Each Task can have a number of Predecessors defined for it, in order to define the Task dependence and sequence and to also allow the end to end project duration to be calculated. A future development could allow the critical path to be identified.

A series of predecessor details are captured as follows:

- **Predecessor Task**: is selected from a drop down list of task titles for all the other Tasks currently within the Project.
- **Predecessor Type**: is set from the following options:
  - End-to-Start: the current Task Starts when the predecessor Task Ends (default option)
  - Start-to-Start: the current Task Starts when the predecessor Task Starts
  - End-to-End: the current Task Ends when the predecessor Task Ends
- **Task delay**: defines the Delay or Lag before the current Task starts for the 'End-to-Start' and 'Start-to-Start' cases, or the Delay or Lag before the current Task ends for the 'End-to-End' case. The units of the 'Task delay' should be the same as the 'Work required' parameter for the Task.

Once a set of predecessors has been defined the estimated Task 'Start date:time' plus the Task 'End date:time' can be recalculated.

It should be noted that some further thought is needed on how to completely update all the tasks' 'Start date:time' and End date: time' data - since changing one task will affect other tasks and some sort of 'sweeping' and 'iterative' calculation is probably required until they are all unchanged. It may not make sense to do this each time an individual Task is updated.

*Add more detail on the calculation method here later, plus discuss options for how/when/if to recalculate all the affected Tasks.*
• Project Management - DB Table design