

## AC&E Case Study

### Lockheed Martin puts pilots in the picture with AC&E Linux cluster



**Applied Computing & Engineering Ltd (AC&E) has developed a high performance Linux cluster for Lockheed-Martin UK INSYS to simulate warhead design and to produce high fidelity synthetic imagery in real time. Simulation is increasingly favoured by Lockheed Martin's defence agency customers.**

The brief to AC&E was to develop a Linux cluster for Lockheed Martin's Warhead and CAMEO-SIM development teams. The Warhead team uses a shockwave physics computer code, CTH, to simulate high-speed impact and penetration. CAMEO-SIM is computationally intensive synthetic scene generator developed by Lockheed Martin on behalf of the UK MoD.

The Linux cluster is optimised to handle the competing needs of the warheads group and CAMEO-SIM developers. CTH requires a high RAM content and fast interconnects to handle large, complex problems in hours rather than months. Where previously the warheads team were limited to 2D simulations or very low definition 3D they are now able to create 3D simulations and tackle larger systems. CAMEO-SIM, on the other hand, is more CPU intensive and less RAM sensitive. The AC&E Linux cluster CAMEO-SIM performance is now 10 times faster than Lockheed Martin's older system.

For more information on AC&E's cluster configuration services call 01925 830085, e-mail: [info@acel.co.uk](mailto:info@acel.co.uk).