

## Meeting Scheduler Exemplar

(Feather *et al*, 1997)

Meetings are typically arranged in the following way. A *meeting initiator* asks all potential meeting attendees for the following information based on their personal agenda:

- a set of dates on which they cannot attend the meeting (hereafter referred as *exclusion set*);
- a set of dates on which they would prefer the meeting to take place (hereafter referred as *preference set*).

A meeting date is defined by a pair (calendar date, time period). The exclusion and preference sets are contained in some time interval prescribed by the meeting initiator (hereafter referred as date range). The initiator also asks active participants to provide any special equipment requirements on the meeting location (e.g., overhead-projector, workstation, network connection, telephones, etc.). He/she may also ask important participants to state preferences about the meeting location.

The proposed meeting date should belong to the stated date range and to none of the exclusion sets; furthermore it should ideally belong to as many preference sets as possible. A *date conflict* occurs when no such date can be found. A conflict is strong when no date can be found within the date range and outside all exclusion sets; it is weak when dates can be found within the date range and outside all exclusion sets, but no date can be found at the intersection of all preference sets. Conflicts can be resolved in several ways:

- the initiator extends the date range;
- some participants remove some dates from their exclusion set;
- some participants withdraw from the meeting;
- some participants add some new dates to their preference set.

A meeting room must be available at the selected meeting date. It should meet the equipment requirements; furthermore it should ideally belong to one of the locations preferred by as many important participants as possible. A new round of negotiation may be required when no such room can be found. The meeting initiator can be one of the participants or some representative (e.g., a secretary).

The purpose of the *meeting scheduler* system is to support the organisation of meetings—that is, to determine, for each meeting request, a meeting date and location so that most of the intended participants will effectively participate. The meeting date and location should thus be as convenient as possible to all participants. Information about the meeting should also be made available as early as possible to all potential participants. The intended system should considerably reduce the amount of overhead usually incurred in organizing meetings where potential attendees are distributed over many different places. On another hand, the system should as closely as possible reflect the way meetings are typically managed.