

- AID specifies the ID of the action returned by the function.

#### **Uncommit (cancels the allocation of resources)**

5 Free [ PID, Level, Seq, AID ]

where

- PID, Proposal-ID, labels a particular proposal;
- Level, Seq  $\in \mathbb{Z}$  is the level number and sequence number of proposal.
- AID specifies the ID of the action returned by the function.

10

(This function can only be executed only if the execution of the proposal has not yet commenced.)

### **3. OVERVIEW: CABS PLATFORM**

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Referring to Figure 3, the means for capturing data for loading said architecture , for generating a system comprising one or multiple entities according to said architecture, and for automatically building a software module according to said architecture, is provided by the CABS platform. This provides an agent  
20 template 300 which dictates the agent structure shown in Figure 2, a user interface 305 which is primarily a set of editors for identifying a set of agents, selecting agent functionality and inputting task and domain-related data, a library of co-ordination strategies 310 and a set of standard-type, supporting agents 315.

The agent shell 300 is simply the framework to support an agent structure  
25 as shown in Figure 2 and described in full herein. The editors are described below. The co-ordination strategies 310 are described above, under the heading "2.3 Co-ordination Engine and Reasoning System 210". One of the supporting agents 315 is particularly important however, and novel. This is described below, under the heading "5. DEBUGGING AND VISUALISATION". It could have application in  
30 other multi-agent and distributed systems, not just those built using the CABS system.

The editors of the user interface 305 support and record decisions taken by the developer during agent creation and input via a design interface 350. In more detail, they comprise the following: