

## Leap Second FAQ – June 30, 2015

### **What is a leap second?**

A leap second is a one-second adjustment that is occasionally applied to Coordinated Universal Time (UTC) to keep in synch with the mean solar time.

The next leap second will occur on Tuesday, June 30, 2015 during trading hours, for the first time since 1997. Previously, the leap second events occurred when markets were closed.

### **How is CME Group responding to this event?**

CME Globex users	<p>CME Group will delay the CME Globex market open for trade date July 1, 2015.</p> <p>All CME Globex markets will pre-open at 19:30 CDT and open at 19:45 CDT on calendar date June 30, 2015 (pre-open at 01:30 BST and open at 01:45 BST on calendar date July 1, 2015).</p> <p>There will be no market data streaming, except for heartbeats, during the leap second event. Recovery components will be available during this time.</p>
CERT and New Release (NR)	<p>The CERT and NR environments will not be impacted – the leap second event is happening during their scheduled maintenance period</p>
Clearing	<p>Clearing jobs that run through 19:00 CDT will be delayed and commence after the event.</p>
Customer-facing user interfaces (UI's)	<p>All customer-facing user interfaces will be available during the leap second event. CME Group asks customers to refrain from entering queries and transactions between 18:55 and 19:05 CDT. CME Group is making this request in order to minimize message flow during the event; however, no negative impact is expected should a customer not adhere to the request.</p>
Partner Exchanges	<p>Bursa Malaysia equity products will move their pre-open from 19:15 CDT to 19:30 CDT. The open at 19:45 CDT will not be impacted.</p> <p>Minneapolis Grain Exchange (MGEX) and the Dubai Mercantile Exchange Limited (DME) will follow our grains and energies, respectively – 19:30 DCT pre-open, 19:45 CDT open.</p> <p>BM&amp;F Bovespa (BVMF) will put back its internal clocks by one second. With this change, there will be a one second difference between BVMF and CME Group UTC timestamp fields until a leap second insertion on Tuesday, June 30 after 18:59:59 CT.</p> <ul style="list-style-type: none"><li>• For BVMF iLink Order Routing messages from CME Globex to Client system, customers must add 1 second to the value</li></ul>

	<p>in tag 60-TransactTime to normalize it against the Coordinated Universal Time (UTC) and tag 52-SendingTime.</p> <ul style="list-style-type: none"> <li>• For BVMF FIX/FAST Market Data messages, customers must add 1 second to the value in tag 273-MDEntryTime to normalize it against the Coordinated Universal Time (UTC) and tag 52-SendingTime.</li> </ul>
CME Europe	<p>All CME Europe markets, except Cocoa, will pre-open at 01:30 BST and 01:45 BST on calendar date July 1, 2015. Cocoa will pre-open and open at its regularly scheduled time, 06:03:00 BST and 09:00:00 BST, respectively.</p>

**What timestamp will CME systems send out during 18:59:60?**

During 18:59:60, the timestamp sent from CME Group will be 18:59:59 or 19:00:00.

**Has CME Group engaged the industry about the leap second event?**

CME Group has been participating in an FIA working group to determine leap second event impacts. Exchanges and firms have been sharing information about all the necessary patches that should be installed on operating systems and third party software.

All participating exchanges agreed on a conservative approach - delayed market opening.

**Who can I speak with for additional questions?**

For questions related to scheduling or production support, please contact GCC [gcc@cmegroup.com](mailto:gcc@cmegroup.com). For anything specific to iLink or MDP and related APIs, please contact Global Account Management [globalaccountmanagement@cmegroup.com](mailto:globalaccountmanagement@cmegroup.com)