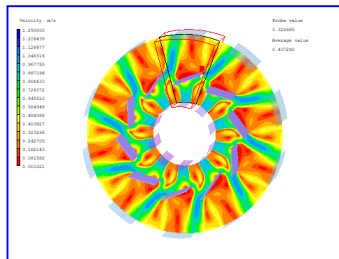


CHAM's Newsletter, in 2007, will have a shorter format and will be issued more frequently. Here is the first issue of the New Year.

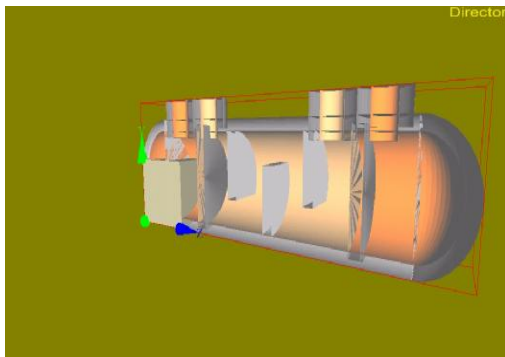
2006 saw the completion and release of PHOENICS-3.6.2 [now simply called "PHOENICS-2006"] to include enhancements such as auto-meshing, polar/PARSOL, solver updates, and improved pre- and post-processing options. Details of all of these can be found in TR/006 on CHAM's web site at:

[http://www.cham.co.uk/phoenics/d\\_polis/d\\_docs/tr006/tr006.htm](http://www.cham.co.uk/phoenics/d_polis/d_docs/tr006/tr006.htm)

As well as improvements to code functionality, PHOENICS-2006 updates are now available for Windows and LINUX parallel-processing implementations, and a new 64-bit option for Windows to remove the 2GB memory limitation of the 32-bit release.

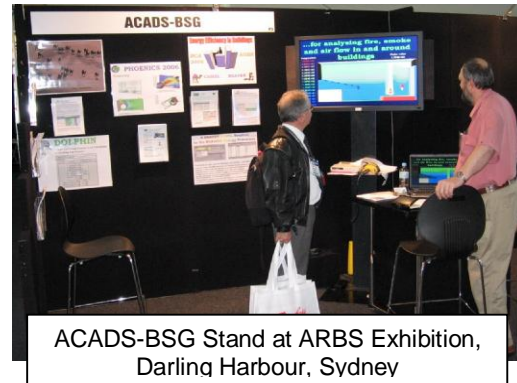


CHAM agents, ACADS-BSG, showcased PHOENICS in Sydney, Australia. Professor Brian Spalding was a keynote lecturer at the 13th International Heat Transfer Conference, held at the same time and location as the ARBS Exhibition in Darling Harbour. During the Exhibition, a PHOENICS user luncheon and informal meeting was organised. At this, Brian addressed a number of users in Sydney and demonstrated some of the new features of the code, including "PRELUDE", the new relational-input module for PHOENICS.



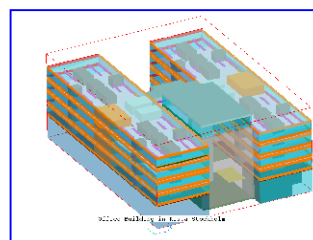
Heat Exchanger Configuration created using PRELUDE

Meanwhile, on the ACADS-BSG stand, PHOENICS-2006 was displayed to the HVAC industry, and generated great interest in the PHOENICS / FLAIR (building services) module, especially for analysing car park ventilation and fire suppression solutions using jet fans; an application for which PHOENICS is widely used throughout the world.



CHAM In-house projects

CHAM's consultancy team has remained as busy as ever, covering a broad spectrum of projects - finishing the year with a flurry of HVAC-related projects such as the one shown,

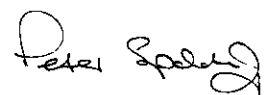


modelling the air-flow and temperature range within a large office building in Sweden subjected to abnormal weather conditions.

Learn more about this case, and others, by perusing CHAM's Case Studies section at: [www.cham.co.uk/casestudies.asp](http://www.cham.co.uk/casestudies.asp)

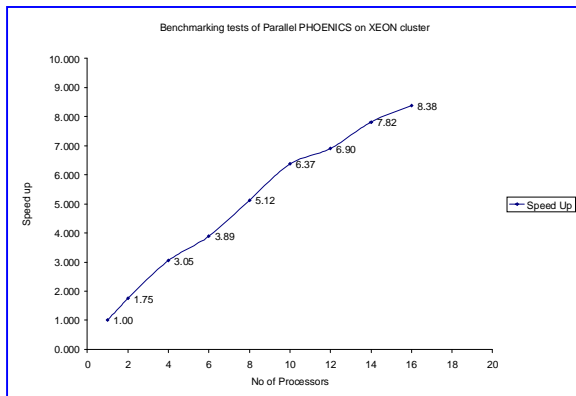
2007 has started at pace with projects already underway for a water reservoir stabilisation system; air conditioning scenarios for an art gallery extension; internal mixing of a refractory stack; and several others. I will report further on these in the next issue.

In the meantime, I wish you all a very Happy and Prosperous 2007.



## Parallel Benchmarking at CDAC

Mr Vikas Kumar of CHAM's agents in India, Messrs C-DAC, installed PHOENICS 2006 onto a Xeon parallel cluster to gather performance data, using a typical "flow around buildings" case run for 200 iterations.



Note that the speed-up is compared with the run-time from the parallel 1 CPU, not from the sequential run.

Parallel PHOENICS makes optimal decomposition automatically, i.e. users can run parallel PHOENICS for any case (within the parallel limitations) using a standard Q1 without additional settings.

## What's in store for 2007?

CHAM's development teams, both in the UK and in Russia, will be releasing a series of planned code enhancements throughout the year. These include:

- Enhancements to solid stress capabilities;
- New "Gateways" to PHOENICS for:
  - Virtual Wind Tunnel;
  - HVAC;
  - Rotating Machinery; &
  - Heat Exchangers.
- New PARSOL and its extension to sheet objects
- Unstructured PHOENICS and inbuilt "CAGE" grid generation.

Users may also expect the production of new delivery and Internet download facilities ... but more of that in the next issue.

## Coolplug BV - PHOENICS in Germany

In the last Newsletter we bid farewell to our Germany Agents of many years and, in this one, we welcome our new Agent for the territory, Mr Frank Kanters of Coolplug BV.

Based in Holland, but only 10Km from Aachen, Coolplug BV is fully committed to represent CHAM in the German-speaking regions of Europe in the coming years, and to make sure that all PHOENICS users get the support they deserve.



Another important issue for Coolplug will be to increase the PHOENICS Customer base. The German economy is based on family businesses and it is Coolplug's belief that for this kind of company PHOENICS is the most affordable CFD software on the market.

## European User Meeting

A final reflection on 2006 ... CHAM ended the year on a high note through another successful user meeting, this time on our doorstep, at Cannizaro House here in Wimbledon.



Shown above are only the bravest of the delegates who moved from the interior's warmth to gather outside in the Winter chill on Day 1.

In due course, the proceedings will be posted on CHAM's web site.