

For instance, if the agent system is concerned with processing call record data in a telecommunications system, the technical processes involved might be mapped onto tasks as follows:

- 5 i) information received at call record centre;
 - ii) information sorted by priority;
 - iii) information passed to appropriate resource/people; and
 - iv) exception handling e.g. "resource not available".
- 10 If the exception handling step throws up "resource unavailable" it may be extremely important that further resource is made available. This might be the case where the call record centre supports fault location. The deadlines for getting network capacity back into service may be unextendible for instance for certain categories of customer. It would therefore be very important to the service
- 15 provider that the call record centre has the resource to process the call records within the time constraint.

4.6 Step 6: *Domain-specific Problem Solving Code Production 525*

- 20 In order to output a functional, collaborative agent, the CABS system has to generate actual code. The data which a CABS agent requires is of two types: declarative and procedural. Predefined objects provide the procedural side. The declarative information is all captured via the editors and task descriptions. At compile time for an agent, for aspects which will be common to all agents, such as
- 25 the Mailbox 200, the code generator can simply take a dump of code associated with the agent shell 300. For information such as task and resource information which is agent-specific, this is all dumped as database files and linked at compilation with the mailbox code etc for each agent.

- That is, for all defined agents it is necessary to generate all components of
- 30 code and databases, dump in directories, together with agent relationships, co-ordination abilities and an optional visualiser, and compile. Effectively, this is making an instance of the objects of each agent, then adding relationship and co-ordination information and standard components.