

BG-Map

Mapping the world... one plant at a time

Garden Notepad and GreVid™ Users Manual

Garden Notepad version 6.5
GreVid version 5.3
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Garden Notepad

What is Garden Notepad?

Garden Notepad is a time and labor saving software application that allows garden staff to capture information about the size and condition of plants in the field on a hand-held Windows mobile device and automatically upload and transfer that information to *BG-BASE*.

Garden Notepad allows you to record the condition, DBH, number of trunks, sex, reproductive status, vegetative status, container, location, number of plants, special characteristics, spread, height, labels existing, labels needed, and take notes on any given plant while in the field.

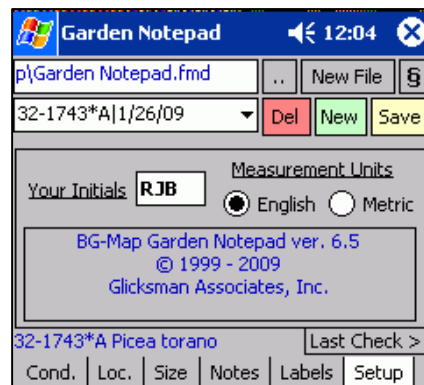
Starting Garden Notepad

Starting Up

- Tap the “Windows” button.
- Tap "Programs."
- Tap "Garden Notepad."

The “Setup” Tab

- Enter your initials. Use the same initials as you use in *BG-BASE*. These initials should be registered in the *BG-BASE* Staff table.
- Select either English or metric measurement units. Any measurements entered must be in the selected units. You can switch units at any time.

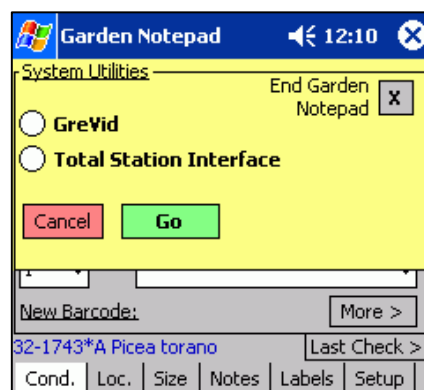


The “Setup” Tab

The “SOS Button” – Closing Garden Notepad and Switching Applications

The button containing the symbol § is referred to as the “SOS Button” and performs special functions.

First, it allows you to completely close Garden Notepad instead of simply hiding it. In Windows Mobile or Pocket PC, the “X” button does not completely close a program as it does in desktop Windows. Instead, it hides the program, which continues to run in the background. This is analogous to “minimizing” a window in desktop Windows. By tapping the “SOS Button” and then tapping “End Garden Notepad”, you will completely shut down



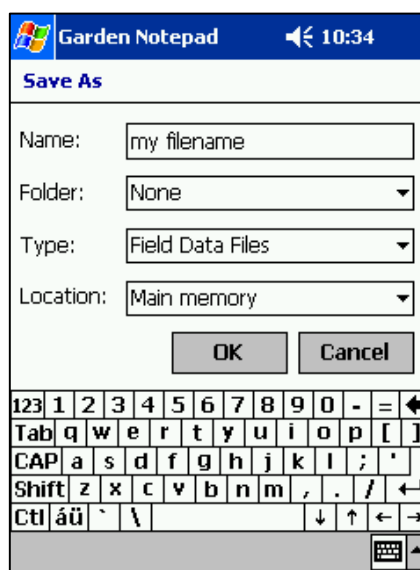
Garden Notepad. It is a good idea to do this before transferring a field data file to your desktop PC.

If you are using a version of Windows Mobile or Pocket PC earlier than Windows Mobile 5.0, you can also use the "SOS Button" to switch to GreVid or the Total Station Interface. If you are running Windows Mobile 5.0 or above, you can switch programs by tapping the shortcut icons that are revealed when you tap the "Windows" start button.

Creating a New Field Data File

Before you can record information in Garden Notepad, you must create a field data file.

- Tap "New File."
- Type in a file name under "Name" using the on-screen keyboard or physical keyboard and tap "OK."



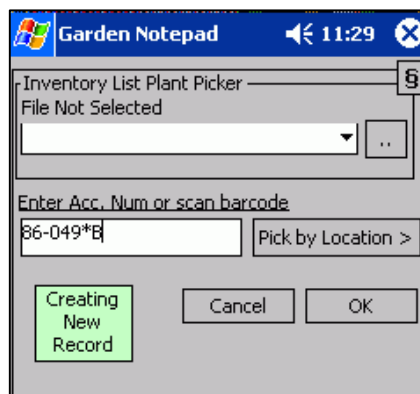
Creating a New Field Data File

Creating a New Record

To create a new record, tap the "New" button. There are 4 ways to enter the accession number of the new record:

Typing in the Accession Number

In the box labeled "Enter Acc. Num. or scan barcode," enter the accession number of the plant with qualifier (not case sensitive.) Tap "OK."



Typing in an Accession Number

Note: If a plant is open in GreVid™, that plant can be transferred directly to Garden Notepad by simply double-tapping the "Enter Acc. Num. or scan barcode" box.

Scanning a Barcode or RFID Tag

Rather than manually entering a plant's accession number, you can do it automatically by scanning a barcode or RFID tag.

- While creating a new record, scan the barcode or RFID tag on the plant label.
- If the barcode was custom made to represent that plant's accession number, the accession number will appear in the box entitled "Enter Acc. Num. or Scan Barcode."



Assigning a Barcode to an Accession Number

- If a pre-printed barcode or RFID tag with an arbitrary code is scanned, and if you have installed the GreVid database, you will be asked to enter the accession number to be associated with the arbitrary code.

Types of Barcoded Labels

There are two basic types of barcoded labels you can use:

Custom Printed Labels

To make a custom printed barcoded label, you will need a printer capable of printing on label stock using a barcode font, which converts ordinary text – in this case the accession number with qualifier of the plant – into a barcode.

Preprinted Labels

Preprinted labels are printed with barcodes that represent arbitrary sequential numbers so that no two labels are alike. Garden Notepad can associate the arbitrary number on a preprinted barcoded label with the actual accession number of a plant so that it can be used just like a custom printed label.

Barcode Scanning Hardware

Barcode scanners are available as plug-in or wireless attachments to Windows Mobile devices, and some devices have barcode scanners built in. In addition to the scanner, you will need “wedge” software that causes scanned barcodes to be treated in the same way as keyboard input.

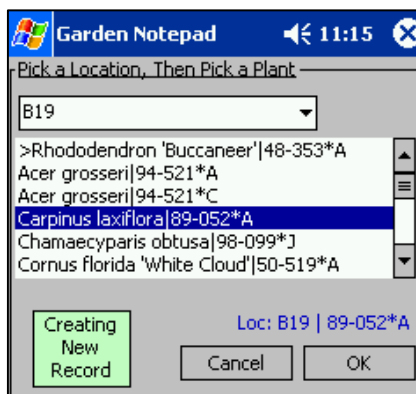
RFID Tags and Hardware

For more on RFID, see this TechNote: http://www.bg-map.com/userdata/RFID_BGMAP.pdf

Picking a Plant by Location (GreVid Required)

You can select plants by *BASE* Location. Tap “Pick by Location.” Then, select a Location from the drop-down list. A list of plants in that location will be displayed.

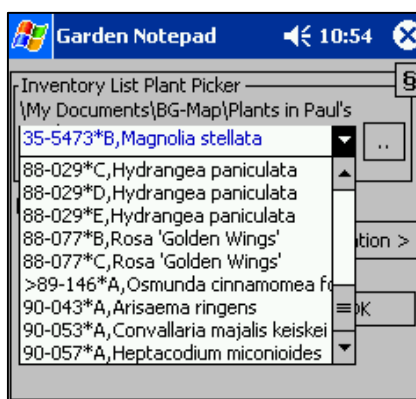
Any plants that have already been recorded in this data file will appear at the top of the list preceded by a “>.” Select a plant and tap “OK” or double tap the plant. This will create a new record for the selected plant.



Selecting by Location

Picking a Plant from an Inventory List

You can select a plant from an inventory list that you created using a text editor. Tap the double dots in the box labeled “Inventory List Plant Picker”, and select the text file that contains the inventory list. The list of plants will appear in the drop-down list below. Any plants that have already been recorded in this data file will be preceded by a “>.” Select a plant and tap “OK”. This will create a new record for the selected plant.



Selecting from an Inventory List

Note: When you save the data for a plant in an inventory list, an arrow symbol (>) is placed in front of the accession number on the inventory list. If you also save the same plant in the Total Station Interface, a caret (^) will be inserted. This allows you to keep track of which plants have been checked.

How to Create Inventory List

An inventory list may be created and stored in Garden Notepad in order to keep track of the plants you wish to visit in the field.

On the desktop PC, create a text file containing a list of the accession numbers of the plants you wish to inventory. Notes about any plant can be typed into the list by following the accession number with a comma, space, and the desired notes. An example of a possible inventory list is given below:

```
86-142*C
86-257*H, Mag. virg. near Rose Garden.
83-081*A
48-287*F
```

Be sure the handheld device is in its docking station. Using ActiveSync or Windows Vista, copy the file into the My Documents folder in of your handheld device.

Entering Plant Information

Seeing the Previous Field Checks (GreVid Required)

After you create a new record or open a record in Garden Notepad, you can view the previous field checks of the plant by tapping the “Last Check” button. This will display the most recent data for Location, number of plants, check date, condition, check notes and measurements.

To see the complete field check history of the plant, use GreVid. After opening the record for the plant in Garden Notepad, go to GreVid and double tap the “Accession Number” line. This will open the record for the same plant in GreVid.

The “Last Check” Screen

Entering Data on the “Condition” Tab

Use the condition tab to record the current condition, sex, reproductive status and number of trunks.

Recording the Current Condition

- Select a *BG-BASE* plant condition code from the drop-down list

Note: The “Condition” field is the only one that must be filled. All others may be left blank. To insert a blank, tap the drop-down list, and select the blank line.

Recording the Current Sex

- Select the *BG-BASE* code from the dropdown list.

Recording the Number of Trunks for Multi-Trunked Trees

- Select the number of trunks from the box entitled “No. Trunks.” If the number of trunks is greater than 6, choose “>6.”

Note: Before you enter the number of trunks for the first time, you must first set up BG-Map to assign a data field for this purpose – See “Quad Up Options” in the BG-Map or GreVid and Garden Notepad Standalone Version Setup Menu.

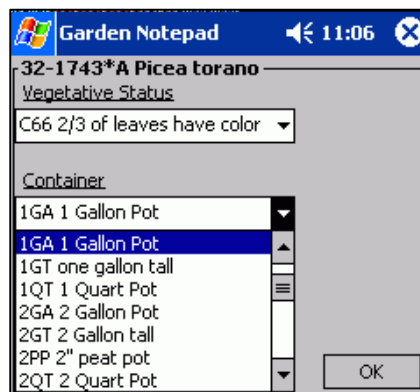
The “Condition” Tab

Recording the Current Reproductive Status

- Select the *BG-BASE* code for reproductive status. Or, select one of the code combinations.

Recording the Vegetative Status and Container

- Click the “More” button to access the entry screen.
- Select the *BG-BASE* codes for vegetative status and container.



Vegetative Status and Container

Note: You must first export the container codes to the mobile device. To do this, in BG-Map, go to Setup/Export Label Types and Container Codes.

Entering Data on the “Location” Tab (GreVid Required)

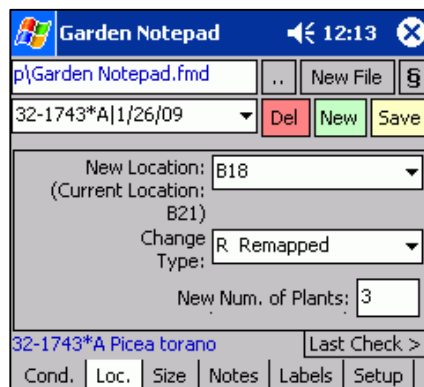
Use the Location Tab to record changes in the Plant’s *BG-BASE* Location Code or Number of Plants.

Recording the Current Location and Change Type

- The current Location of the plant is displayed. If the Location of the plant has changed, select the new location from the drop-down list. Select the location change type to be recorded in *BG-BASE*.

Recording the Number of Plants

- The current number of plants is displayed. If the number of plants has changed, enter the number or the word MASS in the space provided.



Entering Location and Change Type

Entering Data on the “Size” Tab

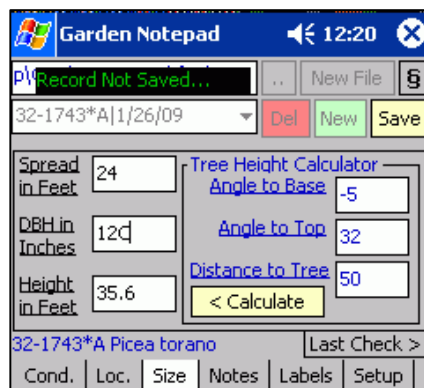
Use the Size Tab to record the current height, spread and DBH.

Recording the Spread

- Tap the box entitled "Spread." Type the plant's spread in the indicated units. If you are using English units, be sure to use decimal feet instead of feet and inches. For example, instead of 20 ft. 6 in. enter 20.5

Recording the DBH

- Enter the plant's DBH in inches or cm. as



The “Size” Tab

BG-Map Garden Notepad and GreVid User's Manual

indicated.

Recording the Height

- Enter the plant's height in` decimal feet or meters.

Indicating an Approximate Measurement

- Indicate that a measurement is approximate by adding a "C" to the end of the numerical measurement. For example, if a tree height measurement of 45 feet is an approximation, enter it as 45C. The same holds true for DBH and spread measurements.

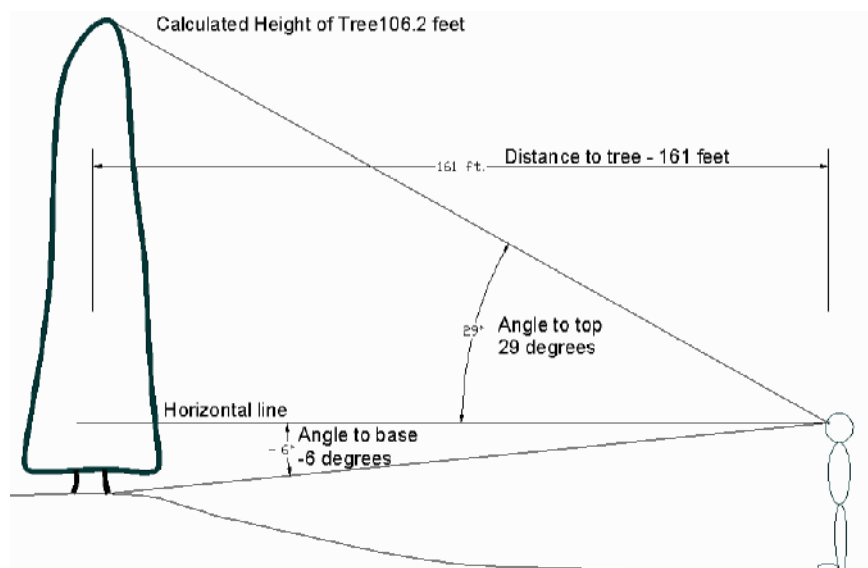
Changing Units

To change units, tap "Setup" and select the desired measurement units – English or Metric

Using the Tree Height Calculator

The height of a tree can be determined with the tree height calculator. To calculate the height, you must enter the angle to the base of the tree, angle to the top of the tree, and distance from the tree. These measurements are explained in the illustration.

In order to determine these three pieces of information, you will need to use either a clinometer in conjunction with an electronic range finder or tape measure, or just a total station. The clinometer can determine the angles, the electronic range finder or tape measure can determine the distance, and the total station can determine both.



Enter the angle to the base of the tree in the box labeled "angle to base". (If it is a downward angle, make sure it is negative.)

Enter the angle to the top of the in the box labeled "angle to top."

Enter the distance to the tree.

Tap "Calculate." The tree's height will be calculated and automatically entered into the "Height" box.

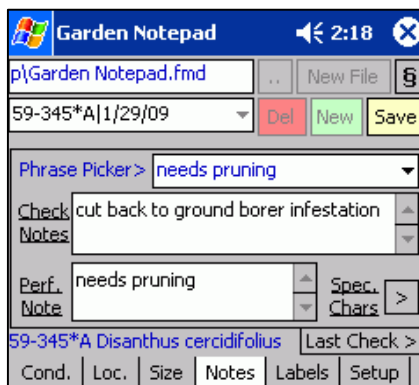
Entering Data on the “Notes” Tab

Use the Notes tab to enter check notes, performance note and special characteristics.

Recording Check Notes and a Performance Note

You can type in your notes and/or select phrases to insert by picking them from the “Phrase Picker.”

- To insert a phrase, tap either the Check Notes or Performance Note box at the place where the phrase is to be inserted. Then, select a phrase from the "Phrase Picker" dropdown list.



The “Notes” Tab

How to Edit the Phrase Picker

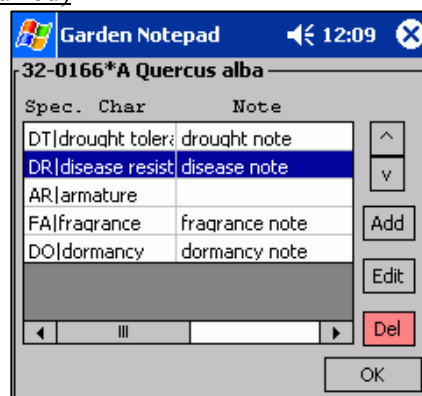
The phrases available in the phrase picker are stored in the file "phrases.txt". This file can be stored at any convenient location. Edit this file using Windows Notepad or another "plain text" editor. Edit, delete or add any desired phrase, one phrase per line.

To transfer the phrases from the desktop PC to your mobile device, connect the device using ActiveSync or Windows Vista and copy the file phrases.txt to the \Program Files\Garden Notepad folder on the mobile device. The updated phrase picker will not appear, until Garden Notepad is restarted. Copy the same file to each of your mobile devices.

Note: For consistency, it is best to copy the same phrases.txt file to all devices that are running Garden Notepad. This makes it easy to do database searches for plants whose check notes include specific phrases.

Recording Special Characteristics (GreVid Required)

- Tap “Spec. Chars” in the Notes tab. The *BG-BASE* Special Characteristics currently assigned to this plant will be displayed.
- To move a characteristic up or down in the list, tap the characteristic, and then tap the arrow buttons.
- To add a characteristic to the list, tap “Add.” Select a code from the dropdown list, and enter any desired notes.
- To edit a characteristic on the list, tap “Edit.”
- To delete a characteristic from the list, tap “Del.”



Special Characteristics

Entering Data on the “Labels” Tab

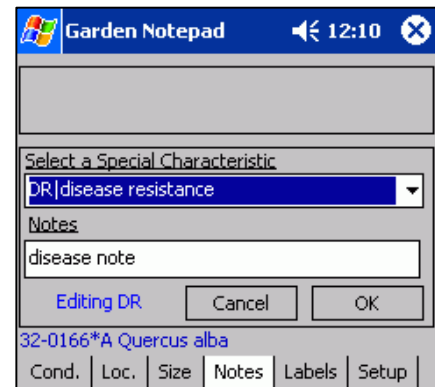
Use the "Labels" tab to record labels that the plant needs or labels that the plant already has.

Entering Labels that the Plant Already Has

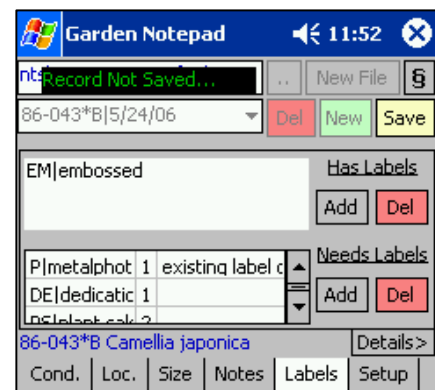
- Tap "Add" next to the box entitled "Has Labels."
- From the drop-down list, select one type of label that the plant has.
- Tap "OK." The type of label selected should appear in the "Has Labels" box.

Entering Labels that the Plant Needs

- Tap "Add" next to the "Needs Labels" box.
- Select a type of label from the drop-down list. You may also select the quantity of needed labels from the "Qty. Needed" list, and add any necessary comments in the "Comments" box.
- Tap "OK." The type of label selected should appear in the "Needs Labels" box, as well as the quantity and comments.
- To add another type of label to either the "Has Labels" or "Needs Labels" box, tap "Add" again and repeat the process. To remove a type of label from either box, tap the name where it appears in the box, and then tap "Delete."



Editing a Special Characteristic



The “Labels” Tab

How to Update the Labels List

First, edit or add the label types using *BG-BASE*.

Using BG-Map

Tap Field Data/Export *BG-BASE* Label Types and Container Codes.

Using GreVid and Garden Notepad Standalone Version

Tap the “Setup” button, and the “Export Label Types and Container Codes” button.

When prompted, copy the label types to the mobile device. Make certain that the mobile device is connected using ActiveSync or Windows Vista. The updated list of labels will not appear, until Garden Notepad is restarted.

Saving a Record

When all desired information for a plant has been entered, tap "Save."

Changing an Already-Saved Record

To change an already saved record, select a plant from the drop-down list to the left of the button labeled "Del." Then change the entries in the various tabs and save again.

Deleting an Already-Saved Record

To delete a plant, select a plant from the drop-down list to the left of the button labeled "Del." Then tap "Del".

Adding Data to a Previously Saved Field Data File

- Tap the double dots to the left of the "New File" button.
- Select a field data file.
- The file will be opened. You can now change or add any information to an already existing saved file.

Transferring the Data to *BG-BASE*

See your BG-Map or GreVid and Garden Notepad Standalone Version Documentation.

GreVid™

What is GreVid™?

GreVid is a tool for viewing *BG-BASE* plant collection records and location maps while in the field. Data can be easily exported from *BG-BASE* and BG-Map into a Windows mobile device.

Starting GreVid

- Tap the “Windows” button.
- Tap "Programs."
- Tap "GreVid."

Upon opening, the screen should look like this:

To bring up data on a specific plant, enter its accession number with qualifier in the box labeled “Acc. Num.” at the upper left corner of the screen. Then tap "Go."

Note: If a plant is open in Garden Notepad, that plant can be transferred directly to GreVid™ by simply double-tapping the box labeled “Acc. Num.” and then tapping "Go."

The “SOS Button”

The button containing the symbol § is referred to as the “SOS Button” and performs special functions.

First, it allows you to completely close GreVid instead of simply hiding it. In Windows Mobile or Pocket PC, the “X” button does not completely close a program as it does in desktop Windows. Instead, it hides the program, which continues to run in the background. This is analogous to “minimizing” a window in desktop Windows. By tapping the “SOS Button” and then tapping “End GreVid”, you will completely shut down GreVid.

The “SOS” button is also used to update the GreVid database after new data has been exported and copied to the mobile device. Another function of this button is to set the minimum zoom ratio for viewing the map. The smaller this number, the farther out you can zoom. It should be set to the smallest number possible within the memory limits of your handheld device. Tap “OK” to save the setting.

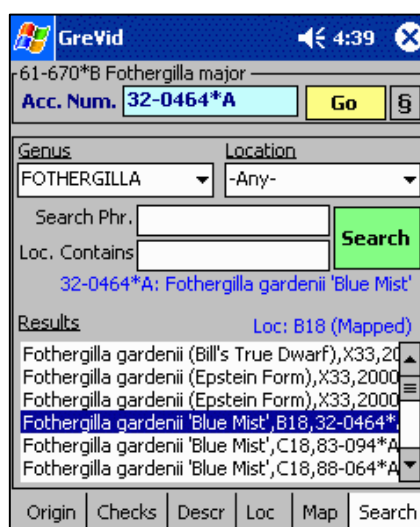
If you are using a version of Windows Mobile or Pocket PC earlier than Windows Mobile 5.0, you can also use the “SOS Button” to switch to Garden Notepad or the Total Station Interface. If you are running Windows Mobile 5.0 or above, you can switch programs by tapping the shortcut icons that are revealed when you tap the “Windows” button.

Searching for Plants

You can search for plants by genus, location, and keywords. Tap the "Search" tab toward the bottom of the screen.

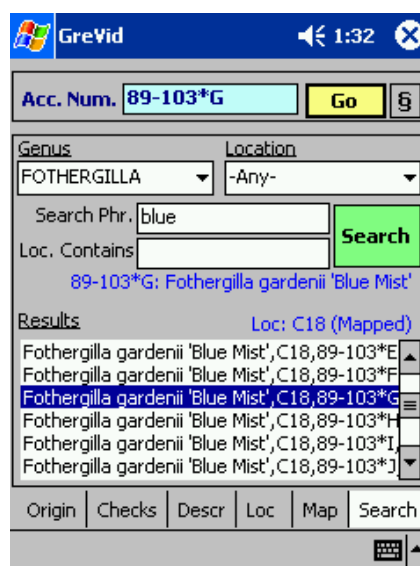
Searching By Genus

To search for all plants of a single genus, select the genus from the drop down list. Make certain that “-Any-“ appears in the Location box and that the “Search Phr.” and “Loc. Contains” lines are empty. Then tap the “Search” button. The results will appear in the box below, listing the plant name, location, and accession number. To open the record for one of these plants double tap it.



Including a Name Keyword in the Search

To search for plants whose name contains a specific word or phrase, select a genus or Location, and enter the search phrase on the line so labeled.

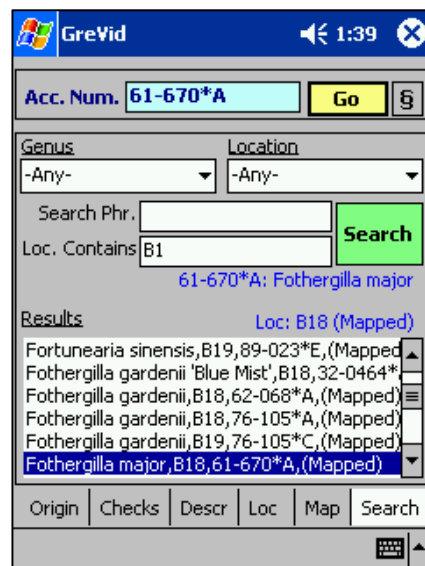
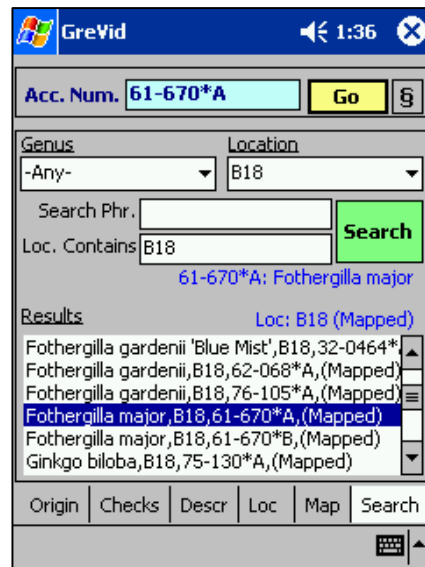


Searching By Location

To search for all plants in a single Location, select the Location from the drop down list. Make certain that “-Any-“ appears in the genus box and that the “Search Phr.” and “Loc. Contains” lines are empty. Then tap the “Search” button. The results will appear in the box below, listing the plant name, location, and accession number. To open the record for one of these plants double tap it.

Searching for Plants Whose Location Contains a Specific Phrase

You can search for plants whose location contains a certain phrase. For example, suppose you have plants in Locations: NEW_ROSE_NORTH, ROSE_GARDEN_SOUTH and EAST_ROSES. You can search for plants whose location contains “ROSE” and retrieve plants from all these locations. To do this, enter the search phrase in the space labeled “Location Contains.” You can also enter a Genus and/or a Search Phrase for the plant name.



Note: Searching for plants in a specific Location will be faster than searching for plants in a Location “Containing.”

Viewing Plant Data

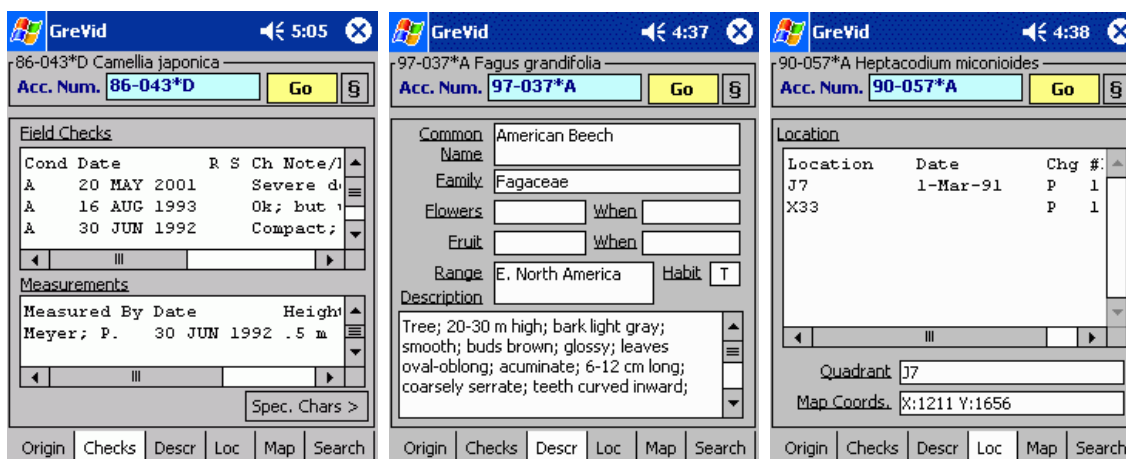
Once you have opened a plant record by entering its accession number or using the search tools, you can view different kinds of data by tapping the various tabs at the bottom of the screen.

The “Origin” Tab

The Origin tab displays the plant's collection number, country, original source, last source, and barcode, each in its corresponding box.

The “Checks” Tab

Here, you can view information on past field checks and measurements. Tap the “Spec. Chars.” button to see the Special Characteristics assigned to this plant.



The “Description” Tab

Here, you can view the plant's common name, family, information on flowers and fruit, range, habit, and any additional description.

The “Location” Tab

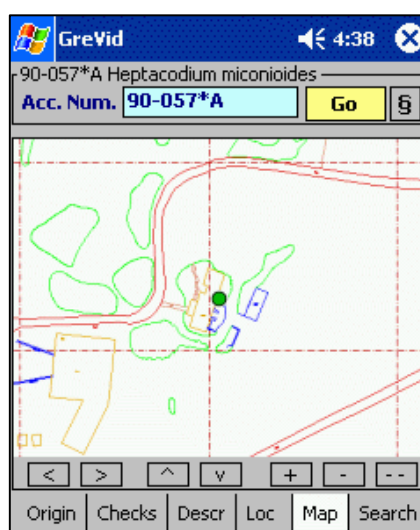
Here, you can view the plant's location, quadrant, and map coordinates. If the plant has not been mapped, the words "Not Mapped" will appear.

Viewing the Plant Location Map

If you have BG-Map and the plant has been mapped, GreVid will display a map showing the plant's location.

Navigating the Map

To zoom in, tap the + button. To zoom out, tap the - button. To pan left, right, up or down, tap the < > ^ or v buttons. To zoom out to the maximum, tap the -- button. To re-center the plant, tap the Go button.



Note: To enable the map viewing feature, you must create a georeferenced map library from your basemap. See <http://www.bg-map.com/userdata/GrevidMapHowto.html> for details.

Note: If your device displays an “Out of Memory” message when you pan or zoom the map, increase the setting for “Minimum Map Zoom.” See “The SOS Button” above.

Updating the GreVid Database

To update the data that appears in GreVid, follow the instructions in the BG-Map TechNote "How to Transfer GreVid and PropNoter Data to a Windows Mobile Device" - <http://www.bg-map.com/userdata/GrevidDBUpdate.html>

BG-Map

C/o Morris Arboretum of the University of Pennsylvania
100 E. Northwestern Ave.
Philadelphia, PA 19118 • USA
Telephone: 1.215.247.5777 ext. 283
Fax: 1.215.248.4439
E-mail: support@bg-map.com
Support Website: www.bg-map.com/userdata