

Autospreader® Strategy Engine

Frequently-Asked Questions

What is Autospreader® Strategy Engine (ASE)?

Autospreader® Strategy Engine is a server-based spreader that enhances the performance of the Trading Technologies Autospreader application. Prior to the release of ASE, end users executed spreads from their X_TRADER® Pro desktops. With the release of ASE, users can improve execution speed by pushing their spreads directly to a server hosted near the exchange's matching engine. This reduces the latency caused by geographic separation of the end user and the matching engine.

What is the main benefit provided by ASE?

The key benefit of using ASE is the elimination of geographic latency between the exchange's electronic matching engine and the spreading logic. As the distance between an X_TRADER user and the exchange increases, the time required to send and receive data and orders also increases. For example, a trader located in London trading the CME from their desktop X_TRADER can experience price and order latency of dozens of milliseconds. This means that by the time a market data update reaches the desktop machine, other systems closer to the CME already may have seen and responded to that update. This creates a disadvantage for remote users.

By hosting ASE in close proximity to the exchange, geographic latency is eliminated, enabling the trader in London to react to market data changes in Chicago without incurring the geographic penalty. Since it is designed to be hosted in close proximity to an exchange's matching engine, ASE can re-quote or send a cover order back to the exchange without incurring the transmission delay to the remote user's desktop. The latency between the user and the exchange is effectively eliminated, as all leg order quoting and hedging can be performed in close proximity to the exchange, irrespective of where the user is located.

How does it work?

When running on an ASE, all of a spread's legs are quoted and hedged on the server, eliminating the round trip to and from the desktop. Using the previous example, the trader in London trading a spread on the CME with a desktop spreader would be incurring geographic latency. With both ASE and CME gateway hosted in Chicago, all of that latency is eliminated.

In addition to eliminating geographic latency through proximity-based hosting, ASE is designed to provide a high degree of scalability. The Engine is a concurrent multithreaded server application that takes advantage of multi-core CPU architectures. The software detects and adapts to the number of available cores to provide maximum performance and scalability. More cores mean better performance and capacity. ASE running on an eight core server can execute hundreds of simultaneous spreads with sub-millisecond latency, depending on the spreads traded and market conditions.

What does the trader have to learn to use ASE?

A key advantage of ASE is that it is accessible through the familiar X_TRADER Pro Autospreader GUI. The engine does not have a GUI of its own, as it relies on the desktop Autospreader to submit, manage, modify and delete spread orders. An experienced Autospreader user therefore requires no training to use ASE. The only change to the front end is an intuitive drop-down menu that allows the trader to select a server on which to run the desired spread. Nothing else changes on the X_TRADER side.

Can I have multiple ASEs in my environment?

Yes, multiple ASE servers can be installed in a client network. Some clients will want to install an ASE in each of their hosting/collocation facilities. This would allow, for example, a user to run CME spreads on the Chicago ASE while simultaneously running Eurex spreads in Frankfurt.

What is required?

ASE should be installed on a dedicated TT server class machine or above. A minimum of at least eight CPU cores is required to take advantage of the ASE's multithreaded architecture. Please refer to the Autospreader Strategy Engine System Administration Manual for installation and configuration requirements.

How many traders will a single ASE support?

Traders share an ASE in much the same way that they share a TT exchange gateway. There is no absolute limit to the number of traders that can use a single server. The server capacity is mainly a function of how many spreads are running, the number of cores available and the activity in the leaning leg markets. On an eight core machine, TT has shown that a server can support three to four hundred concurrent spreads with sub-millisecond performance.

Where do I install it for optimal performance?

Traders will realize the greatest advantage when the ASE, TT exchange gateway and exchange matching engine are in very close proximity to one another.

Some exchanges offer remote telecommunications hubs to allow their clients to access the exchange without having to install long-haul circuits to the exchange. For example, London-based NYSE Liffe provides telecommunications hubs in the United States to facilitate exchange access for their U.S.-based traders. Installing ASE close to the NYSE Liffe hub in the U.S. will not provide the same high performance execution benefits as installing it, along with the TT gateway, in London. This is because the market data and orders transmitted between the exchange and ASE must now traverse the geographic distance between England and the U.S., which adds substantial latency to every order.

Where should I install a server if I want to spread across two geographically separated exchanges?

There is no standard answer to this question. TT recommends that firms install two servers, one local to each of the exchanges, and allow the traders to evaluate both to see where a specific cross-exchange spread executes most effectively.

Do traders log into ASE like they do a gateway?

Yes, ASE is set up in much the same way as a TT exchange gateway. Users must be configured as direct traders on the server. These direct trader identities are known only by that particular ASE and have no relevance to direct trader exchange IDs. TT User Setup automates the login process, which means that the trader does no extra work in order to log in to the ASE.

If I am lifting or hitting the spread, which Autospreader should I use—ASE or client-side?

Generally ASE will perform better than the desktop when lifting or hitting a spread. This is because Autospreader waits for the quoting leg fill before sending the hedge order, so a round trip to and from the desktop has to take place before the hedge order is sent.