Table 4: Industrial HPCC Applications 11 to 13: SIMULATION

Item	Application Area and Examples	Problem Comments	Machine and Software
11	Particle Transport Problems	Monte Carlo Methods as in neutron transport for (nuclear) explosion simulations	MIMD HPF
12	**Graphics** (rendering) • Hollywood • Virtual Reality	• Several Operational Parallel Ray tracers • Distributed model hard	HPF for simple ray tracing but MPF for best algorithms
			MIMD & Asyncsoft for distributed database
13	**Integrated Complex System Simulations** • Defense (SIMNET, Flight Simulators) • Education (SIMCITY) • Multimedia/VR in Entertainment • Multiuser Virtual Worlds • Chemical and Nuclear Plants	• Event Driven (ED) and • Time stepped (TS) simulations • Virtual Reality Interfaces • Database backends • Interactive	Timewarp or other Event Driven Simulation needs Appropriate Asyncsoft
			Integration Software Database
			HPF+ for TS Simulation