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Planar geologic features mapped in the field are portrayed on maps as oriented symbols. A customized symbol is chosen to identify the type of structure recorded, and this symbol is oriented to depict the observed orientation of the feature in the field. TECHBASE's ability to read symbol type and style from database fields can be put to extremely good use. A multitude of different marker types, each correctly oriented and labelled, can be drawn with a single pass in the *POSTER* program.

Procedure:

A FLAT table is needed to store records of individual observation points. Fields are required for storing the point identifier, point coordinates, structure type, structure orientation, and structure dip.

```
Table STRUCTURE  is a  FLAT table with  11 fields and  4158 records

FIELDS:
  struc_id      ACTUAL  TEXT
  struc_east    ACTUAL  REAL
  struc_north   ACTUAL  REAL
  struc_type    ACTUAL  INTEGER
  struc_azi     ACTUAL  INTEGER/REAL   Minimum =   0 Maximum = 360
  struc_dip     ACTUAL  INTEGER/REAL   minimum = -90 Maximum =  90
```

Note that the field *struc_type* could also be a MEASURED field, which would allow the feature type to be entered by name. See the October, 1991 Technote for details on this method. When collecting data, make sure to be consistent in recording all the structure directions as either dip-direction or strike-direction azimuths. The structural symbols supplied with TECHBASE (markers number 101-114) are designed to be used with dip-direction, but a calculated field could be used to convert from one system to the other.

Using the *Point* menu in the *POSTER* program, markers are placed at each observation point. The style and orientation of each marker and posted value are controlled by fields in the STRUCTURE table.

Using the *Point/Fields* menu in the *POSTER* program, enter the coordinate fields *struc_east* and *struc_north*. If the dip value is to be labelled next to the point, add *struc_dip* as the first value field.

In the *Marker* menu, set the symbol to be plotted by giving the field name *struc_type* for the marker *Type*. The *Color* and *Size* of the marker can be set as constant values, or could also be taken from database fields. The marker *Baseline azimuth* is set to match the orientation of the feature by entering the name of the field *struc_azi*. In the *Value style* menu, enter the text *Color* and *Size* for the posted dip label. To post the dip value on the downdip side, enter the *Location* as *RRIGHT* (relative-right), and the *Baseline azimuth* with the field *struc_azi.*

When the map is drawn using these values (see **Figure 1**), individual field observations are drawn as rotated markers with their dip values alongside. Use of relative right position to control labelling places dip values on the correct (down-dip) side, but may reduce legibility if the orientations are widely varied. Many clients demand that dip labels be placed on the down-dip side of the marker, but readable when viewed with north to top of sheet.

To accommodate this, the value *Baseline azimuth* may be set to 90, and value *Location* varied. Use a calculated field to assign a location (INTEGER 1-4) based on the feature orientation, *struc_azi*. By testing which quadrant the azimuth is in (360-315, 314-225, 224-135, 134-45, or 44-0) locations of 1 (top), 2 (left), 4 (bottom), 3 (right), or 1 (top) are assigned. Use the *struc_lb_pos* field for the value text *Location*.

```
FIELD:
  struc_lb_pos  CALCULATED INTEGER
                Equation: 1 struc_azi 315 > 23 skip pop
                          2 struc_azi 225 > 16 skip pop
                          4 struc_azi 135 >  9 skip pop
                          3 struc_azi  45 >  2 skip pop 1
```

Compare the results of this method (see **Figure 2**) with the previous results to see the effect on the appearance of the dip values.

Figure 1

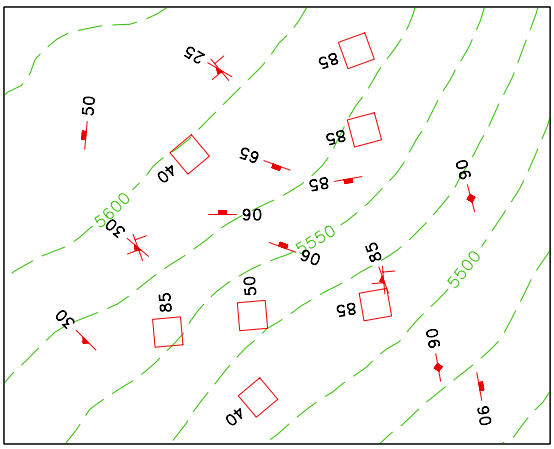
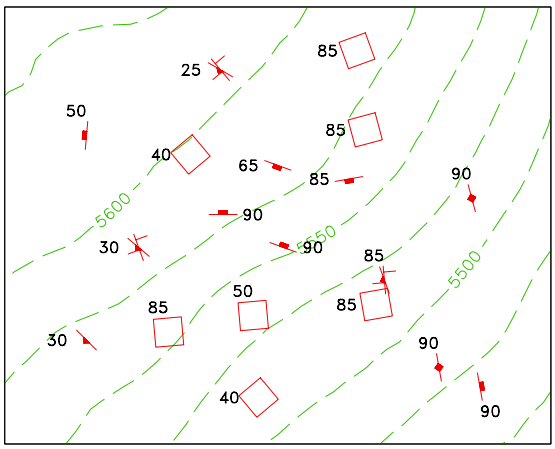


Figure 2



For additional information on the *POSTER* program, see **"Poster – Plot data onto plan-view maps" on page 1gr-97.** For information on value locations, see **"Value Lists" on page 0-27**.

