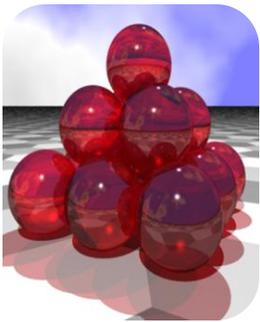


# DIGITAL MEDIA

Directed at the Digital Media market segment the New Mexico Computing Applications Center is able to offer one of the largest available world-class Supercomputer Systems, "Encanto," with advanced secure high-speed private network connectivity capabilities.

The Encanto System is highly capable of:



- 172 trillion calculations per second!
- SGI Altix ICE 8200 cluster with a peak theoretical performance of 172 TFlops ( $R_{peak}$ ) and 133 TFlops sustained ( $R_{max}$ )
- 1,792 nodes each with dual 3.0 GHz, quad core Intel Xeon processors
- 28.7 TB of local memory (2GB/core)
- Lustre filesystem with 10 GB/sec bandwidth for parallel IO and storage
- NFS filesystem for persistent data storage
- Connectivity to National Lambda Rail (NLR)
- Supporting parallel (MPI), distributed, and embarrassingly parallel job types in support of almost any workload

These resources linked with the talents and skills of two national laboratories and a consortium of three universities make for a unique setting to accelerate and support the state-of-the-art Digital Media industry. NMCAC and Encanto are more than just world-class hardware and facilities, but about building the digital media industry in the state of New Mexico.

The technology transfer aspects of engaging the advanced potential of the Sandia National Laboratory and Los Alamos National Laboratory brings into play leading-edge scientific and simulation algorithms and application expertise available to the electronic entertainment and motion picture industry with images and sequences that can defy reality and imagination.

Our extensive collaborations consist of working closely with Albuquerque Studio "Q" that focuses on facilitating and providing end-to-end production capabilities. Studio "Q" is located at Mesa del Sol with the NMCAC facilities. The Mesa del Sol facilities are another collaborator, and will soon host a new University of New Mexico Media Center and a number of other production entities. Collaborations exists with the New Mexico Film Office and State of New Mexico, which have offered the entertainment industry generous incentives of 25% cash rebates for production done in state. This extends to feature films, television, regional and national commercials, documentaries, video games and post-production.



This major shift to Digital Film has opened new opportunities in New Mexico with the Encanto Supercomputer. Encanto has unique capabilities of expanding Special Effects, and Post-Production as we know over traditional rendering farms. In the past before the advent of digital media, the motion picture industry came to New Mexico just for the location, scenery and color. It is now staying to take advantage and embrace all the state has to offer world-class computers, high-speed connectivity, state-of-the-art studio facilities and an increasingly talented work force.

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