

Mace uses Asta Powerproject to build the London Eye

Cables from Italy. Capsules from France. Project Management from Asta.

The challenge

Few deadlines in recent times have loomed as large as the turn of the Millennium. For internationally renowned professional management company Mace (www.mace.co.uk), finding an effective project management solution was vital when it was asked to supervise construction of the London Eye, a major UK Millennium project that has won unqualified approval from critics and the public alike.

The biggest observation wheel in the world, the London Eye is also one of the tallest structures in London. At 135 metres, it towers over St Paul's Cathedral and Big Ben.

Building such a large and complex structure was an unprecedented challenge for all involved. Mace was called in to co-ordinate the construction, an architectural, engineering and logistical feat involving seven major contractors from around the world.

Since the deadline loomed only 14 months away from the point at which Mace took over responsibility for the project in August 1998, precise organisation of resources and contractors was essential to ensure success.

"At the outset, there were two basic choices for how to handle the construction," says Raj Chaman, planning manager for the London Eye project at Mace. "The wheel could have been built from the bottom up at its site in Jubilee Gardens. The second option was to build as much as possible away from the site and then assemble it on site in the final stages. In order to minimise disruption for those living and working in the area, the second option was chosen. That meant that we had to co-ordinate the design, manufacture and assembly of the wheel's many different components at several locations across Europe, then ensure that they were transported safely to their final destination."

The main structure was built in Holland from 1,700 tonnes of British steel, the hub and spindle were cast in the Czech Republic, the wheel bearings were made in Germany, the cables in Italy, and the capsules were assembled and tested in France by ski lift specialists Poma. The components were shipped to the UK and transported to the site by barge along the River Thames, where they were welded together in a horizontal position on temporary platforms built across the river.

"The plan was to winch the wheel slowly into an upright position once it was put together, but as was widely reported at the time, we hit some snags during the uplift process. Despite this, we managed to hit the December 31st deadline," said Raj Chaman.

In addition to the major task of assembling the wheel itself, there were associated works on the project such as the landscaping of the grounds at Jubilee Gardens and the construction of a new pier to receive visitors arriving by river.

The solution

Co-ordinating so many different processes and contractors within that timescale would have been almost impossible using the old manual methods of scheduling. Mace chose Asta Powerproject, a professional project management tool that is well-proven in the construction industry.

"We encouraged all our contractors to use the Asta Powerproject system for day to day planning," said Raj Chaman. "As well as helping us to co-ordinate all the disparate tasks as the time for final assembly drew near, we found that it made communication and exchange of ideas between everyone involved very much easier. A particularly useful feature was the ease with which Asta Powerproject could pull all the latest developments together into an up-to-date colour presentation. Since reporting and presenting progress to a number of different teams was an important and regular requirement throughout the project, it was good to be able to run off up-to-the-minute status reports at any time."

Asta Powerproject's finest hour, however, came when the uplift of the wheel to its final vertical position did not go as smoothly as planned.

"We had problems with one of the temporary cables and had to abandon the first attempt. This meant that all subsequent tasks had to be resequenced if we were to meet the Millennium deadline. Using Asta Powerproject, it was relatively simple to reschedule the rest of the work to ensure that if nothing else went wrong, we would be able to hit the completion date."

In the event, the London Eye was operational on schedule and seems destined to become a familiar part of the London skyline for many years to come.