slots in the commitment table, then the planner could possibly reschedule its activities to give the executing task more time. For a simple constraint satisfaction type rescheduling, the planner tries to arrive at a new arrangement such that none of the original constraints imposed by the goals are violated. For an optimising rescheduler, the planner might allow constraint violation so long as an optimal arrangement is found (optimality in this case will be based on criteria decided on by the developer). For example a low cost job to which the planner is already committed may be dropped in favour of extending the processing time of an over-run high cost job.

A scheduler might also be used to ensure policy objectives. For example, an agent might have a policy objective to ensure that jobs are performed as quickly as possible. In such a case, in the commitment table 245 shown in Figure 9, it may shift sub-tasks B and C two and one cell leftwards respectively and begin executing them if the agent has all their required resources – such rescheduling does not violate any of the constraints imposed by the top-level goal.

### 2.6 Resource Database 225

The resource database 225 stores resource definitions.

In general, a "variable" is a logical description of something while a "fact" is a specific instance of that something, with relevant data added to the logical description. Resources in this context are facts which therefore require the user to provide data in relation to each resource for the purpose of building the commitment table. The Fact/Variables Editor 355 is provided so as to allow the user to load the necessary data using a frame-based object-attribute-value formalism.

A resource is defined as an object with attached attribute-value pairs. For example, an agent in a communications system may require a resource in order to provide a fibre-optic network connection from London to Ipswich which transmits video data. The resource need of the agent can be expressed as follows:

Resource Example 1:

(:type network-link