW?

1. After installing the Pinnacle system
2. Whenever new COT reports are released --- **VERY IMPORTANT**
3. If you want to try using different COT fields

Our Master COT data files are stored in the folder \PINNACLE\COT and cannot be read directly. You must use DMAKERW to extract data from these Master files and create ASCII and/or Metastock formatted data files.

Example: select **COMMERCIAL NET, ASCII** (happens to be most popular field)

This will create a file for each commodity, ex. BP_NET.CML, that will contain the Commercial Net value. This value will be put into the 6 positions OPEN, HI, LOW, CLOSE, VOL, OI so that you can read it into a charting program - it will appear as a single point per day resulting in a line chart. The data will be DAILY through constant interpolation.

Where are the ASCII or Metastock COT files STORED by DMAKERW?

Our default folders are shown below:

ASCII data	**\DATA\COTDATA**
Metastock data	**\MS\DATA\COTDATA**

ASCII COT data files will have date format mm/dd/yyyy and .CSV extension. Also, it is a good idea if you are rebuilding a series to "clean out" the files currently present

Primary 6 Fields: (used most often with EXCEL)

Clicking this CHECKBOX will result in building files each containing the following primary fields:

POSITION	WILL CONTAIN
OPEN	Commercial Long Contacts
HIGH	Commercial Short Contracts
LOW	Non Commercial Long Contracts
CLOSE	Non Commercial Short Contracts
VOLUME	Small Trader Long Contracts
OPEN INT.	Small Trader Short Contracts

The files will be name XX_ALL.CSV, where XX = commodity, ex. BP_ALL.CSV.
If you select this format, you must know how to use your charting software to plot individual fields.

COT2ASC CONVERSION PROGRAM

Click: **START...PROGRAMS...PINNACLE...COT2ASC**

You may want to examine the "raw" COT data. The program COT2ASCY will create an ASCII file for each of the Master COT Database files stored in your COT subdirectory. The Master COT files are not touched and nothing is modified. Note that the Master COT Database files contain only the following 11 basic fields of data.

DATE	Date
TOTAL	Total number of outstanding contracts,*
NCLONG	Number of Non Commercial long contracts,
NCSHORT	Number of Non Commercial short contracts,
SPREAD	Number of Non Commercial spread contracts,
CMLONG	Number of Commercial long contracts,
CMSHORT	Number of Commercial short contracts,
SMLONG	Number of Small Trader long contracts,
SMSHORT	Number of Small Trader short contracts,
NCL	Number of Non Commercial long traders,
NCS	Number of Non Commercial short traders,
CLG	Number of Commercial long traders,
CSH	Number of Commercial short traders.

*This field is computed by COT2ASC where

Note: TOTAL = NCLONG + SPREAD + CMLONG + SMLONG
OR = NCSHORT + SPREAD + CMSHORT + SMSHORT

The ASCII files will be:

1. Output to the directory: \PINNACLE\TEMP
2. Be named with the extension: DAT ex. BP.DAT
2. Have the date format: YYYYMMDD
3. A space character will be the column separator character.

COT2ASC.EXE program is located in the \PINNACLE folder and can be run by double clicking on it from Windows Explorer or by clicking **START**...**RUN** and typing:

C:\PINNACLE\COT2ASC (assumes you installed Pinnacle on C drive)

CREATING ASCII AND METASTOCK FORMATTED IDX DATA FILES

DMAKERW - click **START...PROGRAMS...PINNACLE...DMAKERW**

When to run DMAKERW?

1. After installing the Pinnacle system
2. If you want to try using different IDX fields

Our Master IDX data files are stored in the folder \PINNACLE\IDX and are in ASCII format with the date in the first column (YYYYMMDD format) and each column of data separated by a space character. See Appendix C-1 for a list of the fields in each group. Many customers use these Master files directly, however, most prefer to convert them to Metastock or ASCII format with a single field per file.

Example: check the **X2, ASCII** box and click **BUILD**

This will create a file for each of the data fields in the X2 group except where it is obvious that certain fields go together such as the S&P OPEN, HI, LOW, CLOSE which would be placed in a single file to create a "bar" for your charting software. Thus "building" **X2, ASCII** will produce several ASCII files, one containing the S&P500 OPEN, HI, LOW and CLOSE, another similar one for the NASDAQ 100, etc. The same applies to Metastock format.

Where are the ASCII and Metastock file STORED by DMAKERW?

Our default folders are shown below:

ASCII data	**\DATA\IDXDATA**
Metastock data	**\MS\DATA\IDXDATA**

In addition to the above folders, breadth data can also be found in:

ASCII data	**\DATA\BREADTH**
Metastock data	**\\MS\DATA\BREADTH**

FOREX data is stored in these folders:

ASCII FOREX Prices	**\DATA\FOREX**
ASCII FOREX Interest rates	**\DATA\FOREXINT**
Metastock FOREX Prices	**\MS\DATA\FOREX**
Metastock FOREX Interest rates	**\MS\DATA\FOREX**

ASCII data files created by DMAKERW will have the date format mm/dd/yyyy, column delimitor character of a comma and file extension .CSV Also, it is a good idea if you are rebuilding a series to "clean out" the files currently present.

GOWEB (Internet Downloader)

YOU MUST BE ON THE INTERNET BEFORE YOU RUN GOWEB.

When you run GOWEB, the following actions take place:

1. Determines how many days of updates you require,
2. Accesses our internet site and downloads the update files you need,
3. Periodically checks for possible software revision changes,
4. Updates both our Master files and your ASCII/Metastock files,
5. Shows you any bulletins and rollover notices.

AUTOMATIC (NON STOP) OPERATION

GOWEB normally stops to display a list of the files you need to download. This requires a "click" to continue the downloading process. To avoid this "click", you can set GOWEB into Auto Mode so that it will run nonstop. Is handy for unattended operation where you may be running GOWEB along with other programs.

To set GOWEB into Auto Mode:
When the DOWNLOAD FILES box is displayed, hold down the **SHIFT** key (or right mouse button) as you click **OK**. When you run GOWEB in the future, it will run nonstop.

To set GOWEB back into Manual Mode:
A 2 second window will appear soon after GOWEB starts, it will display a AUTO MODE message, To set GOWEB back into Manual Mode, hold down the SHIFT key (or right mouse button) when this message appears. Then whenever you run GOWEB in the future, it will stop to show you the list of files to download.

APPENDIX A-1

COT FILE NAMES AND START DATES

FILE NAME	COMMODITY	START DATE	MARKET
BP_COT	BRITISH POUND STERLING	1/31/1983	International Monetary Market
CD_COT	CANADIAN DOLLAR	1/31/1983	International Monetary Market
FC_COT	FEEDER CATTLE	1/31/1983	Chicago Mercantile Exchange
LC_COT	LIVE CATTLE	1/31/1983	Chicago Mercantile Exchange
CC_COT	COCOA	1/31/1983	Coffee, Sugar & Cocoa Exch.
KC_COT	COFFEE	1/31/1983	Coffee, Sugar & cocoa Exch.
HG_COT	COPPER-GRADE #1	1/31/1983	Commodity Exchange Inc.
C__COT	CORN	1/31/1983	Chicago Board of Trade
CT_COT	COTTON NO. 2	1/31/1983	New York Cotton Exchange
CL_COT	CRUDE OIL, LIGHT SWEET	1/15/1986	New York Merc. Exchange
ED_COT	EURODOLLARS (3-MONTH)	1/31/1983	International Monetary Market
EN_COT	NASDAQ, MINI	6/22/1999	Chicago Mercantile Exchange
ES_COT	S&P 500, MINI	6/16/1997	International Monetary Market
FF_COT	INTEREST RATES (FED FUNDS)	10/14/1988	Chicago Board of Trade
GC_COT	GOLD	1/31/1983	Commodity Exchange Inc.
HO_COT	NO. 2 HEATING OIL	1/31/1983	New York Merc. Market
LH_COT	LEAN HOGS	1/31/1983	Chicago Mercantile Market
JY_COT	JAPANESE YEN	1/31/1983	International Monetary Market
LB_COT	RANDOM LENGTH LUMBER	1/31/1983	Chicago Mercantile Exchange
O__COT	OATS	1/31/1983	Chicago Board of Trade
JO_COT	FROZEN ORANGE JUICE	1/31/1983	Citrus Assoc. of NY Cotton Ex.
PA_COT	PALLADIUM	1/31/1983	New York Mercantile Exchange
PL_COT	PLATINUM	1/31/1983	New York Mercantile Exchange
SP_COT	S&P 500 STOCK INDEX FUTURES	1/31/1983	International Monetary Market
SI_COT	SILVER	1/31/1983	Commodity Exchange Inc.
S__COT	SOYBEANS	1/31/1983	Chicago Board of Trade
SM_COT	SOYBEAN MEAL	1/31/1983	Chicago Board of Trade
BO_COT	SOYBEAN OIL	1/31/1983	Chicago Board of Trade
SB_COT	SUGAR #11	1/31/1983	Coffee, Sugar & Cocoa Ex.
SF_COT	SWISS FRANC	1/31/1983	International Monetary Market
TU_COT	2 YEAR T-NOTES	6/29/1990	Chicago Board of Trade
US_COT	LONG TERM U.S. T-BONDS	1/31/1983	Chicago Board of Trade
TY_COT	6.5 - 10 YR. T-NOTES	10/31/1983	Chicago Board of Trade
FB_COT	5 YEAR U.S. T-NOTES	5/31/1988	Chicago Board of Trade
RB_COT	UNLEADED GASOLINE, NY	12/31/1984	New York Merc. Exchange
W__COT	WHEAT, CHICAGO	1/31/1983	Chicago Board of Trade
KW_COT	WHEAT, KC	1/15/1986	Kansas City Board of Trade
MW_COT	WHEAT, MINN	1/15/1986	Minn. Grain Exchange
NK_COT	NIKKEI STOCK AVERAGE	9/28/1990	International Monetary Mkt.
DX_COT	U.S. DOLLAR INDEX	10/20/1992	New York Cotton Exchange
NG_COT	NATURAL GAS	10/20/1992	New York Merc. Exchange
AD_COT	AUSTRALIAN DOLLAR	10/20/1992	International Monetary Market
RU_COT	RUSSELL 2000 INDEX	2/16/1993	Chicago Mercantile Exchange
PS_COT	MEXICAN PESO	5/23/1995	International Monetary Market
IX_COT	NASDAQ-100 INDEX	4/16/1996	Chicago Mercantile Exchange
FX_COT	EURO CURRENCY	1/5/1999	International Monetary Market
DJ_COT	DOW JONES	10/7/1997	Chicago Board of Trade
VX_COT	VIX FUTURES	7/27/2004	CBOE Futures Exchange
DA_COT	MILK, CLASS III	10/14/1997	Chicago Mercantile Exchange
MD_COT	S&P 400, MINI	11/05/2002	Chicago Mercantile Exchange

APPENDIX A-2

COT FIELD NUMBERS, NAMES AND COLUMN HEADINGS

FIELD NUMBER	**FIELD NAME**	**COLUMN HEADING** (see note)
1	COT INDEX, COMMERCIAL TRADERS*	XX-CCotI
2	COT INDEX, NON COMMERCIAL TRADERS*	XX-NCotI
3	COT INDEX, SMALL TRADERS*	XX-SCotI
4	TOTAL OPEN INTEREST	XX-TotOI
5	COMMERCIAL LONGS	XX-CLong
6	COMMERCIAL SHORTS	XX-CShrt
7	NON COMMERCIAL LONGS	XX-NLong
8	NON COMMERCIAL SHORTS	XX-NShrt
9	SMALL TRADER LONGS	XX-SLong
10	SMALL TRADER SHORTS	XX-SShrt
11	SPREAD CONTRACTS	XX-Spred
12	NUMBER OF COMM LONG TRADERS	XX-CLngT
13	NUMBER OF COMM SHORT TRADERS	XX-CShrT
14	NUMBER OF NON COMM LONG TRADERS	X-NLngT
15	NUMBER OF NON COMM. SHORT	XX-NShrT
16	COMMERCIAL NET POSITION	XX-CmNet
17	NON COMMERCIAL NET POSITION	XX-NcNet
18	SMALL TRADER NET POSITION (Net Position = Longs - Shorts)	XX-SmNet

Where XX = commodity tag (ex. BP = British Pound).
Note also that the character following the <-> sign indicates:

C - commercial trading group,
N - non commercial trading group,
S - small traders group.

except in the case of Total Open Interest and Spread Contracts.

* Values for the COT Index Fields (fields 1,2 and 3) will not start until the number of "Lookback Days" has elapsed. Trading days, not calendar days, are used when counting Lookback Days.

APPENDIX A-3

CFTC REPORTING LEVELS

COMMODITY	REPORTING LEVEL (CONTRACTS)
CATTLE, LIVE	100
CATTLE, FEEDER	50
COCOA	100
COFFEE	50
COPPER	100
CORN	250
COTTON	100
CRUDE OIL, LIGHT SWEET	350
EURODOLLARS	1000
FOREIGN CURRENCIES	400
GASOLINE, UNLEADED	150
GOLD	200
HEATING OIL	250
INTEREST RATES (FED FUNDS)	300
LEAN HOGS	100
LUMBER	25
NATURAL GAS	200
OATS	60 contracts
ORANGE JUICE, FROZEN	50
PALLADIUM	25
PLATINUM	50
PORK BELLIES, FROZEN	25
PROPANE GAS	25
SILVER	150
SOYBEANS	150 contracts
SOYBEAN MEAL	200
SOYBEAN OIL	200
S & P 500 STOCK INDEX	1000
NYSE COMP. STOCK INDEX	50
NIKKEI STOCK AVERAGE	100
MUNI-BONDS	300
SUGAR #11	500
TREASURY BILLS, 90 DAYS	150
TREASURY BONDS	1500
TREASURY NOTES, LONG TERM	2000
TREASURY NOTES, 5-YEAR	2000
WHEAT	150 contracts
U.S. DOLLAR INDEX	50

APPENDIX A-4

TECHNICAL INFORMATION REGARDING THE COT DATABASE

General

Prior to 1991, the Commodity Futures Trading Commission (CFTC) compiled the Commitments of Traders Report (COT Report) once a month. This data reflected the three major trading groups positions as of the last trading day of the month. This information was released to the public 3-5 days later electronically and 10-15 days later by printed report. From 1/91 to 10/92 the CFTC compiled the COT Report twice a month reflecting the holdings on the 15th of the month (or previous trading day if a holiday or weekend) and the last trading day of the month. Again, the data was released days later to the public. From 10/16/92 to the present, the CFTC compiles the data weekly reflecting the **holdings as of the close of each Tuesday**. This data is released electronically to the public every Friday at 3:30 P.M and covers the holdings as of the previous Tuesday. For example, the COT report released 12/22/00 (Friday) contains the holdings as of 12/19/00 (Tuesday).

Our COT Database begins 1/31/83 for most commodities; see Appendix A-1 for exact starting dates. From 1/31/83 to 12/31/85 our data is end of month. From 1/15/86 to 9/30/92 it is semi-monthly and then weekly thereafter. You may wonder how our data is semi-monthly from 1/15/86 to 10/16/92 as the CFTC only published monthly reports during this period. In January of 1991, the CFTC began using a new computer program that compiled the data on a semi-monthly basis. In conjunction with this release, they ran the historical data they had stored in their computer system (which went back to 1986) through this new program. This created the semi-monthly reports that we supplied to you. In talking with CFTC staff, we learned that back in those days, the verification of data was directed more towards the end of the month holdings. The mid month values created by rerunning historical data through the new CFTC program will not be as accurate as the end of month values. Regardless, we believe it is more appropriate to use this mid month data rather than interpolate across 30 days of time.

The dates in the COT Database are the actual dates of the holdings and not the dates the reports were released to the public. For example, the holdings dated January 29, 1988 in our database are the holdings as of the close of that day. This report was released to the public 3-5 days later electronically and 10-15 days later by publication.

COT data is exceptionally important data as it is the sole source of the actual holdings of the three key commodity-trading groups, namely:

1. Commercial Traders: this group consists of traders that use futures contracts for hedging purposes and whose positions exceed the reporting levels of the CFTC. These traders are usually involved with the production and/or processing of the underlying commodity.

2. Non Commercial Traders: this group consists of traders that don't use futures contracts for hedging and whose positions exceed the CFTC reporting levels They are typically large traders such as clearing houses, futures commission merchants, foreign brokers, etc.

3. Small Traders: the positions of these traders do not exceed the CFTC reporting levels, and as the name implies, these are usually small traders.

(CFTC reporting levels are listed in Appendix A-3)

COT Index

The COT Index was refined by Steve Briese and described in his article that appeared in May 1990 "Stocks and Commodities" magazine. He followed this article up with another one in the March 1994 "FUTURES" magazine, which further confirmed the value of COT data.

DataMaker computes the COT Index for all three trading groups. The formula is similar to Lane's stochastic work, namely:

COT Index = (Current net – Minimum Net) / (Maximum Net – Minimum Net)

where:

Current Net = Current Long Positions - Current short Positions (for a particular group).

Minimum Net = Lowest Net Position that occurred over the lookback period (for that group).

Maximum Net = Highest Net Position that occurred over the lookback period (for that group).

The COT Index provides a way of measuring the current net position of a group to the range of net positions that group has experienced during the lookback period.

If you believe Commercial Traders provide an accurate forecast of price direction, the Commercial COT Index can be used to generate BUY/SELL signals as follows:

> BUY Signal is triggered when the Commercial COT Index is greater than 90% and a
> SELL Signal is triggered when the index falls below 10%.

Briese writes that these levels could be relaxed to 75% and 25% if the index moves more than 50 points in one month.

APPENDIX A-5

PARTIAL LISTING OF "SM" SUMMARY REPORT FOR 8/17/93 (SM930817.COT)

TAG	NON-COMMERCIAL			COMMERCIAL		NON-REPORT		N-C TRADERS		COMM. TRADERS	
	LONG	SHORT	SPREAD	LONG	SHORT	LONG	SHORT	LG	SH	LG	SH
BP	2188	12212	1060	26628	6254	8954	19304	8	25	20	14
CD	353	18955	1343	38945	11466	8207	17084	1	22	15	10
FC	3279	1464	525	6058	1516	4411	10768	17	14	14	14
LC	5744	3654	3383	27439	32582	29032	25979	21	21	38	40
CC	19504	3581	533	39224	68127	17358	4378	79	12	45	35
KC	8693	928	1011	24028	40372	15373	6794	50	9	58	41
CR	340	671	1275	0	0	716	385	8	9	0	0
HG	4433	5078	587	32760	33989	16859	14985	15	18	45	29
C_	187365	27590	39060	413075	759270	684890	498470	80	16	106	156
CT	1597	10847	742	22236	12330	10001	10657	16	45	41	36
CL	13888	29989	12679	313675	289119	92198	100653	20	29	73	72
ED	72709	60538	41141	1312674	1131124	503622	697343	27	24	92	125
FF	1467	294	437	4588	5648	2441	2554	5	3	11	16
DM	13742	41569	3912	95262	63198	27794	32031	19	42	42	41
GC	41868	12872	14559	60168	112831	56219	32552	43	29	32	46

PARTIAL LISTING OF "SX" SUMMARY REPORT FOR 8/17/93 (SX930817.COT)

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                   REPORTABLE POSITIONS
------------------------------------------------------------| NONREPORTABLE
      NON-COMMERCIAL        | COMMERCIAL       | TOTAL            | POSITIONS
--------------------------|----------------|-----------------|----------------
 LONG   | SHORT   |SPREADING| LONG    | SHORT   | LONG    | SHORT   | LONG    | SHORT
----------------------------------------------------------------------------

HDR11401000010008209315 30 MIDWESTERN MARKETS        08/17/93

DR314010000100082093 1530 CBT WHEAT             OPEN INT:    327,850  (    5,205)
 60,610    11,790    24,445    99,345   196,870   184,400   233,105   143,450   94,745
  1,295      -210     3,990    -1,545     5,440     3,740     9,220     1,465   -4,015
   18.5       3.6       7.5      30.3      60.0      56.2      71.1      43.8     28.9
     37        15        16        35        40        80        67

HDR314010000100082093 1530 CBT CORN              OPEN INT: 1,324,390  (    8,670)
187,365    27,590    39,060   413,075   759,270   639,500   825,920   684,890  498,470
  2,565      -140       555     5,800     8,295     8,920     8,710      -250      -40
   14.1       2.1       2.9      31.2      57.3      48.3      62.4      51.7     37.6
     80        16        21       106       156       195       188

HDR314010000100082093 1530 CBT OATS              OPEN INT:     57,115  (      710)
  6,220     1,370     1,360    16,880    45,965    24,460    48,695    32,655    8,420
```

APPENDIX B-1

Commodities in BOLD FACE are 24hr Session Commodites, all others are Day Session.

Symbol	**MarketName**	**Exchange**	**StartDate**	**Currency**	**BigPoint Value**	**TickSize**	**Min$Move**	**RollOverDate**	**Contract Months**
AD	AUSTRALIAN $$, day session	IMM(CME)	01/04/1988	USD	1000	0.01	10.00	8th of DM	H,M,U,Z
AN	AUSTRALIAN $$, composite	IMM(CME)	1/4/1988 with Day Session Data to 01/02/1990	USD	1000	0.01	10.00	8th of DM	H,M,U,Z
AP	AUSTRALIAN PRICE INDEX	ASE	09/01/2008	AUD	25	1	25.00	Thur prior 2nd Fri of DM	H,M,U,Z
BC	BRENT CRUDE OIL, composite	ICE	08/11/2008	USD	1000	.01	10.00	11th of MPDM	F,G,H,J,K,M,N,Q,U,V,X,Z
BG	BRENT GASOIL, comp.	ICE	08/11/2008	USD	100	.25	25.00	11th of MPDM	F,G,H,J,K,M,N,Q,U,V,X,Z
BN	BRITISH POUND, composite	IMM(CME)	1/2/1976 with Day Session History to 01/02/1990	USD	625	0.01	6.25	8th of DM	H,M,U,Z
BO	SOYBEAN OIL	CBOT	01/02/1969	USD	600	0.01	6.00	22nd of MPDM	F,H,K,N,Q,Z
C_	CORN	CBOT	01/05/1970	USD	50	2/8	12.50	22nd of MPDM	H,K,N,U,Z
CA	CAC40 INDEX	MATIF	01/04/1999	EUR	10	0.5	5.00	Thur prior 2nd Fri of DM	H,M,U,Z
CB	CANADIAN 10YR BOND	MontExch	01/06/1994	CND	1000	0.01	10.00	24th of MPDM	H,M,U,Z
CC	COCOA	CSC	01/05/1981**	USD	10	1	10.00	9th of MPDM	H,K,N,U,Z
CL	CRUDE OIL	NYMEX	01/03/1984	USD	1000	0.01	10.00	11th of MPDM	F,G,H,J,K,M,N,Q,U,V,X,Z
CN	CANADIAN $$, composite	IMM(CME)	1/3/1978 with Day Session History to 01/02/1990	USD	1000	0.01	10.00	8th of DM	H,M,U,Z
CR	CRB FUTURES	NYBOT	01/02/1987**	USD	500	0.05	25.00	6th of DM	F,G,J,M,Q,X
CT	COTTON #2	NYBOT	01/02/1973**	USD	500	0.01	5.00	15th of MPDM	H,K,N,Z
DA	MILK III, Comp.	CME	09/02/1997	USD	2000	0.01	20.00	27th of MPDM	F,G,H,J,K,M,N,Q,U,V,X,Z
DJ	DOW JONES, day session	CBOT	10/06/1997	USD	25	1	25.00	Thur prior 2nd Fri of DM	H,M,U,Z
DT	EURO BOND (BUND)	EUREX	01/04/1999	EUR	1000	0.01	10.00	24th of MPDM	H,M,U,Z
DX	US DOLLAR INDEX	NYBOT	01/02/1986**	USD	1000	0.005	5.00	8th of DM	H,M,U,Z
ED	EURODOLLARS	IMM(CME)	02/01/1982	USD	2500	.0025	6.25 (for nearest expiring contract)	22nd of MPDM	H,M,U,Z
EN	NASDAQ, MINI	IMM(CME)	06/21/1999	USD	20	0.25	5.00	Thur prior 2nd Fri of DM	H,M,U,Z
ER	RUSSELL 2000, MINI	ICE	11/26/2002	USD	100	0.10	10.00	Thur prior 2nd Fri of DM	H,M,U,Z
ES	S & P 500, MINI	IOM(CME)	09/11/1997	USD	50	0.25	12.50	Thur prior 2nd Fri of DM	H,M,U,Z
FA	T-NOTE, 5yr day session	CBOT	05/24/1988	USD	1000	.0078125	7.8125	24th of MPDM	H,M,U,Z

FB	T-NOTE, 5yr composite	CBOT	01/03/1989	USD	1000	.0078125	7.8125	24th of MPDM	H,M,U,Z
FC	FEEDER CATTLE	CME	01/03/1978	USD	500	0.025	12.50	5th of DM	F,H,,K,Q,U,V,X
FF	FED FUNDS	CBOT	10/03/1989	USD	4167	0.0025	10.4175	22nd of DM	F,G,H,J,K,M,N,Q,U,V,X,Z
FN	EURO, composite	IMM(CME)	2/13/1975 with Day Session History to 01/04/1999	USD	1250	0.01	12.50	8th of DM	H,M,U,Z
FX	EURO, day session	IMM(CME)	2/13/75 with DMark History to 3/7/99	USD	1250	0.01	12.50	8th of DM	H,M,U,Z
GC	GOLD (COMMEX)	COMEX	01/02/1975	USD	100	0.1	10.00	22nd of MPDM	G,J,M,Q,V,Z
GI	GOLDMAN SAKS C. I.	IOM(CME)	01/04/1993	USD	250	0.05	12.50	9th of DM	F,G,H,J,K,M,N,Q,U,V,X,Z
GS	GILT, LONG BOND	LIFFE	11/23/1989	BPN	1000	0.01	10.00	24th of MPDM	H,M,U,Z
HG	COPPER	COMEX	01/03/1989	USD	250	0.05	12.50	22nd of MPDM	H,K,N,U,Z
HO	HEATING OIL #2	NYMEX	01/02/1980	USD	420	0.01	4.20	11th of MPDM	F,G,H,J,K,M,N,Q,U,V,X,Z
HS	HANG SENG	HKFE	10/22/1997	HKD	50	1	50.00	Thur prior 2nd Fri of DM	H,M,U,Z
HU	UNLEADED GAS	NYMEX	01/02/1985	USD	420	0.01	4.20	11th of MPDM	F,G,H,J,K,M,N,Q,U,V,X,Z
JN	JAPANESE YEN, composite	IMM(CME)	1/3/1978 with Day Session History to 01/02/1990	USD	1250	0.01	12.50	8th of DM	H,M,U,Z
JO	ORANGE JUICE	CEC	01/02/1973**	USD	150	0.05	7.50	25th of MPDM	F,H,K,N,U,X
JY	JAPANESE YEN, day session	IMM(CME)	01/03/1978	USD	1250	0.01	12.50	8th of DM	H,M,U,Z
KC	COFFEE	CSC	01/02/1974**	USD	375	0.05	18.75	11th of MPDM	H,K,N,U,Z
KW	WHEAT, KC	KCBT	01/03/1977	USD	50	.25	12.50	22nd of MPDM	H,K,N,U,Z
LB	LUMBER	CME	01/02/1974**	USD	110	0.1	11.00	1st of DM	F,H,K,N,U,X
LC	LIVE CATTLE	CME	01/04/1971	USD	400	0.025	10.00	27th of MPDM	G,J,M,Q,V,Z
LH	LIVE HOGS	CME	01/05/1970	USD	400	0.025	10.00	27th of MPDM	G,J,M,N,Q,V,Z
LX	FTSE 100 INDEX	LIFFE	01/02/1990	BPN	10	0.5	5.00	13th of DM	H,M,U,Z
EC	EURODOLLAR, composite	IMM(CME)	2/1/1982 with Day Session History to 6/19/2008	USD	2500	0.0025	6.25	22th of MPDM	H,M,U,Z
MD	S&P 400 (Mini electronic)	IOM(CME)	02/13/1992	USD	100	.10	10.0	Thur prior 2nd Fri of DM	H,M,U,Z
MP	MEXICAN PESO	IMM(CME)	05/03/1995	USD	500000	.000025	12.50	8th of DM	H,M,U,Z
MW	WHEAT, MINN	MGE	01/02/1981	USD	50	.25	12.50	22nd of MPDM	H,K,N,U,Z
ND	NASDAQ 100	IMM(CME)	04/10/1996	USD	100	0.25	25.00	Thur prior 2nd Fri of DM	H,M,U,Z
NG	NATURAL GAS	NYMEX	01/02/1991	USD	10000	0.001	10.00	18th of MPDM	F,G,H,J,K,M,N,Q,U,V,X,Z

NK	NIKKEI INDEX	IOM(CME)	01/02/1991	USD	5	5.0	25.00	3rd of DM	H,M,U,Z
NR	ROUGH RICE	CBOT	01/02/1987	USD	2000	0.005	10.00	22nd of MPDM	F,H,K,N,U,X
O_	OATS	CBOT	01/02/1975	USD	50	2/8	12.50	13th of MPDM	H,K,N,U,Z
PA	PALLADIUM	NYMEX	01/03/1983	USD	100	0.05	5.00	22nd of MPDM	H,M,U,Z
PL	PLATINUM	NYMEX	01/02/1973	USD	50	0.1	5.00	22nd of MPDM	F,J,N,V
RB	RBOB GASOLINE	NYMEX	10/16/2006	USD	420	.01	4.20	11th of MPDM	F,G,H,J,K,M,N,Q,U,V,X,Z
RL	RUSSELL 2000	IOM(CME)	02/04/1993	USD	500	0.05	25.00	Thur prior 2nd Fri of DM	H,M,U,Z
S_	SOYBEANS	CBOT	01/02/1969	USD	50	2/8	12.50	22nd of MPDM	F,H,K,N,Q,X
SB	SUGAR #11	CSC	01/02/1975**	USD	1120	0.01	11.20	22nd of MPDM	H,K,N,V
SC	S & P 500, composite	IOM(CME)	03/08/1994	USD	250	0.1	25.00	Thur prior 2nd Fri of DM	H,M,U,Z
SF	SWISS FRANC, day session	IMM(CME)	01/02/1976	USD	1250	0.01	12.50	8th of DM	H,M,U,Z
SI	SILVER (COMMEX)	COMEX	01/02/1973	USD	5000	0.005	25.00	22nd of MPDM	H,K,N,U,Z
SM	SOYBEAN MEAL	CBOT	01/02/1969	USD	100	0.1	10.00	22nd of MPDM	F,H,K,N,Q,Z
SN	SWISS FRANC, composite	IMM(CME)	1/2/1976 with Day Session History to 01/02/1990	USD	1250	0.01	12.50	8th of DM	H,M,U,Z
SP	S & P 500, day session	IOM(CME)	04/21/1982	USD	250	0.1	25.00	Thur prior 2nd Fri of DM	H,M,U,Z
SS	STERLING, SHORT	LIFFE	09/24/1991	BPN	1250	0.01	12.50	3rd of DM	H,M,U,Z
TA	T-NOTE, 10yr day session	CBOT	01/03/1983	USD	1000	1/64	15.63	24th of MPDM	H,M,U,Z
TD	T-NOTES, 2yr day session	CBOT	06/22/1990	USD	2000	1/128	15.63	24th of MPDM	H,M,U,Z
TU	T-NOTES, 2yr composite	CBOT	06/22/1990	USD	2000	1/128	15.63	24th of MPDM	H,M,U,Z
TY	T-NOTE, 10yr composite	CBOT	01/03/1983	USD	1000	1/64	15.63	24th of MPDM	H,M,U,Z
UA	T-BONDS, day session	CBOT	01/03/1983	USD	1000	1/32	31.25	24th of MPDM	H,M,U,Z
UB	EURO BOBL	EUREX	01/04/1999	EUR	1000	0.01	10.00	24th of MPDM	H,M,U,Z
US	T-BONDS, composite	CBOT	01/03/1978	USD	1000	1/32	31.25	24th of MPDM	H,M,U,Z
UZ	EURO SCHATZ	EUREX	01/04/1999	EUR	1000	0.005	5.00	24th of MPDM	H,M,U,Z
W_	WHEAT, CBOT	CBOT	01/02/1969	USD	50	.25	12.50	22nd of MPDM	H,K,N,U,Z
AX	GERMAN DAX INDEX	EUREX	10/22/1997	EUR	25	0.5	12.50	Thur prior 2nd Fri of DM	H,M,U,Z
XU	DOW JONES EUROSTOXX50	EUREX	06/04/2002	EUR	10	1	10.00	Thur prior 2nd Fri of DM	H,M,U,Z
YM	Mini Dow Jones ($5.00)	CBOT	04/03/2002	USD	10	1	10.00	Thur prior 2nd Fri of DM	H,M,U,Z
XX	DOW JONES STOXX 50	EUREX	06/04/2002	USD	10	1	10.00	Thur prior 2nd Fri of DM	H,M,U,Z

ZD	DOW JONES, composite	CBOT	04/21/1998	USD	25	1	25.00	Thur prior 2nd Fri of DM	H,M,U,Z
ZG	GOLD, Electronic	COMMEX	1/2/1975 (Day Session Data prior 4/7/08)	USD	100	0.1	10.00	22ND of MPDM	G,J,M,Q,V,Z
ZI	SILVER, Electronic	COMMEX	1/2/1973(Day Session Data prior 4/7/08)	USD	5000	0.5	25.00	22ND of MPDM	G,J,M,Q,V,Z
ZC	CORN, Electronic	CBOT	01/05/1970***	USD	50	2/8	12.50	22nd of MPDM	H,K,N,U,Z
ZS	SOYBEANS, Electronic	CBOT	01/2/1969***	USD	50	2/8	12.50	22nd of MPDM	FHKNQX

ZL	SOYBEAN OIL, Electronic	CBOT	01/02/1969***	USD	600	0.01	6.00	22nd of MPDM	F,H,K,N,Q,Z
ZO	OATS, Electronic	CBOT	01/02/1975***	USD	50	2/8	12.50	13th of MPDM	H,K,N,U,Z
ZM	SOYBEAN MEAL, Electronic	CBOT	01/02/1969***	USD	100	0.1	10.00	22nd of MPDM	F,H,K,N,Q,Z
ZR	ROUGH RICE, Electronic	CBOT	01/02/1987***	USD	2000	0.5	10.00	22nd of MPDM	F,H,K,N,U,X
ZW	WHEAT, Electronic	CBOT	01/02/1969***	USD	50	.25	12.50	22nd of MPDM	H,K,N,U,Z
ZU	CRUDE OIL, Electronic	NYMEX	1/3/84(Day Session Data prior 4/7/08)	USD	1000	0.01	10.00	11th of MPDM	F,G,H,J,K,M,N,Q,U,V,X,Z
ZB	RBOB, Electronic	NYMEX	10/16/06(Day Session Data prior 4/7/08)	USD	420	.01	4.20	11th of MPDM	F,G,H,J,K,M,N,Q,U,V,X,Z
ZH	HEATING OIL, electronic	NYMEX	1/2/80(Day Session Data prior 4/7/08)	USD	420	0.01	4.20	11th of MPDM	F,G,H,J,K,M,N,Q,U,V,X,Z
ZN	NATURAL GAS, electronic	NYMEX	1/2/91(Day Session Data prior 4/7/08)	USD	10000	.001	10.00	18th of MPDM	F,G,H,J,K,M,N,Q,U,V,X,Z
ZK	COPPER, electronic	COMEX	1/3/89(Day Session Data prior 4/14/08)	USD	250	0.05	12.50	22nd of MPDM	H,K,N,U,Z
ZA	PALLADIUM, electronic	NYMEX	1/3/83(Day Session Data prior 4/14/08)	USD	100	0.10	10.00	22nd of MPDM	H,M,U,Z
ZP	PLATINUM, electronic	NYMEX	1/2/73(Day Session Data prior 4/14/08)	USD	50	0.1	5.00	22nd of MPDM	F,J,N,V
ZF	FEEDER CATTLE, Electronic	CME	1/3/78(Day Session Data prior 2/25/08)	USD	500	0.025	12.50	5th of DM	FHKQUVX
ZT	LIVE CATTLE, Electronic	CME	1/4/71(Day Session Data prior 2/25/08)	USD	400	0.025	10.00	27th of MPDM	GJMQVZ
ZZ	LEAN HOGS, Electronic	CME	1/5/70(Day Session Data prior 2/25/08)	USD	400	0.025	10.00	27th of MPDM	GJMNQVZ

Day Session data used prior 2/18/2008 * Day Session data used prior 1/2/2007

where: DM = Delivery Month and MPDM = Month Previous to Delivery Month

and F=Jan, G=Feb, H=Mar, J=Apr, K=May, M=Jun, N=Jul, Q=AUG, U=Sep, V=Oct, X=Nov, Z= Dec

APPENDIX B-2
CLC2ASC CONVERSION PROGRAM

You may want to examine the "raw" CLC data without running DataMaker. The program CLC2ASC will create an ASCII file for each of the CLC commodities. A subdirectory named TEMP (\PINNACLE\CLC\TEMP) will be created to hold the converted files that will be named with the suffix "ASC". Your original CLC Database file will remain intact.

For example, the CLC Database file: \PINNACLE\CLC\BP_CLC.PIN
will be converted to the file: \PINNACLE\CLC\TEMP\BP_CLC.ASC

The ASCII files created will have a date format of YYMMDD and column delimiter of a space character. Occasionally a record with a date of 000000 will be seen. This is a Roll Over Record and contains the closing price of the previous contract in the OPEN field and the closing price of the next contract in the CLOSE fields. All other fields are zeroed. DataMaker uses the difference between these prices to perform the forward and reverse price adjustments.

The program CLC2ASC can also convert these ASCII files back to the Pinnacle binary format. To avoid overwriting your original CLC Database files, these binary files will also be written to the \TEMP subdirectory and given the suffix "BIN".

For example, the CLC data file: \PINNACLE\CLC\TEMP\BP_CLC.ASC
will be converted to the file: \PINNACLE\CLC\TEMP\BP_CLC.BIN.

OPERATION:

MANUAL MODE - Type CLC2ASC to start the program, answer the prompt to run it.
This mode converts all commodities.

BATCH MODE - Type CLC2ASC /xx /xx /xx ....../n
where xx = commodity tag,
n = 1 to convert to ASCII,
2 to converting back to binary.

ex: CLC2ASC /BP /CD /SF /DM /1
converts BP, CD, SF, and DM to ASCII format.

ex: CLC2ASC /SF /2
convert the Swiss Franc back to Pinnacle binary format.

APPENDIX C-1 IDX GROUPS
FIELD NUMBER, FIELD NAME, STARTING DATE, COL. TITLE (File Name)

B1 - DAILY BREADTH DATA, NYSE COMPOSITE

1	Num. Total Issues	3/1/1965	NY-Totls
2	Num. Advancing Issues	1/2/1940	NY-Advls
3	Num. Declining Issues	1/2/1940	NY-Decls
4	Num. Unchanged Issues	3/1/1965	NY-Uchls
5	New Highs	3/1/1965	NY-Highs
6	New Lows	3/1/1965	NY-Lows
7	Advancing Volume	1/2/1940	NY-AdvVl
8	Declining Volume	1/2/1940	NY-DecVl
9	Total Volume	3/1/1965	NY-TotVl
10	Unchanged Volume	3/1/1965	NY-UchVl
11	ARM'S Index	1/2/1940	NY-ARMS
12-16	Diamonds, Open, Hi, Low, Close,Vol	1/21/1998	Diamonds
17-21	Spyders, Open, Hi, Low, Close,Vol	2/11/1988	Spydrs
22-26	Russell 2K (IWM), OHLC, Vol	5/26/2000	Russ2K

B2 - DAILY BREADTH DATA, NASDAQ COMPOSITE

1	Num. Total Issues	1/3/1978	ND-Totls
2	Num. Advancing Issues	1/3/1978	ND-Advls
3	Num. Declining Issues	1/3/1978	ND-Decls
4	Num. Unchanged Issues	1/3/1978	ND-Uchls
5	New Highs	1/3/1978	ND-Highs
6	New Lows	1/3/1978	ND-Lows
7	Advancing Volume	1/3/1978	ND-AdvVl
8	Declining Volume	1/3/1978	ND-DecVl
9	Total Volume	1/3/1978	ND-TotVl
10	Unchanged Volume	1/3/1978	ND-UchVl
11	ARM'S Index	1/3/1978	ND-ARMS
12-16	QQQQ, Open, Hi, Low, Close, Vol	1/2/1990	QQQQ

B3 - DAILY BREADTH DATA FOR 9 INDEXES:

AMEX EXCHANGE	(Labeled as below)
***NASDAQ 100**	(Labeled N1)
***RUSSELL 1000, 2000 & 3000**	(Labeled R1, R2 & R3)
***S&P 100, 400, 500 & 600**	(Labeled S1, S4, S5 & S6

For Example R2-Lows = New Lows for Russell 2000

1	Num. Total Issues	1/3/1978	AM-Totls
2	Num. Advancing Issues	1/3/1978	AM-Advls
3	Num. Declining Issues	1/3/1978	AM-Decls
4	Num. Unchanged Issues	1/3/1978	AM-Uchls
5	New Highs	1/3/1978	AM-Highs
6	New Lows	1/3/1978	AM-Lows
7	Advancing Volume	1/3/1978	AM-AdvVl
8	Declining Volume	1/3/1978	AM-DecVl
9	Total Volume	1/3/1978	AM-TotVl
10	Unchanged Volume	1/3/1978	AM-UchVl
11	ARM'S Index	1/3/1978	AM-ARMS

Starting date for Nasdaq, Russell + S&P = 1/3/2008

* In addition, for each of these 8 indices is included the percentage of stocks above their 21, 50, 80, 100 & 200 Moving Day Average, file is labeled: XX-MVAVG

C1 – DAILY CASH DATA, SOFT COMMODITIES

1	Soybeans, #1 yellow, Ctr IL, Bu	6/2/1969	$BEANS
2	Broilers, dressed A, NY, lb.	6/2/1969	$BROILER
3	Coffee, Colombian, NY, lb.	3/1/1990	$COLCOFF
4	Coffee, Brazilian, NY, lb.	6/2/1969	$COFFEE
5	Corn, #2 yellow, Ctr IL, Bu	6/2/1969	$CORN
6	Cotton, 1 1/16str, med, Memphis, lb	6/2/1969	$COTTON
7	Eggs, large white, Chicago, dz.	6/2/1969	$EGGS
8	Pork Bellies, frozen, 12-14lb, midwst	6/2/1969	$PKBELLY
9	Cattle Index, feeder cattle INDEX	4/15/1991	$FDCATIX
10	Hog Index, lean hog INDEX	11/2/1995	$HOGIX
11	Live Steer, USDA5, avg cwt	1/3/1990	$LSTEER
12	Unassigned		
13	Cocoa, Ivory Coast, $/metric ton	1/2/1986	$MCOCOA
14	Soybean Meal, Ctr IL, 48%prot, ton	6/1/2001	$MEAL48
15	Oats, #2 milling, Mpls, Bu	6/2/1969	$OATS
16	Soybean Oil, Decatur, IL, lb.	6/2/1969	$BEANOIL
17	Sugar, raw cane sugar, NY, lb.	1/2/1980	$SUGAR
18	Wheat, #2 soft red, St Louis, Bu.	4/4/1975	$WHEAT
19	Wheat, Minns, Spring, 14% prot, Mpl	2/1/1983	$MNWHEAT
20	Wheat, KC, #2 hard, K.C., Bu	6/2/1969	$KCWHEAT
21	Wheat, Portland, soft white del Portld	5/1/1989	$POWHEAT
22	CRB Metals Index	8/26/13	$METALS
23	CRB Textiles Index	8/26/13	$TEXTILES
24	CRB Raw Industrial Index	8/26/13	$INDUSTRL
26	CRB Foodstuff Index	8/26/13	$FOODSTUF
26	CRB Fats and Oils Index	8/26/13	$FAT_OILS
27	CRB Livestock Index	8/26/13	$LIVESTCK
28	CRB SPOT Index	8/26/13	$SPOT

C2 – DAILY CASH DATA, HARD COMMODITIES

1	Copper, cathodes, lb	1/4/1971	$COPPER
2	Gold, Hany&Harman, NY Noon Base	6/2/1969	$GOLD
3	Silver, Hany&Harman, NY Noon Base	6/2/1969	$SILVER
4	Butane, normal, Belvieu, Texas, gal.	3/1/1990	$BUTANE
5	Heating Oil, #2, NY, gal	9/27/1979	$HO
6	Gold, London AM fix	6/1/1982	$LAGOLD
7	Gold, London PM fix	6/1/1982	$LPGOLD
8	Propane, Non Tet, Belvieu, TX, gal	2/1/1983	$PROPANE
9	Unused		
10	Unused		
11	Gasoline, unlead reg, NY gal	2/1/1983	$HU
12	Gasoline, unlead reg, NY gal-oxy	10/5/1994	$HUOXY
13	Crude Oil, Brent crude oil	8/17/1990	$BRCRUDE
14	Silver, London AM fix	1/2/1991	$LSILVER
15	Plaatinum, free market plat.	7/30/1985	$PLATINM
16	Diesel Fuel, #5, low sulfur, NY	11/1/1993	$DIESEL
17	Platinum, Industrial Engelhard	6/9/1987	$IPLATIN
18	Paladium, Industrial Engelhard	6/9/1987	$PALADUM
19	LME Aluminum, spot asking	7/31/1995	$LALUMIN
20	LME Copper, spot asking	7/31/1995	$LCOPPER
21	LME Lead, spot asking	7/31/1995	$LLEAD
22	LME Nickel, spot asking	7/31/1995	$LNICKEL

23	LME Tin, spot asking	7/31/1995	$LTIN
24	LME Zinc, spot asking	7/31/1995	$LZINC
25	Natural Gas, Henry Hub, $/mmbtu	11/1/1993	$NATGAS
26	Gasoline, unlead prem, NY gal	10/2/1989	$NYPHU
27	Gasoline, unled prem, NY gal-oxy	10/5/1994	
	$NYPHUXY		
28	Crude Oil, West Texas-Okl, avt crush	1/10/1983	
	$WTCRUDE		

C3 – DAILY CASH DATA, FINANCIALS

1	Euro/BP cross rate, ex .661/4/1999	$EUBPNY	
2	Euro/JY cross rate, ex 134.25	1/4/1999	$EUJYNY
3	Euro/Dollar cross rate, ex 1.21	1/4/1999	$EUNY
4	Fed Funds, 30day int rate, ex 1.25	10/3/1988	$FEDFUND
5	Ginnae Mae, 8.00, bid, ex. 109.20	7/16/1979	$GNMA
6	Ginnae Mae, 6.00, bid, ex 102.94	12/1/1999	$GNMA6
7	T-Bills, yield, 13 weeks, ex 1.48	1/4/1982	$TY13WK
8	T-Bills, yield, 26 weeks	1/4/1982	$TY26WK
9	T-Notes, yield, 1 year, ex 2.03	1/2/1962	$TY1YR
10	T-Notes, yield 2 year	6/1/1976	$TY2YR
11	T-Notes, yield, 3 year	1/2/1962	$TY3YR
12	T-Notes, yield, 5 year	1/2/1962	$TY5YR
13	T-Notes, yield, 10 year	1/2/1962	$TY10YR
14	T-Bonds, yield, 15 year, ex 4.45	3/16/1992	$TY15YR
15	T-Bonds, yield, 20 year	3/16/1992	$TY20YR
16	T-Bonds, yield, 25 year	3/16/1992	$TY25YR
17	T-Bonds, yield, 30 year	2/15/1977	$TY30YR
18	Russell 1000 Index, close	3/1/2001	$R1000
19	Russell 2000 Index, close	9/10/1987	$R2000
20	US Dollar Index close	11/20/1985	$USDX
21	CAC40 Index close	9/29/1992	$CAC40
22	DAX Index close	5/17/1993	$DAX
23	HANGSENG Index close	1/26/1993	$HANGSEN
24	FTSE Index close	10/26/1992	$FTSE
25	NIK Index close	9/21/1989	$NIK

X1 - DAILY S&P 100 DATA, OEX HISTORY

1-4	OEX Open, Hi, Low, Close	7/15/1983	OEX
5	OEX Call Volume	2/22/1984	OEX-CalV
6	OEX Call Open Interest	2/22/1984	OEX-CalO
7	OEX Put Volume	2/22/1984	OEX-PutV
8	OEX Put Open Interest	2/22/1984	OEX-PutO
9	OEX Put/Call Ratio	2/22/1984	OEX-PC
10	OEX Call/Put Ratio	2/22/1984	OEX-CP
11	OEX Hines Ratio	2/22/1984	OEX-Hins
12-15	VIX (SP500) Open,Hi,Low,Close	1/2/1990	VIX
16	Tot Call Volume	7/17/1995	TOT-CalV
17	Tot Call Open Interest	7/17/1995	TOT-CalO
18	Tot Put Volume	7/17/1995	TOT-PutV
19	Tot Put Open Interest	7/17/1995	TOT-PutO
20-23	VXN (Nasd100) Open,Hi,Low,Close	1/3/1995	VXN
24	Tot Equity Call Volume	1/8/1997	EQY-CalV
25	Tot Equity Put Volume	1/8/1997	EQY-PutV
26	Tot Index Call Volume	1/8/1997	IND-CalV
27	Tot Index Put Volume	1/8/1997	IND-PutV

X2 - DAILY INDEX DATA, SIX INDICES AND METALS

1-4	S&P 500 Open, Hi, Low, Clsoe	1/2/1930	SP500
	Open, Hi, Low, Close set to Close to 1/2/1962		
5	NYSE Composite Close	1/4/1965	NY-Comp
6	NASDAQ Composite Close	1/3/1978	ND-Comp
7	AMEX Composite Close	1/3/1978	AME-Comp
8	Value Line Close	12/2/1974	Val-Line
9	DJ Composite Bond Index	1/2/1962	DJ-Bonds
10	Gold Close (H&H)	1/2/1976	Gold-NY
11	Silver Close (H&H)	1/2/1976	Silvr-NY
12-15	NASDAQ 100 Open, Hi, Low, Close	10/1/1985	NASD100
16	Phil Utility Index Close	9/22/1987	PHILUTY

X3 - DAILY INDEX DATA, DJIA BACK TO 1928

1-3	DJIA High, Low, Close	10/1/1928	DJ-IND
4	DJIA, End of 1st Hour	7/1/1932	DJI-1Hr
5	DJIA, Start of Last Hour	7/1/1932	DJ-LstHr
6-9	VXO (SP100) Open, Hi, Low, Close	1/2/1986	VXO
10-13	HYG High Yield Corp Bond	4/11/2007	HYG
14	Inflation Protected Bond, Close	9/26/2002	FINPX
15-19	BitCoin-USD Open,Hi,LowCLose Vol	7/16/2010	BITCOIN

X4 - DAILY INDEX DATA

1	Day oF The Week (Mon = 1)		1/2/1901	DayOfWk
2	DOW Industrials Close		1/2/1901	DJI-Clse
3	DOW Transports Close		1/2/1901	DJT-Clse
4	DOW Utilities Close		1/2/1929	DJU-Clse
5-8	DJIA Open, Hi, Low,Close		1/5/1901	DJI
9-12	DJTA	"	1/2/1990	DJT
13-16	DJUA	"	1/2/1990	DJU
17-20	OEX	"	1/2/1976	OEX
21-24	IXIC	" Nasdaq Comp	2/5/1971	IXIC
25-28	SPX	" S&P 500	12/30/1927	SPX
29-32	RUT	" Russ 2000	12/29/1978	RUT
33-36	RUJ	" Russ 2000, Value	12/29/1978	RUJ
37-40	RUO	" Russ 2000, Growth	12/29/1978	RUO
41-44	RUA	" Russ 3000	6/29/1987	RUA
45-48	NYA	" NY Comp	12/31/1965	NYA
49-52	IDX	" S&P 400	3/11/1992	IDX
53-56	VLG	" ValueLine, Geom	12/15/1983	VLG
57-60	VLA	" ValueLine, Arith	1/2/1980	VLA
61-64	XAU	" Phili Gold Index	12/19/1983	XAU

X5 - DAILY CASH PRICES IMM EXCHANGE, 7 CURRENCIES

1-4	Australian $, Open, Hi, Low, Close	1/4/1982*	AD-CASH
5-8	British Pound, Open, Hi, Low, Close	7/1/1977	BP-CASH
9-12	Canadian $, Open, Hi, Low, Close	7/1/1977	CD-CASH
13-16	Euro, Open, Hi, Low, Close	1/11/1999	EU-CASH
17-20	French Frank, Open, Hi, Low, Close	7/1/1977	FR-CASH
21-24	Japanese Yen, Open, Hi, Low, Close	7/1/1977	JY-CASH
25-28	Swiss Franc, Open, Hi, Low, Close	7/1/1977	SF-CASH

* Open, High, Low equal Close to 2/10/86

X6-DAILY FOREX CROSS RATES (each crossrate contains open, hi, low, close)

1	Austrailian $/Canadian $	1/2/1991	AUDCAD
2	Australian $/Swiss Frank	1/2/1991	AUDCHF
3	Australian $/Euro	1/4/1999	AUDEUR
4	Australian $/Britsh Pound	1/2/1991	AUDGBP
5	Australian $/Hong Kong $	1/2/1991	AUDHKD
6	Australian $/Japanese Yen	1/2/1991	AUDJPY

7	Australian $/New Zealand $	1/2/1991	AUDNZD
8	Australian $/Singapore $	1/2/1991	AUDSGD
9	Australian $/US $	1/2/1991	AUDUSD
10	Canadian $/Australian $	1/2/1991	CADAUD
11	Canadian $/Swiss Franc	1/2/1998	CADCHF
12	Canadian $/Euro	1/4/1999	CADEUR
13	Canadian $/British Pound	1/2/1991	CADGBP
14	Canadian $/Hong Kong $	1/2/1998	CADHKD
15	Canadian $/Japanese Yen	1/2/1998	CADJPY
16	Canadian $/US $	1/2/1991	CADUSD
17	Swiss Franc/Australian $	1/2/1991	CHFAUD
18	Swiss Franc/Canadian $	1/2/1998	CHFCAD
19	Swiss Franc/Euro	1/4/1999	CHFEUR
20	Swiss Franc/British Pound	1/2/1991	CHFGBP
21	Swiss Franc/Hong Kong $	1/2/1998	CHFHKD
22	Swiss Franc/Singapore $	1/2/1998	CHFSGD
23	Swiss Franc/US $	1/2/1991	CHFUSD
24	Euro/Australian $	1/4/1999	EURAUD
25	Euro/Canadian $	1/4/1999	EURCAD
26	Euro/Swiss Frank	1/4/1999	EURCHF
27	Euro/British Pound	1/4/1999	EURGBP
28	Euro/Hong Kong $	1/4/1999	EURHKD
29	Euro/Japanese Yen	1/4/1999	EURJPY
30	Euro/Mexican Peso	1/4/1999	EURMXN
31	Euro/New Zealand $	1/4/1999	EURNZD
32	Euro/Swedish Krona	1/4/1999	EURSEK
33	Euro/Singapore $	1/4/1999	EURSGD
34	Euro/US $	1/4/1999	EURUSD
35	Euro/S. African Rand	1/4/1999	EURZAR
36	British Pound/Australian $	1/2/1991	GBPAUD
37	British Pound/Canadian $	1/2/1991	GBPCAD
38	British Pound/Swiss Franc	1/2/1991	GBPCHF
39	British Pound/Euro	1/4/1999	GBPEUR
40	British Pound/Hong Kong $	1/2/1991	GBPHKD
41	British Pound/Japanese Yen	1/2/1991	GBPJPY
42	British Pound/Mexican Peso	1/2/1999	GBPMXN
43	British Pound/New Zealand $	1/2/1991	GBPNZD
44	British Pound/Singapore $	1/2/1991	GBPSGD
45	British Pound/US $	1/2/1991	GBPUSD
46	Hong Kong $/Australian $	1/2/1991	HKDAUD
47	Hong Kong $/Canadian $	1/2/1998	HKDCAD
48	Hong Kong $/Swiss Franc	1/2/1998	HKDCHF
49	Hong Kong $/Euro	1/4/1999	HKDEUR
50	Hong Kong $/British Pound	1/2/1991	HKDGBP
51	Hong Kong $/US $	1/2/1991	HKDUSD
52	Japanese Yen/Australian $	1/2/1998	JPYAUD
53	Japanese Yen/Canadian $	1/2/1998	JPYCAD
54	Japanese Yen/Euro	9/1/1999	JPYEUR
55	Japanese Yen/British Pound	1/2/1998	JPYGBP
56	Japanese Yen/US $	1/2/1998	JPYUSD
57	Mexican Peso/Euro	1/4/1998	MXNEUR
58	Mexican Peso/British Pound	1/2/1999	MXNGBP
59	Mexican Peso/US $	1/2/1995	MXNUSD
60	Norwegian Kroner/US $	1/2/1991	NOKUSD
61	New Zealand $/Australian $	1/2/1991	NZDAUD
62	New Zealand $/Euro	1/4/1999	NZDEUR
63	New Zealand $/British Pound	1/2/1991	NZDGBP
64	New Zealand $/US $	1/2/1991	NZDUSD

65	Swedish Krona/Euro	1/4/1999	SEKEUR
66	Swedish Krona/US $	1/2/1991	SEKUSD
67	Singapore $/Australian $	1/2/1991	SGDAUD
68	Singapore $/Swiss Franc	1/2/1998	SGDCHF
69	Singapore $/Euro	1/4/1999	SGDEUR
70	Singapore $/Britsh Pound	1/2/1991	SGDGBP
71	Singapore $/US $	1/2/1991	SGDUSD
72	US $/Australian $	1/2/1991	USDAUD
73	US $/Canadian $	1/2/1991	USDCAD
74	US $/Swiss Frank	1/2/1991	USDCHF
75	US$/Euro	1/4/1999	USDEUR
76	US$/British Pound	1/2/1991	USDGBP
77	US $/Hong Kong $	1/2/1991	USDHKD
78	US $/Janpanese Yen	1/2/1998	USDJPY
79	US $/Mexican Peso	1/2/1995	USDMXN
80	US $/Dutch Guilder	1/2/1998	USDNLG
81	Swiss Frank/Japanese Yen	1/2/1998	CHFJPY
82	US $/New Zealand $	1/2/1991	USDNZD
83	US $/Swedish Krona	1/2/1991	USDSEK
84	US $/Singapore $	1/2/1991	USDSGD
85,86	AUD Borrow/Lending Rate	2/2/2001	Aud_Rate
87,88	GBP Borrow/Lending Rate	2/2/2001	Gbp_Rate
89,90	CAD Borrow/Lending Rate	2/2/2001	Cad_Rate
91,92	EUR Borrow/Lending Rate	2/2/2001	Eur_Rate
93,94	HKD Borrow/Lending Rate	1/19/2004	Hkd_Rate
95,96	JPY Borrow/Lending Rate	2/2/2001	Jpy_Rate
97,98	MXN Borrow/Lending Rate	1/7/2002	Mxn_Rate
99,100	NZD Borrow/Lending Rate	9/19/2002	Nzd_Rate
101,102	NOK Borrow/Lending Rate	8/22/2003	Nok_Rate
103,104	SGD Borrow/Lending Rate	3/25/2002	Sgd_Rate
105,106	ZAR Borrow/Lending Rate	1/7/2002	Zar_Rate
107,108	SEK Borrow/Lending Rate	3/25/2002	Sek_Rate
109,110	CHF Borrow/Lending Rate	2/2/2001	Chf_Rate
111,112	USD Borrow/Lending Rate	2/2/2001	Usd_Rate

W1 - WEEKLY DATA, MISC. RATES & INDEXES

1	S&P 500 Dividends	1/7/1928	SP-Divds
2	S&P 500 Earnings	1/4/1936	SP-Erngs
3	S&P 500 Dividend Yield	1/7/1928	SP-DvYld
4	S&P 500 Earnings Yield	1/4/1936	SP-ErYld
5	Prime Rate	1/2/1943	Prime
6	CPI	1/17/1925	CPI
7	1 Yr Inflation Rate	1/16/1926	1Yr-Infl
8	Fed Funds Rate	12/27/1963	FedFunds
9	Fed Discount Rate	1/2/1943	FedDscnt
10	3 Mo. T-Bill Rate	1/2/1943	3MoBills
11	1 Yr. T-Bill Rate	1/2/1943	1YrBills
12	3-5 Yr. T-Note Rate	1/2/1943	5YrNotes
13	Long Term T-Bond Rate	1/2/1943	LngBonds
14	3 Mo. Commercial Paper	1/2/1943	3MoComml
15-18	DJIA, Open, Hi, Low, Close	1/2/1990	DJI
19-22	DJTA “	1/2/1990	DJT
23-26	DJUA “	1/2/1990	DJU
27-30	OEX “	1/2/1976	OEX
31-34	IXIC “ Nasdaq Comp	2/5/1971	IXIC
35-38	SPX “ S&P 500	12/30/1927	SPX
39-42	RUT “ Russ 2000	12/29/1978	RUT

43-46	RUJ	" Russ 2000, Value	12/29/1978	RUJ
47-50	RUO	" Russ 2000, Growth	12/29/1978	RUO
51-54	RUA	" Russ 3000	6/29/1987	RUA
55-58	NYA	" NY Comp	12/31/1965	NYA
59-62	IDX	" S&P 400	3/11/1992	IDX
63-66	VLG	" ValueLine, Geom	12/15/1983	VLG
67-70	VLA	" ValueLine, Arith	1/2/1980	VLA
71-74	XAU	" Phili Gold Index	12/19/1983	XAU

W2 - WEEKLY DATA, FED VALUES & SHORT SALES

1	Total Fed Reserves	1/2/1943	Tot-Resv
2	Req'd Fed Reserves	1/2/1943	Req-Resv
3	Excess Fed Reserves	1/2/1943	Exc-Resv
4	Fed Borrowing	1/2/1943	Borrowg
5	Fed Free Reserves	1/2/1943	FreeResv
6	Margin Debt, discontinue	1/2/1943	M_DebtNY
7	Finra Margin Debt	1/31/97	M_DebtFN
8	Unused		
9	Unused		
10	Unused		
11	Total Short Interest	1/2/1943	TotShInt
12	Short Interest Ratio	1/2/1943	SI-Ratio

W3 - WEEKLY BREADTH DATA FOR NYSE, NASDAQ AND AMEX

1	NYSE Total Issues	1/9/1981	NYWTotls
2	NYSE Advancing Issues	1/9/1981	NYWAdvis
3	NYSE Declining Issues	1/9/1981	NYWDecis
4	NYSE Unchanged Issues	1/9/1981	NYWUchis
5	NYSE New Highs	1/9/1981	NYWHighs
6	NYSE New Lows	1/9/1981	NYWLows
7	NASDAQ Total Issues	1/9/1981	NDWTotls
8	NASDAQ Advancing Issues	1/9/1981	NDWAdvis
9	NASDAQ Declining Issues	1/9/1981	NDWDecis
10	NASDAQ Unchanged Issues	1/9/1981	NDWUchis
11	NASDAQ New Highs	1/9/1981	NDWHighs
12	NASDAQ New Lows	1/9/1981	NDWLows
13	AMEX Total Issues	1/9/1981	AMWTotls
14	AMEX Advancing Issues	1/9/1981	AMWAdvis
15	AMEX Declining Issues	1/9/1981	AMWDecis
16	AMEX Unchanged Issues	1/9/1981	AMWUchis
17	AMEX New Highs	1/9/1981	AMWHighs
18	AMEX New Lows	1/9/1981	AMWLows
19	NYSE Advancing Volume	1/9/1981	NYWadvVL
20	NYSE Declining Volume	1/9/1981	NYWdecVL

W4 - WEEKLY SENTIMENT INDICATORS

1	AAII Bearish Consensus, percent	7/24/1987	AAiiBear
2	AAII Bullish Consensus, percent	7/24/1987	AAiiBull
3	Market Vane Bullish Consensus, percent	4/30/1982	MKTVBull
4	Investors Intell. Bearish Consens, percent	12/5/1969	InviBear
5	Investors Intell. Bullish Consens, percent	12/5/1969	InviBull
6	Ratio Odd Lot Short Sales to Total Sales	3/31/1988	OddLots
7	Ratio NYSE Non Specialist to Specialist Short Sales	3/31/1988	Pub/Spec
8	Ratio NYSE Short Interest to Avg Daily Vol	3/31/1988	Shr-Tvol
9	Ratio Price Premiums - Puts vs Calls	3/31/1988	PutCallP
10	Ratio Trading Volume in Puts vs Calls	3/31/1988	PutCallV
11	Ratio Mut Funds Share Purch's vs Redemp	3/31/1988	MutFundR
12	AMEX Daily Vol as % of NYSE Vol	3/31/1988	AMX%Vol
13	NASDAQ Daily Vol as % of NYSE Vol	3/31/1988	ND%VOL
14	Stock Splits Invest Bus Daily 6000(30 days)	3/31/1988	StkSplit
15	New Issues last yr as % of all NYSE stocks	3/31/1988	NewIssue
16	Price to Book of Dow Jones Industrials	3/31/1988	Price_Bk
17	Price to Earnings of Dow Jones Industrials	3/31/1988	Price-Er
18	Dividend Yield of Dow Jones Industrials	3/31/ 1988	DJDivid