Five things you never knew about CSG

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CSG Systems Manager, Dept of Computing, Imperial College London

29th May 2013

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Five things you never knew about CSG

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- High Performance Computing (we have Condor running on desktop PCs, but ICT spend £1m per annum on HPC clusters). DoC should use the HPC kit more!
- Mac support and Windows laptop support, provided by our in-house ICT Faculty Support engineer - currently Niels Boyadjian. (Although we'll help on a best effort basis if Niels is not in the room).

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- Refresh Desktop PCs (and Macs): Each year we receive about 15 free staff PCs, and about 40 free lab PCs, under the College PC renewal scheme. The Dept typically buys another 140 PCs for new PhDs, RAs, staff, and the labs.

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- Plus of course the recently purchased Departmental cloud servers, currently doing service as experimental proto-clouds, or ad-hoc compute servers/clusters.

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- For servers: ICT now offer copper 10Gb ethernet via "top of rack switches" - we have bought 4 x 10Gb network switches, first two installed in Huxley machine room. Core fileservers to get dual 10Gb connections over the summer.

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- This keeps our computers more secure, more up to date, risk: slightly greater instability we're being very cautious!

No 3: CSG have a Yearly Cycle









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- Think of us as like Jon Bentley of Bell Labs, who wrote the ACM column Programming Pearls, based on his experiences of listening to his colleagues' tricky optimization problems.
- I once advised a student who requested 1TB of disk space and a year's CPU time.. who went away happy with 50GB more disk space (x20 shrunk) and a "summarise as you go" strategy that meant her final analysis took one day CPU time (x300 shrunk).

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- Finally, Maint: our Linux-based configuration management system, which, making extensive use of Postgres databases, automatically installs and configures a brand new Linux desktop or server for use in DoC, without human intervention!

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