Daily Adjustment History Files

Some futures contracts have features that result in a daily cash flow in addition to normal settlement variation. This daily cash flow may be an embedded fee, as in CBOT's Dow AIG Excess Return futures. Or it may be a financing cost associated with rolling each position from one day to the next -- for example, the **TRAKRS**[SM] contracts now trading at CME, or the Rolling Spot® currency futures which were formerly traded.

Generically, this cash flow is referred to as the **Daily Adjustment**, and the resulting cash flows are banked together with normal settlement variation.

The Daily Adjustment history file published at the end of each business day provides the rates, called the **Daily Adjustment Rates**, which drive the calculation of these cash flows for all such futures eligible to trade on that business day. One file is published for CME, and one for CBOT. For each exchange, for each futures currently eligible to trade which has a daily adjustment, a record is provided for each business day since that future first became eligible to trade, up to and including the current day. Each record provides:

- the **Daily Adjustment Rate-Long** -- the rate applicable to each long position for the specified business day
- the **Cumulative Adjustment Rate-Long** -- the cumulative rate for a long position since the contract first became eligible to trade, up to but not including the specified business date
- the **Daily Adjustment Rate-Short --** the rate applicable to each short position for the specified business day
- the **Cumulative Adjustment Rate-Short --** the cumulative rate for a short position since the contract first become eligible to trade, up to but not including the specified business date.

The file is published in two different formats -- the "flat" (positional) format, and the XML-based format. (The flat format was modified on 9/15/06 to expand the size of the product code field from 2 bytes to 5 bytes, pushing subsequent fields on the detail record rightward by three bytes.)

Daily adjustment history files for CME are available at: ftp.cme.com/pub/span/data/cme/trakrs.

Daily adjustment history files for CBT are available at: ftp.cme.com/pub/span/data/cbt/darates.

The layout for the "Flat" (Positional) Format:

For the Header record:

```
POSITION
FROM TO   FIELD NAME               FORMAT AND DESCRIPTION
1    1    Record Type Code: "1"    X(01)     AN   Header Record
2    3    Exchange Code:           X(02)     AN   01 for CBOT, 02 for CME
4    6    Exchange Acronym         X(03)     A    CBT or CME (3 byte truncated value)
7    14   Business Date            9(8)      N    YYYYMMDD
15   22   Create Date              9(8)      N    YYYYMMDD
23   26   Create Time              9(4)      N    HHMM
27   51   File Description         X(25)     AN
              "DA Figure History File"
52   57   Record Count             9(6)      N    includes header
58   130  Filler
131  135  Clearing Organization    X(5)      AN   Clearing organization acronym -- CME
136  140  Exchange Acronym         X(5)      AN   Exchange acronym (full up-to-5 byte value)
141  150  Filler
```

For the Detail record:

```
POSITION
FROM TO   FIELD NAME               FORMAT AND DESCRIPTION
1    1    Record Type Code: "2"    X(1)      AN   Detail Record
2    6    Product Code             X(5)      AN   Clearing product code
7    12   Contract Month           9(6)      N    YYYYMM
13   20   Business Date            9(8)      N    YYYYMMDD
21   22   Decimal Locator          9(2)      N
23   23   Sign of Decimal Locator  X(1)      AN
              "+" - DA decimal locator is positive
```

```
                "-" - DA decimal locator is negative
24   38   Contract Size            9(15)     N


39   51   Daily Adjustment-Long    9(5)V9(8) N
52   52   DA Long Premium/Discount X(1)      A    "P" or "D"
                "P" - DA Figure represents a Premium (a negative rate)
                "D" - DA Figure represents a Discount (a positive rate)
53   69   Cumulative Adj-Long      9(9)V9(8) N
70   70   Cum. Adj-Long Prem/Disc  X(1)      A    "P" or "D"
                "P" - DA Figure represents a Premium (a negative rate)
                "D" - DA Figure represents a Discount (a positive rate)
71   83   Daily Adjustment-Short   9(5)V9(8) N
84   84   DA Short Premium/Discount X(1)      A    "P" or "D"
                "P" - DA Figure represents a Premium (a negative rate)
                "D" - DA Figure represents a Discount (a positive rate)
85   101   Cumulative Adj-Short     9(9)V9(8) N
102  102   Cum. Adj-Short Prem/Disc X(1)      A    "P" or "D"
                "P" - DA Figure represents a Premium (a negative rate)
                "D" - DA Figure represents a Discount (a positive rate)
103  103  Short Rate Flag          X(1)      A    "S" means that separate short rates are provided.
104  109  Product Family ID        9(6)      N    CME-internal number identifying the product
110  115  Contract ID              9(6)      N    CME-internal number identifying the contract
116  130  Settlement Price         9(8)V9(7) N    Contract's current settlement price
131  135  Clearing organization    X(5)      AN   Clearing organization acronym
136  150  Filler
```

The Daily Adjustment and Cumulative Daily Adjustment fields are formatted with 8 implied decimal places. The ¿Decimal Locator" field will be provided as zero, meaning that these fields should be read with 8 implied decimal places.

(Were the decimal locator to be provided as 1, it would mean that the decimal point is shifted left one position – *ie,* the field contains 9 implied decimal positions. A decimal locator of -1 means that the decimal point is shifted right one position – *ie,* the field contains 7 implied decimal positions.)

The XML-based Daily Adjustment History File

The XML-based Daily Adjustment History File provides the same data as in the "standard" positional-format DA History File, but in an XML-based format using the identical tags, with the identical meanings, as are provided in the XML-based SPAN file.

Annotated DTD for the XML-based Daily Adjustment History File

A "DTD" (Data Type Definition) spec provides the detailed description of a particular XML vocabulary. Here's an annotated DTD for this file:

```
<!ELEMENT dailyValueAdjustments (          // Overall container for the DA history data
        created,                             // File creation date and timestamp
        pointInTime+                         // Business date(s) for which data is provided
        )>

<!ELEMENT pointInTime (                    // A specific business date for which data is provided
        date,                                // The business date
        isSetl,                              // Indicates end-of-day final settlement
        clearingOrg*                         // Clearing organizations for which data is provided
        )>

<!ELEMENT clearingOrg (                    // A clearing organization for which data is provided
        ec,                                  // Clearing organization acronym
        exchange*                            // Exchange grouping
        )>
```

```
<!ELEMENT exchange (                    // A group of exchanges cleared by this clearing organization
        exch,                             // Exchange acronym
        futPf*                            // Futures product families
        )>

<!ELEMENT futPf (                       // A specific futures product family
        pfId,                             // Product family ID number
        pfCode,                           // Product family ("commodity") code
        cvf,                              // Contract value factor
        fut*                              // Futures contracts
        )>

<!ELEMENT fut (                         // Futures contract
        cId,                              // Contract ID number
        pe,                               // Period code
        p,                                // Settlement price
        dvas                              // Collection of daily adjustment rates
        )>

<!ELEMENT dvas (                        // Daily adjustment rates for a futures contract
        dvad*                             // Rates for trades done as of a particular day
        )>

<!ELEMENT dvad (                        // Rates for trades done as of a particular day
        date,                             // Trade date
        dv,                               // Daily adjustment long rate for that trade date
        dvcum,                            // Cumulative long DA rate from that trade date
                                          //          to the specified business date
        dvs?,                             // Daily adjustment short rate for that trade date
        dvcs?                             // Cumulative short DA rate from that trade date
        )>                                // to the specified business date.

<!ELEMENT created (#PCDATA)>            // File create timestamp
<!ELEMENT date (#PCDATA)>               // Business date
<!ELEMENT isSetl (#PCDATA)>             // "1" meaning end-of-day settlement
<!ELEMENT ec (#PCDATA)>                 // Clearing organization acronym
<!ELEMENT exch (#PCDATA)>               // Exchange group acronym
<!ELEMENT pfId (#PCDATA)>               // Product family ID number
<!ELEMENT pfCode (#PCDATA)>             // Product family code
<!ELEMENT cvf (#PCDATA)>                // Contract value factor
<!ELEMENT cId (#PCDATA)>                // Contract ID number
<!ELEMENT pe (#PCDATA)>                 // Period code
<!ELEMENT p (#PCDATA)>                  // Price
<!ELEMENT dv (#PCDATA)>                 // Daily Value Long Adjustment Rate
<!ELEMENT dvcum (#PCDATA)>              // Cumulative Long DVA Rate
<!ELEMENT dvs (#PCDATA)>                // Daily Value Short Adjustment Rate
<!ELEMENT dvcs (#PCDATA)>               // Cumulative Short DVA Rate
```

Sample XML-based DA History File

Here's an annotated example of an XML-based DA History File.

```
 <dailyValueAdjustments>
 <created>2001-01-09-22:11:23</created>    // create timestamp

 <pointInTime>                              // file is as-of this single point in time
<date>20010109</date>                       // the business date to which the file pertains
<isSetl>1</isSetl>                          // it's the end of day settlement file

<clearingOrg>                               // start providing data for the CME clearing org
<ec>CME</ec>                                // "exchange complex acronym"==clearing org
<exchange>                                  // start providing data for the CME exchange
<exch>CME</exch>                            // the exchange is CME also ...

<futPf>                                     // a futures PF with daily adjustment
<pfId>49</pfId>                             // product family ID #
<pfCode>AA</pfCode>                         // PF code
<cvf>1.0000</cvf>                           // standard contract value factor for PF

<fut>                                       // the first future for the PF
<cId>1</cId>                                // contract ID #
<pe>200912</pe>                             // period code
<p>98.29</p>                                // settlement price

 <dvas>                                     // the container for the DVA's for this future
```

```
 <dvad>                                    // first DVA -- newest dates first
<date>20010109</date>                      // date to which the DVA pertains
<dv>-0.017962</dv>                         // daily value adjustment - longs
<dvcum>-0.0000000</dvcum>                  // dvcum - output as negative if 'PREM'
<dvs>-0.017959</dvs>                       // daily value adjustment - shorts
<dvcs>-0.0000000</dvcs>                    // cumulative rate for shorts
</dvad>

<dvad>                                     // on to next DVA ...
<date>20010108</date>
<dv>0.0174523/dv>
<dvcum>0.0174523<dvcum>
<dvs>0.0174523/dvs>
<dvcs>0.0174523<dvcs>
</dvad>

</dvas>                                    // end of container for DVA's for this future
</fut>                                     // end of data for this future
</futPf>                                   // end of container for this PF
</exchange>                                // end of container for this exchange
</clearingOrg>                             // end of container for this clearing org
</pointInTime>                             // end of container for this point in time
</dailyValueAdjustments>                   // end of file
```