Below we have included screenshots from:

- The Java application implementing MIDAS, a distributed auction mechanism for bandwidth allocation over paths.
- A Java testbed for the experimental assessment of MIDAS.
- A multi-unit auction testbed (built as extension to MIDAS platform).
- A highly configurable FCC-type auctions simulator.

The MIDAS Java application

The MIDAS Java environment is a network client-server type application.
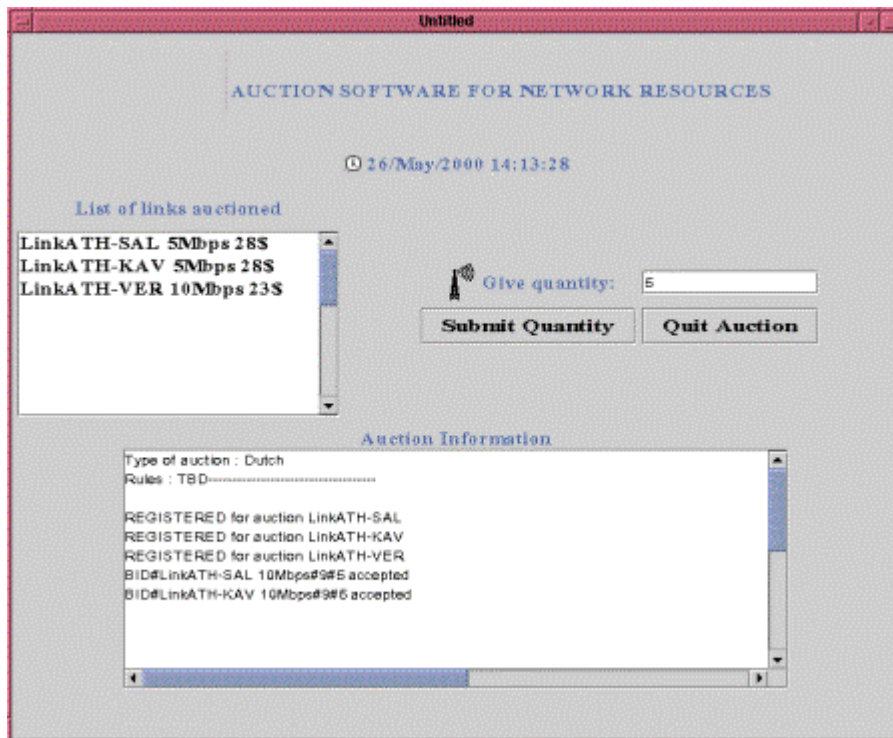
The server

A multi-threaded Java server. A variety of non-trivial problems have been successfully addressed in order to enforce data consistency and optimize the server's performance, even under high load.

The client

A user-friendly, easy-to-use Java application for helping bidders participate in the auction.
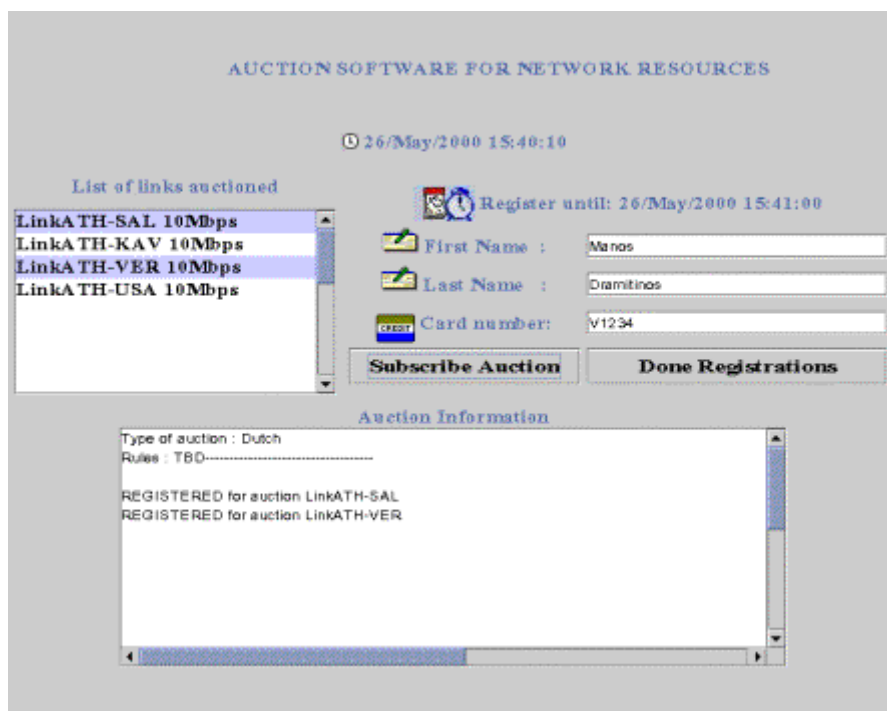

The MIDAS Java client: Registration phase

The MIDAS Java client: Bidding phase

The MIDAS testbed

The MIDAS testbed was designed to experimentally assess MIDAS and its variations (with respect to the misc price dropping policies, payment rules and strategies). A set of Java objects representing the same bidders under various MIDAS auctions have been implemented. The architecture of such a bidder as well as a meaningful bidder strategy (under MIDAS-PAY_BID) is presented in the figures below.
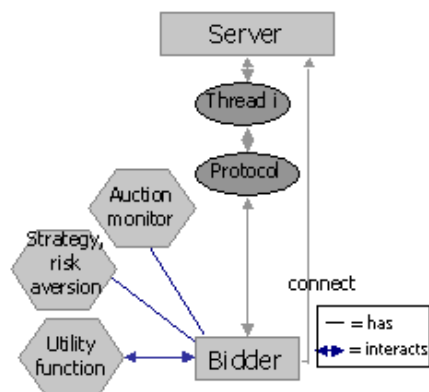

The Bidder architecture
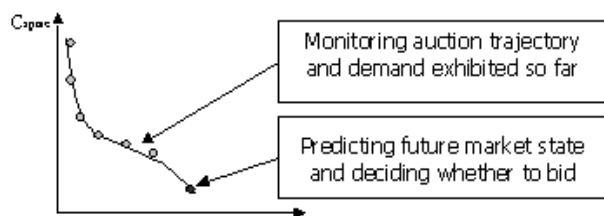
A sample bidder strategy

The Multi-unit auctions testbed

A Java environment that implements most well-known multi-unit auctions is under construction. A group of Java applications, capable of implementing and "representing" the same bidder in a variety of auction mechanisms enables this platform to perform a comparative assessment of the auctions' behavior, robustness, performance and applicability under given market conditions. A study of the impact of modifying (and experimenting with) the auction rules (e.g. the payment or activity rule) is also feasible. Last but not least, this testbed can be used as an auction-design framework as well. Screenshots from the parts of the testbed already implemented follow:
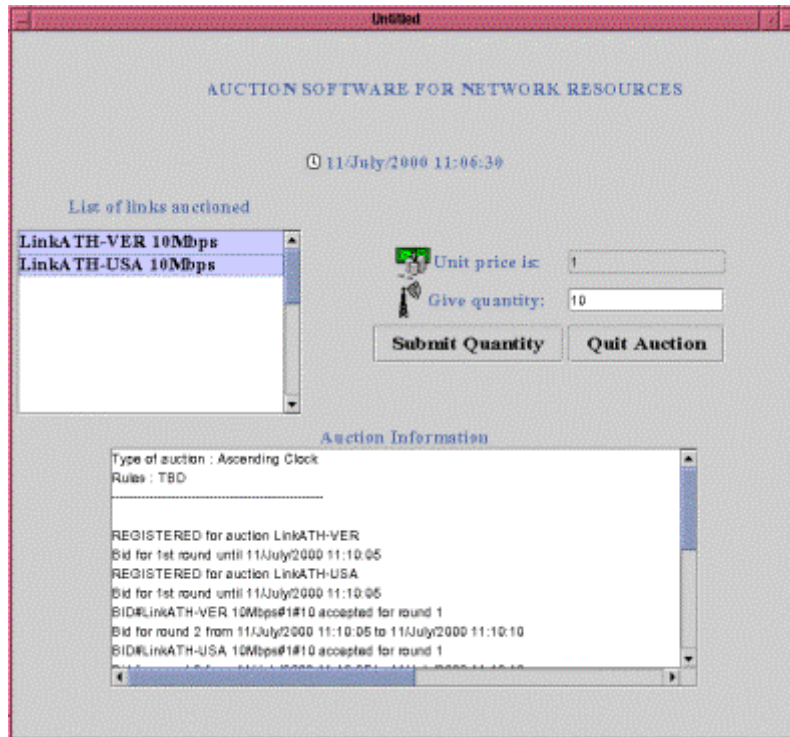
A sample ascending-clock auction
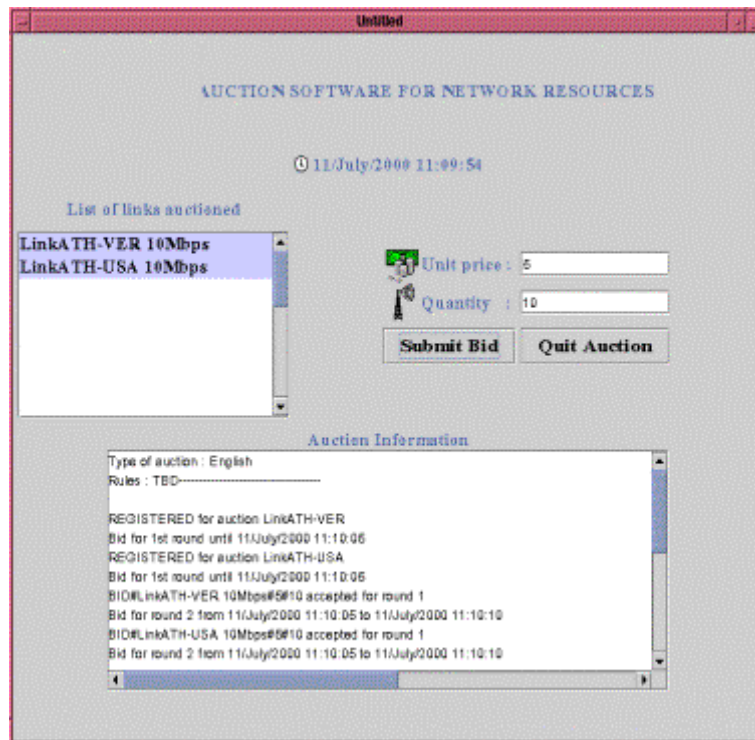
A sample open multi-unit English auction

FCC-type auction simulator

A Java environment that simulates FCC-type auctions has been built. A group of Java applications, capable of implementing and "representing" the same bidder in a variety of FCC-type auctions enables this platform to assess the efficiency and revenue produced with respect to a variety of levels of competition and sets of auction rules. A wide range of bidder strategies has already been implemented and several more are currently under construction. Last but not least, this testbed can be used to predict real-world FCC-type auction performance if some knowledge about the market is provided.