

Value compositing is used to calculate coordinates at the top, center or bottom of each sample interval for either vertical, inclined or deviated drillholes. Value compositing is used if the sample interval is not going to be changed. For example, if your original sample interval is every five feet and you needed the coordinates calculated for every interval down the hole you would use value composite. If you wanted to calculate the coordinates for twenty foot intervals you would need to use length compositing rather than value because you are changing the sample interval.

Procedure:

The first step in VALUE compositing is to create the fields that will store the results of the composite. It is important to remember that these fields must be added to the table that contains the interval information for compositing. In the following example database the fields *from_a* and *to_a* store the interval information in the assays table. The fields that will store the coordinate information after compositing are *EAST_COMP*, *NORTH_COMP* and *ELEV_COMP*.

TECHBASE: Opening existing database BOLAND with 3 tables and 25 fields

DATABASE definition for database = BOLAND Title: Dry Creek Ranch Prospect,
Eureka County, Nevada Created: 1989/02/07;09:46 Modified: 1992/06/09;15:00
With 3 tables and 25 fields

```

TABLES: collars      is a      FLAT table with   7 fields and
105 records
2415 bytes      Table has no Keys:
Fields:        collars_rec          collars_nul          hole_id
easting              northing              elevation
total_depth
survey      is a      FLAT table with   6 fields and   423
records
1867 bytes
Table has no Keys:
Fields:        survey_rec          survey_nul          hole_id
azm      dip              depth
assays      is a      FLAT table with 12 fields and   4618
records
226282 bytes      Table has no Keys
Fields:        assays_rec          assays_nul          hole_id
from_a              to_a              EAST_COMP
NORTH_COMP          ELEV_COMP          Au
As                  Cu                  Ag
    
```

Fields

COMPOSIT accesses information from multiple tables in the database. These tables are related by the common hole id field. This field must exist in each table that is used in compositing.

In the *Fields* menu under Setup, the fields that store the required information are entered. The coordinate information comes from the table that stores the Hole ID, X, Y and Z data for each hole. In the example database this information would come from the fields easting, northing, elevation, and total_depth found in the collars table. The data for the composite needs to be sorted downhole in each table that is used for compositing, if you are not sure if the data is sorted say YES to sort needed, which is the default. If your data is not sorted the composite will be aborted.

Technote: Value Compositing

If the holes are vertical the Azimuth, Dip and Depth fields are not necessary. The example database contains deviated holes with surveys, so we would enter the fields azm, dip and depth from the survey table. If an azimuth is supplied a dip must also be supplied for inclined holes. The From and To information comes from the table that stores the interval data to be composited. The interval information comes from the from_a and the to_field in the assays table.

Once the required fields are entered the next step is to fill in the required coordinates. In the coordinates menu the output coordinate fields for X,Y and Z values must be filled in. These fields must be in the table that contains the interval data. The fields *EAST_COMP*, *NORTH_COMP* and *ELEV_COMP* have been added to the assay table to store the resulting coordinates from the value composite because this table contains the interval data. The optional fields in the coordinates menu do not need to be filled in for value compositing.

The assignment menu allows you to store new composited values. Since we are producing coordinate data only we don't need to set up any assignments.

The parameter menu provides the conditions for controlling the compositing process. First enter the type of compositing, which is value. The location choices are top, middle or bottom. If you chose bottom as the location the coordinates for the bottom of the hole would be calculated. Choosing middle would give you the coordinates for the middle of the drillhole and so fourth for location top. For a value composite a minimum length does not have to be entered nor does a maximum length. The update type is the only other parameter that must be entered for value compositing. The update type for value compositing must be overlay since the composited values are being written back to the same table that stores the interval data. If you put in replace or append an error message would occur that tells you only update type overlay may be used with value compositing. The final step in setting up for value compositing is to answer yes or no to silent operation. If you answer yes the program will complete the composite process without stopping if an error is encountered. If no is chosen then each time an error is encountered the program is interrupted and you are prompted to continue the process or abort the process.

A benefit of using and type of compositing is that any errors the composite program encounters such as overlapping intervals, duplicated intervals or missing intervals are written to an output file. You can then print or view this file to correct any mistakes in the downhole data. Running the value compositor is a quick and easy way to verify data integrity. Following is an example of the information found in the composite output file:

```
TECHBASE:
No Assignments have been Setup
Coordinate calculation ONLY
Interval 30.000 to 40.000 missing for id=83-10
Interval 226.100 to 230.000 missing for id=83-10
Interval 400.000 to 403.100 missing for id=83-10
Interval 260.000 to 275.000 missing for id=84-112
Interval 275.000 to 270.000 negative ignored for id=84-112
Interval 40.000 to 50.000 missing for id=84-61
Interval 110.000 to 100.000 straddles previous for id=85-117
Interval 100.000 to 110.000 missing for id=85-34
Interval 110.000 to 100.000 negative ignored for id=85-34
Interval 100.000 to 110.000 missing for id=85-34
Interval 387.200 to 390.000 missing for id=85-99
TECHBASE:
composited 4613 assays from 105 drillholes
4611 composites created.
11 errors written to output
```

For more information see [“Composit - Composite downhole data.” on page 1mo-3](#)