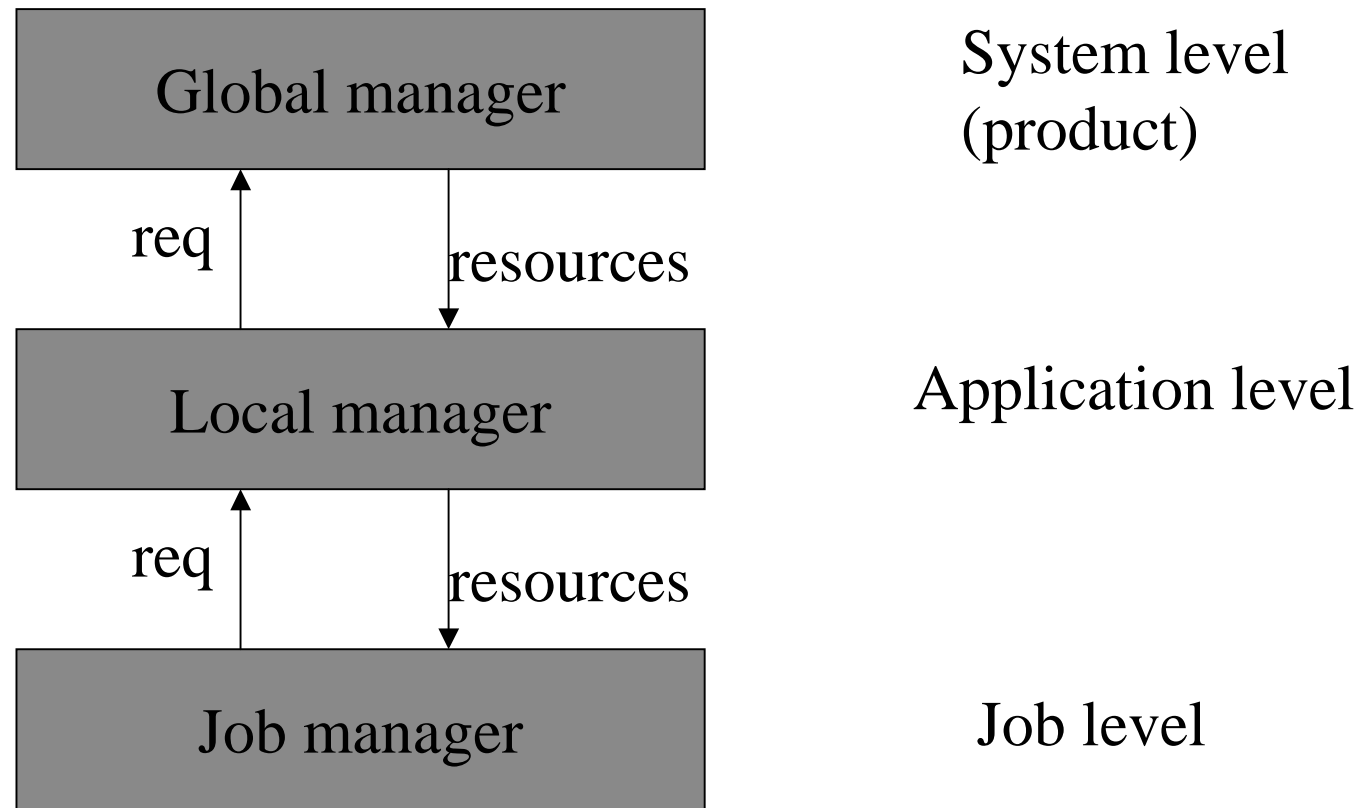
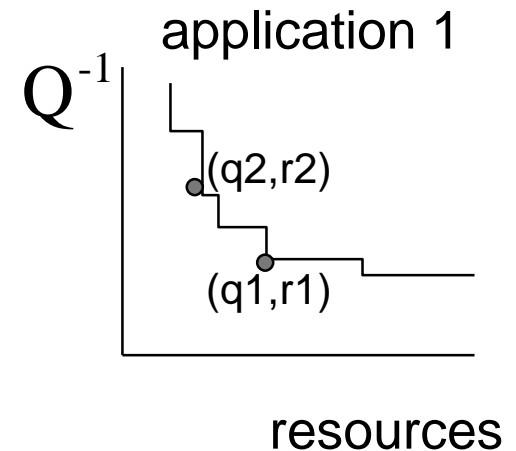


Quality management hierarchy



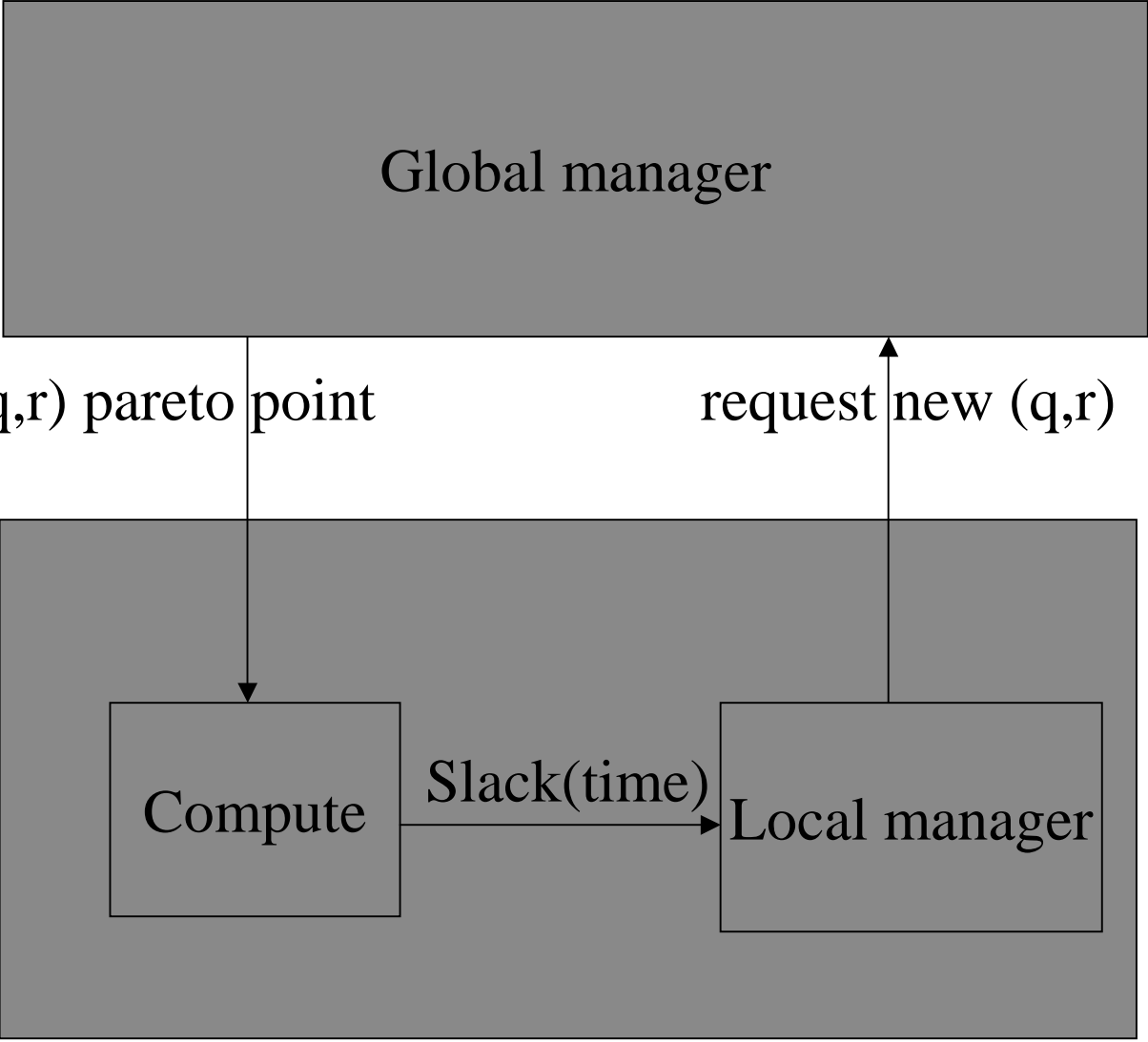
Pareto points

- Each application (or Job) is implemented with a fixed finite set of pareto points (for a given time constraint)
- The application quality levels combine to an overall global quality that should be maximized for a given set of resources



Dynamic environment

- 3 causes of dynamicity in resource usage
 - User starts new application
 - New scenario in data (I->P frame) visible in header
 - Content becomes more complex (number of objects, growing objects) not visible in header
- First two require one-way interaction from global manager to local manager
- Last one is detected by local manager:



Problems

- Reconfiguration takes time, so request frequency should be limited
 - Threshold on slack before request, say 20%
- If $\text{slack} < 0$ (deadline miss), either
 - Fallback (repeat previous frame) or
 - Always allocate threshold (20%) more resources