MQMON - Contributing to a Bright "Future" at the Chicago Mercantile Exchange

In the windy city, the Chicago Mercantile Exchange has earned the title of the world's largest marketplace for futures trading. Futures are standardized agreements to buy or sell a financial instrument or commodity at a specific point in the future at a price determined when the agreement is made. At the "Merc" two trading floors house tiered pits where nearly $170 trillion worth of futures and options contracts are traded annually.

The Exchange uses a sophisticated information management system to settle-up accounts of the daily trading activity. The process involves a bewildering array of programs that load trades, check authorizations, validate, log, edit and match data. In the end, net results are computed and bank money transfers are ordered. While other exchanges take up to three days to do this, the Merc's computers do it twice a day. All of this requires an efficient exchange of information.

The Merc's trade management activities center around its

Clearing 21 Firm Interface Strategy - an event driven system that promotes real-time data transmission and interconnects the Exchange with its member firms. The Exchange uses IBM's MQSeries message handling software to connect to its 82 clearing members and process 300,000 transactions per day.

These firms represent the biggest banks and broker/dealers in the worldwide financial marketplace. Seventy-four queues handle incoming and outgoing trade transaction data. "In our business,

we have to process those transactions quickly so people must see and correct errors to reduce risk exposure," says Jeff Leach, the Merc's lead systems analyst, and designer of the firm's MQSeries system.

Sophisticated Data Flow Monitor

As an early MQSeries beta tester, Mr. Leach and others quickly recognized the need for a sophisticated monitoring tool to ensure a reliable data flow. The Merc selected MQMON for MVS
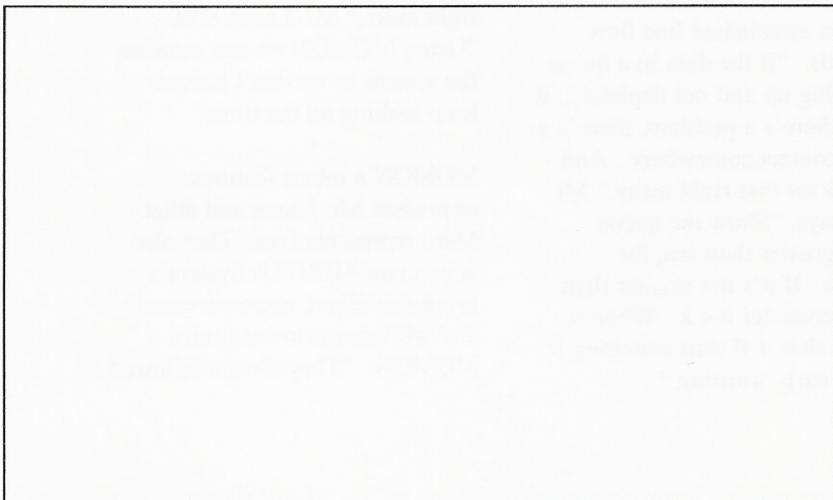
to monitor its lines and channels and to troubleshoot problems. "We need to ensure that trade processing transactions are handled quickly and efficiently," Mr. Leach says. "If they are not, it could affect the Exchange's ability to clear trades in a timely fashion. And that can't happen. MQMON provides peace of mind, a way to manage the intricacies of the MQSeries system."

The product also vastly improves on the Merc's past monitoring methods. Prior to implementing MQMON, a TSO transaction would issue commands to manually interrogate the queues to assess problem conditions. It offered limited functionality. Today, when a firm is unable to send data, Merc technicians use MQMON's on-line facilities to evaluate the situation. "With MQMON, we can do much more, like make repairs on-line from a screen," says lead software support rep Robert Kondos. "It certainly has sped up the problem resolution time," adds Mr. Kondos. "Without it we would have to run batch jobs -- a lot of time-consuming, manual work."

First and foremost, the Merc uses MQMON to red flag potential line troubles. It allows technicians to evaluate the movement of records based on established line flow standards. "If the data in a queue is building up and not depleting, it means there's a problem, there's a loss of contact somewhere. And we work on that right away," Mr. Leach says. "Show me queue depths greater than ten, for example. If it's not greater than ten I'll consider it o.k. When it exceeds that, I'll start watching it. It's our early warning."

On-line Browsing and System Management Facilities

If the Merc needs to investigate why a channel or queue has stopped, technicians can use MQMON's on-line queue browsing facility to determine if the stoppage is caused by a problem with the data. "We can look at data that's in the queue without destroying that information," says Mr. Leach. "If there's something wrong and the program abends, we can turn the queue trigger off and have a look at the first transaction in that queue to see what's wrong with it."

Technicians at the Merc also employ MQMON to check pageset storage areas. If "a runaway task" overloads one of the queues and fills up the storage area, MQMON displays a screen that identifies the source of the problem. "You just pop up a status screen and it identifies the pageset area that has reached its maximum storage capability," Mr. Kondos says. "Then it becomes clear what you have to do to remedy the problem."

Conclusion

Merc technicians appreciate the comfort level provided by MQMON's automated system overview. "You want to know what's happening and know it right away," Mr. Leach says. "Using MQMON we can monitor the system so we don't have to keep looking all the time."

MQMON's robust features impressed Mr. Leach and other Merc representatives. They also appreciate AURORA System's professionalism, responsiveness and willingness to customize MQMON. "They always followed

up, and were concerned with providing a quality product, ensuring that it functioned optimally here at the Merc." Mr. Leach says. "That was a big plus."

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