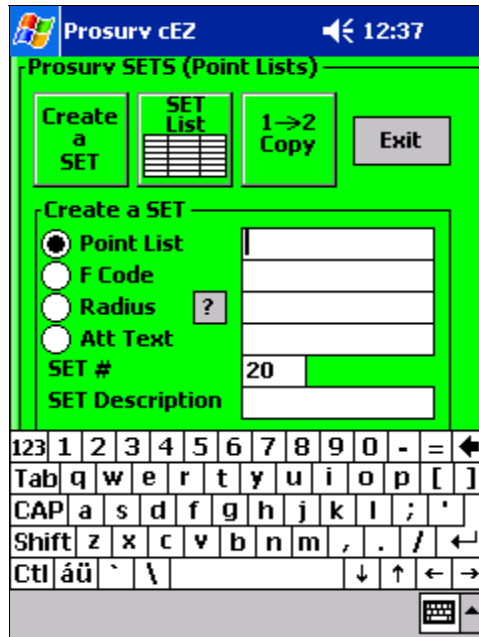


# Prosurv cEZ SETS



## **SETS: A Quick Review**

Prosurv cEZ gives you the ability to create up to 2000 SETS per job. A SET is simply a point list that you create, or that Prosurv cEZ creates automatically (in some routines).

You can create a SET 4 different ways:

- By entering a point list
- By matching text in Feature Codes
- By Radius from a given point
- By matching text in Attributes

Once a SET is created you can do many things with the SET. You can Stakeout a SET of points, Export a SET of points, Plot a SET of points and much more. Routines with a text box that says "**Include #'s**", allow you to enter a point list or a SET. To enter a SET, simply precede the SET #

with a semi-colon, colon, or asterisk, such as ;5.

The **Import Points** routine can automatically place the incoming point numbers into a SET if you check the appropriate box. Let's say you have some points that you've downloaded for stakeout. You import the points, and the point numbers are automatically stored in a SET for you. Then you just Stakeout the SET.

Each SET has three parts—the SET #, the SET list, and the SET Descriptor. So you could make a SET of points that represent a particular Lot's corners, and the SET's descriptor could be that Lot number (which can be plotted with the SET).

#### **Creating a SET by Point List**

Enter the Point List in the text box opposite the Point List button. In Prosurv cEZ, point lists can represent a total of 200 points. Also:

- A period . means "Through"
- A comma , means "And"
- Point lists can be in reverse, such as 62.35
- The SET # is incremented automatically, or you can enter the SET # that you want to use
- You don't have to use consecutive SET numbers
- If you had to create a SET for Lot 125, you could enter the points and store it as SET #125, so that it's easy to remember which SET holds the points for which Lot

After entering the Point List, tab down to the SET Description to enter a description for the SET such as Lot 125. Now just tap the **Create a SET** button.

Prosurv cEZ 7:57

Prosurv SETS (Point Lists)

Create a SET SET List 1->2 Copy Exit

Create a SET

Point List 35.62,14.99

F Code

Radius ?

Att Text

SET # 125

SET Description Lot 125

**Create a SET by Text in Feature Codes**

Prosurv cEZ can create a SET of points that have matching text in the Feature Code.

The example shows creating a SET of points that have "CP" in their Feature Codes. Prosurv cEZ will search the entire job file and will create a point list for you.

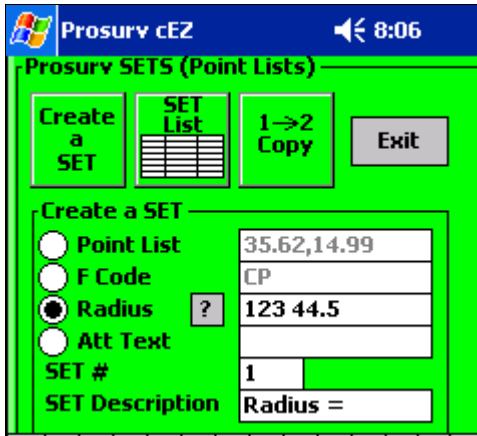
Tap **Create a SET** to create the SET.



**Create a SET by Radius From a Point**

You can create a SET by Radius from a point. For example, you may want to find all the points in the job that are within 44.5' of point #123.

Enter the point number and distance (radius from the point) as shown, and tap **Create a SET**.



**Create a SET by Text in Attributes**

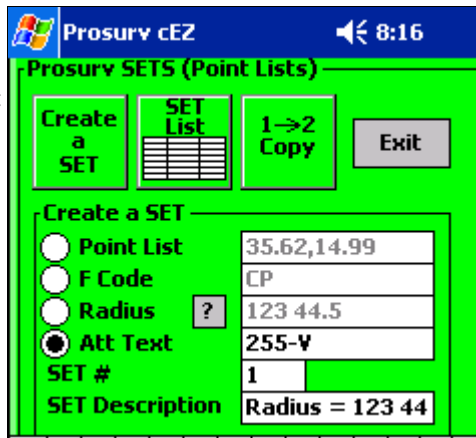
Prosurv cEZ can create a SET of points whose attributes contain matching text. This important feature lets you collect feature codes and attributes, yet still be able to find a point number based on it's attribute text, not just it's feature codes.

For example, let's say you've shot a topo and located a Benchmark during the topo using Feature Codes and Attributes. When you shot the Benchmark, you stored the appropriate Feature Code, which was simply **BM**. Then, you were asked by Prosurv cEZ to enter the Attributes for the BM. Attribute questions for BM were:

- Name
- Type
- Stamped Elevation

For the Name of the Benchmark, you entered 255-V which was stamped on the Brass Cap.

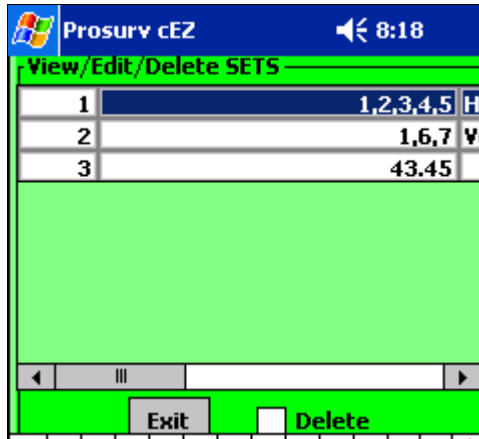
Now, you can create a SET of points (in this case probably just one point) that has the text 255-V in the attributes.



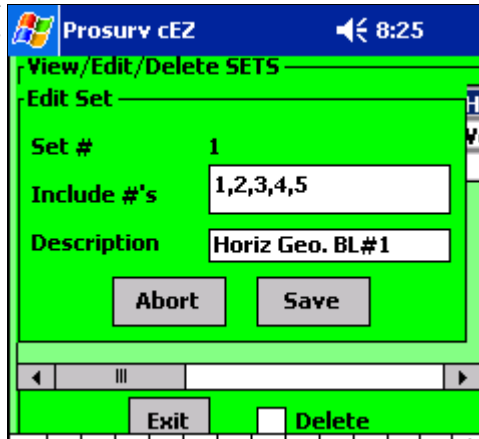
**View the SET List**

You can view a list of all of your SETS in numerical order.

The SET list displays the SET #, Point List, and Description of each SET.

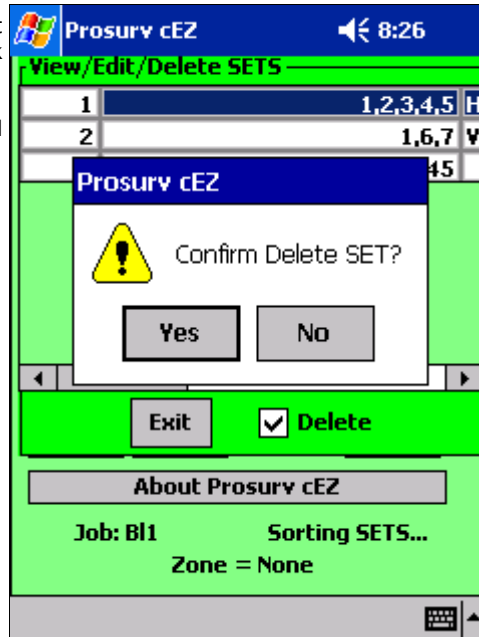


You can tap the SET to edit the point list or description.



To delete a SET, just check the **Delete** check box, then tap the SET.

You will be prompted to confirm the deletion.

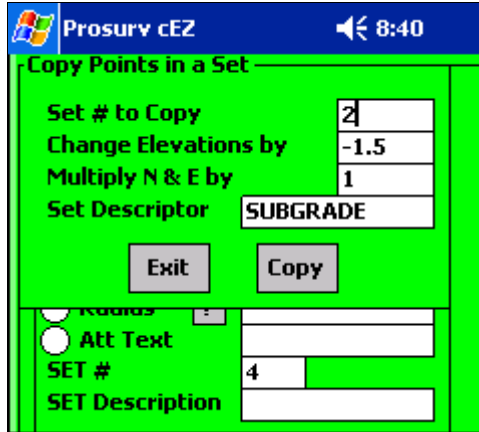


### **Copy a SET**

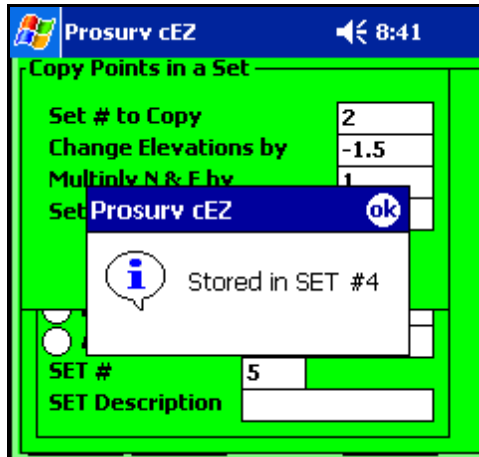
This powerful function copies all of the points of a SET to a new point range, then makes a new SET of that point range. For example, SET # 2 shown above contains the vertical points of a Baseline which is 1,6,7. If you use **Copy a SET**, Prosurv cEZ will create a new SET of new points that are created using the Auto point #. If the Auto # is 100, then points 100.102 will be created, and they will be duplicates of #1,6, and 7. Then, SET #4 will be created and will contain 100.102.

The **Copy a SET** routine can also translate the elevations of each point it copies AND/OR multiply the Northings and Eastings by a Scale Factor. With this capability, the **Copy a SET** routine turns into a very powerful function. With it you can effectively take Vertical Geometry that represents CL Final Grade and turn it into CL Subgrade in seconds. Then, if you have two Baselines, you could define both of them to use the same SET # for the Horizontal Geometry, and then use the two different SETS to represent different Vertical Geometry.

The data here illustrates one use of the **Copy a SET** routine.



The new points numbers and SET are stored.



You can use the Point List routine to list only the points in a SET. See the Points Chapter for more information.

**Important Note About SETS**

SETS are the backbone of Prosurv cEZ Baselines. A Baseline (Road Alignment) is defined by its Horizontal and Vertical Geometry. Basically, you just use points to define both Geometry's. When you create a new Baseline, you define which SET will be used as the Horizontal Geometry, and which SET is used for the Vertical Geometry. So, you can simply import points that define the Horizontal Geometry, enter the points (or select them by tapping the screen) into a SET, and define your Baseline.