PV-OIMS HIGH RESOLUTION DATABASE

The database has fixed length records with each record consisting of 121 words, totaling 372 bytes. Each record represents one complete OIMS experiment data cycle (normally 6.3 seconds but this time can vary with the bit rate). Within each record there are 55 samples of mass and 55 samples of densities associated with those masses. The sequence of masses within a record will normally follow the OIMS "explore" mode, but this sequence will vary when the experiment is occasionally in the "explore-adapt" mode.

To compute the time associated with a particular mass and density, the dwell time (word 4) should be used, along with the time of day (word 3). The dwell time is the time interval (milliseconds) between samples. Thus, for the "nth"
sample, the time (in seconds) would be computed as follows:

TIME = UT + (n-1) * DWELL/1000. (where UT is time of day)

The user should be aware that some of the densities have been coded. For example, a density greater than 1.E20 indicates that a density could not be computed for that point. (This can be due to several reasons such as telemetry interference or a gap in data occurred). Also, a negative value of density represents a "flagged" data point and should be used with caution.