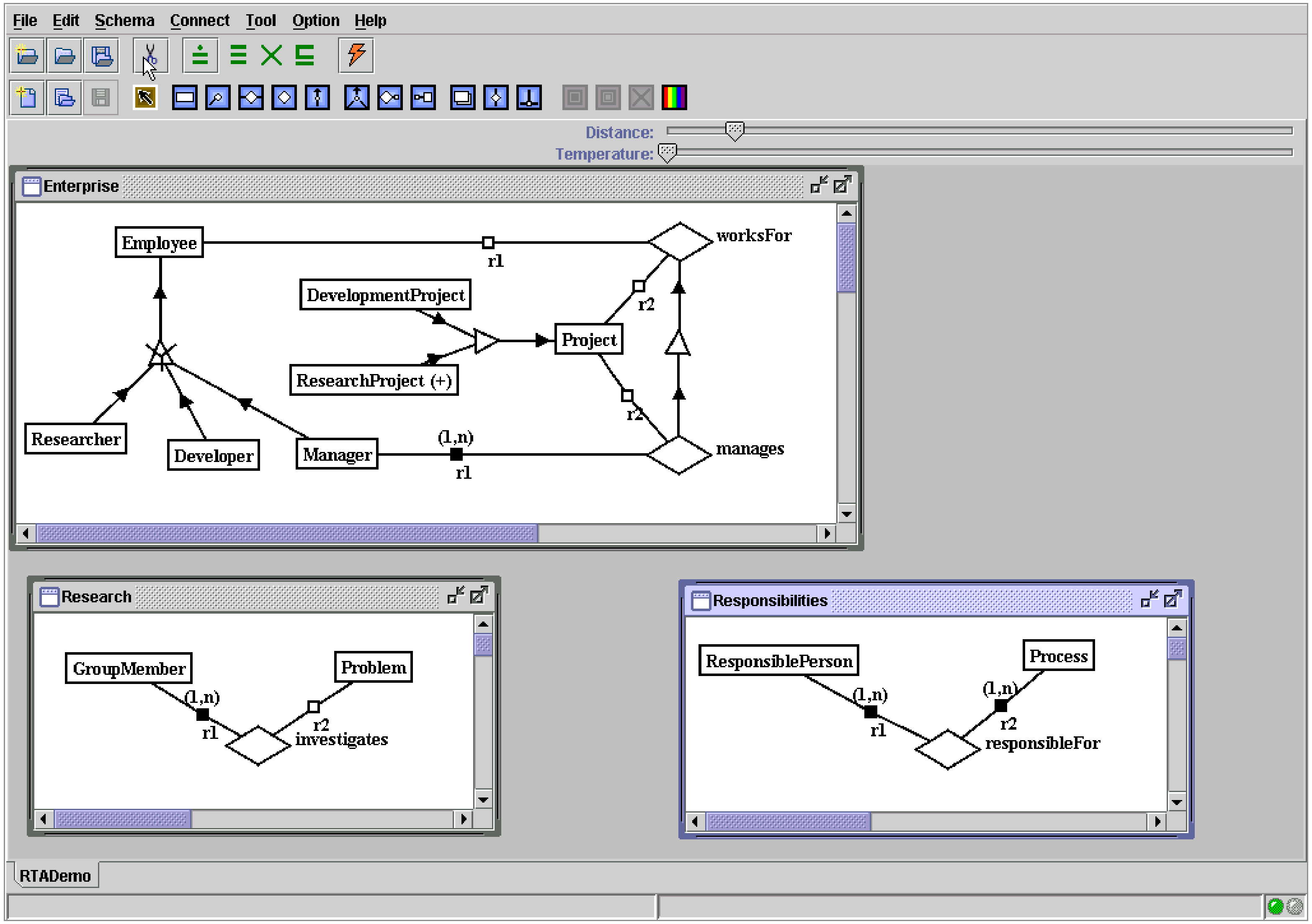
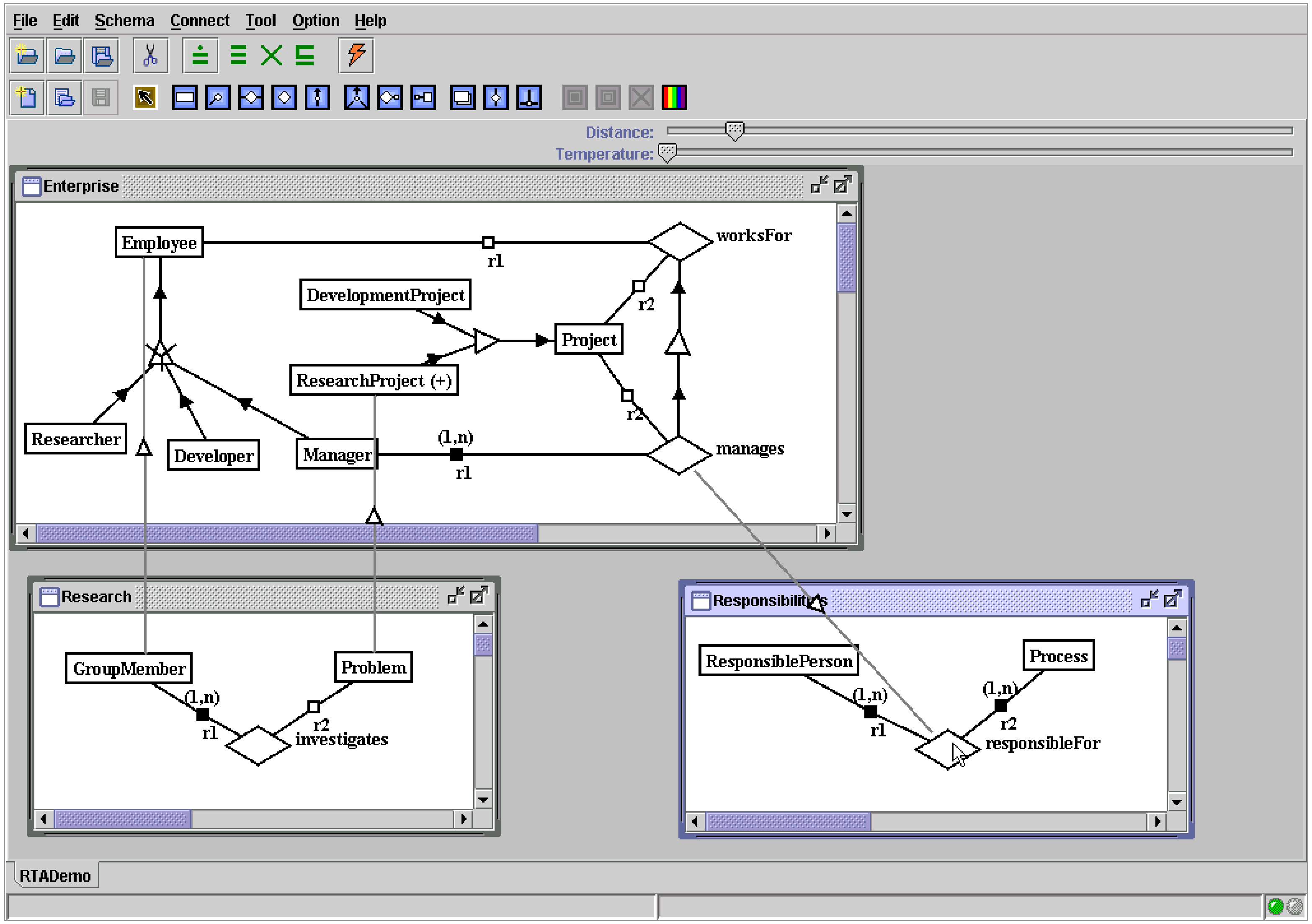
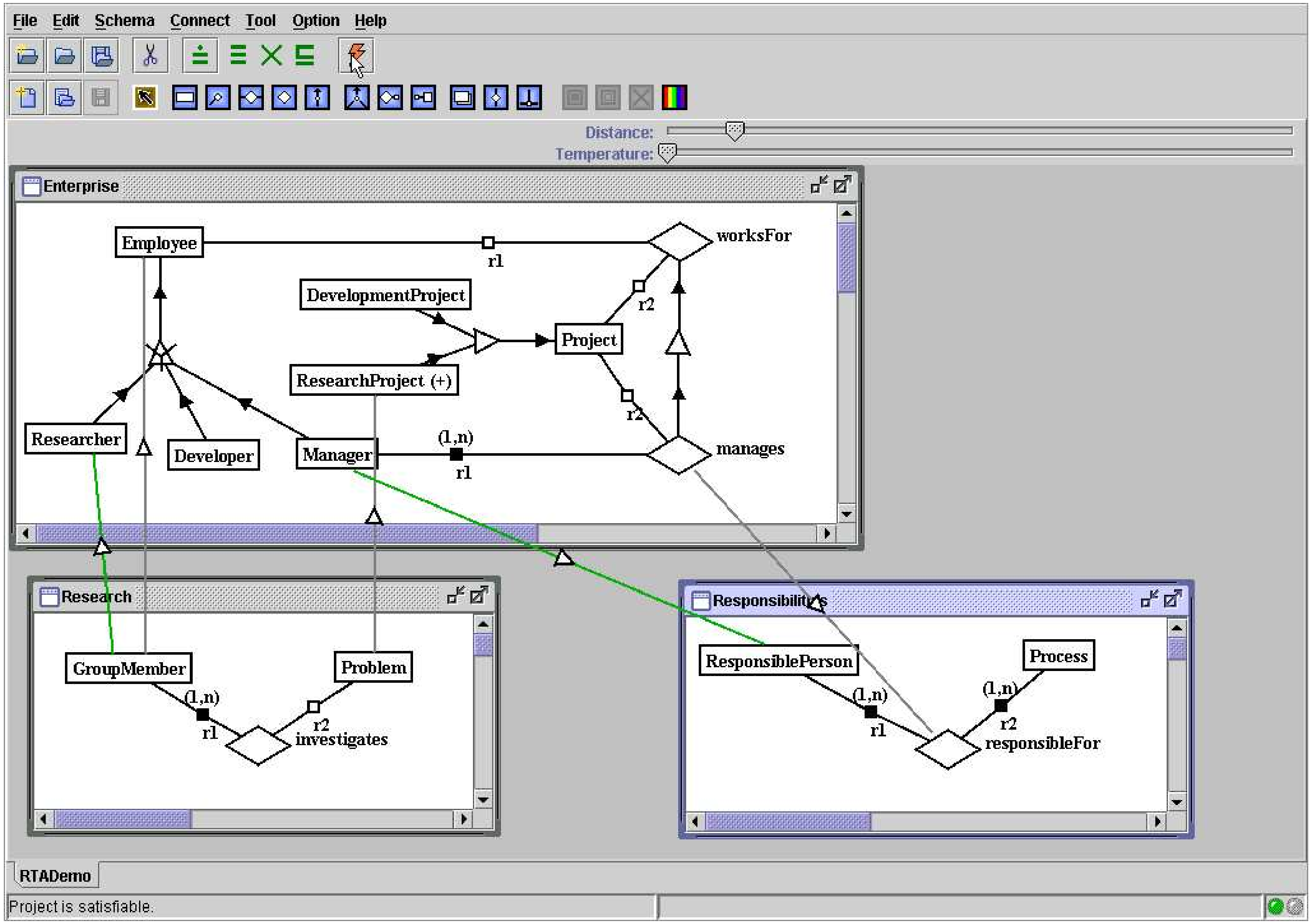
Company wants to integrate the schemas of its enterprise, research department, and responsibilities databases.



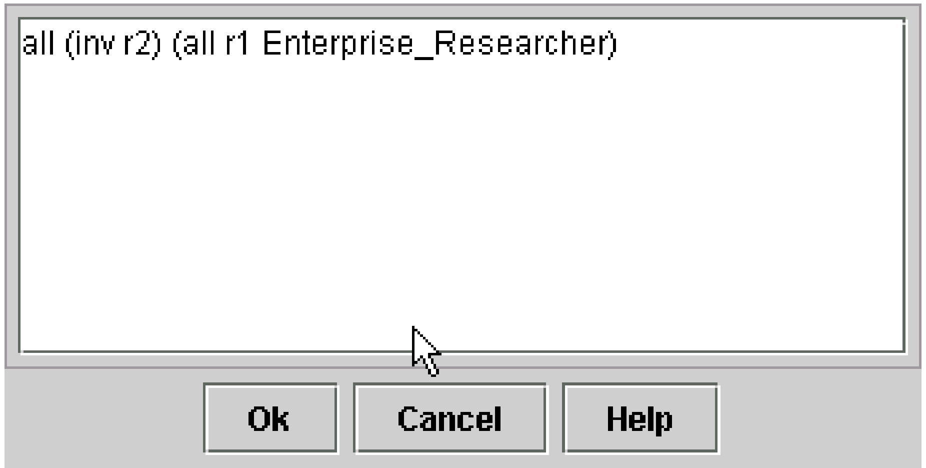
Integrator adds interschema assertions that group member (in the research department schema) is a sub-entity of employee (in the enterprise schema), problem (in the research department schema) is a sub-entity of research project (in the enterprise schema), and manages (in the enterprise schema) is a sub-relationship of responsible for (in the responsibilities schema).
Shies away from calling mangers responsible persons.



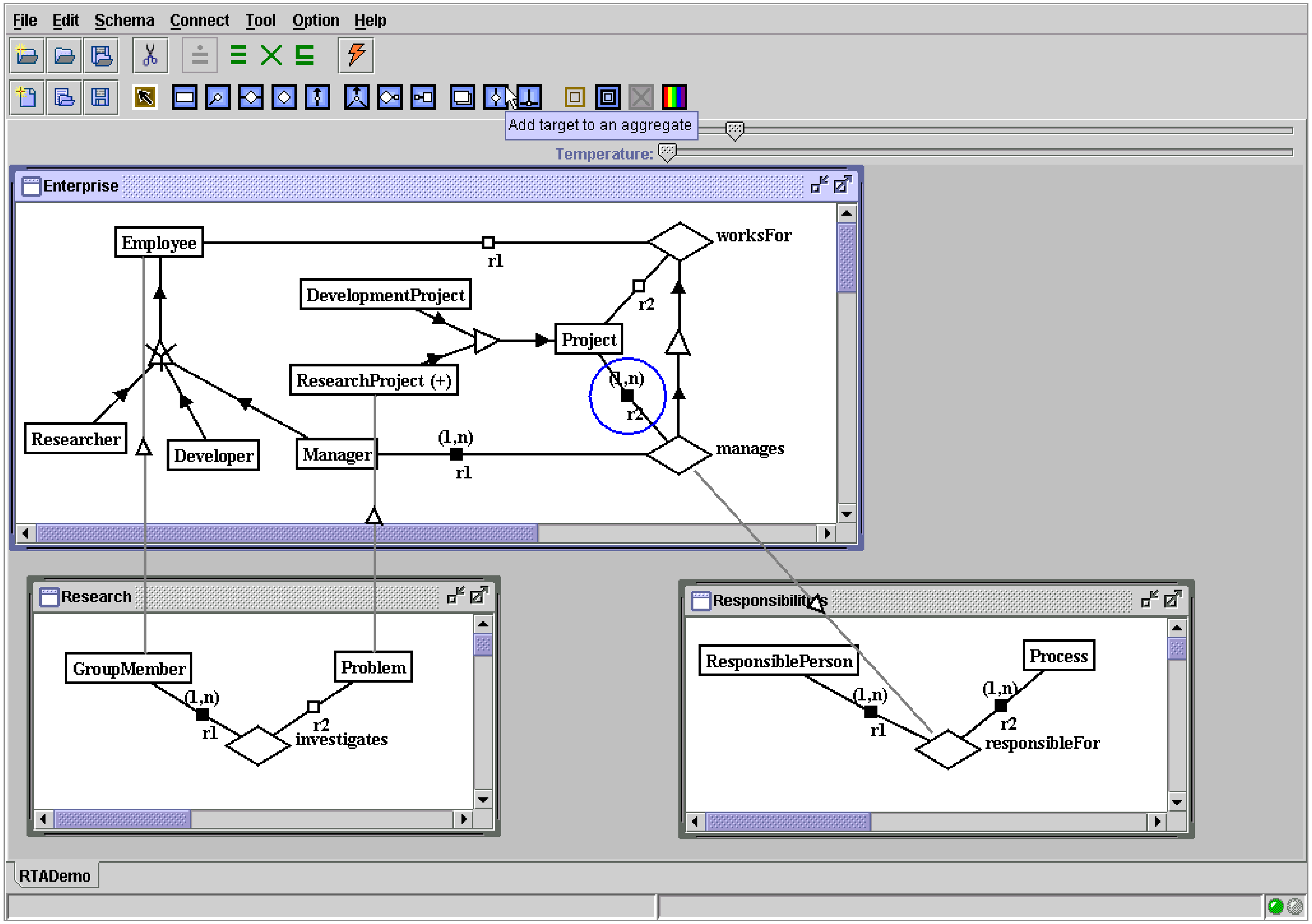
The reasoner deduces two new IS-A links:
- managers participate in at least one manages relationship, which is a responsible for relationship, which has as first component a responsible person;
- the link between group member and researcher is due to an additional DL constraint for research project indicated by (+), see next page.



The entity research project has a DL definition, which says that all the people working for research projects are researchers.

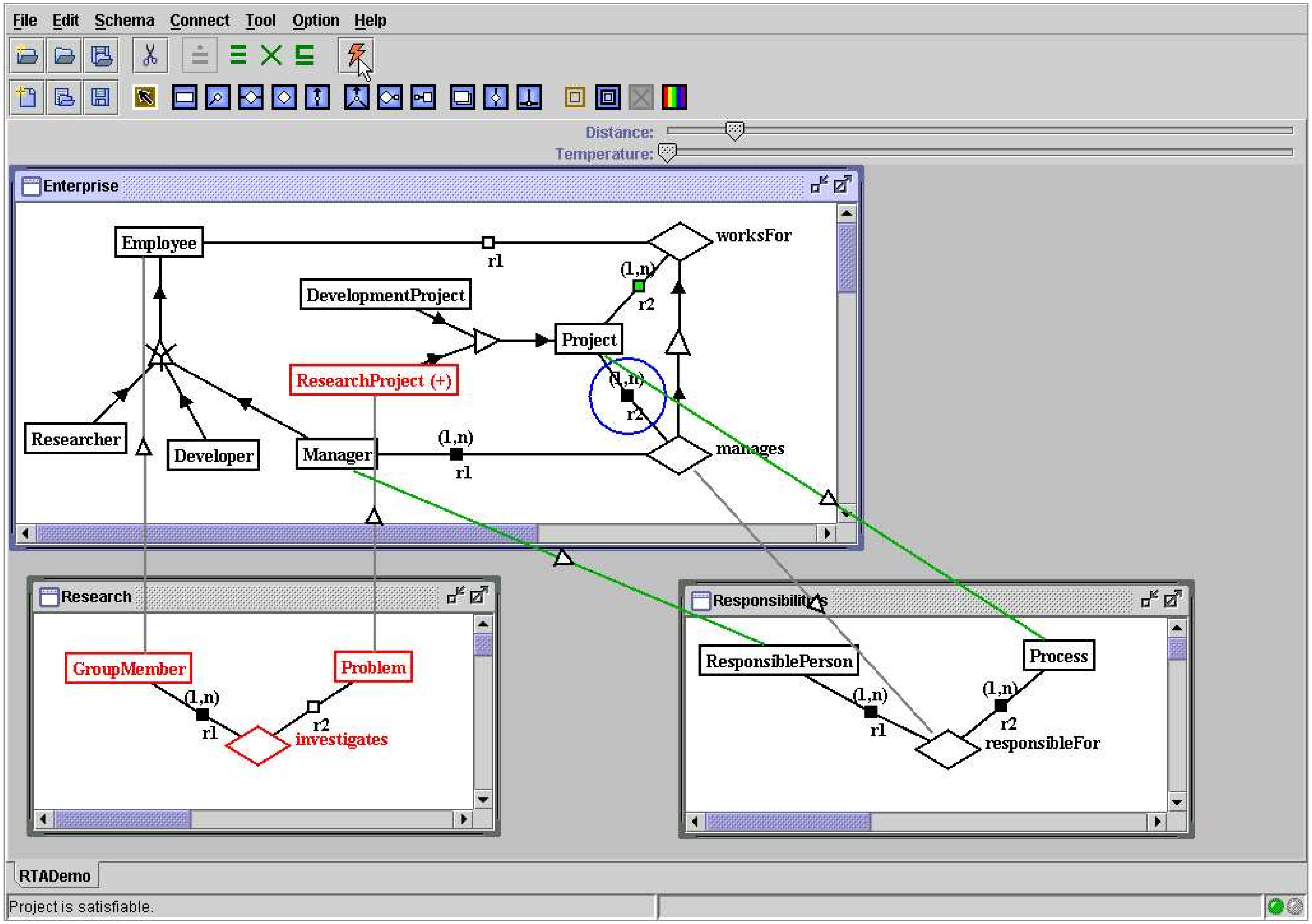


The integrator is surprised that there is no deduced IS-A links between project and process. The reason is that there may be projects that are not managed. The integrator assumes that this is an error and adds a numerical constraint that corrects this presumed error.

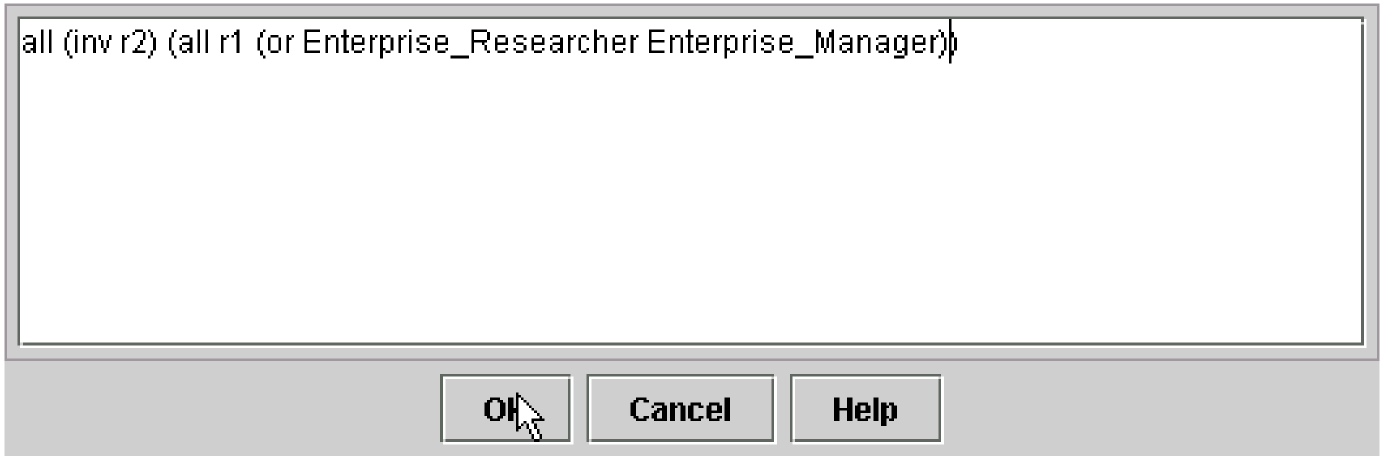


The reasoner now deduces the link from project to process, but it also detects that three entities and one relationship are now unsatisfiable (marked in red). The reason is that

- research projects now have at least on manger working for them, managers and researchers are disjoint (see disjoint cover link in the enterprise schema), and only researchers can work for research projects (DL constraint).
- unsatisfiability of the other entities/relationship are an easy consequence of unsatisfiability of research project



To overcome this problem, the integrator changes the DL constraint for research project. Now, researchers or managers work for research projects.



The reasoner now detects the desired IS-A relationships without finding any unsatisfiable entities/relationships.
Note that a link between group member and researcher can no longer be deduced.