



## MapObjects

# Update a Recordset with Events from the Tracking Layer

By Sally Swenson, ESRI Technical Support

Events on the MapObjects TrackingLayer are temporary. You can store those events permanently in a shapefile or an existing ArcSDE layer using the following Visual Basic sample code:

1. Declare the following variables:

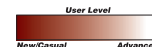
```
Dim tl As MapObjects2.TrackingLayer
Dim recs As MapObjects2.Recordset
```

2. Return the recordset that you want to edit:  
  
Set recs = Map1.Layers(0).Records
3. Loop through the events that currently reside on the Tracking Layer and update the recordset:

```
Dim i As Integer
For i = 0 To tl.EventCount - 1
```

```
recs.AddNew
Set recs.Fields("Shape").Value = _
tl.Event(i).Shape
recs.Update
Next
recs.StopEditing
```

Change the library name from MapObjects2 to MapObjects to use the code in a MapObjects 1.x project. MapObjects 1.x supports only point shapes as events. **AU**



## ArcPad

# Connecting to a GPS

by Shane Clarke, ESRI ArcPad Development

ArcPad, running on a handheld computer connected to a GPS, can be used for basic navigation or to find the distance and direction from a current GPS position to a selected destination. ArcPad 5.0.1 is GPS-enabled GIS. Coordinates from a GPS unit can be used to capture geographic data directly into a shapefile.

ArcPad is GPS-enabled for use with Ashtech, Magellan, and Trimble GPS receivers within the United States and its territories, and within one-degree of latitude or longitude of United States territories. Trimble devices use the TSIP protocol in the United States. When using other compatible GPS receivers within United States territories, ArcPad will display GPS information provided by the unit but will not save that information automatically to shapefiles. However, shapefiles can be entered manually. Outside of the United States, ArcPad is GPS-enabled for all compatible GPS receivers that output NMEA, TSIP, or Earthmate protocols.

After connecting the handheld computer and GPS unit, configuring ArcPad 5.0.1 to a GPS unit is a straightforward process that is described in the following steps:

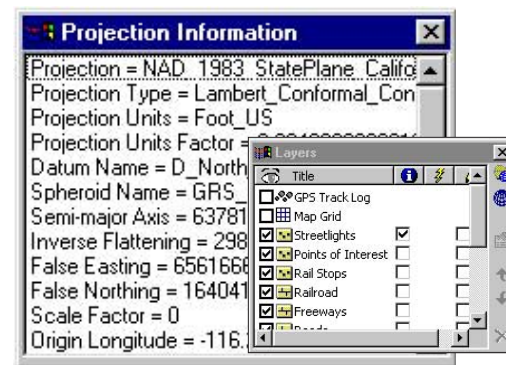
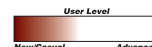
1. Verify that the ArcPad project you will add data to has a defined projection by clicking on the Layers button. From the Layers dialog box, click on the Projection Info icon to view datum and projection information for the data. The project must have a projection so that the GPS buttons will be enabled.
2. In ArcPad, select the GPS protocol by choosing Tools > Options from the menu. In the Options dialog box, select the GPS tab and choose the correct protocol—NMEA, TSIP, or

Earthmate—from the Protocols drop-down box.

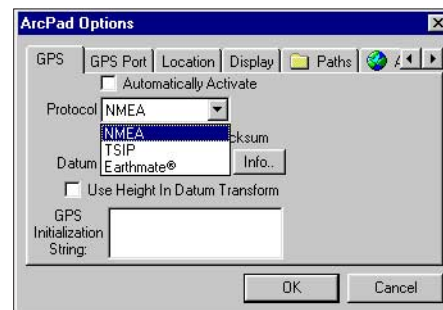
3. Verify that the GPS receiver is configured to output the same protocol selected in the previous step. Many GPS receivers ship with the output protocol inactive by default.
4. Make sure the serial connection between the GPS receiver and the Windows CE computer is correct. Windows CE devices with a standard ActiveSync cable or a cradle connected to a standard GPS receiver serial-to-PC cable require a null modem connector to switch pins 2 and 3.
5. In ArcPad, choose GPS > GPS Debug. In the GPS Debug window, verify that the GPS receiver is communicating with ArcPad. If the NMEA protocol was specified, the GPS Debug window should display OK messages interspersed with legible NMEA messages. If the TSIP protocol was chosen, only OK messages will display. In either case, error messages should not appear in the Debug window. If illegible NMEA messages or error messages appear, such as checksum, check device connections and settings.

6. In ArcPad, choose GPS > Position Window and verify that the GPS coordinates are being correctly captured.

Most GPS receivers do not require sending an initialization message to the receiver to successfully connect it with ArcPad and initializing messages are only used with the NMEA protocol. Use an initialization message only when changing the configuration of the GPS unit using NMEA protocol. **AU**



Verify that the ArcMap project has a defined projection by clicking on the Layers button and projection icon.



Select a GPS protocol by choosing Tools > Options and clicking on the GPS tab. Choose the correct protocol from the drop-down box

#### Disclaimer

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