Proceedings of 7th International Euro-Par Conference 2001 Parallel Processing R. Sakellariou, J. Keane, J. Gurd, L. Freeman (Eds.) Springer LNCS 2150, pp. 198 ff., Manchester, UK 2001, ISBN 3-540-42495-4

The Way to Produce the Quasi-workload in a Cluster F. Costen and J. Brooke

**Abstract:** Resource Management Systems (RMS) can be used to improve the utilization of a cluster of workstations or processors. In a system which has a mixture of interactive and batch work and a mixture of serial and parallel jobs there is no single measure which determines the effective utilization of the cluster. We propose a mathematically well-defined procedure for determining an ensemble of states "sufficiently close" to the measured workload of the cluster. We call these states quasi-workloads and suggest how they can provide a basis for simulations which predict the changes in cluster performance for differing RMS policies and schedules.