**Description for files of Cordeau’s Instances**

The format of data and solution files in all directories is as follows:

**Data files**

The first line contains the following information:

type m n t

* type:
  + 0 (VRP)
  + 1 (PVRP)
  + 2 (MDVRP)
  + 3 (SDVRP)
  + 4 (VRPTW)
  + 5 (PVRPTW)
  + 6 (MDVRPTW)
  + 7 (SDVRPTW)
* m: number of vehicles
* n: number of customers
* t: number of days (PVRP), depots (MDVRP) or vehicle types (SDVRP)

The next t lines contain, for each day (or depot or vehicle type), the following information:

D Q

* D: maximum duration of a route
* Q: maximum load of a vehicle

The next lines contain, for each customer, the following information:

i x y d q f a list e l

* i: customer number
* x: x coordinate
* y: y coordinate
* d: service duration
* q: demand
* f: frequency of visit
* a: number of possible visit combinations
* list: list of all possible visit combinations
* e: beginning of time window (earliest time for start of service), if any
* l: end of time window (latest time for start of service), if any

Each visit combination is coded with the decimal equivalent of the corresponding binary bit string. For example, in a 5-day period, the code 10 which is equivalent to the bit string 01010 means that a customer is visited on days 2 and 4. (Days are numbered from left to right.)

Note : In the case of the MDVRP, the lines go from 1 to n + t and the last t entries correspond to the t depots. In the case of the VRP, PVRP and MDVRP, the lines go from 0 to n and the first entry corresponds to the unique depot.

**Solution files**

The first line contains the cost of the solution (total duration excluding service time).

The next lines contain, for each route, the following information:

l k d q list

* l: number of the day (or depot or vehicle type)
* k: number of the vehicle
* d: duration of the route
* q: load of the vehicle
* list: ordered sequence of customers (with start-of-service times, if applicable)