ArcPad Help

Navigating with Your GPS

Overview of navigating with your GPS

ArcPad offers two methods for basic navigation when using a GPS connected to ArcPad.

First, ArcPad provides navigational information from the current GPS position to the destination. This information includes the distance and bearing to the destination (calculated by ArcPad) and the speed and course over ground, which ArcPad obtains from the GPS receiver.

The term navigation destination is similar to the term waypoint used by the GPS industry, with the exception that waypoints generally refer to destination points, whereas ArcPad navigation destinations can include coordinates on a map as well as point, line, or polygon features. ArcPad provides four tools for selecting a navigation destination:

- Go To tool
- Find tool
- Advanced Select tool
- Go To Selected Feature tool

The second basic navigation method that ArcPad provides is a GPS Tracklog. A GPS Tracklog is an electronic breadcrumb trail that illustrates the path you have traveled. The GPS Tracklog can help you backtrack from your current GPS position to your starting point.

Selecting a navigation destination using the Go To tool

The Go To tool can be used to select a navigation destination. Simply activate the tool and tap anywhere on the map to select your destination.

Steps:

1. Tap the arrow below the Identify button to display the drop-down list.


2. Tap Go To.

3. The Go To button is displayed on the Browse toolbar and is depressed to indicate that the tool is active.

4. Tap the map to select a navigation destination.

The destination is displayed with a Mark label.

5. Use the GPS Position Window to view the distance (DST) and bearing (BRG) from your current GPS position to your selected destination

💡 **Tip:** **Activating the GPS**: It is not necessary to activate the GPS before selecting a navigation destination. However, the GPS does need to be activated in order to open the GPS Position Window and view the distance and bearing to the destination.
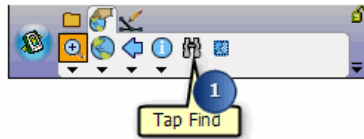
💡 **Tip:** **Clearing the selected destination**: To clear the selected destination and remove the destination Mark label, tap the Clear Selected tool 🔳 located on the drop-down list below the Find Features button on the Browse toolbar. The Mark label is displayed when a destination has been selected.

📑 **Note:** Refer to section, Activating GPS, for help on activating the GPS.
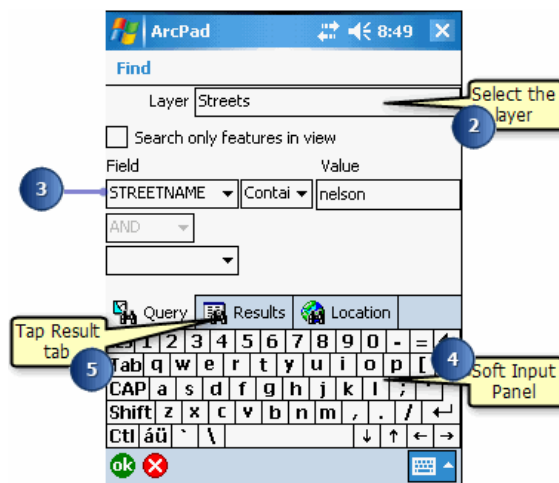
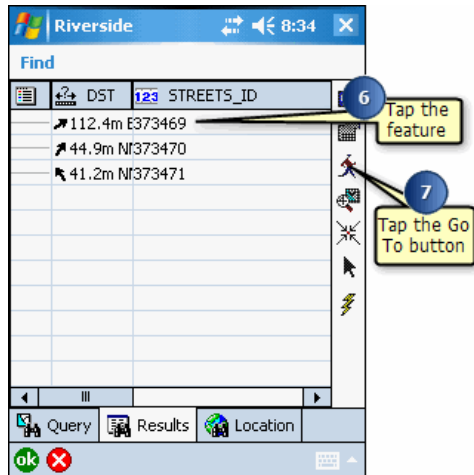# Steps to select a navigation destination using the Find tool

Steps:

1. On the Browse toolbar, tap the Find button to open the Find dialog box.

2. Tap the Layer drop-down list on the Query page and select the layer to search on.

3. Optionally tap the Field dropdown list and select the Field to search on.
   ArcPad will search all fields in the layer if you do not select a specific field

4. Use the Soft Input Panel or keyboard to type the value that you want to search for in the Value box.
   If you leave the Find box blank, ArcPad will list all features in the selected layer.

5. Tap the Results tab to execute the search.
   A table is displayed listing all of the selected features.

6. Tap the feature that you want to navigate to.

7. Tap the Go To button to make the selected feature your destination.

8. The selected feature is highlighted using the current highlight color.
The destination is displayed and labeled using the value of the field that was searched on. If no field was specified, the label will use the value of the first field that has any part of the word 'name' in the field name.

9. Use the GPS Position Window to view the distance (DST) and bearing (BRG) from your current GPS position to your selected destination.
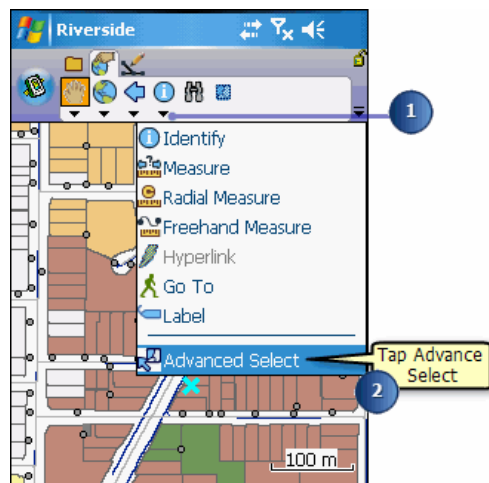
> 💡 **Tip:** **Changing the highlight color**: You can change the highlight color of a selected feature on the Display page of the ArcPad Options dialog box.

Selecting a navigation destination using the Advanced Select tool

The Advanced Select tool can be used to select multiple features. Only layers that have been activated for the Identify tool will be selected. Layers are activated for the Identify tool in the Layers page of the Table of Contents dialog box. The selected features are displayed in a list. The Go To button in the Advanced Select dialog box can be used to select the coordinate or feature as the navigation destination.
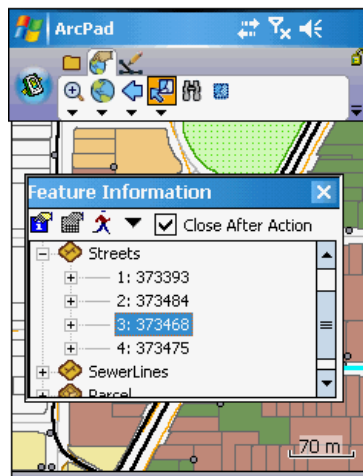
Steps:

1. Tap the drop-down arrow below the Identify button to display the drop-down list.

2. Tap Advanced Select.

3. The Advanced Select button is displayed on the Browse toolbar and is depressed to indicate that the tool is active.

4. Tap the map to select a feature or tap and drag a selection box to select multiple features from the active layers.
   A list is displayed showing the coordinates and the selected features where the map was tapped.
   The + icon can be tapped to display the attributes of the selected feature

5. Tap the feature that you want to navigate to.

6. Tap the Go To button to make the selected feature your destination.

7. The destination is displayed and labeled with the same feature attribute shown in the Advanced Select list.

8. Use the GPS Position Window to view the distance (DST) and bearing (BRG) from your current GPS position to your selected destination.

> 💡 **Tip:** **Selecting the coordinates for the navigation destination**: The coordinates displayed at the top of the Advanced Select list can also be selected for the navigation destination. Tap the Coordinates label, then tap the Go To button.
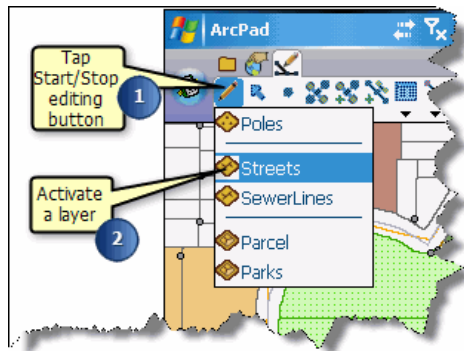
> 📝 **Note:** Refer to topic Using the Advanced Select tool in section, 'Querying your data', for more help on using the Advanced Select tool.

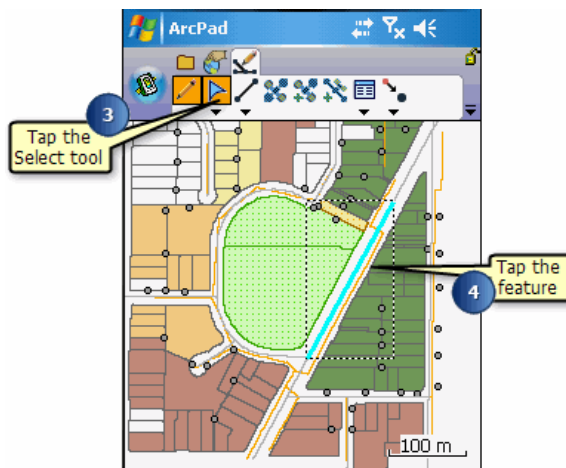# Selecting a navigation destination using the Go To Selected Feature tool

The Go To Selected Feature tool can be used to select a navigation destination by using the Select tool on the Edit toolbar. Select a feature from an editable layer and tap the Go To Selected Feature tool.
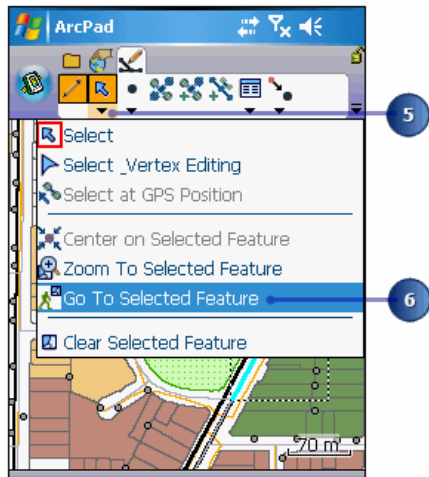
Steps:

1. Tap Start/Stop Editing button on the Edit toolbar.

2. Activate a layer for editing, by selecting it from the available list.

3. Tap the Select tool on the Edit toolbar.

4. Tap the feature on the map that you want to select for your navigation destination.
   The selected feature is highlighted with a dashed box, showing the extent of the feature.

5. Tap the arrow below the Select button to display the drop-down list.

6. Tap Go To Selected Feature.

7. The destination is displayed with a Mark label.

8. Use the GPS Position Window to view the distance (DST) and bearing (BRG) from your current GPS position to your selected destination.

> 💡 **Tip:** **Selecting vertical or horizontal lines**: Increase the Pen Tolerance if you are having difficulty selecting a horizontal or vertical line feature. The Pen Tolerance can be set in the Display page of the ArcPad Options dialog box.

> 💡 **Tip:** **Displaying the Edit toolbar**: The Edit toolbar is automatically displayed when a layer is checked for editing. You can also open the Edit toolbar by using the Toolbars list, located on the drop-down list to the right of the Tools button on the Main toolbar.
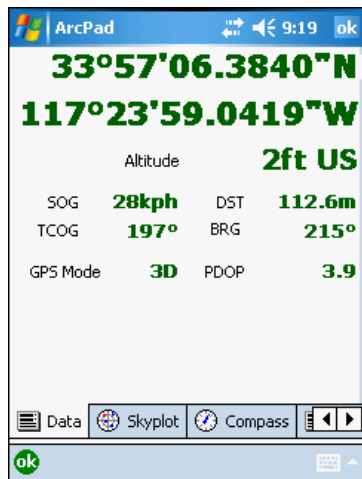
Note: Refer to section 'Editing basics', for more information on the editing tools and editing features.

Displaying the distance and bearing to the destination

The GPS Position Window displays the distance (DST) and bearing (BRG) from the current GPS position to the selected navigation destination.

Steps:

1. Activate your GPS if you have not already done so.

2. Select a destination using the Go To, Find, Advanced Select, or Go To Selected Feature tools.

3. Tap the GPS Position Window button to open the GPS Position Window.
   The GPS Position Window displays the distance (DST) and bearing (BRG) from the current GPS position to the selected destination.

💡 **Tip:** **Changing the distance units**: The distance is displayed in the units specified for the display units. You can change the units on the Display page of the ArcPad Options dialog box.
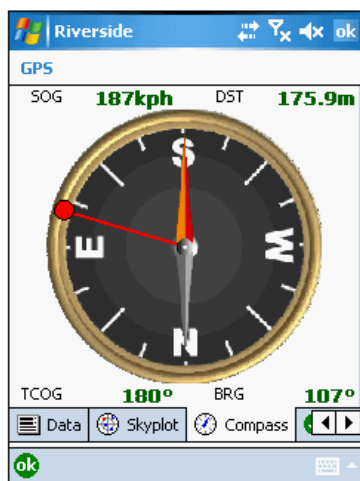
📒 **Note:** Refer to section 'Connecting your GPS receiver', for help on activating the GPS.

Displaying the bearing on the compass

The compass in the GPS Position Window displays the GPS direction, or course over ground (COG), with a black arrow and the direction or bearing from the current GPS position to the selected destination with a red line.

Steps:

1. Activate your GPS if you have not already done so.

2. Select a destination using the Go To, Find, Advanced Select, or Go To Selected Feature tools.

3. Tap the GPS Position Window button to open the GPS Position Window.

4. Tap the GPS Position Window Satellite Skyplot twice to toggle to the Compass display.

5. The GPS Position Window displays the GPS COG with a black arrow and the bearing to the selected destination with a red line.

Overview of setting the distance alert

You can set an alert message— and sound—to be displayed when the distance from the current GPS position to the selected destination is less than a specified distance. The alert message and sound are specified in the Alerts page of the GPS Preferences dialog box. The distance is specified on the Location page of the GPS Preferences dialog box.
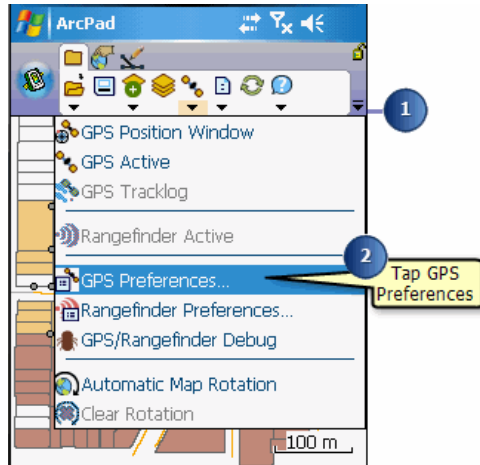
> 💡 **Tip:** **Creating a custom alert message**: You can create your own Alert message by creating a .wav file on your Windows Mobile device or desktop PC. To activate it, go to the Alerts page in the GPS Preferences dialog box.

> 📒 **Note:** See the ArcPad Reference Guide on the GPS Preferences dialog box for more information on alerts and sounds.
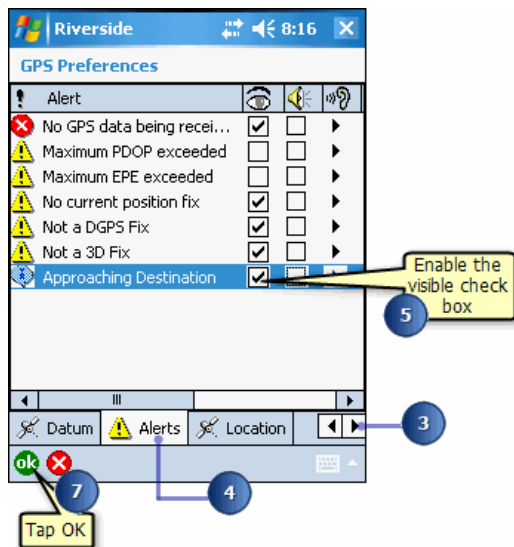
Setting the alert message and sound

Steps:

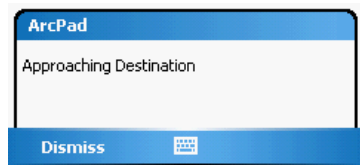1. Tap the arrow below the GPS Position Window button to display the dropdown list.

2. Tap GPS Preferences.

3. In the GPS Preferences dialog box, tap the right arrow button until the Alerts tab is displayed.

4. Tap the Alerts tab to display the Alerts page.

5. Check the Visible check box for the Approaching Destination alert to display a message box, when the alert is activated.
Check the Sound check box to play a sound when the alert is activated.

6. If the Visible check box is checked, the Approaching Destination message box will be displayed when the distance to the destination is less than the specified alert distance.

7. Tap OK.

Overview of finding features

The Find tool can be used to select features from a layer using a search query, or to find a specific location. The Find tool consists of three default pages: Query, Results, and Location. A custom query form will also be displayed, if present.

The results of the query are displayed in a list on the Results page. Once a list of queried features is displayed, you can select a feature and perform one of the following actions on that feature:

- View information about the feature using the Identify tool.

- Edit the feature's properties through the Feature Properties dialog box or a custom form, if one exists.

- Zoom to the feature and label it.

- Select a feature and make it the current navigation target.

- Center the selected feature on the screen.

- Select the feature for editing.

The results of the query also include a distance (DST) column which shows basic navigational information for each feature relative to the current GPS position—or relative to the center of the map if there is no GPS position.

This navigational information includes a directional arrow, relative to True North; a distance, using the current display units; and an abbreviated compass direction, for example NW for northwest.

The features can be sorted by distance by tapping on the DST column heading. Tapping the DST column heading once will sort by increasing distance, tapping a second time will sort by decreasing distance.

> **Tip:** **Search only features in view**: Tap the 'Search only features in view' check box to limit the search to the features in the current map view.

> **Tip:** **Saving your search parameters**: The search parameters that you have selected and entered are saved to the ArcPad Layer file (.apl) when you tap the OK button on the Query page to view the results. The search parameters are not saved when you tap the Results page tab to view the results. Search parameters are saved (and recalled) for each layer selected.
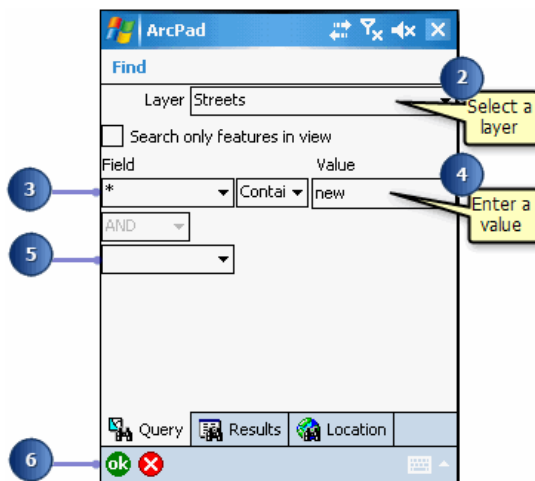
Using the Find tool to query data

Steps:

1. Tap the Find button on the Browse toolbar.

The Find dialog box opens.

2. On the Query page, tap the Layer drop-down list to select the layer to search on

3. Optionally tap the Field dropdown list to select the field that you wish to search on, or use the default "*" to search all fields in the layer.
   You can also optionally select an operator, or use the default "Contains" operator.
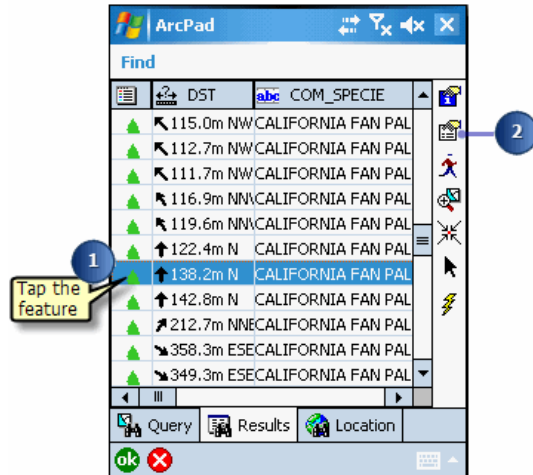

4. Optionally enter in a value to search on. All the records in the layer will be returned if no value is entered.

5. Optionally select a second field to search on by tapping the second Field drop-down list. The AND/OR drop-down list is automatically enabled when a second search field is selected. You can search on up to three fields using the AND/OR operators.

6. Tap OK, or tap the Results page to execute the query and view the results of the query.
   The results list can be sorted by tapping any of the column headings. Tapping a column heading once will sort the column in ascending order. Tapping a second time will sort in descending order.
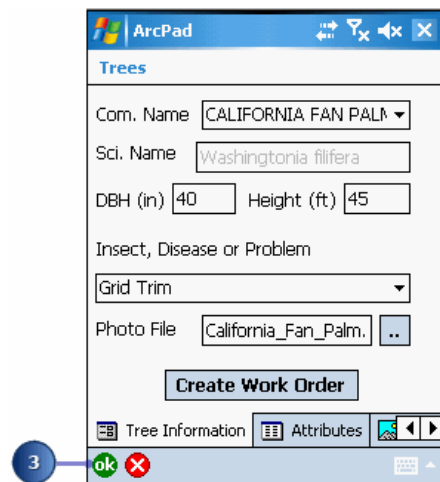
Using the Feature Properties tool on your query

Steps:

1. Tap the feature for which you would like to display its properties.

2. Tap the Feature Properties button.
   The Feature Properties dialog box or custom form displays, if one exists. The feature properties can be edited through this method. the layer must be set as editable in order for the Feature Properties button to be enabled.

3. Tap OK.
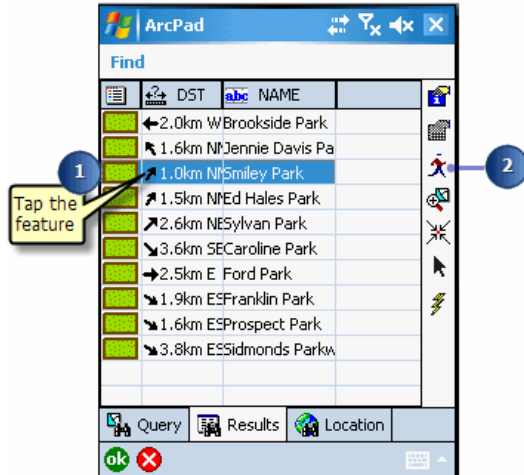   ArcPad returns to the list of queried features.

   💡 **Tip: Editing with the Find tool**: If the Feature Properties button is unavailable once you have selected your feature, you have not selected this feature to be editable via the Start/Stop Editing tool on the Browse toolbar or in the Table of Contents. You can only display

💡 **Tip:** **Sorting the results**: To sort the results of your search in ascending or descending order, tap the column heading on the Results page of the Find dialog box.
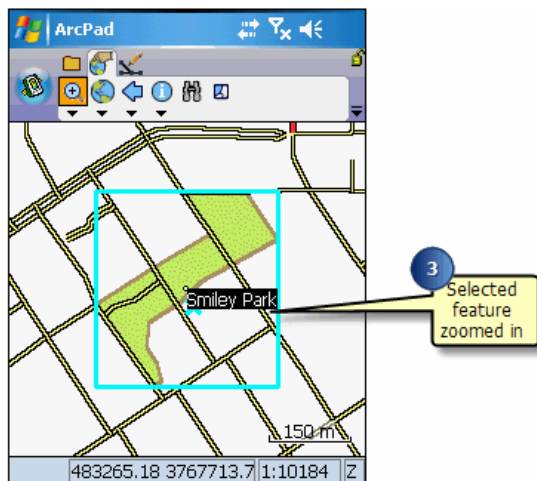
Using the Go To tool on your query

Steps:

1. Tap the feature you would like to select as a destination.

2. Tap the Go To button.

3. ArcPad zooms to the selected feature.
   The feature is highlighted using the current highlight color and set as the current navigation destination. The feature is also labeled using the value of the field that was searched on. If no field was specified, then the label will use the field that has any part of the word 'name' in the field name.

> **Tip:** **Changing the highlight color of selected features**: Use the Display page of the ArcPad Options dialog box to change the highlight color and thickness of the box that highlights your selected feature.

Tip: **Clearing the selected feature**: Tap the Clear Selected Feature tool on the drop-down list to the right of the Find button on the Browse toolbar to clear the selected destination and remove its label. The feature is not deleted, it is simply unselected and therefore unhighlighted

Note: Refer to the section Navigating with your GPS to learn how to use the Find tool and the Go To tool to select a navigation destination for your GPS
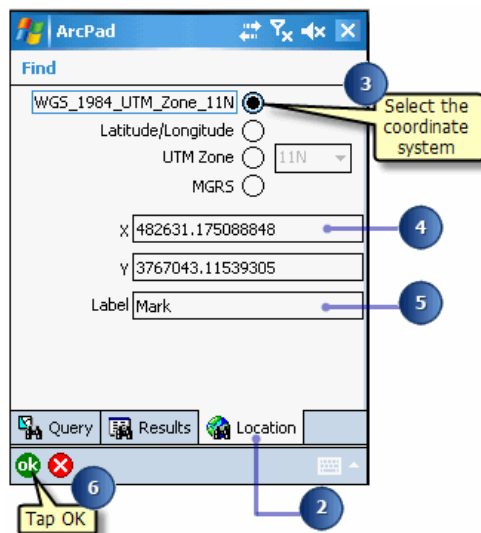
Using the Find tool to locate a place

The Find dialog box also enables you to find a location based on a set of coordinates. You can select from the following coordinate systems: the current map projection, Latitude–Longitude, the current UTM Zone, and MGRS. Simply enter the required information and ArcPad will go to the location and label it. The default label is Mark.

Steps:

1. Tap the Find button on the Browse toolbar.
   The Find dialog box opens.

2. Tap the Location tab.

3. Tap the appropriate radio button for the coordinate system to be used.

4. Enter the required coordinate information.

5. Enter a name for the label. The default is Mark.

6. Tap OK.
   The location is labeled on your map.