

This **Technote** will describe several methods that can be used to locate a value that defines an extreme limit in the data (e.g. the latest, earliest, lowest, or highest record for a particular database field). Once identified, this record can be viewed, flagged, or written into a new field.

Procedures:

### **Method 1.**

The *SUMMARY* program will allow you to view the basic statistics of any given REAL or INTEGER field. This method will not allow you to see the actual records, but it will display useful information including the minimum, maximum, mean, and range of the values in the specified field or fields.

A common use for *SUMMARY* is to help determine the ranges of your topographic data when you want to plot a base map. In *SUMMARY*, you can list the topography table (e.g. **TOPO**) or the individual topographic fields (e.g. **easting** and **northing**) and quickly find the maximum and minimum values for each field.

### **Method 2.**

The option to *sOrt* values is common to most of the **TECHBASE** programs, and if you have already entered a program such as *TBEDIT*, the sorting function allows you to view or work with extreme values without exiting the program. The simplest way to locate an extreme value is to sort the records of a field so that the record with the extreme you want is sorted to the top of the list. This method is demonstrated in the following three examples.

1. To find the minimum value of the field **width**, sort in ascending order (this is the **TECHBASE** default for sorting) as follows:

sort list: **width**

2. To find the maximum value, sort in descending order by using the (-) notation:

sort list: **width (-)**

3. To keep common records together, you may need to specify more than one field in the sort list. For example, you want to find the maximum value of field **gold** in each drill hole, but you still want all of the assays for a hole (in the field **hole\_id**) to be listed together. The sort list would be as follows:

sort list: **hole\_id gold (-)**

**Note:** Where you choose to execute your sort will make a difference in how the database is affected. In the *DEFINE* program, a sort will be permanent because it will affect the basic structure of your record order. In the *TBCALC* or *TBEDIT* programs, however, the database records are unaffected.

### **Method 3.**

In many instances, you will want to find an extreme record and flag it for future reference or purposes such as filtering. This procedure must be done in *TBCALC*, because it stores the results in a field. In this example, you will find the record with the latest sampling date and write a 1 into the **latest\_flag** field for that one record. All other records will have a NULL value written into the **latest\_flag** field.

