

Appendices

2005 V1.3

July 2005

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Change Log (Since June 2002)

Date	Chapter/ Appendix	Modifications
Version 1.3 July 21, 2005	Appendix	Updated information for Category "E" processing, earlier start of trading for: <ul style="list-style-type: none"> e-CBOT (Exchange ID of "U", "UD"), KCBT (Exchange ID of "KU", "KD"), Minneapolis Grain Exchange (Exchange ID of "OU", "OD") Winnipeg Commodity Exchange (Exchange ID of "W", "WD")
June 09, 2005	Appendix	Updates for NYMEX Exchange ID: N, I, IE, NE, NL Updated Combination Details for Exchanges: <ul style="list-style-type: none"> e-CBOT (Exchange ID of "U"), KCBT (Exchange ID of "KU"), Minneapolis Grain Exchange (Exchange ID of "OU") Winnipeg Commodity Exchange (Exchange ID of "W")
April 13, 2004	Appendix	Updated Combination Definitions.
March 16, 2005	Appendix	Updated information for: <ul style="list-style-type: none"> e-CBOT (Exchange ID of "U", "UD"), KCBT (Exchange ID of "KU", "KD"), Minneapolis Grain Exchange (Exchange ID of "OU", "OD") Winnipeg Commodity Exchange (Exchange ID of "W", "WD")
February 23, 2005	Appendix	Updated Information for Comex, Nymex exchanges
November 12, 2004	Appendix	Updated Section 5.12 Category U, Range Indicator "O" for: <ul style="list-style-type: none"> e-CBOT (Exchange ID of "U"), KCBT (Exchange ID of "KU"), Minneapolis Grain Exchange (Exchange ID of "OU") Winnipeg Commodity Exchange (Exchange ID of "W")
November 4, 2004	Appendix	Updated Transmissions Timings for KCBT (Exchange ID of "K") and Minneapolis Grain Exchange (Exchange ID of "G")
October 22, 2004	Appendix	Added PBOT information
July 22, 2004	Appendix	Added Kansas City Board of Trade, Minneapolis Grain Exchange, and Winnipeg Commodity Exchange information
April 5, 2004	Appendix	Updated information for CBOT (Exchange Identifier B and U) Volume, Open Interest Transmission Timings
March 10, 2004	Appendix	CBOT (Exchange ID "B") Updated 4.02.3 to reflect current state of PCC = L processing
February 3, 2004	Appendix	SFE (Exchange Identifiers S & Z) Appendix Addition
November 24, 2003	Appendix Section 5.17	Updated information for CBOT (Exchange Identifier U), Settlement Processing
November 11, 2003	Appendix 7.0	Updated information for CBOT (Exchange Identifier B, U, and UD)
March 26, 2003	Appendix 7.0	Updates for KCBT communications, ITC message specifics.

Exchange Contact Information

Exchange ID: B, U, UD

Chicago Board of Trade,

e-CBOT®

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Exchange ID: C, L, V

New York Board of Trade

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Exchange Contact Information

Exchange ID: G, OD, OU
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Exchange ID: K, KD, KU
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Exchange Contact Information

Exchange ID: H, M
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Exchange ID: J, E
COMEX
Exchange ID: I, N, IE, NE, NL
New York Mercantile Exchange

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Exchange ID: P
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PBOT
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Function Codes:

* ITC Representative
E Executive
S Software
H Hardware
T Telecommunications
O Operations
D Data Base Administrator
M Marketing

Vendor ID's

Vendor Code	Vendor Connection Name
A Space	American Commodities Corporation
AB	A.B. Watley
AD	ADP - Comtrend, Inc.
AF	Active Financial
AM	Archer Daniels Midland
AT	AT Financial, Inc.
AV	All Vendors
B Space	Chicago Board of Trade
BL	Bloomberg LP
BR	Bunker Ramo Data Center
BS	Boston Stock Exchange
BS	Beta Systems Inc.
C Space	Commodities Exchange Center
CA	CMA Inc.
CC	Future Source (Commodity Communications Corp)
CF	Cantor Fitzgerald
CG	CGI
CK	Comstock
CM	CME
CN	Commodity News Service
CO	Chicago Board Options Exchange
CQ	S&P Comstock (Commodity Quotations, Inc.)
CS	CMS Webview
CT	CyberTrader
CV	Computer Voice Systems
DN	Data Transmission Network
DT	Data Transmission Network
EB	EuroBrokers
ES	eSignal
ET	EdgeTrade
F	Marche a Terme International de France (MATIF)
FI	Market Communications Corporation
FS	FutureSource
FU	Futrend
G	Minneapolis Grain Exchange
GI	Garban-Intercapital
GR	Telenium (Grassroots)
GT	ADP Financial Information Systems
H	CME-GLOBEX
HA	Hutchison Avenue Software
HK	Hong Kong Data Communications
HT	Hyperfeed Technologies
HY	Hyetron
IL	ILX Systems
IN	International Network Inc / Prebon Yamane
IS	Intergrated Trading Solutions, Inc.
JF	Jones Financial Network
K	Kansas City Board of Trade

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Vendor Code	Vendor Connection Name
KF	Knight Financial Products
KD	Kansas City Board of Trade
KS	Kenney Services
KU	Kansas City Board of Trade
LI	Data Broadcasting Corp (Lotus)
LK	Local Knowledge
LS	Logical Systems, Inc.
M	Chicago Mercantile Exchange
MD	Reuters- St Louis.
MI	Market Information, Inc.
ML	Merrill Lynch
MQ	Market Quoters, Inc.
MS	Morgan Stanley
MV	Market Vision Corporation
MW	MW Marshall
N	New York Futures Exchange
NA	North American Quotes (NAQ)
ND	NASDAQ
NQ	NAQ, Inc.
OU	Minneapolis Grain Exchange - Electronic Trading
OD	Minneapolis Grain Exchange - Electronic Trading
P	Philadelphia Board of Trade
PC	PC Quote
PE	Pacific Exchange, Inc.
Q	Montreal Stock Exchange
QC	QUICK Corp.
QS	Reuters (Quotron Systems, Inc)
RA	Reuters America Inc.
RD	Bonneville Market Information
RL	Reuters Limited (Happauge)
RM	RMJ Securities
S	Singapore International Monetary Exchange
SD	Star Data
SG	Sungard (Hopkins)
SI	SIAC IDS Systems
SL	Sungard (Mt. Laurel)
SL	Spear Leeds & Kellogg
SM	SDS MarketWatch
SP	Standard & Poors Trading Systems
Space Space	Not a Retransmission or Refresh message
T	Toronto Stock Exchange
TA	Telemet America Inc.
TC	Tradecenter (KR)
TD	Track Data Corp.
TE	Tenfore
TE	TeleSphere
TF	Thomson Financial
TK	Telekurs USA INC
TL	Tullet Liberty Investment Corp.
TM	Telemet
TQ	Telequote

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Vendor Code	Vendor Connection Name
TR	Tradition N.A.
TS	Tradestation Group
TT	Tuller & Tokyo Securities
TV	Test Vendor
TW	Townsend Analytics, Ltd.
W	Winnipeg Commodity Exchange
WD	Winnipeg Commodity Exchange
WF	ADP (Shark, Wang Financial)
WX	WINIX Information Inc.
XA	XtraActive
Y	Sydney Computerised Overnight Market (SYCOM)
ZZ	This is a Test Vendor Record

Session ID's

Chicago Board of Trade

Exchange ID: B		
Exchange: Chicago Board of Trade		
Session ID	Session	Hours (CST)
Space	Composite Trading Day	7:20 AM to 3:15 PM
Exchange ID: U, UD		
Exchange: e-CBOT®		
Session ID	Session	Hours (CST)
Space	Composite Trading Day	6:00 PM to 4:00 PM

New York Board of Trade

Exchange ID: C		
Exchange: NYBOT		
Session ID	Session	Hours (EST)
"D"	Day Session for commodities YL, YS, YX, R, RQ	8:00 PM to 4:15 PM
space	Regular Trading	Review NYBOT website (www.nybot.com) for trading hours per commodity
Exchange ID: L		
Exchange: NYBOT		
Session ID	Session	Hours (EST)
"N"	Night Session for commodities YL, YS, YX, R, RQ	4:45 PM to 11:00 PM
Exchange ID: V		
Exchange: NYBOT/Cantor Fitzgerald		
Session ID	Session	Hours (EST)
Space	Regular Trading	Review Cantor website (www.cantor.com) for trading hours per commodity

COMEX

Exchange ID: E, J		
Exchange: COMEX		
Session ID	Session	Hours (EST)
"1"	ACCESS®	2:00 PM to 8:00 AM (Daylight Savings Time)
"2"	Regular Trading	8:10 AM to 1:30 PM
" "	Combined session	Used for Summary (Category J) Messages

For products that trade both electronically and on the trading floor, the trading day begins with electronic session.

Session ID's

Minneapolis Grain Exchange

Exchange ID: G		
Exchange: Minneapolis Grain Exchange		
<u>Session ID</u>	<u>Session</u>	<u>Hours (CST)</u>
"R"	Regular Trading	7:25 AM to 3:15 PM
Exchange ID: OU, OD		
Exchange: Minneapolis Grain Exchange		
<u>Session ID</u>	<u>Session</u>	<u>Hours (CST)</u>
Space	Composite Trading Day	6:00 PM to 4:00 PM

Kansas City Board of Trade

Exchange ID: K		
Exchange: Kansas City Board of Trade		
<u>Session ID</u>	<u>Session</u>	<u>Hours (CST)</u>
"R"	Regular Trading	7:25 AM to 3:15 PM
Exchange ID: KU, KD		
Exchange: Kansas City Board of Trade		
<u>Session ID</u>	<u>Session</u>	<u>Hours (CST)</u>
Space	Composite Trading Day	6:00 PM to 4:00 PM

Chicago Mercantile Exchange

Exchange ID: M, H		
Exchange: Chicago Mercantile Exchange		
<u>Session ID</u>	<u>Session</u>	<u>Hours (CST)</u>
"G"	GLOBEX®	Sunday 5:30 p.m. to Friday at 3:15 p.m.
"R"	RTH - Regular Trading Hours	7:20 a.m. to 3:15 p.m.

Trading day begins with GLOBEX Session.

Session ID's

New York Mercantile Exchange

Exchange ID: I, N, IE		
Exchange: New York Mercantile Exchange		
<u>Session ID</u>	<u>Session</u>	<u>Hours (EST)</u>
"1"	ACCESS®	2:00 PM to 9:30 AM
"2"	Regular Trading	8:10 AM to 2:30 PM
"3"	Clearport SM Trading	3:15 PM to 2:30 PM
" "	Combined session	Used for Summary (Category J) Messages

For products that trade both electronically and on the trading floor, the trading day begins with electronic session.

Winnipeg Grain Exchange

Exchange ID: W, WD		
Exchange: Winnipeg Grain Exchange		
<u>Session ID</u>	<u>Session</u>	<u>Hours (CST)</u>
Space	Composite Trading Day	6:00 PM to 4:00 PM

Exchange Specifics

Combination Types

Combinations Definitions are provided below for informational purposes only. It is not intended to be an exhaustive list of definitions of each Combination Type.

Futures Combination Type	Futures Combination	Definition/Structure
BF	Butterfly	Buy (Sell) one contract in near Calendar month Sell (Buy) two contracts far month, Buy (Sell) one contract in a further dated expiration month.
SP	Calendar Spread	Buy (Sell) one contract in the near month, Sell (Buy) one contract in the far month
SR	Strip	The simultaneous purchase (sale) of one or more contracts in delivery months within a single contract. Any delivery month can act as the first month of the Strip, as long as there are at least three following months available. Selling the Strip involves selling all months in the Strip, vice versa for buying
PK	Pack	Packs consist of four consecutive quarterly months.
IS	Inter Commodity Spreads	Buy (Sell) one contract in one product, Sell (Buy) one contract in another product.
CF	Condor	Buy (Sell) one contract month in the first month of the strategy, sell (Buy) one contract in each of the next two delivery months and Buy (Sell) one product in the fourth month.
FB	Bundle	Bundles are standardized Strips. The first month of a Bundle is always the front Quarterly month.
RT	Reduced Tick Calendar Spreads	Buy (Sell) one contract in the near month, Sell (Buy) one contract in the far month Note: The minimum tick size movement will be smaller than that available in other strategies or outright markets.

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Exchange Specifics

Options Combination Type	Options Combination	Definition/Structure
A3	Call Spread versus sell Put versus Underlying	Buy a Call spread versus selling a put versus selling the Underlying: Buy a call, sell a call at a higher strike, sell a put at any strike, selling the Underlying.
B3	Put Spread versus sell Call versus Underlying	Buy Put spread versus selling a call: Buy a put, sell a put at a lower strike, sell a call at any strike, buy the Underlying
BM	Boomerang	Contact the Exchange utilizing the specific Combination Type for more details on usage.
BO	Call Butterfly	Buy call, sell two calls at higher strikes, buy call at a higher strike
BO	Put Butterfly	Buy put, sell two puts at higher strikes, buy put at a higher strike
BS	BOX STRADDLE	Contact the Exchange utilizing the specific Combination Type for more details on usage.
BU	Call/Put Butterfly vs. underlying	Buy a call. Sell two calls at a higher strike with the same expiry month. Buy a call at an even higher strike with the same expiry month. Buy or sell the underlying
BX	Box	Buy call and sell put, buy put and sell call at higher strike
C2	Two-Way Conversion	Contact the Exchange utilizing the specific Combination Type for more details on usage.
C3	3 - Way: Buy a Call spread versus a Put	Buy a Call spread versus selling a put: Buy a call, sell a call at a higher strike, sell a put at any strike
CM	Combo	Sell call, buy put at lower strike
CO	Condor	Buy put (call), sell put (call) at two equally higher strikes, buy put (call) at yet higher strike.
CR	Soybeans Crush	Buy Soybeans futures, Sell Soy Oil and Soy Meal Futures
CU	Call Calendar Spread versus buying Underlying	Sell near month call, buy far month call (same strike across the two months), buy the Underlying.

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Exchange Specifics

Options Combination Type	Options Combination	Definition/Structure
CU	Call Calendar Spread versus selling Underlying	Sell near month call, buy far month call (same strike across the two months), sell the Underlying
CU	Put Calendar Spread versus buying Underlying	Sell near month call, buy far month put (same strikes across the two months), sell the Underlying
CU	Put Calendar Spread versus selling Underlying	Sell near month put, buy far month put (same strikes across the two months), sell the Underlying
CV	Reversal (Conversion) w underlying	Reversal: Buy call, sell put at same strike, sell Underlying To trade a 'conversion' the order must be entered in the same sequence as above, but submitted to the market as a Sell/Offer order.
D3	Call/Put Diagonal calendar spread vs. underlying	Sell a call/put. Buy a call/put with a different strike at a later expiry month. Buy or sell the underlying.
DB	Double	Contact the Exchange utilizing the specific Combination Type for more details on usage and definition.
DC	Call Diagonal Calendar Spread	Sell near month call, buy far month call at a different strike
DC	Put Diagonal Calendar Spread	Sell near month put, buy far month put at a different strike
DG	Diagonal	Contact the Exchange utilizing the specific Combination Type for more details on usage and definition.
DN	Delta - Neutral	Contact the Exchange utilizing the specific Combination Type for more details on usage and definition.
DS	Diagonal Straddle	Sell Straddle in near month, buy Straddle in far month at different strike: Calendar Spread Sell near month put, sell near month call, buy far month put, buy far month call
DU	Diagonal Straddle calendar spread vs the underlying	Sell a put. Sell a call at the same strike and expiry month. Buy a put at a different strike with a later expiry month. Buy a call at the same strike and expiry month. Buy or sell the underlying.
FO	Future vs. Option	Contact the Exchange utilizing the specific Combination Type for more details on usage and definition.

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Exchange Specifics

Options Combination Type	Options Combination	Definition/Structure
FS	Flexible Option Spread	Contact the Exchange utilizing the specific Combination Type for more details on usage and definition.
GN	Generic	Contact the Exchange utilizing the specific Combination Type for more details on usage and definition.
GT	Guts	Buy call, buy put at higher strike
GU	Guts versus the underlying	Buy a call. Buy a put at a higher strike with the same expiry month. Buy or sell the underlying.
HG	Horizontal Strangle Spread / Strangle Swap	Contact the Exchange utilizing the specific Combination Type for more details on usage and definition.
HS	Horizontal Straddle Spread	Contact the Exchange utilizing the specific Combination Type for more details on usage and definition.
HZ	Horizontal	Contact the Exchange utilizing the specific Combination Type for more details on usage and definition.
IB	Iron Butterfly	Buy the straddle, selling Strangle. This must be entered in the following sequence, which equates to the same: Sell put, buy put and call at higher strike, sell a call at an even higher strike
IC	Iron Condor	Buy (sell) the call spread and also buying (selling) the put spread with lower strikes. Sell (buy) put, buy (sell) put at higher strike, buy (sell) call at even higher strike, sell (buy) call at even higher strike (all series for the same expiration month).
IS	Inter Commodity Spreads	Contact the Exchange utilizing the specific Combination Type for more details on usage and definition.
IU	Iron Butterfly vs the underlying	Sell a put. Buy a put at a higher strike with the same expiry month. Buy a call at the same strike and expiry month. Sell a call at a higher strike with the same expiry month.
JR	Jelly Roll	Buy (sell) a reversal in one serial month and sell (buy) the reversal in another serial month to produce a synthetic spread between both months. Sell (buy) call, buy (sell) put at same strike in near month, buy (sell) call, sell (buy) put at same strike in far month (strike price in far month need not equal strike price in near month).
KR	Crude Oil Crack	Contact the Exchange utilizing the specific Combination Type for more details on usage and definition.

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Exchange Specifics

Options Combination Type	Options Combination	Definition/Structure
LA	Call Ladder	Buy call, sell call at higher strike, sell call at even higher strike (The strikes do not have to be consecutive and the gaps between them do not have to be equal)
LA	Put Ladder	Sell put, sell put at higher strike, buy put at even higher strike (The strikes do not have to be consecutive and the gaps between them do not have to be equal)
LU	Call Ladder versus buying Underlying	Buy call, sell call at higher strike, sell call at even higher strike, buy the Underlying
LU	Call Ladder versus selling Underlying	Buy call, sell call at higher strike, sell call at even higher strike, sell the Underlying
MU	Combo versus buying Underlying	Sell call, buy a put at a lower strike, buy Underlying
NU	Strangle vs. Underlying	Buy put, buy call at higher strike, buy/sell the underlying
OU	Condor vs the underlying	Sell a put. Buy a put at a higher strike with the same expiry month. Buy a call at an even higher strike with the same expiry month. Sell a call at an even higher strike with the same expiry month. Buy or sell the underlying.
P3	3 - Way: Buy a Put spread versus a Call	Buy a call. Sell a call at a higher strike with the same expiry month. Sell a call at an even higher strike with the same expiry month. Buy a call at an even higher strike with the same expiry month. Buy or sell the underlying.
RA	2x1 Ratio Call Spread	Sell call, buy two calls at higher strike
RA	2x1 Ratio Put Spread	Sell put, buy two puts at lower strike
RR	Risk Reversal or Fence or Split-Strike	Contact the Exchange utilizing the specific Combination Type for more details on usage and definition.
RU	2 by 1 Ratio Call Spread versus buying Underlying	Sell call, buy two calls at higher strike, buy the Underlying
RU	2 by 1 Ratio Call Spread versus selling Underlying	Sell call, buy two calls at higher strike, sell the Underlying

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Exchange Specifics

Options Combination Type	Options Combination	Definition/Structure
RU	2 by 1 Ratio Put Spread versus buying Underlying	Sell put, buy two puts at lower strike, buy the Underlying
RU	2 by 1 Ratio Put Spread versus selling Underlying	Sell put, buy two puts at lower strike, sell the Underlying
S3	3 - Way: Straddle versus a Call	Buy a Straddle versus selling a call: Buy a put and call at the same strike, as well as selling a call at any strike.
S3	3 - Way: Straddle versus a Put	Buy a Straddle versus selling a put: Buy the straddle (i.e. Buy a put and call at the same strike), as well as selling a put at any strike.
SC	Call Calendar Spread	Sell near month call, buy far month call (Same strikes across the two months)
SC	Put Calendar Spread	Sell near month put, buy far month put (Same strikes across the two months)
SG	Strangle	Buy put, buy call at higher strike
SK	Sparks	Contact the Exchange utilizing the specific Combination Type for more details on usage and definition.
SO	Call Spread	Buy call, sell call (same month) at higher strike
SO	Put Spread	Buy put, sell put (same month) at lower strike
SR	Options Strips	Comprised of a minimum of 2 and a maximum of 8 outright strikes being either all call or all puts, and a mixture of calls and puts; or An example is to buy a call and put at one strike and buy a call and put at another strike. The premium is added together to form a strip.
SS	Straddle Calendar Spread	Sell Straddle in near month, buy Straddle in far month at same strike (Sell near month put, sell near month call, buy far put, buy far call)
ST	Straddle	Buy put, buy call at same strike
SU	Call Spread versus Underlying	Buy call, sell call at higher strike, sell the Underlying

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Exchange Specifics

Options Combination Type	Options Combination	Definition/Structure
SU	Put Spread versus Underlying	Buy put, sell put at lower strike, buy the Underlying
SV	Synthetic conversion/reversal	This is a standard conversion/reversal strategy but without the Underlying leg. Reversal: Buy a call, sell a put at the same strike
SY	Synthetic or Combo	Sell call, buy put at lower strike
T3	Straddle versus buying Underlying	Buy put, buy call at same strike, buy the Underlying
T3	Straddle versus selling Underlying	Buy put, buy call at same strike, sell the Underlying
T3	Straddle versus selling Underlying	Buy put, buy call at same strike, sell the Underlying
TE	Tandem (e.g., Ted Calendar)	Contact the Exchange utilizing the specific Combination Type for more details on usage and definition.
TU	Straddle calendar spread vs the underlying	Sell a put. Sell a call at the same strike and expiry month. Buy a put at the same strike with a later expiry month. Buy a call at the same strike and expiry month. Buy or sell the underlying.
UB	Stubs	Contact the Exchange utilizing the specific Combination Type for more details on usage and definition.
VL	Call Volatility Trade	Buy call, sell Underlying to give zero net delta
VL	Put Volatility Trade	Buy put, buy Underlying to give zero net delta
VS	Vertical Straddle Spread	Contact the Exchange utilizing the specific Combination Type for more details on usage and definition.
VT	Vertical	Contact the Exchange utilizing the specific Combination Type for more details on usage and definition.
VU	Iron condor vs. underlying	Sell a put. Buy a put at a higher strike with the same expiry month. Buy a call at an even higher strike with the same expiry month. Sell a call at an even higher strike with the same expiry month. Buy or sell the underlying.
XT	Christmas Tree	Contact the Exchange utilizing the specific Combination Type for more details on usage and definition.

Comment [C1]:

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Exchange Specifics

Chicago Board of Trade -- Exchange ID: B

2.00 Communications Lines

- Radianz supplied network operating with T1 tail circuits

2.00 Modems

- Multicast based network, with specific multicast groups for the following (production and TEST feeds available)
 - Chicago Board of Trade (CBOT) - Exchange ID of B
 - e-CBOT® - Exchange ID of U
 - e-CBOT® Market Depth - Exchange ID of UD
- Radianz provided terminations at Vendor's site

3.01 Transmission Characteristics -- Software

Category Codes Supported	Category Description
A	Bid/Ask/Trade - No Volume
B	Bid and Ask
C	Control (Type K, T, N, O)
G	Request for Quote
H	High-Low-Last
I	Volume and Open Interest
J	Summary
Q	Settlement
R	Refresh
T	Bid/Ask/Trade
U	Range Quotations
X	Text
Z	Contract Specifications (Type D, O, S)

Retransmission is supported. Vendor calls with Sequence Numbers and/or Time Frame required.

Current Telephone Number is 312-347-5611.

4.02.3 Product Classification Code

CBOT currently supports PCC values of:

A	Administrative
F	Futures
C	Combination without Legs
L	Combination with Legs
O	Options

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Exchange Specifics

Chicago Board of Trade -- Exchange ID: B

4.02.5 Type Codes

Type codes are used for insert and delete capabilities. Type Code "I" = insert, Type Code "D" = delete, as well as Type Code "R" for Revise. An As-of-sequence number is specified before the ETX whenever an insert, revise or delete is transmitted.

In the case of a Revise (Type Code R) message, the 'revised to' values are contained within the specific Category Code fields. The As-of-sequence number within the Type R message references the original message being revised. **Revisions of a given Category Code message must result in the same Category Code output.** E.g., a Category Code A message can be revised if the result is still a Category Code A message with new Price ID or Price Indicator values. It cannot be revised to a Category Code U (Special Range Message).

Type Code of " " (Blank) indicates a regular message transmitted.

4.03.2 Product Classification Type (PCT)

CBOT currently supports PCT values of:

Type Code	Definition
Space	No Further Definition included
F	Flexible options
I	Index Values

4.07.4 BAT Code Application

<u>BAT Code</u>	<u>Definition</u>	<u>May update</u>
B	Bid	High, Last Price(s)
A	Ask	Low, Last Price(s)
T	Trade	High, Low, Last Price(s)
Blank	Other types of prices (e.g., Settlements, Index Levels, etc).	Not Applicable

4.07.5 Price Indicator Application

<u>Price Indicator</u>	<u>Definition</u>	<u>May update, in combination with BAT Code</u>
Blank	Normal	High, Low, Last Price(s)
B	Blank Price	High, Low, Last Price(s)
C	Cabinet	High, Low, Closing Price
F	Fast	High, Low, Last Price(s)
N	Nominal	Closing Price Only
V	Nominal Cabinet	Closing Price Only
R	Indicative Price	Best Bid or Best Ask Only

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Exchange Specifics

Chicago Board of Trade -- Exchange ID: B

For Category A or T Messages (Type " ")

Vendors displaying a prevailing Bid and Ask Price should update such prices in accordance with the following:

- When the Trade or Bid price is equal to, or higher than, the prevailing Ask Price, blank the Ask Price display
- When the Trade or Ask Price is equal to, or lower than, the prevailing Bid Price, blank the Bid Price display

5.01 Category Code A - Bid/Ask/Trade

Category Code A messages are also be used to provide underlying index values. The Month Code of Y will indicate that the price is a Spot Expiration/Index Information Price.

5.02 Category Code B - Bid & Ask

Category Code B messages can also be used to distribute:

- Nominal Bid/Ask quotations. In these situations, both Bid and Ask Price ID fields will contain a Price Indicator of "N", with a BAT code of "B" and "A" in the respective Price field.
- INDICATIVE Best Bid/ask prices. In these situations, both Bid and Ask Price ID fields will contain a Price Indicator of "R", with a BAT code of "B" and "A" in the respective Price field.

5.08 Category Code H - High-Low-Last Messages

Category Code H messages are sent when a new high or low is made, and after any deletion (Type Code D) or revision (Type Code R), regardless of whether or not the original transaction affected a high or low.

Note:

- Following a deletion or revision, Category H Timestamps reflect the time of the deleted or revised quotation, even though the actual High/Low/Last information reflects current market activity.
- Otherwise, Category H timestamps reflect current time, along with current High/Low/Last information.

5.09 Category Code I - Volume/Open Interest Messages

For CBOT products trading in both open outcry (Exchange ID of B) and electronic (Exchange ID of U) environments, total Open Interest is reported only under the Open Outcry symbol on the Open Outcry feed. However, volume is reported for each respective product over the appropriate Exchange feed. For products that only trade electronically, Open Interest is reported over the e-CBOT® feed (Exchange ID of U).

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Exchange Specifics

Chicago Board of Trade -- Exchange ID: B

5.21 Category U - Special Range Message

"Last" and High/Low Updating for Category "U" Messages

CBOT suggestions for updating "Last" and High/Low Displays:

Category "U" Messages ("First" or "Second" Price fields refer to corresponding PRICE ID values in the Category U message)

- Range Indicator "O" (Open)
 - Bids and Asks prior to receipt of an Opening or a Trade message **do not make** Highs/Lows.
 - If a single Price Opening, update "Last" with First Price fields. Also update High/low fields with First Price fields.
 - If a two Price Opening (Opening Range), **do not update** "Last" with either Price field. Update High/low fields with First or Second Price fields.
 - Highs/Lows should be updated according to exchange rules where trades can make high or lows, Bids can only make highs, asks only make lows.
- Range Indicator "C" (Close)
 - If a single Price Close, update "Last" with First Price fields. Also update High/low fields with First Price fields.
 - If a two Price Close (Close Range), **do not update** "Last" with either Price field. Update High/low fields with First or Second Price fields.
 - Highs/Lows should be updated according to exchange rules where trades can make high or lows, Bids can only make highs, asks only make lows.
- Range Indicator "P" (Post Close/Suspension)
 - DO NOT Update Any Last, High, or Low fields
 - Prices included do not represent trading activity, but indicate allowable trading range during post close (or suspension) trading

5.24 Category Code X - Text Messages

Special Messages

Wholesale Transactions

On July 9, 2003, the CBOT designated the following products as eligible for Wholesale Transactions.

- 10-Year Interest Rate Swap Futures
- 5-Year Interest Rate Swap Futures
- 10-Year Agency Note Futures
- 5-Year Agency Note Futures

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Exchange Specifics

Wholesale Transactions will be disseminated as ITC 2.1 text messages, with a Type Code of Space. The first four bytes within the TEXT field will include the "BLK " text. A Wholesale Transaction can be executed as an outright or calendar spread trade. If executed as a calendar spread, the ITC 2.1 text message would contain a spread indicator. Contact the CBOT for additional details on the Text Message structure for these messages.

Special Final Settlements

Effective August 1, 2003, the CBOT will begin to disseminate Special Final Settlement prices as ITC 2.1 Text Messages. Special Final Settlement will be provided with a Type Code of Space. The first four bytes within the TEXT field will include the "SPCL" text. Regular settlement prices for these contracts are disseminated each day including the last trading date. However, on the last trade date or last trade date plus 1 day, the Special Final Settlements (for the contracts listed below) are the settlement prices used to determine the cash settlement for each contract. Contact the CBOT for additional details on the Text Message structure for these messages.

Miscellaneous Items

Transmission Timings

Listed below is an indication of the approximate times various types of information is be sent by the Exchange. Times may vary during unusual circumstances (or subject to change at the discretion of the exchange).

Approximate time (CST), (Monday through Friday unless otherwise noted)	Information Content	Category Codes,
Midnight - 4 PM	Control Messages	C
6 AM - 7:20 AM	Miscellaneous Text and Contract Specifications messages	C, X, Z
7:20 - 3:15 PM	Daytime Open Outcry Trading	A, B, C, H, J, Q, T, U
8 AM	Day's Final Volume, Open Interest	I
1:15 - 2:00 PM	Agricultural Complex End of Day Information	J, Q, U
2:00 - 3:00 PM	Financial Instruments Complex End of Day Information	J, Q, U
3:15 - 3:45 PM	Stock Index Complex End of Day Information	J, Q, U
3:15 - 3:45 PM	Completed End of Day Information	C, J, X
4:45 - 5:00 PM	Miscellaneous Text and Contract Specifications messages	C, X, Z
5:00 - 7:00 PM (Sunday through Thursday)	Reset Sequence Number	C
7:30 PM - Midnight (Sunday through Thursday)	Control Messages	C
10 PM	Day's Preliminary Volume, Open Interest	I

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Exchange Specifics

New York Board of Trade -- Exchange ID: C

2.00 Communications Lines

- The network is Frame Relay based with a 56K Digital Circuit at each vendor location.
- ISDN Back Up is provided at each location in the event of a Frame Relay failure.
- NYBOT supplies all circuits and equipment for each vendor site.

2.01 Equipment at Vendor Locations

- Cisco 2610 Routers are NYBOT provided at each vendor location.
- The router includes a CSU/DSU and NT-1 ISDN card.
- ITC Data is provided to the vendor via the AUX port.

3.01 Transmission Characteristics -- Hardware

- Asynchronous
- Odd Parity
- 9600 BPS
- 7 Data bits, 1 Stop bit plus 1 Parity bit
- Vendor cable connection (DTE) must supply DTR on Pin 20

3.01 Transmission Characteristics --Software

Category Codes Supported	Category Description
B	Bid and Ask
C	Control (Type K, T, N, O)
E	Exceptional Quotation
F	Market Condition
H	High-Low-Last
I	Volume and Open Interest
J	Summary
Q	Settlement
R	Refresh
T	Bid/Ask/Trade
U	Range Quotations
V	Cumulative Volume
X	Text
Y	Cash Prices

Retransmission is supported. Vendor calls with Sequence Numbers and/or Time Frame required.

Telephone Number: 212-748-1027

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Exchange Specifics

New York Board of Trade -- Exchange ID: C

4.02.3 Product Classification Code

NYBOT currently supports PCC values of:

A	Administrative
F	Futures
L	Combination with Legs
O	Options

4.02.5 Type Code

Type codes are used for insert and delete capabilities. Type Code "I" = insert, Type Code "D" = delete. If the as-of-sequence number is allowed in a message (Categories B, E, T and U), it is specified before the ETX whenever an insert or delete is transmitted. Type Code of " " (Blank) indicates a regular message transmitted.

4.03.2 Product Classification Type (PCT)

NYBOT currently supports PCT values of:

Type Code	Definition
Space	No Further Definition included
I	Index Values

4.07.4 BAT Code Application

<u>BAT Code</u>	<u>Definition</u>	<u>May update</u>
B	Bid	High, Last Price (s)
A	Ask	Low, Last Price (s)
T	Trade	High, Low, Last Price (s)
Space	Others	

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Exchange Specifics

New York Board of Trade -- Exchange ID: C

4.07.5 Price Indicator Application

<u>Price Indicator</u>	<u>Definition</u>	<u>May Update in combination with BAT code</u>
Blank	Normal	High, Low, Last Price(s)
C	Cabinet	High, Low, Last Price(s)
D	Differential	
E	Exchange for Physical	
N	Nominal Closing Price only	

5.02 Category Code B - Bid & Ask

Category Code B messages can also be used to distribute:

- Nominal Bid/Ask quotations. In these situations, both Bid and Ask Price ID fields will contain a Price Indicator of "N", with a BAT code of "B" and "A" in the respective Price field.

5.05 Exceptional Indicators

<u>Exceptional Indicator</u>	<u>Definition</u>
P	Exchange for Physical
J	Block Trade (Cantor Fitzgerald)
W	Exchange for Swaps

5.25 Category Code Y - Cash Prices

For transmission of intra-day indices values, NYBOT uses Category Y messages with Product Classification Type = "I" and Future Month Code = "Y".

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Exchange Specifics

New York Board of Trade -- Exchange ID: C

Miscellaneous Items

"Last" and High/Low Updating for Category "U" Messages

NYBOT suggestions for updating "Last" and High/Low Displays:

Category "U" Messages ("First" or "Second" Price fields refer to corresponding PRICE ID values in the Category U message)

- Range Indicator "O" (Open)
 - Bids and Asks prior to receipt of an Opening or a Trade message **do not make** Highs/Lows.
 - If a single Price Opening, update "Last" with First Price fields. Also update High/low fields with First Price fields.
 - If a two Price Opening (Opening Range), **do not update** "Last" with either Price field. Update High/low fields with First or Second Price fields.
 - Highs/Lows should be updated according to exchange rules where trades can make high or lows.
- Range Indicator "C" (Close)
 - If a single Price Close, update "Last" with First Price fields. Also update High/low fields with First Price fields.
 - If a two Price Close (Close Range), **do not update** "Last" with either Price field. Update High/low fields with First or Second Price fields.
 - Highs/Lows should be updated according to exchange rules where trades can make high or lows.
- Range Indicator "P" (Post Close / Suspension)
 - DO NOT Update Any Last, High, or Low fields
 - Prices included do not represent trading activity, but indicate allowable trading range during post close (or suspension) trading
- Range Indicator "R" (Resumption)
 - If a single Price Resumption, update "Last" with First Price fields. Also update High/low fields with First Price fields.
 - If a two Price Resumption (Resumption Range), **do not update** "Last" with either Price field.
 - Highs/Lows should be updated according to exchange rules where trades can make high or lows.
- Range Indicator "S" (Suspension)
 - If a single Price Suspension, update "Last" with First Price fields. Also update High/low fields with First Price fields.
 - If a two Price Suspension (Suspension Range), **do not update** "Last" with either Price field.

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Exchange Specifics

- Highs/Lows should be updated according to exchange rules where trades can make high or lows.

Minneapolis Grain Exchange -- Exchange ID: G

2.00 Communications Lines

Multicast based network, with specific multicast groups for the following (production and TEST feeds available)

- Minneapolis Grain Exchange - Exchange ID of G
- Minneapolis Grain Exchange - Electronic Trading - Exchange ID of OU
- Minneapolis Grain Exchange - Electronic Trading Market Depth - Exchange ID of OD

Radianz provided terminations at Vendor's site.

Radianz supplied network operating with T1 tail circuits

2.00 Equipment

MGEX will specify the necessary equipment required for the vendor to use.

3.01 3.01 Transmission Characteristics -- Software

Category Codes Supported	Category Description
A	Bid/Ask/Trade - No Volume
C	Control (Type T)
F	Fast Market
H	High-Low-Last
I	Volume and Open Interest
Q	Settlement
U	Range Quotations
X	Text
Y	Cash Index

Retransmission is supported. Vendor calls with Sequence Numbers and/or Time Frame required.
Current Telephone Numbers include:

816-753-7500

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Exchange Specifics

Minneapolis Grain Exchange -- Exchange ID: G

4.02.3 Product Classification Code

MGEX currently supports PCC values of:

A	Administrative
F	Futures
L	Combination with Legs
O	Options

In regards to the PCC value of "L" (Combination with Legs), the MGEX currently blank-fills the Buy/Sell Indicator, Price ID Fields, and Size fields within the Combination Occurrences fields of the appropriate Category Code message.

4.06 BAT Code Application

<u>BAT Code</u>	<u>Definition</u>	<u>May update</u>
B	Bid	High, Last Price (s)
A	Ask	Low, Last Price (s)
T	Trade	High, Low, Last Price (s)

<u>Price Indicator</u>	<u>Definition</u>	<u>May update, in combination with BAT Code</u>
" "	Normal	High, Low, Last Price(s)
"M"	Match/Ring Trade	High, Low, Last Price(s)

For Category A or T Messages (Type " ")

Vendors displaying a prevailing Bid and Ask Price should update such prices in accordance with the following:

- When the Trade or Bid price is equal to, or higher than, the prevailing Ask Price, blank the Ask Price display
- When the Trade or Ask Price is equal to, or lower than, the prevailing Bid Price, blank the Bid Price display

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Exchange Specifics

Minneapolis Grain Exchange -- Exchange ID: 6

Miscellaneous Items

Transmission Timings

Listed below is an indication of the approximate times various types of information is be sent by the Exchange. Times may vary during unusual circumstances (or subject to change at the discretion of the exchange).

Approximate time (CST), (Monday through Friday unless otherwise noted)	Information Content	Category Codes,
7:00 AM - 3:30 PM	Control Messages	C
7:00 AM - 2:00 PM	Miscellaneous Text messages	C, X
9:30 AM - 1:45* PM	Daytime Open Outcry Trading	A, F, H, U
8:00 - 8:30 AM	Day's Final Volume, Open Interest	I
1:15 - 2:00 PM	Agricultural Complex End of Day Information	Q, U
3:45 - 4:00 PM	Completed End of Day Information	C, X

*There is a post settlement session from 1:31 to 1:35 PM on the trading floor each afternoon in which quotes are broadcast to the quote vendors.

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Exchange Specifics

Chicago Mercantile Exchange / GLOBEX® -- Exchange ID: H

DIRECT CME MARKET DATA DISTRIBUTION

CME market data is currently available to market data distributors via 56kb point-to-point or multi-point circuits. As part of our continuing effort to strive for excellence and efficiencies in the distribution of CME market data, CME is changing the method of distribution. CME is offering two methods of market data distribution. Provided below is a brief description of the market data distribution alternatives.

METHODS OF DISTRIBUTION

1. TIBCO based API solution
2. TCP/IP solution

MARKET DATA FORMATS

1. ITC 2.1 (industry format) for both trading floor and top of book GLOBEX data
2. RLC (CME format) for GLOBEX data with depth of market

CIRCUIT INFORMATION

1. AT&T managed frame relay network with ISDN dial back up.
Recommended bandwidth depends on required applications.

3.01 Transmission Characteristics -- Software

Category Codes Supported	Category Description
B	Bid/Ask - E.T.H. only
E	Exceptional Quotation
G	Request-For-Quote
H	High-Low-Last
J	Summary message
T	Bid/Ask/Trade - E.T.H. only
U	Range Quotations
V	Cumulative Volume
X	Text
Y	Cash Prices
	Index prices and Inter-bank Spot Bid prices
Z	Contract Specifications

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Exchange Specifics

Chicago Mercantile Exchange / GLOBEX® -- Exchange ID: H

4.02.3 Product Classification Code

CME currently supports PCC values of:

A	Administrative
F	Futures
L	Combination with Legs
O	Options

4.02.5 Type Code

Type codes are used for insert and delete capabilities. Type Code "I" = insert, Type Code "D" = delete. An as-of-sequence number is specified before the ETX whenever an insert or delete is transmitted. Type Code of " " (Blank) indicates a regular message transmitted.

4.03.2 Product Classification Type (PCT)

CME currently supports PCT values of:

<u>Type Code</u>	<u>Definition</u>
Space	No Further Definition included
F	Flexible options
I	Index Values

4.07.4 BAT Code Application

<u>BAT Code</u>	<u>Definition</u>	<u>May update</u>
B	Bid	High, Last Price (s)
A	Ask	Low, Last Price (s)
T	Trade	High, Low, Last Price (s)

4.07.5 Price Indicator

<u>Price Indicator</u>	<u>Definition</u>	<u>May update, in combination with BAT Code</u>
" "	Normal	High, Low, Last price(s)
N	Nominal	Closing Price only
C	Cabinet	High, Low, Last price(s)
V	Nominal Cabinet	Closing Price only
D	Differential	

NOTE: Generally, a market is open upon receipt of the first trade. A Range Quotation, Range Indicator "O", will be transmitted shortly after a market has opened. There are bid/ask messages, which may be transmitted prior to the first sale quote.

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Exchange Specifics

For category A & T messages -

Bid and/or Ask prices received prior to market opening do establish high or low respectively. These prices should be displayed as normal bids and asks.

For category N messages -

Bid and/or ask prices received in the "Last Quote" field should be handled in the same manner as category A messages described above. Prices received in the market bid and/or ask price field prior to market opening should be treated normally. (Market bid or ask prices never establish a new high or low).

For category B messages -

Prices received in the Bid and/or Ask prices will never establish a new high or low

4.14 Indicators

Exceptional Indicators

<u>Code</u>	<u>Definition</u>
P	Exchange for Physical
B	Block Trades

Market Condition Indicators

<u>Code</u>	<u>Definition</u>
A	Halt Trading
B	Resume Trading
E	End Fast Market
F	Start Fast Market
L	Start Late Market
M	End Late Market

Range Indicators

<u>Code</u>	<u>Definition</u>
C	Close
I	Indicative Open
O	Open
P	Post Close
R	Resumption
S	Suspension

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Exchange Specifics

COMEX - Exchange ID: J, E

Please see New York Mercantile Exchange section

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Exchange Specifics

Kansas City Board of Trade -- Exchange ID: K

2.00 Communications Lines

Radianz supplied network operating with T1 tail circuits

2.00 Equipment

Multicast based network, with specific multicast groups for the following (production and TEST feeds available)

- **Kansas City Board of Trade** - Exchange ID of K
- **Kansas City Board of Trade Market Update** - Exchange ID of KU
- **Kansas City Board of Trade Market Depth** - Exchange ID of KD

Radianz provided terminations at Vendor's site

3.01 Transmission Characteristics -- Software

Category Codes Supported	Category Description
A	Bid/Ask/Trade - No Volume
C	Control (Type T)
F	Fast Market
G	Request for Quote
H	High-Low-Last
I	Volume and Open Interest
Q	Settlement
U	Range Quotations
X	Text

Retransmission is supported. Vendor calls with Sequence Numbers and/or Time Frame required. Current Telephone Number is 312-347-5611.

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Exchange Specifics

Kansas City Board of Trade -- Exchange ID: K

4.02.3 Product Classification Code

KCBT currently supports PCC values of:

A	Administrative
F	Futures
L	Combination with Legs
O	Options

In regards to the PCC value of "L" (Combination with Legs), the KCBT currently blank-fills the Buy/Sell Indicator, Price ID Fields, and Size fields within the Combination Occurrences fields of the appropriate Category Code message.

4.06 BAT Code Application

<u>BAT Code</u>	<u>Definition</u>	<u>May update</u>
B	Bid	High, Last Price (s)
A	Ask	Low, Last Price (s)
T	Trade	High, Low, Last Price (s)

<u>Price Indicator</u>	<u>Definition</u>	<u>May update, in combination with BAT Code</u>
" "	Normal	High, Low, Last Price(s)
"M"	Match/Ring Trade	High, Low, Last Price(s)

For Category A or T Messages (Type " ")

Vendors displaying a prevailing Bid and Ask Price should update such prices in accordance with the following:

- When the Trade or Bid price is equal to, or higher than, the prevailing Ask Price, blank the Ask Price display
- When the Trade or Ask Price is equal to, or lower than, the prevailing Bid Price, blank the Bid Price display

5.08 Category Code H - High-Low-Last Messages

Category Code H messages are sent only when a new high or low is made.

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Exchange Specifics

Kansas City Board of Trade -- Exchange ID: K

Miscellaneous Items

Transmission Timings

Listed below is an indication of the approximate times during which various types of information will be sent. Times may vary during unusual circumstances (or subject to change at the discretion of the exchange).

Approximate time (CST), (Monday through Friday unless otherwise noted)	Information Content	Category Codes
7 AM - 3:30 PM	Control Messages	C
7 AM - 8 AM	Miscellaneous Text messages	C, X
9:30 - 1:15 PM	Daytime Open Outcry Trading	A, F, H, U
8:00 - 9:30 AM	Previous Day's Final Volume, Open Interest	I
1:15 - 2:00 PM	Agricultural Complex End of Day Information	Q, U
3:00 - 3:30 PM	Completed End of Day Information	C, X

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Exchange Specifics

Kansas City Board of Trade -- Exchange ID: KU

2.00 Communications Lines

Radianz supplied network operating with T1 tail circuits

1.00 Modems

Multicast based network, with specific multicast groups for the following (production and TEST feeds available)

- o **Kansas City Board of Trade** - Exchange ID of K
- o **Kansas City Board of Trade Market Update** - Exchange ID of KU
- o **Kansas City Board of Trade Market Depth** - Exchange ID of KD

Radianz provided terminations at Vendor's site

3.01 Transmission Characteristics -- Software

Category Codes Supported	Category Description
b	Bid and Ask (Expanded)
C	Control (Type K, T)
E	Exceptional Quotation
H	High-Low-Last
J	Summary
o	Market Update (Expanded)
Q	Settlement
U	Range Quotations
V	Cumulative Volume
Z	Contract Specifications (Type D, O, S)

Retransmission is supported. Vendor calls with Sequence Numbers and/or Time Frame required.

Current Telephone Number is 312-347-5611.

4.02.3 Product Classification Code

Kansas City Board of Trade currently supports PCC values of:

- F Futures
- L Combinations with Legs
- O Options

FUTURES COMBINATIONS SUPPORTED

- BF, CF, FB, IS, PK, RT, SP, SR

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Exchange Specifics

Kansas City Board of Trade -- Exchange ID: KU

OPTIONS COMBINATIONS SUPPORTED

- A3, B3, BO, BU, BX, C3, CM, CO, CR, CU, CV, D3, DC, DS, DU, GT, GU, IB, IC, IS, IU, JR, LA, LU, MU, NU, OU, P3, RA, RU, S3, SC, SG, SO, SR, SS, ST, SU, SV, SY, T3, TU, VL, VU

For PCC values of "L" (Combinations with Legs), contracts identified by any/all Product Classification related fields (e.g., within the Occurrence of Legs and the Combination ID Description fields) appear in a consistent manner **within any/all related Category Codes**. The consistency suggests that contracts are, depending upon the particular combination, in calendar month order, product specific sequence (e.g., Buy side first, Sell Side second), etc.

Expectation is that vendor systems are **not** required to perform any 'reverse' order, or contract re-sequencing, of Combination related fields within a given Category Code message to match previous messages, for effectively the same Combination.

4.02.5 Type Code

Type Code of " " (Blank) indicates a regular message transmitted. Type Code "D" is also supported.

4.03.2 Product Classification Type (PCT)

Kansas City Board of Trade currently supports PCT values of:

Type Code	Definition
Space	No Further Definition included

5.05 Category Code E - Exceptional Quotes Messages

Supported Exceptional Indicators include the following:

A	Asset Allocation
B	Block Trading
G	Against Actual
S	Basis

In any/all cases, suggested processing for these messages is simply to maintain as a 'time and sales' type record with the appropriate exceptional indicator and/or definition. These quotes are NOT used to update Open, High, Low, Last, or Close prices.

5.08 Category Code H - High-Low-Last Messages

Category Code H messages are sent any time a new high or low is made.

5.10 Category Code I - Volume/Open Interest Messages

For KCBT products trading in both open outcry (Exchange ID of K) and electronic (Exchange ID of KU) environments, total Open Interest is reported only under the Open Outcry symbol on the Open Outcry feed. However, volume is reported for each respective product over the appropriate Exchange feed. For products that only trade electronically, Open Interest is reported over the Kansas City Board of Trade feed (Exchange ID of KU).

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Exchange Specifics

5.15 Category o - Market Update Message (Expanded)

Suggestions for processing are as follow:

- For messages containing a Blank Bid (or Ask) Price respectively:
 - The respective PRICE is Blanked ONLY if the PRICE INDICATOR is set to "B". Otherwise, the current PRICE value in the vendor's database is maintained.
 - SIZE is Blank if the corresponding PRICE INDICATOR is "B" (in THIS case, the actual SIZE field in the Category Code message would also contain blanks). Otherwise, update the size if a non-blank size value is received, or ignore the SIZE field completely if a BLANK Size is received.
- Last Price and Volume traded, along with the timestamp, can be used to create an accurate Time and Sales Database.
- Cumulative Volume represents any/all trading activity for the respective contract, and reflects any/all trading volume adjustments as well.

5.17 Category Q - Settlements / Limits Message

Category Code Q messages may be disseminated for electronically traded contracts (where the contract's settlement is based on the open outcry equivalent of that contract) prior to the close of the respective electronic market for that contract. Vendors' software should anticipate the receipt of market updates (e.g., Category Code B, O, etc) **after** the receipt of settlements for the respective contract.

5.21 Category U - Special Range Message

KCBT suggestions for updating processing Category U messages:

Category "U" Messages ("First" or "Second" Price fields refer to corresponding PRICE ID values in the Category U message)

- Range Indicator "C" (Close)
 - Update "Last" with First Price fields.
 - DO NOT Update Any High, or Low fields
- Range Indicator "I" (Indicative Opening)
 - Update Indicative Opening display with First Price fields. If a separate field for Indicative Opening is NOT available, update Opening Price ONLY if the display provides a field(s) to indicate the First Price is INDICATIVE.
 - DO NOT Update Any Last, High, or Low fields
- Range Indicator "O" (Open)
 - Update "Last" with First Price field.
 - Update "Open" with First Price field
 - Update High, or Low fields with First Price field

Transmission Timings

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Exchange Specifics

Listed below is an indication of the approximate times during which various types of information will be sent. Times may vary during unusual circumstances (or subject to change at the discretion of the exchange).

Approximate Time (CST), (Monday through Friday unless otherwise noted)	Information Content	Category Codes, Representative List
Midnight - 4 PM	Electronic Trading Activity	b, C, H, J, o, Q, U, V
8 AM	Day's Final Volume, Open Interest	I
4:00 - 5:00 PM	Completed End of Day Information	C, J, o, Q, U
5:30 PM - Midnight (Sunday through Thursday)	Electronic Trading Activity	b, C, H, o, U, V, Z

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Exchange Specifics

Kansas City Board of Trade Market Depth-- Exchange ID: KD

2.00 Communications Lines

Radianz supplied network operating with T1 tail circuits

2.00 Modems

Multicast based network, with specific multicast groups for the following (production and TEST feeds available)

- **Kansas City Board of Trade** - Exchange ID of K
- **Kansas City Board of Trade Market Update** - Exchange ID of KU
- **Kansas City Board of Trade Market Depth** - Exchange ID of KD

Radianz provided terminations at Vendor's site

3.01 Transmission Characteristics -- Software

Category Codes Supported	Category Description
C	Control (Type K, T)
d	Market Depth

Retransmission is supported. Vendor calls with Sequence Numbers and/or Time Frame required.

Current Telephone Number is 312-347-5611.

4.02.3 Product Classification Code

Kansas City Board of Trade Market Depth currently supports PCC values of:

- F Futures
- O Options

4.02.5 Type Code

Type Code of " " (Blank) indicates a regular message transmitted. Other Type Codes are not supported.

4.03.2 Product Classification Type (PCT)

Kansas City Board of Trade currently supports PCT values of:

Type Code **Definition**

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Exchange Specifics

Space

No Further Definition included

Kansas City Board of Trade Market Depth-- Exchange ID: KD**Transmission Timings**

Listed below is an indication of the approximate times during which various types of information will be sent. Times may vary during unusual circumstances (or subject to change at the discretion of the exchange).

Approximate Time (CST), (Monday through Friday unless otherwise noted)	Information Content	Category Codes, Representative List
Midnight - 4 PM	Electronic Trading Activity	C, d
4:00 - 5:00 PM	Completed End of Day Information	C
5:30 PM -Midnight (Sunday through Thursday)	Electronic Trading Activity	C, d

Additional points of note in processing Market Depth Information:

1. Market Depth will be disseminated prior to the opening interval for a given contract. The opening interval relates to the time of day in which contracts can begin trading.
2. Market Depth software will be capable of providing periodic updates of the entire book, to accommodate any needs to 'refresh' a vendors display with the current state of the 'book' for given contracts.
3. Vendors' software should account for 'contraction' (i.e., reduction in the number of prices on the Bid, Ask side) in the market depth for a given contract. In terms of the Category Code d message, vendors will see, for example, the Bid Price Total (or Ask Price Total) field representing a number less than the previous value. In that case, vendor's software must 'clear out' the previous Bid/Ask price/size values for those positions in the book.
4. The Bid Price Total and Ask Price Total fields will never indicate a value greater than the maximum number of prices that are reported for each side of a market. If the number of Bid Prices or Ask Prices in the order book exceeds the maximum used for e-CBOT® Market Depth, then these fields will be filled with the maximum value. At present, the maximum number of prices reported on either side of the market for e-CBOT® markets will be 10 for Futures and 5 for Options.
5. Times during which the Bid Price Total and/or Ask Price Total Fields would be equal to the total number of Bids and/or Asks contained in the respective message can include:
 - When the entire order book is blanked (Bid Price Total and Ask Price Total fields of zero), in the case where one side of the market was already blank, and then a trade or pull order causes the other side to be blanked.
 - When the initial orders are entered for a given contract and market depth is first published.
 - When the market depth for the respective contracts is 'refreshed.'
 - When size changes occur for a given Bid and/or Ask already in the order book, when the order book is 1 deep for the Bid or Ask.

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Exchange Specifics

Chicago Mercantile Exchange -- Exchange ID: M

DIRECT CME MARKET DATA DISTRIBUTION

CME market data is currently available to market data distributors via 56kb point-to-point or multi-point circuits. As part of our continuing effort to strive for excellence and efficiencies in the distribution of CME market data, CME is changing the method of distribution. CME is offering two methods of market data distribution. Provided below is a brief description of the market data distribution alternatives.

METHODS OF DISTRIBUTION

1. TIBCO based API solution
2. TCP/IP solution

MARKET DATA FORMATS

1. ITC 2.1 (industry format) for both trading floor and top of book GLOBEX data
2. RLC (CME format) for GLOBEX data with depth of market

CIRCUIT INFORMATION

1. AT&T managed frame relay network with ISDN dial back up.
2. Recommended bandwidth depends on required applications.

3.01 Transmission Characteristics -- Software

Category Codes Supported	Category Description
A	Bid/Ask/Trade - Future - No Volume
C	(Type A, B, C, D, G, I, J, K, N, O, R, S, T)
E	Exceptional Quotation
F	Fast Market (and Late Market)
H	High-Low-Last
I	Volume and Open Interest
J	Summary message
N	Bid/Ask Market; Bid/Ask Trade, all option quotes
Q	Settlement and Limits
U	Range Quotations
X	Text
Y	Cash Prices
	Index prices and Inter-bank Spot Bid prices
Z	Contract Specifications

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Exchange Specifics

Chicago Mercantile Exchange -- Exchange ID: M

4.02.3 Product Classification Code

CME currently supports PCC values of:

A	Administrative
F	Futures
L	Combination with Legs
O	Options

4.02.5 Type Code

Type codes are used for insert and delete capabilities. Type Code "I" = insert, Type Code "D" = delete. An as-of-sequence number is specified before the ETX whenever an insert or delete is transmitted. Type Code of " " (Blank) indicates a regular message transmitted.

4.03.2 Product Classification Type (PCT)

CME currently supports PCT values of:

Type Code	Definition
Space	No Further Definition included
F	Flexible options
I	Index Values

4.07.4 BAT Code Application

<u>BAT Code</u>	<u>Definition</u>	<u>May update</u>
B	Bid	High, Last Price (s)
A	Ask	Low, Last Price (s)
T	Trade	High, Low, Last Price (s)

4.07.5 Price Indicator

<u>Price Indicator</u>	<u>May update, Definition</u>	<u>in combination with BAT Code</u>
" "	Normal	High, Low, Last price(s)
N	Nominal	Closing Price only
C	Cabinet	High, Low, Last price(s)
V	Nominal Cabinet	Closing Price only
D	Differential	

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Exchange Specifics

NOTE: Generally, a market is open upon receipt of the first trade. A Range Quotation, Range Indicator "O", will be transmitted shortly after a market has opened. There are bid/ask messages, which may be transmitted prior to the first sale quote.

For category A & T messages -

Bid and/or Ask prices received prior to market opening do establish high or low respectively. These prices should be displayed as normal bids and asks.

For category N messages -

Bid and/or ask prices received in the "Last Quote" field should be handled in the same manner as category A messages described above. Prices received in the market bid and/or ask price field prior to market opening should be treated normally. (Market bid or ask prices never establish a new high or low).

For category B messages -

Prices received in the Bid and/or Ask prices will never establish a new high or low

4.15 Indicators

Exceptional Indicators

<u>Code</u>	<u>Definition</u>
P	Exchange for Physical
B	Block Trades

Market Condition Indicators

<u>Code</u>	<u>Definition</u>
A	Halt Trading
B	Resume Trading
E	End Fast Market
F	Start Fast Market
L	Start Late Market
M	End Late Market

Range Indicators

<u>Code</u>	<u>Definition</u>
C	Close
I	Indicative Open
O	Open
P	Post Close
R	Resumption
S	Suspension

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Exchange Specifics

New York Mercantile Exchange - Exchange ID: N, I, IE, NE, NL

4.02.4 Category Codes

NYMEX supports the following Category Codes:

Category Codes	Category Description
A	Bid/Ask/Trade - Future - No Volume
B	Bid & Ask
C	Control
E	Exceptional Quotation
F	Fast Market
H	High-Low-Last
I	Volume and Open Interest
J	Summary message
K	Retransmission Request
Q	Settlement and Limits
T	Trade/Bid/Ask - General form
U	Range Quotations
V	Cumulative Volume
X	Text

4.07.4 BAT Code Application

<u>BAT Code</u>	<u>Definition</u>	<u>May update</u>
B	Bid	High, Last Price (s)
A	Ask	Low, Last Price (s)
T	Trade	High, Low, Last Price (s)
Space	Other	

For Category A or T Messages (Type " ")

Vendors displaying a prevailing Bid and Ask Price should update such prices in accordance with the following:

- When the Trade or Bid price is equal to, or higher than, the prevailing Ask Price, blank the Ask Price display
- When the Trade or Ask Price is equal to, or lower than, the prevailing Bid Price, blank the Bid Price display

4.14 Indicators

NYMEX supports the following Exceptional Indicators:

<u>Exceptional Indicator</u>	<u>Definition</u>
F	Average price for a five minute session
O	Average price for a one minute session
P	Exchange for Physical

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Exchange Specifics

M	Match/Cross Trade
U	Exchange for Option
W	Exchange for Swaps

5.05 Category E - Exceptional Quotation

NYMEX will disseminate Category E messages when sending out a special averaged price over a one minute time period and a five minute time period. The exceptional indicators of F and O will be used for these special prices.

5.09.1 Category Code I - Volume/Open Interest Messages

Actual Volume and Open interest values are always sent for the previous day's business. For NYMEX products trading in both open outcry and electronic venues, Open Interest and Volume are reported with the NYMEX floor trading Exchange ID.

5.17 Category Q - Settlement Price Limits

Category Q messages are used for disseminating settlement prices for current day and occasionally for the previous day. The Category Q message always contains a day indicator (trailing day code). When disseminating settlement prices for the current day, the day indicator will represent the current day. When disseminating settlement prices for the previous day, the day indicator will represent the previous business day. The day code in the header will always represent the day of the message or current day.

5.21 Category U - Range Quotations

- Range Indicator "P" (Post Close/Suspension)
 - Do OT Update Any Last, High, or Low fields
 - Prices included do not represent trading activity, but indicate allowable trading range during post close (or suspension) trading

Exchange Specifics

Minneapolis Grain Exchange Market Depth-- Exchange ID: OD

2.00 Communications Lines

Radianz supplied network operating with T1 tail circuits

2.00 Modems

Multicast based network, with specific multicast groups for the following (production and TEST feeds available)

- **Minneapolis Grain Exchange** - Exchange ID of G
- **Minneapolis Grain Exchange Market Update** - Exchange ID of OU
- **Minneapolis Grain Exchange Market Depth** - Exchange ID of OD

Radianz provided terminations at Vendor's site

3.01 Transmission Characteristics -- Software

Category Codes Supported	Category Description
C	Control (Type K, T)
d	Market Depth

Retransmission is supported. Vendor calls with Sequence Numbers and/or Time Frame required.

Current Telephone Number is 312-347-5611.

4.02.3 Product Classification Code

Minneapolis Grain Exchange Market Depth currently supports PCC values of:

- F Futures
- O Options

4.02.5 Type Code

Type Code of " " (Blank) indicates a regular message transmitted. Other Type Codes are not supported.

4.03.2 Product Classification Type (PCT)

Minneapolis Grain Exchange currently supports PCT values of:

Type Code	Definition
Space	No Further Definition included July 21, 2005

Exchange Specifics

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Exchange Specifics

Minneapolis Grain Exchange Market Depth-- Exchange ID: OD

Transmission Timings

Listed below is an indication of the approximate times during which various types of information will be sent. Times may vary during unusual circumstances (or subject to change at the discretion of the exchange).

Approximate Time (CST), (Monday through Friday unless otherwise noted)	Information Content	Category Codes, Representative List
Midnight - 4 PM	Electronic Trading Activity	C, d
4:00 - 5:00 PM	Completed End of Day Information	C
5:30 PM -Midnight (Sunday through Thursday)	Electronic Trading Activity	C, d

Additional points of note in processing Market Depth Information:

1. Market Depth will be disseminated prior to the opening interval for a given contract. The opening interval relates to the time of day in which contracts can begin trading.
2. Market Depth software will be capable of providing periodic updates of the entire book, to accommodate any needs to 'refresh' a vendors display with the current state of the 'book' for given contracts.
3. Vendors' software should account for 'contraction' (i.e., reduction in the number of prices on the Bid, Ask side) in the market depth for a given contract. In terms of the Category Code d message, vendors will see, for example, the Bid Price Total (or Ask Price Total) field representing a number less than the previous value. In that case, vendor's software must 'clear out' the previous Bid/Ask price/size values for those positions in the book.
4. The Bid Price Total and Ask Price Total fields will never indicate a value greater than the maximum number of prices that are reported for each side of a market. If the number of Bid Prices or Ask Prices in the order book exceeds the maximum used for **Minneapolis Grain Exchange** Market Depth, then these fields will be filled with the maximum value. At present, the maximum number of prices reported on either side of the market for **Minneapolis Grain Exchange** markets will be 10 for Futures and 5 for Options.
5. Times during which the Bid Price Total and/or Ask Price Total Fields would be equal to the total number of Bids and/or Asks contained in the respective message can include:
 - When the entire order book is blanked (Bid Price Total and Ask Price Total fields of zero), in the case where one side of the market was already blank, and then a trade or pull order causes the other side to be blanked.
 - When the initial orders are entered for a given contract and market depth is first published.
 - When the market depth for the respective contracts is 'refreshed.'
 - When size changes occur for a given Bid and/or Ask already in the order book, when the order book is 1 deep for the Bid or Ask.

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Exchange Specifics

Minneapolis Grain Exchange -- Exchange ID: OU

2.00 Communications Lines

Radianz supplied network operating with T1 tail circuits

1.01 Modems

Multicast based network, with specific multicast groups for the following (production and TEST feeds available)

- **Minneapolis Grain Exchange** - Exchange ID of G
- **Minneapolis Grain Exchange Market Update** - Exchange ID of OU
- **Minneapolis Grain Exchange Market Depth** - Exchange ID of OD

Radianz provided terminations at Vendor's site

3.01 Transmission Characteristics -- Software

Category Codes Supported	Category Description
b	Bid and Ask
C	Control (Type K, T)
E	Exceptional Quotation
H	High-Low-Last
J	Summary
o	Market Update
Q	Settlement
U	Range Quotations
V	Cumulative Volume
Z	Contract Specifications (Type D, O, S)

Retransmission is supported. Vendor calls with Sequence Numbers and/or Time Frame required.

Current Telephone Number is 312-347-5611.

4.02.3 Product Classification Code

Minneapolis Grain Exchange currently supports PCC values of:

- F Futures
- L Combinations with Legs
- O Options

FUTURES COMBINATIONS SUPPORTED

- BF, CF, FB, IS, PK, RT, SP, SR

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Exchange Specifics

Minneapolis Grain Exchange -- Exchange ID: OU

OPTIONS COMBINATIONS SUPPORTED

- A3, B3, BO, BU, BX, C3, CM, CO, CR, CU, CV, D3, DC, DS, DU, GT, GU, IB, IC, IS, IU, JR, LA, LU, MU, NU, OU, P3, RA, RU, S3, SC, SG, SO, SR, SS, ST, SU, SV, SY, T3, TU, VL, VU

For PCC values of "L" (Combinations with Legs), contracts identified by any/all Product Classification related fields (e.g., within the Occurrence of Legs and the Combination ID Description fields) appear in a consistent manner **within any/all related Category Codes**. The consistency suggests that contracts are, depending upon the particular combination, in calendar month order, product specific sequence (e.g., Buy side first, Sell Side second), etc.

- Expectation is that vendor systems are **not** required to perform any 'reverse' order, or contract re-sequencing, of Combination related fields within a given Category Code message to match previous messages, for effectively the same Combination.

4.02.5 Type Code

Type Code of " " (Blank) indicates a regular message transmitted. Type Code "D" is also supported.

4.03.2 Product Classification Type (PCT)

Minneapolis Grain Exchange currently supports PCT values of:

Type Code	Definition
Space	No Further Definition included

5.05 Category Code E - Exceptional Quotes Messages

Supported Exceptional Indicators include the following:

A	Asset Allocation
B	Block Trading
G	Against Actual
S	Basis

In any/all cases, suggested processing for these messages is simply to maintain as a 'time and sales' type record with the appropriate exceptional indicator and/or definition. These quotes are NOT used to update Open, High, Low, Last, or Close prices.

5.08 Category Code H - High-Low-Last Messages

Category Code H messages are sent any time a new high or low is made.

5.11 Category Code I - Volume/Open Interest Messages

For MGEX products trading in both open outcry (Exchange ID of G) and electronic (Exchange ID of OU) environments, total Open Interest is reported only under the Open Outcry symbol on the Open Outcry feed. However, volume is reported for each respective product over the appropriate Exchange feed. For products that only trade electronically, Open Interest is reported over the Minneapolis Grain Exchange feed (Exchange ID of OU).

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Exchange Specifics

5.15 Category o- Market Update Message (Expanded)

Suggestions for processing are as follow:

- For messages containing a Blank Bid (or Ask) Price respectively:
 - The respective PRICE is Blanked ONLY if the PRICE INDICATOR is set to "B". Otherwise, the current PRICE value in the vendor's database is maintained.
 - SIZE is Blank if the corresponding PRICE INDICATOR is "B" (in THIS case, the actual SIZE field in the Category Code message would also contain blanks). Otherwise, update the size if a non-blank size value is received, or ignore the SIZE field completely if a BLANK Size is received.
- Last Price and Volume traded, along with the timestamp, can be used to create an accurate Time and Sales Database.
- Cumulative Volume represents any/all trading activity for the respective contract, and reflects any/all trading volume adjustments as well.

5.18 Category Q - Settlements / Limits Message

Category Code Q messages may be disseminated for electronically traded contracts (where the contract's settlement is based on the open outcry equivalent of that contract) prior to the close of the respective electronic market for that contract. Vendors' software should anticipate the receipt of market updates (e.g., Category Code B, O, etc) **after** the receipt of settlements for the respective contract.

5.21 Category U - Special Range Message

Minneapolis Grain Exchange suggestions for updating processing Category U messages:

Category "U" Messages ("First" or "Second" Price fields refer to corresponding PRICE ID values in the Category U message)

- Range Indicator "C" (Close)
 - Update "Last" with First Price fields.
 - DO NOT Update Any High, or Low fields
- Range Indicator "I" (Indicative Opening)
 - Update Indicative Opening display with First Price fields. If a separate field for Indicative Opening is NOT available, update Opening Price ONLY if the display provides a field(s) to indicate the First Price is INDICATIVE.
 - DO NOT Update Any Last, High, or Low fields
- Range Indicator "O" (Open)
 - Update "Last" with First Price field.
 - Update "Open" with First Price field
 - Update High, or Low fields with First Price field

Transmission Timings

July 21, 2005

Exchange Specifics

Listed below is an indication of the approximate times during which various types of information will be sent. Times may vary during unusual circumstances (or subject to change at the discretion of the exchange).

Approximate Time (CST), (Monday through Friday unless otherwise noted)	Information Content	Category Codes, Representative List
Midnight - 4 PM	Electronic Trading Activity	b, C, H, J, o, Q U, V
8 AM	Day's Final Volume, Open Interest	I
4:00 - 5:00 PM	Completed End of Day Information	C, J, o, Q, U
5:30 PM - Midnight (Sunday through Thursday)	Electronic Trading Activity	b, C, H, o, U, V, Z

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Exchange Specifics

Sydney Futures Exchange Limited -- Exchange ID: S & Z

2.00 Communications Lines

Vendor supplied frame relay - suggested minimum PVC of 64K bps with a burst capacity of 128K bps. SFE provides two data feeds from the Primary and the DR site to each Vendor.

3.01 Transmission Characteristics - Software

Supported Category Codes	Category Description
T	Bid/Ask/Trade General Form
F	Market Condition - Halt/ Resume
H	High, Low, Last
M	Depth of Market
I	Volume & Open Interest
U	Range Quotations
Q	Settlements
E	Exceptional Quotations
V	Cumulative Volume
X	General Text
Z	Contract Specifications (Type O)
C	Control messages (Type C, D, E, H, I, J, T)
K	Retransmission Requests*
S	SFE Specific messages - Vendor Authentication & Retransmission Replies

*SFE only supports Automatic Retransmission requests; retransmitted messages will have a lower priority than live messages.

4.02.3 Product Classification Code

SFE currently supports the following PCC values:

A	Administrative
F	Futures
C	Depth of Market*
O	Options

*SFE uses PCC values of "C", Category "M" messages to disseminate Depth of Market.

4.02.9 Session Id

SFE currently supports a single trading session ID of 'Y'

4.03.2 Product Classification Type (PCT)

SFE currently supports the following PCT values:

Type Code	Definition
Space	No Further Definition included

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Exchange Specifics

Sydney Futures Exchange Limited -- Exchange ID: S & Z

4.07.4 BAT Code Application

<u>BAT Code</u>	<u>Definition</u>
B	Bid
A	Ask
T	Trade

4.07.5 Price Indicator Application

<u>Price Indicator</u>	<u>Definition</u>
Blank	Normal
F	Fast
I	Indicative

5.02 Category Code E - Exceptional Quotation Messages

SFE uses this message to report serial option expiry prices (ie. the price of the underlying future). The BAT Code is always assumed to be 'S' and the Type Code is always assumed to be blank.

5.08 Category Code H - High-Low-Last Messages

- "H" messages containing zeros are used at the pre-open of the day session to clear the High/Low/Last prices from the night session.
- "H" messages are sent during pre-open to disseminate 'indicative' opening prices. The High and Low fields are blanked out and only the "Last" field is populated.
- "H" messages prior to the receipt of an Opening or a Trade message do not make Highs/Lows/Lasts.

5.12 Category Code I - Volume/Open Interest Messages

SFE disseminates a volume and open interest message to Vendors once per trading date at approximately 22:00 hours (AEST).

5.21 Category U - Special Range Message

Range Indicator "O" (Open)

- An Open message containing zeros is used at the pre-open of the day session to clear the opening price from the night session.
 - Bids and Asks prior to receipt of an Opening or a Trade message do not make Highs/Lows.

Range Indicator "C" (Close)

- Should be used to update the Last field and includes total traded volume for the session.

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Exchange Specifics

Range Indicator "V" (Volatility)

- Used for option settlements to indicate the volatility of a particular strike - only ever sent for the Put.

5.22 Category V - Cumulative Volume Message

SFE utilizes a "V" message in the following circumstances:

- Adjustment to contract volume
- To advise traded volume in a contract executed in markets that are not disseminated to Vendors

5.25 Category Code X - Text Messages

SFE utilizes this message type to advise Vendors of new option strike ranges and listings.

5.26 Category Code Z - Contract Specifications

SFE utilizes a Category Z Type O message to advise the overnight option strike range for the session.

Exchange Specific ITC Message Implementation

The following messages are not part of the ITC Specification and have been defined by the SFE to support electronic retransmission and vendor authentication.

Category Code S - Type L	Vendor Logon
Category Code S - Type O	Vendor Logoff
Category Code S - Type M	Logon Reply
Category Code S - Type SRetransmission	Request Reply

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Exchange Specifics

e-CBOT® -- Exchange ID: U

2.00 Communications Lines

Radianz supplied network operating with T1 tail circuits

1.02 Modems

Multicast based network, with specific multicast groups for the following (production and TEST feeds available)

- o Chicago Board of Trade (CBOT) - Exchange ID of B
- o e-CBOT® - Exchange ID of U
- o e-CBOT® Market Depth - Exchange ID of UD

Radianz provided terminations at Vendor's site

3.01 Transmission Characteristics -- Software

Category Codes Supported	Category Description
b	Bid and Ask (Expanded Size)
C	Control (Type K, T)
E	Exceptional Quotation
H	High-Low-Last
I	Volume/Open Interest (Expanded)
J	Summary
o	Market Update (Expanded Size, Traded Volume)
Q	Settlement
U	Range Quotations
V	Cumulative Volume
Z	Contract Specifications (Type D, O, S)

Retransmission is supported. Vendor calls with Sequence Numbers and/or Time Frame required.

Current Telephone Number is 312-347-5611.

4.02.3 Product Classification Code

e-CBOT® currently supports PCC values of:

- F Futures
- L Combinations with Legs
- O Options

FUTURES COMBINATIONS SUPPORTED

- BF, CF, FB, IS, PK, RT, SP, SR

OPTIONS COMBINATIONS SUPPORTED

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Exchange Specifics

- A3, B3, BO, BU, BX, C3, CM, CO, CR, CU, CV, D3, DC, DS, DU, GT, GU, IB, IC, IS, IU, JR, LA, LU, MU, NU, OU, P3, RA, RU, S3, SC, SG, SO, SR, SS, ST, SU, SV, SY, T3, TU, VL, VU

For PCC values of "L" (Combinations with Legs), contracts identified by any/all Product Classification related fields (e.g., within the Occurrence of Legs and the Combination ID Description fields) appear in a consistent manner **within any/all related Category Codes**. The consistency suggests that contracts are, depending upon the particular combination, in calendar month order, product specific sequence (e.g., Buy side first, Sell Side second), etc.

Expectation is that vendor systems are **not** required to perform any 'reverse' order, or contract re-sequencing, of Combination related fields within a given Category Code message to match previous messages, for effectively the same Combination.

4.02.5 Type Code

Type Code of " " (Blank) indicates a regular message transmitted. Type Code "D" is also supported.

4.03.2 Product Classification Type (PCT)

e-CBOT® currently supports PCT values of:

Type Code	Definition
Space	No Further Definition included

5.05 Category Code E - Exceptional Quotes Messages

Supported Exceptional Indicators include the following:

A	Asset Allocation
B	Block Trading
G	Against Actual
S	Basis

In any/all cases, suggested processing for these messages is simply to maintain as a 'time and sales' type record with the appropriate exceptional indicator and/or definition. These quotes are NOT used to update Open, High, Low, Last, or Close prices. In addition, 'Against Actuals' messages will not contain a Price.

5.08 Category Code H - High-Low-Last Messages

Category Code H messages are sent any time a new high or low is made.

5.13 Category Code i - Volume/Open Interest Messages (Expanded)

For CBOT products trading in both open outcry (Exchange ID of B) and electronic (Exchange ID of U) environments, total Open Interest is reported only under the Open Outcry symbol on the Open Outcry feed. However, volume is reported for each respective product over the appropriate Exchange feed. For products that only trade electronically, Open Interest is reported over the e-CBOT® feed (Exchange ID of U).

5.15 Category o - Market Update Message

Suggestions for processing are as follow:

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Exchange Specifics

- For messages containing a Blank Bid (or Ask) Price respectively:
 - The respective PRICE is Blanked ONLY if the PRICE INDICATOR is set to "B". Otherwise, the current PRICE value in the vendor's database is maintained.
 - SIZE is Blank if the corresponding PRICE INDICATOR is "B" (in THIS case, the actual SIZE field in the Category Code message would also contain blanks). Otherwise, update the size if a non-blank size value is received, or ignore the SIZE field completely if a BLANK Size is received.
- Last Price and Volume traded, along with the timestamp, can be used to create an accurate Time and Sales Database.
- Cumulative Volume represents any/all trading activity for the respective contract, and reflects any/all trading volume adjustments as well.

5.19 Category Q - Settlements / Limits Message

Category Code Q messages may be disseminated for electronically traded contracts (where the contract's settlement is based on the open outcry equivalent of that contract) prior to the close of the respective electronic market for that contract. Vendors' software should anticipate the receipt of market updates (e.g., Category Code B, O, etc) **after** the receipt of settlements for the respective contract.

5.21 Category U - Special Range Message

CBOT suggestions for updating processing Category U messages:

Category "U" Messages ("First" or "Second" Price fields refer to corresponding PRICE ID values in the Category U message)

- Range Indicator "C" (Close)
 - Update "Last" with First Price fields.
 - DO NOT Update Any High, or Low fields
- Range Indicator "I" (Indicative Opening)
 - Update Indicative Opening display with First Price fields. If a separate field for Indicative Opening is NOT available, update Opening Price ONLY if the display provides a field(s) to indicate the First Price is INDICATIVE.
 - DO NOT Update Any Last, High, or Low fields
- Range Indicator "O" (Open)
 - Update "Last" with First Price field.
 - Update "Open" with First Price field
 - Update High, or Low fields with First Price field

Transmission Timings

Listed below is an indication of the approximate times during which various types of information will be sent. Times may vary during unusual circumstances (or subject to change at the discretion of the exchange).

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Approximate Time (CST), (Monday through Friday unless otherwise noted)	Information Content	Category Codes, Representative List
Midnight - 4 PM	Electronic Trading Activity	b, C, H, J, o, Q, U, V
8 AM	Day's Final Volume, Open Interest	i
4:00 - 5:00 PM	Completed End of Day Information	C, J, o, Q, U
5:30 PM - Midnight (Sunday through Thursday)	Electronic Trading Activity	b, C, H, o, U, V, Z
10 PM	Day's preliminary Volume, Open Interest. Open Interest for 'Electronic Only' traded contracts.	I

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Exchange Specifics

e-CBOT® Market Depth-- Exchange ID: UD

2.00 Communications Lines

Radianz supplied network operating with T1 tail circuits

2.00 Modems

Multicast based network, with specific multicast groups for the following (production and TEST feeds available)

- Chicago Board of Trade (CBOT) - Exchange ID of B
- e-CBOT® - Exchange ID of U
- e-CBOT® Market Depth - Exchange ID of UD

Radianz provided terminations at Vendor's site

3.01 Transmission Characteristics -- Software

Category Codes Supported	Category Description
C	Control (Type K, T)
d	Market Depth

Retransmission is supported. Vendor calls with Sequence Numbers and/or Time Frame required.

Current Telephone Number is 312-347-5611.

4.02.3 Product Classification Code

e-CBOT® Market Depth currently supports PCC values of:

- F Futures
- O Options

4.02.5 Type Code

Type Code of " " (Blank) indicates a regular message transmitted. Other Type Codes are not supported.

4.03.2 Product Classification Type (PCT)

E-CBOT® currently supports PCT values of:

Type Code	Definition
Space	No Further Definition included

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Exchange Specifics

e-CBOT® Market Depth-- Exchange ID: UD

Transmission Timings

Listed below is an indication of the approximate times during which various types of information will be sent. Times may vary during unusual circumstances (or subject to change at the discretion of the exchange).

Approximate Time (CST), (Monday through Friday unless otherwise noted)	Information Content	Category Codes, Representative List
Midnight - 4 PM	Electronic Trading Activity	C, d
4:00 - 5:00 PM	Completed End of Day Information	C
5:30 PM -Midnight (Sunday through Thursday)	Electronic Trading Activity	C, d

Additional points of note in processing Market Depth Information:

1. Market Depth will be disseminated prior to the opening interval for a given contract. The opening interval relates to the time of day in which contracts can begin trading.
2. Market Depth software will be capable of providing periodic updates of the entire book, to accommodate any needs to 'refresh' a vendors display with the current state of the 'book' for given contracts.
3. Vendors' software should account for 'contraction' (i.e., reduction in the number of prices on the Bid, Ask side) in the market depth for a given contract. In terms of the Category Code d message, vendors will see, for example, the Bid Price Total (or Ask Price Total) field representing a number less than the previous value. In that case, vendor's software must 'clear out' the previous Bid/Ask price/size values for those positions in the book.
4. The Bid Price Total and Ask Price Total fields will never indicate a value greater than the maximum number of prices that are reported for each side of a market. If the number of Bid Prices or Ask Prices in the order book exceeds the maximum used for e-CBOT® Market Depth, then these fields will be filled with the maximum value. At present, the maximum number of prices reported on either side of the market for e-CBOT® markets will be 10 for Futures and 5 for Options.
5. Times during which the Bid Price Total and/or Ask Price Total Fields would be equal to the total number of Bids and/or Asks contained in the respective message can include:
 - When the entire order book is blanked (Bid Price Total and Ask Price Total fields of zero), in the case where one side of the market was already blank, and then a trade or pull order causes the other side to be blanked.
 - When the initial orders are entered for a given contract and market depth is first published.
 - When the market depth for the respective contracts is 'refreshed.'
 - When size changes occur for a given Bid and/or Ask already in the order book, when the order book is 1 deep for the Bid or Ask.

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Exchange Specifics

Winnipeg Commodity Exchange -- Exchange ID: W

2.00 Communications Lines

Radianz supplied network operating with T1 tail circuits

1.03 Modems

Multicast based network, with specific multicast groups for the following (production and TEST feeds available)

- **Winnipeg Commodity Exchange** - Exchange ID of W
- **Winnipeg Commodity Exchange Market Depth** - Exchange ID of WD

Radianz provided terminations at Vendor's site

3.01 Transmission Characteristics -- Software

Category Codes Supported	Category Description
b	Bid and Ask
C	Control (Type K, T)
E	Exceptional Quotation
H	High-Low-Last
I	Volume/Open Interest
J	Summary
o	Market Update
Q	Settlement
U	Range Quotations
V	Cumulative Volume
Z	Contract Specifications (Type D, O, S)

Retransmission is supported. Vendor calls with Sequence Numbers and/or Time Frame required.

Current Telephone Number is 312-347-5611.

4.02.3 Product Classification Code

Winnipeg Commodity Exchange currently supports PCC values of:

- F Futures
- L Combinations with Legs
- O Options

FUTURES COMBINATIONS SUPPORTED

- BF, CF, FB, IS, PK, RT, SP, SR

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Winnipeg Commodity Exchange -- Exchange ID: W

OPTIONS COMBINATIONS SUPPORTED

- A3, B3, BO, BU, BX, C3, CM, CO, CR, CU, CV, D3, DC, DS, DU, GT, GU, IB, IC, IS, IU, JR, LA, LU, MU, NU, OU, P3, RA, RU, S3, SC, SG, SO, SR, SS, ST, SU, SV, SY, T3, TU, VL, VU

For PCC values of "L" (Combinations with Legs), contracts identified by any/all Product Classification related fields (e.g., within the Occurrence of Legs and the Combination ID Description fields) appear in a consistent manner **within any/all related Category Codes**. The consistency suggests that contracts are, depending upon the particular combination, in calendar month order, product specific sequence (e.g., Buy side first, Sell Side second), etc.

Expectation is that vendor systems are **not** required to perform any 'reverse' order, or contract re-sequencing, of Combination related fields within a given Category Code message to match previous messages, for effectively the same Combination.

4.02.5 Type Code

Type Code of " " (Blank) indicates a regular message transmitted. Type Code "D" is also supported.

4.03.2 Product Classification Type (PCT)

Winnipeg Commodity Exchange currently supports PCT values of:

Type Code	Definition
Space	No Further Definition included

5.05 Category Code E - Exceptional Quotes Messages

Supported Exceptional Indicators include the following:

A	Asset Allocation
B	Block Trading
G	Against Actual
S	Basis

In any/all cases, suggested processing for these messages is simply to maintain as a 'time and sales' type record with the appropriate exceptional indicator and/or definition. These quotes are NOT used to update Open, High, Low, Last, or Close prices.

5.08 Category Code H - High-Low-Last Messages

Category Code H messages are sent any time a new high or low is made.

5.15 Category O - Market Update Message

Suggestions for processing are as follow:

- For messages containing a Blank Bid (or Ask) Price respectively:
 - The respective PRICE is Blanked ONLY if the PRICE INDICATOR is set to "B". Otherwise, the current PRICE value in the vendor's database is maintained.
 - SIZE is Blank if the corresponding PRICE INDICATOR is "B" (in THIS case, the actual SIZE field in the Category Code message would also contain blanks). Otherwise, update the size if

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a non-blank size value is received, or ignore the SIZE field completely if a BLANK Size is received.

- Last Price and Volume traded, along with the timestamp, can be used to create an accurate Time and Sales Database.
- Cumulative Volume represents any/all trading activity for the respective contract, and reflects any/all trading volume adjustments as well.

5.20 Category Q - Settlements / Limits Message

Category Code Q messages may be disseminated for electronically traded contracts prior to the close of the respective electronic market for that contract. Vendors' software should anticipate the receipt of market updates (e.g., Category Code B, O, etc) **after** the receipt of settlements for the respective contract.

5.21 Category U - Special Range Message

Suggestions for updating processing Category U messages:

Category "U" Messages ("First" or "Second" Price fields refer to corresponding PRICE ID values in the Category U message)

- Range Indicator "C" (Close)
 - Update "Last" with First Price fields.
 - DO NOT Update Any High, or Low fields
- Range Indicator "I" (Indicative Opening)
 - Update Indicative Opening display with First Price fields. If a separate field for Indicative Opening is NOT available, update Opening Price ONLY if the display provides a field(s) to indicate the First Price is INDICATIVE.
 - DO NOT Update Any Last, High, or Low fields
- Range Indicator "O" (Open)
 - Update "Last" with First Price field.
 - Update "Open" with First Price field
 - Update High, or Low fields with First Price field

Transmission Timings

Listed below is an indication of the approximate times during which various types of information will be sent. Times may vary during unusual circumstances (or subject to change at the discretion of the exchange).

Approximate Time (CST), (Monday through Friday unless otherwise noted)	Information Content	Category Codes, Representative List
7 AM - 2 PM	Electronic Trading Activity	b, C, H, J, o, O, U, V, Z
9 AM	Day's Final Volume, Open Interest	I
2:00 - 4:00 PM	Completed End of Day Information	C, J, o, O, Q, U

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Exchange Specifics

Winnipeg Commodity Exchange Market Depth-- Exchange ID: WD

2.00 Communications Lines

Radianz supplied network operating with T1 tail circuits

2.00 Modems

Multicast based network, with specific multicast groups for the following (production and TEST feeds available)

- **Winnipeg Commodity Exchange** - Exchange ID of W
- **Winnipeg Commodity Exchange Market Depth** - Exchange ID of WD

Radianz provided terminations at Vendor's site

3.01 Transmission Characteristics -- Software

Category Codes Supported	Category Description
C	Control (Type K, T)
d	Market Depth (Expanded)

Retransmission is supported. Vendor calls with Sequence Numbers and/or Time Frame required.

Current Telephone Number is 312-347-5611.

4.02.3 Product Classification Code

Winnipeg Commodity Exchange Market Depth currently supports PCC values of:

- F Futures
- O Options

4.02.5 Type Code

Type Code of " " (Blank) indicates a regular message transmitted. Other Type Codes are not supported.

4.03.2 Product Classification Type (PCT)

Winnipeg Commodity Exchange currently supports PCT values of:

Type Code	Definition
Space	No Further Definition included

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Exchange Specifics

Winnipeg Commodity Exchange Market Depth-- Exchange ID: WD

Transmission Timings

Listed below is an indication of the approximate times during which various types of information will be sent. Times may vary during unusual circumstances (or subject to change at the discretion of the exchange).

Approximate Time (CST), (Monday through Friday unless otherwise noted)	Information Content	Category Codes, Representative List
7 AM - 2 PM	Electronic Trading Activity	C, d
9 AM	Completed End of Day Information	C
2:00 - 4:00 PM	Electronic Trading Activity	C, d

Additional points of note in processing Market Depth Information:

1. Market Depth will be disseminated prior to the opening interval for a given contract. The opening interval relates to the time of day in which contracts can begin trading.
2. Market Depth software will be capable of providing periodic updates of the entire book, to accommodate any needs to 'refresh' a vendors display with the current state of the 'book' for given contracts.
3. Vendors' software should account for 'contraction' (i.e., reduction in the number of prices on the Bid, Ask side) in the market depth for a given contract. In terms of the Category Code d message, vendors will see, for example, the Bid Price Total (or Ask Price Total) field representing a number less than the previous value. In that case, vendor's software must 'clear out' the previous Bid/Ask price/size values for those positions in the book.
4. The Bid Price Total and Ask Price Total fields will never indicate a value greater than the maximum number of prices that are reported for each side of a market. If the number of Bid Prices or Ask Prices in the order book exceeds the maximum used for **Winnipeg Commodity Exchange** Market Depth, then these fields will be filled with the maximum value. At present, the maximum number of prices reported on either side of the market for **Winnipeg Commodity Exchange** markets will be 10 for Futures and 5 for Options.
5. Times during which the Bid Price Total and/or Ask Price Total Fields would be equal to the total number of Bids and/or Asks contained in the respective message can include:
 - When the entire order book is blanked (Bid Price Total and Ask Price Total fields of zero), in the case where one side of the market was already blank, and then a trade or pull order causes the other side to be blanked.
 - When the initial orders are entered for a given contract and market depth is first published.
 - When the market depth for the respective contracts is 'refreshed.'
 - When size changes occur for a given Bid and/or Ask already in the order book, when the order book is 1 deep for the Bid or Ask.

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