

GPS Plug-In v2.0

This manual describes the use of the *GPSPlugIn* for thinkDB 2.5. This Plug-In will work for DataViz's SmartList To Go but some of the terminology used in this document may have changed for SmartList To Go (tinyBytes are SmartLists, 'thinkDB Plug-In' is 'SmartList Plug-In', etc). For more information on SmartList To Go, please visit <http://www.dataviz.com/products/smartliststogo> . If you want additional information on thinkDB Plug-Ins, please visit <http://ca.geocities.com/sltgplugins> .

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1. thinkDB Plug-In Overview

A thinkDB Plug-In is simply an add-on program that fills a specific purpose in thinkDB. As such, they extend the functionality of thinkDB. Plug-Ins are usually created by third-party developers to "plug into" thinkDB on a Palm OS based handheld.

2. GPSPlugIn Overview

a. Purpose:

This Plug-In was originally written by ThinkingBytes Technology and simply returns GPS data to a thinkDB tinyByte. This data includes the current Palm handheld date & time, latitude, longitude, altitude, and UTC date & time.

The GPS unit must be able to output in NMEA-0183 v2.0 standard protocol. Fortunately, this includes most brands of GPS units. Some brands support multiple protocols so you may need to configure your GPS to make sure its output is in the correct protocol. Be sure to consult your manual or check the manufacturer's website if you're not sure.

Finally, the GPS unit must be able to be attached correctly to your Palm. GPSPlugIn v2.0 has added the capability of connecting via Bluetooth or USB. If you want to connect a GPS unit to your Palm via a cable, you will need to consult with your manufacturer to see if they supply such a cable, either USB or RS232. Cable connections communicate at 4800 baud. I made up a RS232 serial connector for my Palm T5 using the specs at:
<http://www.initialdrivegrtr.po.gs/palmmcsch.htm>

b. Requirements:

This Plug-In is designed to be used by newer Palm OS devices which support Bluetooth, USB and multiconnector serial connections.

3. Installation

a. Upgrading from a previous version:

If you are upgrading from a previous version of a Plug-In, the following is some special information to help you avoid problems. Before attempting to configure the Plug-In fields (Section 5), it is necessary to "un-configure" the old *Plug-In* by using the special Plug-In

named Update.prc that is included in the zip. Install Update.prc if you do not have it already installed and then do the following steps:

- From the Field Editor, select the small box to the right of the field you have previously selected as the *Plug-In* field to get to the Field Properties screen.
- From the Plug-In list, select *Upgrade* and press the OK button.

Installation (continued)

There are a number of ways to install a thinkDB Plug-In (or any Palm OS application or database). There is a demo tinyByte (.pdb) included in the zip which shows a working example of what the Plug-In can do. This may also be installed in the same method.

- a. Double-click the .prc/.pdb file to be installed.
- b. Select Install from within the Palm Desktop and choose the .prc/.pdb file.

In both cases, the Palm Install Tool will then present a dialog to continue installation of the selected files to install. After doing a HotSync, the Plug-In will be installed into thinkDB and is ready for use. To verify that it was installed correctly, launch thinkDB on your handheld, choose Tools/Plug-in Manager from the thinkDB application menu. Tap the arrow beside "Plug-In" and you should see **GPSPugin** listed. If not, repeat the install instructions. If you do see it listed, it has been installed.

4. Un-Installing

To remove a Plug-In from thinkDB, first remove the Plug-In from all fields in all your tinyBytes. If you do not, you will encounter problems and could potentially corrupt data. Once you have removed all references of it from your tinyBytes, choose Tools/Plug-In Manager from the thinkDB application menu. Tap the arrow beside "Plug-In", tap on the Plug-In you wish to remove, then tap the "Delete ..." button.

5. Usage Overview

Before configuring any Plug-In, you must first create all the fields that the Plug-In requires for both Inputs and Results.

a. Configuring Plug-In Fields:

1. From the Field Editor, select Field Type thinkDB Plug-In from the Field Type list. Selecting the small box to the right will then open the Field Properties dialog.
2. From the Plug-In list, select *GPSPugin*. This Plug-In has 1 Input and 7 Results.

GPSPugin Input:

Port: three choices available
Bluetooth
RS232 cable
USB

GPSPugin Results: (all fields optional)

Date: A date field for the devices date.

Time: A time field for the devices time.

Latitude: A text field for GPS latitude.

Longitude: A text field for GPS longitude.

Altitude: A text field for GPS altitude.

Date: A date field for the GPS UTC date.

Time: A time field for the GPS UTC time.

b. Running the Plug-In:

There are two methods for having any Plug-In perform its duties:

1. Place the "plugged-in" field onto a form and tap it.
2. "Apply" the Plug-In from the "Filtered Operations" screen (which is one of the menu options that appears by tapping on the "tool" icon). This Plug-In ignores this method.

6. Known Problems/Issues

None.