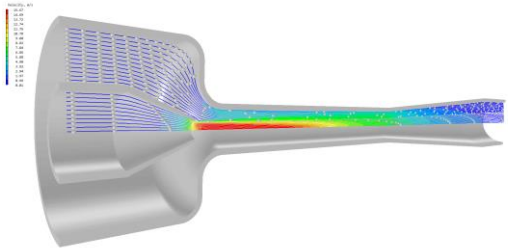
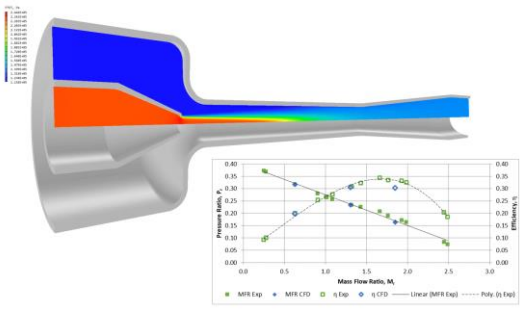
PHOENICS-On-The-Cloud

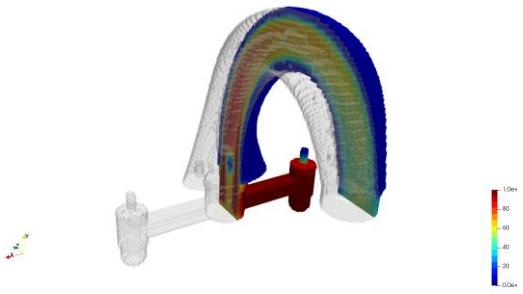
CHAM

Experts in CFD Software and Consultancy

Try PHOENICS, the Original, All-Inclusive, Cost-Effective, Enterprise Driven, CFD Package, on the Cloud







If it Flows
PHOENICS Can Model it

PHOENICS is flexible, accurate and reliable. It is scalable to help small-businesses, or multi-nationals, sharpen their competitive edge by using it. PHOENICS can help to solve any fluid-flow problem.

There has never been a better time to "try before you buy"

Test drive CHAM's CFD Software on a pay-as-you-go basis. Pay only for what you use or need, with PHOENICS-On-The Cloud on Virtual Machines (VMs) ranging from dual- to 120-core options via the Microsoft Azure Marketplace.

PHOENICS - the all-inclusive Computational Fluid Dynamics (CFD) package – is a tool for Engineers, Developers, R&D Personnel, Academics, Students, and others, to aid progress from design concepts to innovative, cost-effective, solutions.

PHOENICS can be used, with ease, by anyone. It has:

1) An expert array of modelling features for multiphase flows, particle tracking, free-surface modelling, chemical reaction, moving grids, fine-grid embedding and unstructured options
2) An extensive battery of built-in turbulence models for great flexibility modelling complex systems
3) Ability to expand via user-defined inputs made easy by built-in features, ie InForm, MOFOR, PARSOL
4) Expert user-support assistance for all maintained users

If you use CFD you may have heard of Spalding, CHAM, and PHOENICS. PHOENICS is the original general-purpose CFD code created by Professor Brian Spalding, founding father of CFD. It has been developed, tested, validated, and extended over four decades – until 2016 by its originator with his CHAM team. Since then, by that team (John Ludwig & Michael Malin who worked on its inception and younger members). It has the longest CFD history, a large, diverse, international user base, and you can try it on the Cloud via the link below:

https://azuremarketplace.microsoft.com/en-us/marketplace/apps/concentrationheatandmomentumlimited1616154387047.phoenics

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Tel: +44 (0)20 8947 7651 Email: phoenics@cham.co.uk Web: www.cham.co.uk

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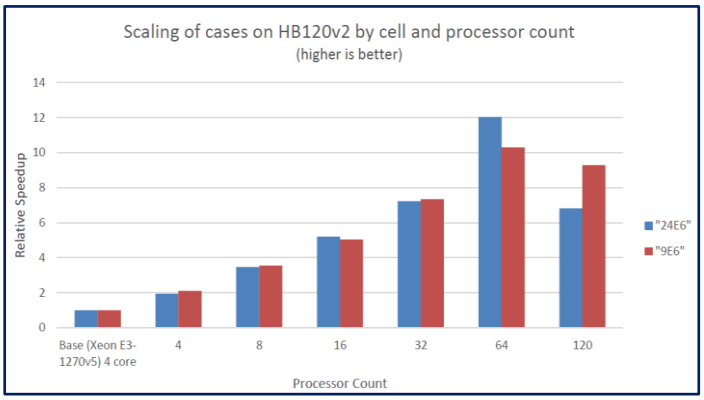
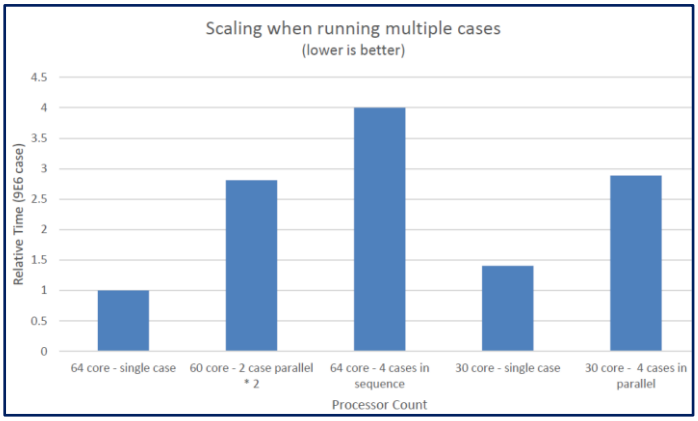
The graph shows scaling achieved for two sample cases of 9 million computational cells, and 24 million cells respectively, when run on various multi-processor systems.



Similar benefits can be achieved when running multiple cases simultaneously. The graph provides performance figures running several cases at once on a 120-core VM.



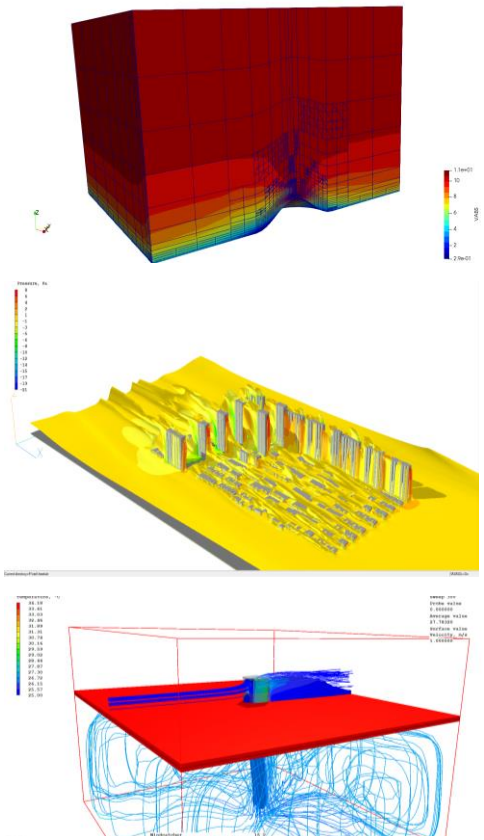
Whilst a 120-core VM gives quick results for a single case, running 2 cases concurrently on 60-cores, or 4 cases on 30-cores, reduces costs by >25%. Thus, although cost-per-hour is notionally higher for larger multi-core VMs, they can be cost-effective to run multiple simulation variations (eg investigating multiple-wind conditions over a cityscape).

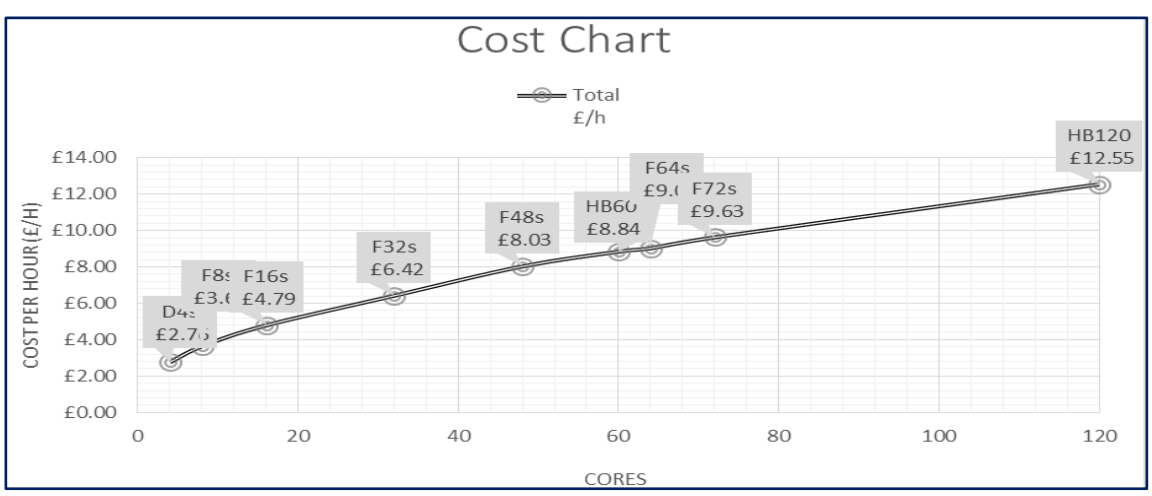
Who Uses PHOENICS?

Those in the following Industries (and more):

- ✓ *Environmental*
- ✓ *Building Services*
- ✓ *Electronics Cooling*
- ✓ *Fire & Smoke Hazard / Risk Analysis*
- ✓ *Nuclear & Power Generation*
- ✓ *Academic Education*
- ✓ *Research & Development*

Try it on the Cloud.





Try PHOENICS-On-The-Cloud via this link: PHOENICS on the Cloud (cham.co.uk). For matters relating to PHOENICS-Azure services contact: PHOENICS.cloud@cham.co.uk or call +44 (0)20 8947 7651.