

Type 8 Records - Standard

Type "81" record - First Physical record - Standard Unpacked Format

Length	From	To	Datatype	Format	Description and Comments
2	1	2	AN	X(2)	Record ID - "81"
2	3	4	AN	X(2)	Exchange Code
2	5	6	AN	X(2)	Commodity (Product) Code
1	7	7	AN	X	Contract Type (Future/Put/Call) Flag: blank for future or combination, C for Calls, or P for Puts
4	8	11	N	9(4)	Futures Contract Month as YYMM
4	12	15	N	9(4)	Option Contract Month as YYMM ⁴
6	16	21	N	9(6)	Option Strike Price
5	22	26	N	9(5)	Array Value 1: Futures No Change / Volatility Up ^{1,2,3}
1	27	27	AN	X	Sign for Array Value 1 ("+" or "-")
5	28	32	N	9(5)	Array Value 2: Futures No Change / Volatility Down
1	33	33	AN	X	Sign for Array Value 2 ("+" or "-")
5	34	38	N	9(5)	Array Value 3: Futures Up 1/3 / Volatility Up
1	39	39	AN	X	Sign for Array Value 3 ("+" or "-")
5	40	44	N	9(5)	Array Value 4: Futures Up 1/3 / Volatility Down
1	45	45	AN	X	Sign for Array Value 4 ("+" or "-")
5	46	50	N	9(5)	Array Value 5: Futures Down 1/3 / Volatility Up
1	51	51	AN	X	Sign for Array Value 5 ("+" or "-")
5	52	56	N	9(5)	Array Value 6: Futures Down 1/3 / Volatility Down
1	57	57	AN	X	Sign for Array Value 6 ("+" or "-")
5	58	62	N	9(5)	Array Value 7: Futures Up 2/3 / Volatility Up
1	63	63	AN	X	Sign for Array Value 7 ("+" or "-")
5	64	68	N	9(5)	Array Value 8: Futures Up 2/3 / Volatility Down
1	69	69	AN	X	Sign for Array Value 8 ("+" or "-")
5	70	74	N	9(5)	Array Value 9: Futures Down 2/3 / Volatility Up
1	75	75	AN	X	Sign for Array Value 9 ("+" or "-")
1	76	76	AN	X	Cycle Indicator - blank , F for Flex, G for Futures, or W for "COMEX weekly" ⁴
2	77	78	AN	X(2)	Underlying Commodity (Product) Code ⁵
2	79	80	N	9(2)	Expiration Day of Month ⁴

Type "82" record - Second Physical record - Standard Unpacked Format

Length	From	To	Datatype	Format	Description and Comments
2	1	2	AN	X(2)	Record ID - "82"
2	3	4	AN	X(2)	Exchange Code
2	5	6	AN	X(2)	Commodity (Product) Code
1	7	7	AN	X	Contract Type (Future/Put/Call) Flag: blank for future, C for Calls, or P for Puts
4	8	11	N	9(4)	Futures Contract Month as YYMM
4	12	15	N	9(4)	Option Contract Month as YYMM ⁴
6	16	21	N	9(6)	Option Strike Price
5	22	26	N	9(5)	Array Value 10: Futures Down 2/3 / Volatility Down
1	27	27	AN	X	Sign for Array Value 10 ("+" or "-")
5	28	32	N	9(5)	Array Value 11: Futures Up 3/3 / Volatility Up

1	33	33	AN	X	Sign for Array Value 11 ("+" or "-")
5	34	38	N	9(5)	Array Value 12: Futures Up 3/3 / Volatility Down
1	39	39	AN	X	Sign for Array Value 12 ("+" or "-")
5	40	44	N	9(5)	Array Value 13: Futures Down 3/3 / Volatility Up
1	45	45	AN	X	Sign for Array Value 13 ("+" or "-")
5	46	50	N	9(5)	Array Value 14: Futures Down 3/3 / Volatility Down
1	51	51	AN	X	Sign for Array Value 14 ("+" or "-")
5	52	56	N	9(5)	Array Value 15: Futures Up Extreme - Cover Fraction
1	57	57	AN	X	Sign for Array Value 15 ("+" or "-")
5	58	62	N	9(5)	Array Value 16: Futures Down Extreme - Cover Fraction
1	63	63	AN	X	Sign for Array Value 16 ("+" or "-")
3	64	66	N	9V99	Composite Delta
1	67	67	AN	X	Sign for Composite Delta ("+" or "-")
5	68	72	N	9V9(4)	Implied Volatility as decimal fraction ⁶
7	73	79	N	9(7)	Settlement Price
1	80	80	AN	X	Sign for Settlement or Strike Price (blank, "+" or "-", "S") ⁷

Type "8" record - Standard Packed Format

Length	From	To	Datatype	Format	Description and Comments
2	1	2	AN	X(2)	Record ID - "81"
2	3	4	AN	X(2)	Exchange Code
2	5	6	AN	X(2)	Commodity (Product) Code
1	7	7	AN	X	Contract Type (Future/Put/Call) Flag: blank for future, C for Calls, or P for Puts
3	8	10	P	9(4)	Futures Contract Month as YYMM
3	11	13	P	9(4)	Option Contract Month as YYMM ⁴
4	14	17	P	9(6)	Option Strike Price
3	18	20	P	S9(5)	Array Value 1: Futures No Change / Volatility Up ^{1,2,3}
3	21	23	N	S9(5)	Array Value 2: Futures No Change / Volatility Down
3	24	26	N	S9(5)	Array Value 3: Futures Up 1/3 / Volatility Up
3	27	29	N	S9(5)	Array Value 4: Futures Up 1/3 / Volatility Down
3	30	32	N	S9(5)	Array Value 5: Futures Down 1/3 / Volatility Up
3	33	35	N	S9(5)	Array Value 6: Futures Down 1/3 / Volatility Down
3	36	38	N	S9(5)	Array Value 7: Futures Up 2/3 / Volatility Up
3	39	41	N	S9(5)	Array Value 8: Futures Up 2/3 / Volatility Down
3	42	44	N	S9(5)	Array Value 9: Futures Down 2/3 / Volatility Up
3	45	47	N	S9(5)	Array Value 10: Futures Down 2/3 / Volatility Down
3	48	50	N	S9(5)	Array Value 11: Futures Up 3/3 / Volatility Up
3	51	53	N	S9(5)	Array Value 12: Futures Up 3/3 / Volatility Down
3	54	56	N	S9(5)	Array Value 13: Futures Down 3/3 / Volatility Up
3	57	59	N	S9(5)	Array Value 14: Futures Down 3/3 / Volatility Down
3	60	62	N	S9(5)	Array Value 15: Futures Up Extreme - Cover Fraction
3	63	65	N	S9(5)	Array Value 16: Futures Down Extreme - Cover Fraction
2	66	67	P	S9V99	Composite Delta
3	68	70	P	9V9(4)	Implied Volatility as decimal fraction ⁶
4	71	74	P	9(7)	Settlement Price

1	75	75	AN	X	Cycle Indicator - blank , F for Flex, G for Futures, or W for "COMEX weekly" ⁴
2	76	77	AN	X(2)	Underlying Commodity (Product) Code ⁵
2	78	79	N	9(2)	Expiration Day of Month ⁴
1	80	80	-	-	Filler

Notes:

a. By convention, a **positive** risk array value represents a **loss** for a **single long position**, and a **negative** risk array value represents a **gain** for a **single long position**. "Long" in this context means long the instrument, not the market; a long put is a long position.

a. Risk array values are denominated in the **performance bond currency** for the combined commodity in which the specified contract is contained.

a. If the **Risk Array Exponent** specified on the **type 2** record for the combined commodity in which this contract is contained is **not zero**, then the risk array values specified in the file must be multiplied by 10 to raised to Risk Array Exponent power. In other words, shift the decimal point rightward this number of places.

a. If the **Cycle Indicator** field is blank, then the **Option Contract Period** consists only of the **Option Contract Month** field, as a **YYMM** value, and the **Futures Contract Period** similarly consists only of the **Futures Contract Month** field. In other words, if a future, the contract is a standard monthly future, and if an option, the contract is a standard monthly option on a standard monthly future.. For example, if Cycle Indicator field is blank and the Option Contract Month field is **9812**, then the option is the Dec. 98 standard monthly option; the option contract period is **199812**.

But if the Cycle Indicator is **F** for **Flex**, then the **Expiration Day of Month** field must be appended to the Option Contract Month field to yield the full Option Contract Period. For example, if the Cycle Indicator is **F**, the Option Contract Month is **9812** and the Option Expiration Day of Month is **23**, then the option is the December 23rd, 1998, option, and the option contract period is **19981223**.

Prior to the introduction of the **F** value for Cycle Indicator, the same flexibility was provided for COMEX weekly options via the use of the **V** (for Weekly) value. A Cycle Indicator of **W** means that the Option Contract Month field is redefined: instead of providing the **YYMM** part of the option contract period, it provides the **MMDD** part. In this case, the year must be inferred by comparing the month of the option with the month of the underlying future: If the two-digit month number for the option is less than or equal to the two-digit month number for the underlying future, then the four-digit year number for the option is equal to the four-digit year number for the future. But if the two-digit month number for the option is greater than two-digit month number for the future, then the four-digit year number for the option is one less than the four-digit year number for the future.

The new value of **G** for Cycle Indicator is used for a Futures Contract, and indicates that the contract has an expiration specific to the day. To obtain the full Futures Period Code in this case, take the Futures Contract Month field, and append the two bytes from the Expiration Day of Month field.

a. The **Underlying Commodity (Product) Code** field is an optional field and is not required for the performance bond calculation. If present for any particular option, it indicates the product code of the underlying future, combination, or cash instrument.

1. The **Implied Volatility** field is optional. Implied volatilities may be as large as 999% and may be expressed to a precision of .01%. For example, **01572** means 15.72%.

2. The **Sign for Settlement Price** field in the unpacked-format file can be used to support **negative option strike prices**, as can sometimes be possible for an option on a combination product such as a spread. Normally this field is either **blank**, **null**, or contains a **"+"** (plus) sign, meaning that the settlement price for the instrument is a positive value. A **"-"** (minus) sign in this field means a negative settlement price, as can occur if this record is for a combination instrument. We have now introduced a new value in this field: **"S"** for strike price. An **"S"** in this field, which is only valid for an option record, means that the settlement price is positive (an option can never have a negative price), but that the **strike price** is negative. This field is not needed in the packed-format to indicate either a negative instrument price or a negative strike price, as those fields in that format are in packed-decimal (COBOL COMP-3), which can directly express a negative value.