Big Brother is Watching You!

Early on Wednesday morning, the junior teams of Argentina/Uruguay and Turkey became the first players in official international play to test out a new piece of technology.

The system is under development and is due to be used at the Bermuda Bowl later this year in Veldhoven, the Netherlands.

It consists of two cameras, placed above the screen, which continually monitor the playing area, combined with some advanced optical recognition software that translates the images into bids and plays.

The system was developed by Thomas de Wolf and Guust Hilte from Eindhoven.

Let's have a closer look at how it works:

Above the screen, two cameras are mounted, each looking downward at its particular half of the table.

the cameras

At present, the installation is rudimentary, but there are plans to include the cameras in a nicely designed unit that can fit over any screen.

The table is a normal bridge table, with a few guidelines added to assist the software in recognising the compass directions and to avoid players tossing their cards anywhere on the table.

The tray is also a normal one, with some dots added, again to aid recognition. Players are asked to place their calls in the prescribed manner, starting at the far left and nicely overlapping. The software recognises the calls that are put on the tray, and can of course easily calculate the final contract. The program is able to deal with lazy players who do not bother with the final passes.

Next, the dummy will be put down, and there is a special card mat on which this has to be done:
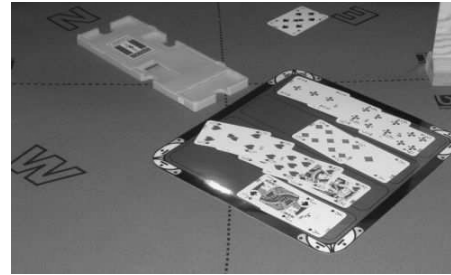
the dummy mat

The reason for this mat is clear: while the cards from the other players are shown one by one, dummy's cards are all on view at the same time and the software needs to be able to distinguish which one is played, and a microphone (and additional speech recognition software) would carry the project too far. So recognizing which card is played from dummy is done by watching as the card is detached from the mat. It was deemed better to have a separate mat than to insist on the cards being placed in one particular place, so as not to bother the players too much.

The system will recognise all the cards that are played, and keep track of the number of tricks won.

When the system is up and running, no operators are needed. The computer can deal with everything, except one item: a claim. For this reason, a special version of the bridgemate will be in use at the table. One of the players will have to confirm the board number and final contract, which the software has recognised, and enter the final number of tricks.

The data gathered can be used for a variety of purposes: reporting, broadcasting, and as an aide to directors, who can now "rewind" the action and see what really happened, who hesitated and for how long …

The aim is to have all tables at a major championship equipped with the system.

During the tests today, a few small errors were found and corrected. By the end of the day the system was able to produce full bidding and play for all of the deals.