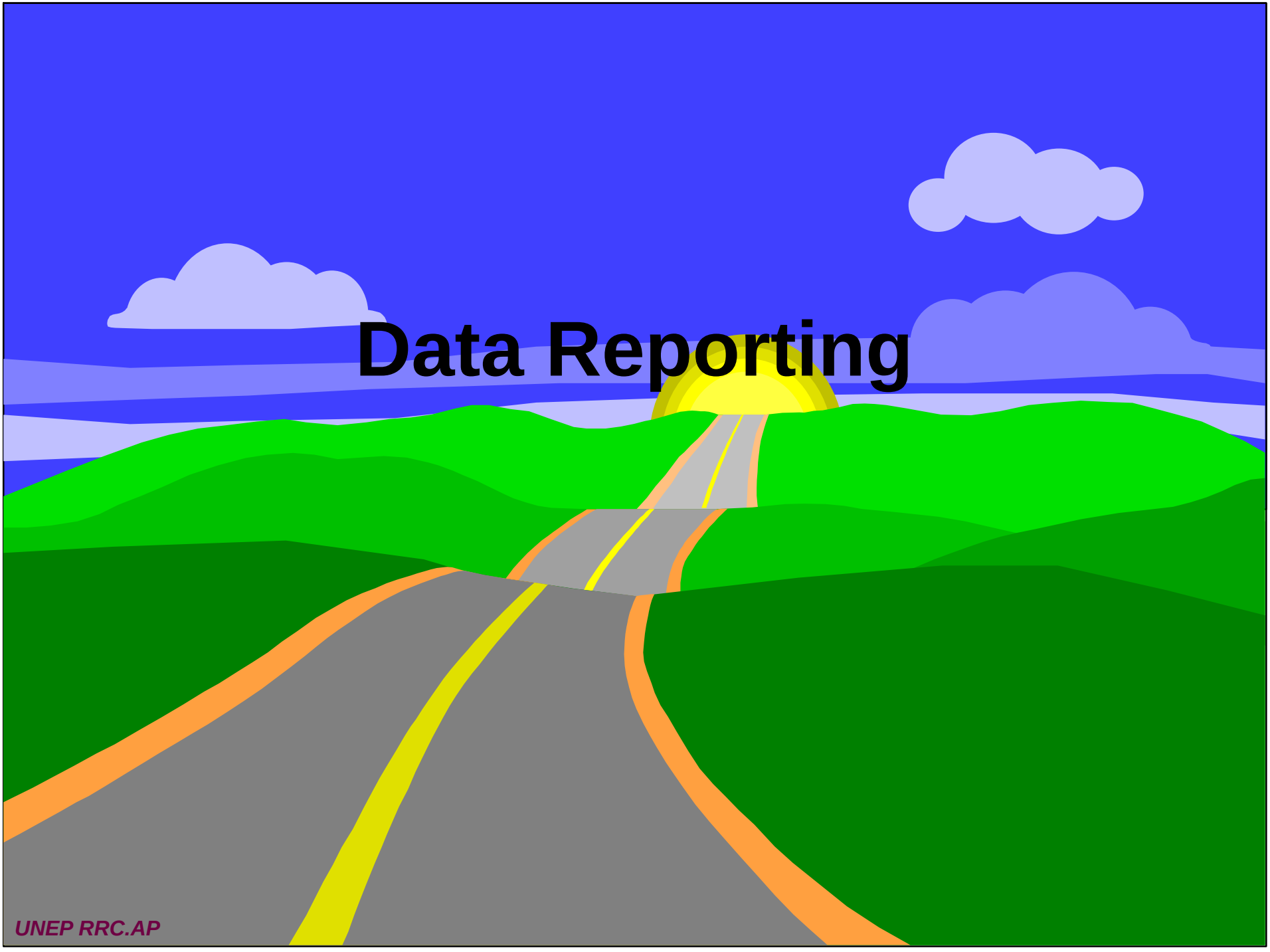
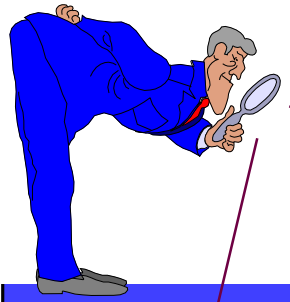

Data Reporting
UNEP RRC.AP

CONTENTS

- NEED FOR HIGH QUALITY DATA
- DATA REPORTING
- DATABASE MANAGEMENT SYSTEM

INTRODUCTION

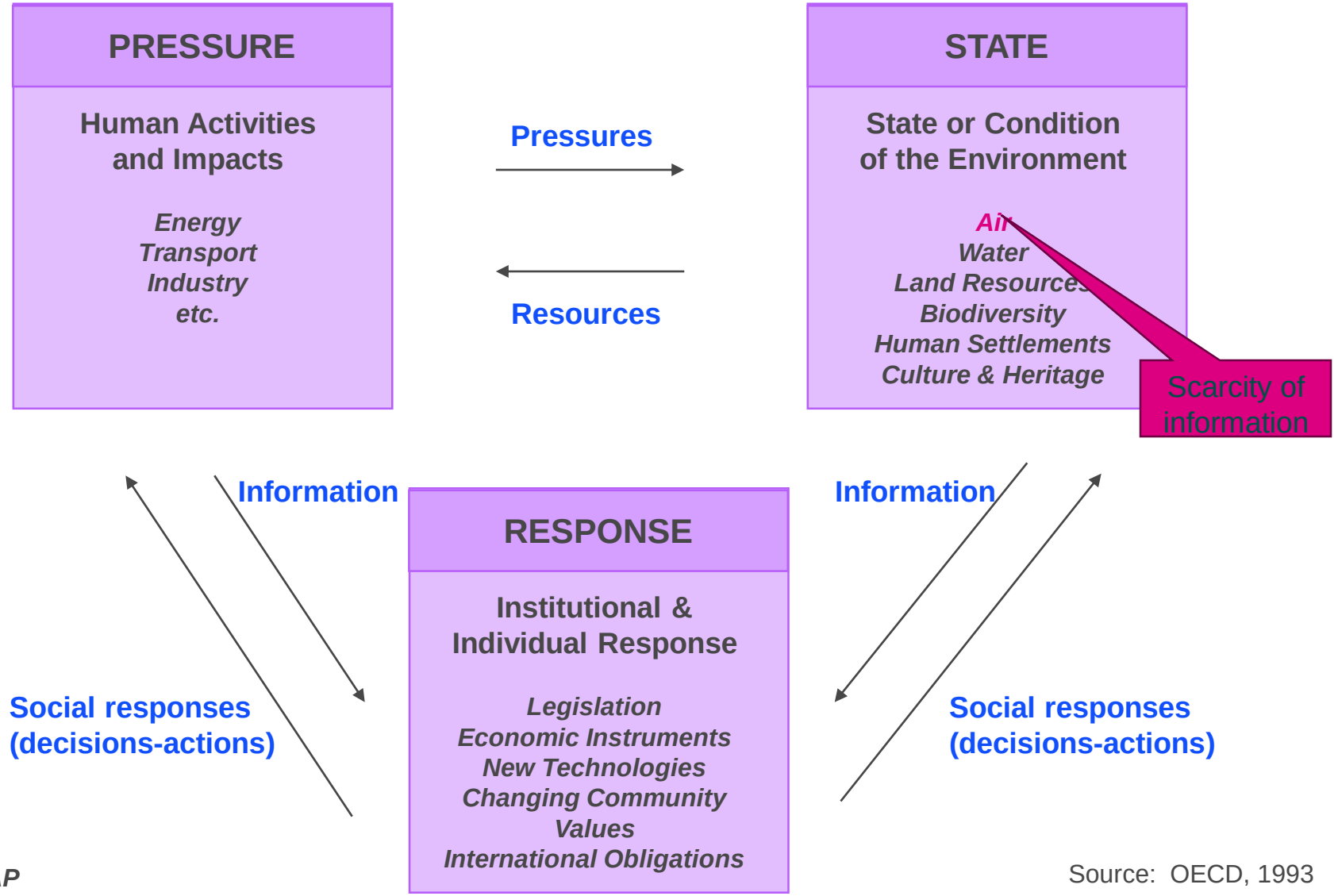


KNOWLEDGE BASE

DECISION-MAKING

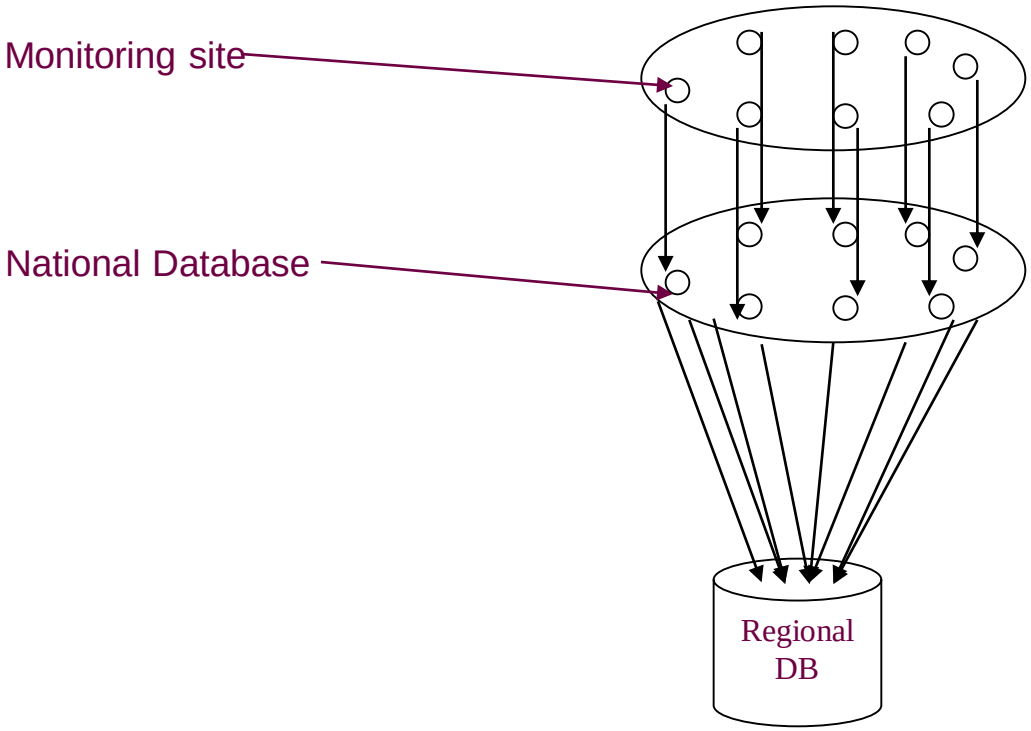
UNEP RRC.AP

PRESSURE-STATE-RESPONSE MODEL



Source: OECD, 1993

Data reporting procedure



Reporting frequency

Based on the national database, each participating country is invited to submit a report in the specified data reporting formats on monthly basis, to the extent possible with available resources.

To reduce the workload during the data compilation process, the submission of the reports via electronic media, in addition to the documents, is strongly encouraged.

What to report

- **Wet deposition monitoring data**
- **Air concentration monitoring data**
- **Meteorological parameters**
- **Information on respective monitoring sites**

Wet deposition monitoring

WET ONLY COLLECTOR

- **Monitoring interval**
  - **Weekly composite samples using wet only collector.**
- **Reporting forms**

pH, and electric conductivity (EC) should be reported in the reporting form Wet W No.3

Concentration of NH4+, Na+, K+, Ca2+ and Mg+ should be reported in reporting form Wet W No.2

Concentrations of SO42-, NO3-, and Cl- should be in reporting form: Wet W No.1

Wet deposition monitoring

BULK COLLECTOR

- **Monitoring interval**
  - **Weekly composite samples using wet only collector.**

- **Reporting forms**

pH, and electric conductivity (EC) should be reported using reporting form Wet B No.3

- **Concentration of NH_4^+, Na^+, K^+, Ca^{2+} and Mg^+ should be reported using reporting form Wet B No.2**

- **Concentrations of SO_4^{2-}, NO_3^-, and Cl^- should be reported in reporting form Wet B No.1**

Air concentration monitoring

HVS

- **Monitoring interval**
  - **24 hr samples [9 am – 9 pm]; Sampling to be done for 10 days/month between 5th – 25th of each month.**

- **Reporting forms**

PM_{10}, NRSPM, TSPM, SO_2 and NO_x should be reported using reporting form: Air H

Air concentration monitoring

DIFFUSIVE (PASSIVE) SAMPLER

- **Monitoring interval**
  - **Monthly**

- **Reporting forms**

Results of diffusive samplers (concentration of SO2 and NO2) should be reported using reporting form: Air P

Meteorological parameters

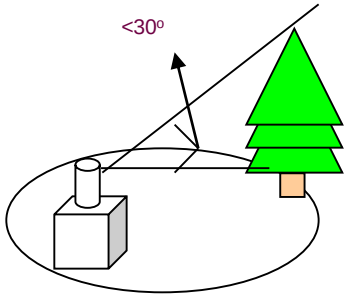
- **Reporting**

- ***wind direction/speed, temperature, humidity, precipitation amount and solar radiation should be reported in accordance with the measurement frequency of the meteorological monitoring system of each country***

Information on monitoring site

- **What to report**

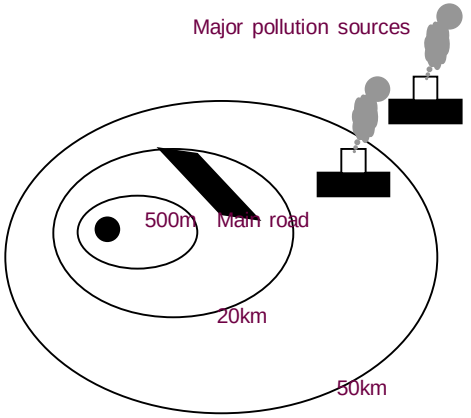
Format on information on respective monitoring sites includes basic properties of site, such as address, site classification, geographical coordinates, altitude, land use, potential contamination sources, geographical description, and so on



Information on monitoring site

- **Reporting format**

Formats on situation around the site of on-sitescale (within 150m), local scale (150m – 10km), and regional scale (10km – 50km) are provided in reporting form S1, S2, and S3.



. ***If precise figures are not available, description of topographical features around the site can help in understanding the situation.***

Note: If the information submitted changes, the up-to-date information should be reported as soon as possible

Data flags

- ***Data flags should be reported together with the monitoring data in the same data reporting format and problem occurred needs to be explained.***

- ***Flags provide information to the processing of data quality assessment.***

- ***Three position columns to each measured parameters are assigned to flag code.***

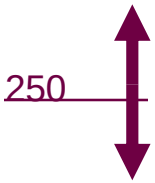
Data flags

- ***In the near future data flag system used by EMEP will be implemented under the Malé Declaration.***

- ***For the time being flags could be reported in the form of remarks.***

EMAP Data flags

Flags are sorted according to severity



Flags above 250 indicate an exception that has invalidated or reduced the quality of the data element.

Flags below 250 indicate that the element is valid, even if it may fail simple validation tests. The value may for example be extreme, but has been tested and found correct.

Note: The most severe flag should appear first if more than one flag is needed.

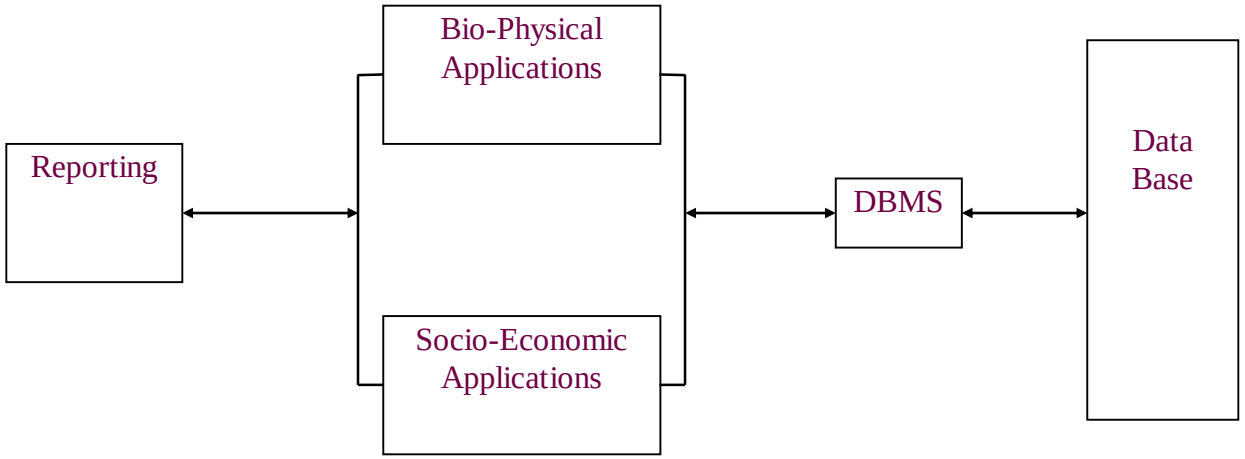
EMAP Data flags

Flag	Mnemonic	V/I	Description
699	LMU	I	Mechanical problem, unspecified reason
679	LUM	V	Unspecified meteorological condition
678	LHU	V	Hurricane
677	LAI	I	Icing or hoar frost in the intake
659	LSA	I	Unspecified sampling anomaly
658	LSV	I	Too small air volume
657	LPO	V	Precipitation collector overflow. Heavy rain shower (squall)
656	LWB	V	Wet-only collector failure, operated as bulk collector
655	LMI	V	Two samples mixed due to late servicing of sampler. Estimated value created by averaging
654	LLS	V	Sampling period longer than normal, observed values reported
653	LSH	V	Sampling period shorter than normal, observed values reported
649	LTP	V	Temporary power fail has affected sampler operation

Database Management System

What is Data Base Management System
DBMS Softwares
Data Base Structure
Creating Data Base
Editing Data Base
Querying Data Base
Relational Power of Data Base
Integration of Numeric and Spatial Data

Database Management System



Data base management system (DBMS) is a program that serves as an interface between application programs and a set of coordinated and integrated files called a data base. Before the use of DBMS there was little, if any, integration or data sharing among the functional information systems

DBMS Software

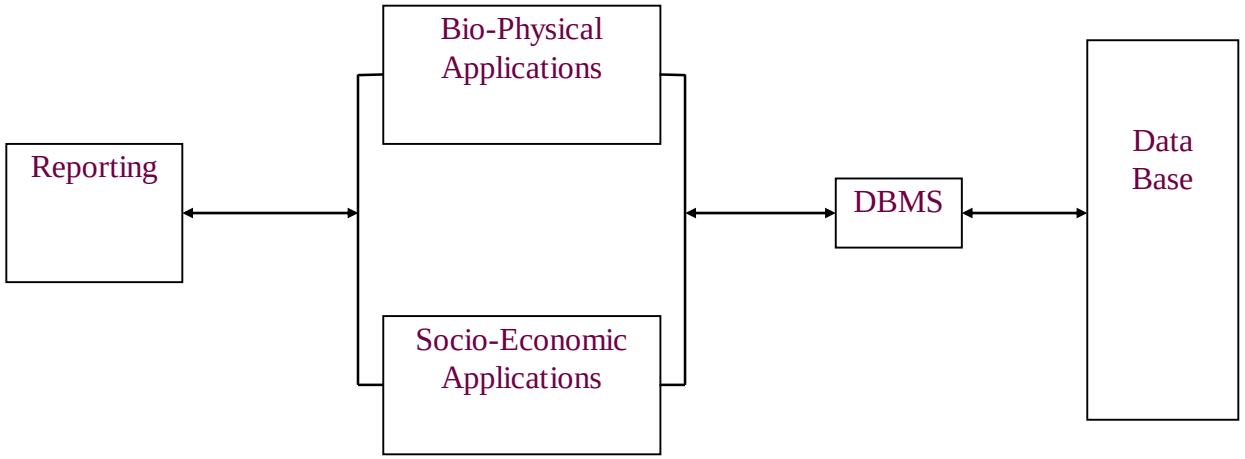
For numeric data:

- dBASE II, dBASE III, dBASE III+, dBASE IV, dBASE V
- Foxbase, Foxbase+, **Foxpro**
- Access
- Paradox, etc.

For spatial data:

- ARC/INFO
- ARCVIEW
- MAPINFO
- SPANS, etc.

Database Management System



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