GSAK (Geocaching Swiss Army Knife)



GEOCACHING SOFTWARE ADVANCED KLASS GSAK - 102 by C3GPS & Major134

Table of Contents

About this Document	iii
Class Materials	iv
1.0 Locations	1
1.1 Adding Locations	1
Objective 1.1a: Add your home coordinates as a location	1
Objective 1.1b: Add the coordinates of a cache as a location	1
1.2 Hiding Locations	2
Objective 1.2a: Hide the BeeHave! location	2
1.3 Setting a Default Location for a Database	2
Objective 1.3a: Set the default location to BeeHave!	2
1.4 Deleting Locations	3
Objective 1.4a: Delete BeeHave! from the list of locations	3
2.0 Adding to Bookmark Lists	4
Objective 2.0a: Create a bookmark list and add caches to it from GSAK	4
3.0 Polygon/Line Drawing Tool	5
Objective 3.0a: Filter for caches in New Mexico and Arizona using the Polygon/Line Drav	_
4.0 GSAK Ignore List	7
4.1 Adding Caches to the Ignore List	7
Objective 4.1a: Add Old Griz to the ignore list	7
4.2 Deleting Caches from Your Ignore List	8
Objective 45.2a: Remove Old Griz from the GSAK Ignore List	8
5.0 Views	9
Objective 5.0a: Create a View with the Found by Me column not visible	9
Objective 5.0b: Assign the view to be used every time you open the GSAK Class database	99
Objective 5.0c: Delete the Unfound view	10
6.0 Repair/Defrag	11
Objective 6.0a: Repair/Defrag the GSAK Class database	11
7.0 Shortcut Keys	12
Objective 7.0a: Assign F9 as the shortcut key for cancelling a filter	12
8.0 Ouick Filters	13

8.1 Using Quick Filters	13
Objective 8.1a: Use quick filters to filter on Traditional caches only	13
Objective 8.1b: Add to our existing filter to include only caches with a bearing of NW \dots	14
8.2 Filtering from the Status Bar	14
Objective 8.2a: Set a filter to show only found caches	15
9.0 Custom Data	16
Objective 9.0a: Add a custom column for the city name where the cache is located	16
Objective 9.0b: Make the City custom field visible in the database grid	18
Objective 9.0c: Add a value to the City custom field	18
Objective 9.0d: Delete the City custom field	18

About this Document

This document was created for the GSAK 102 Event sponsored by SLAGA (http://coord.info/GC66PD1) event.

In this class, we will not spend time going over the GSAK 101 or GSAK 201 material. If you need a refresher in 101 or 201, contact Major134; and, he will send you a digital copy of the syllabus for either of the classes. There is enough 102 material to cover and we will not have time to cover subjects from the other classes. It will be assumed that you have GSAK already installed. You MUST have the latest version of GSAK installed. To make sure you are on the most current version, please go to Tools>Options, Advanced tab and make sure you have the "Check for patches" box checked. If you are on the most current version, it will be at least 8.6.1.41. Version 8.6.0.0 is NOT current and many bugs have been fixed as well as features added since that version was released, some of which may affect topics covered in this class.

In the class we will first give an explanation of the subject matter and follow it with challenges that a user may face and offer solutions detailing how to overcome the challenges. Questions during class are welcome and encouraged.

In this document you will see words or phrases that are in bold text. Those generally will refer to window titles, labels on windows, etc... Basically something that needs to stand out or be found on the screen will be bold.

You will also see the following icons that are used to make it easy to find different items in the document:



This icon refers to additional information. It will be used to explain a point that may be confusing as you walk through the steps of an objective.



This icon also refers to additional information but is a bit more important. Generally, these are warnings that could be "gotchas" if you are new to the process.



This icon will signify the beginning of an objective.

What you should bring to class:

- 1. A laptop with the most current version of GSAK already installed.
- 2. Pen and paper for notes.
- 3. A flash drive (not required but might be helpful).
- 4. Questions!

Class Materials

In addition to this syllabus, a gpx file with the database used for this syllabus will be provided.

GSAK201.gpx

1.0 Locations

Locations are used to set the center point for the database. If you have your database set to show the Distance column (header will either be in Miles or Kilometers depending on your settings) it will display the distance from the center point shown in the **Locations** drop down on the toolbar. Generally, you will want at least one location set from your house. However, if you are travelling you may want to set a location at the coordinates of your hotel or wherever you will be staying. That way GSAK will show you the distances from there instead of your home.



1.1 Adding Locations

Adding locations is very easy. There are at least two ways to do it.



Objective 1.1a: Add your home coordinates as a location

- 1. Click the **Tools** menu.
- 2. Click the **Options...** menu item to open the **Options** window.
- 3. Click the **Locations** tab.
- 4. On this tab, you will see instructions along with a text box that will allow you to type your locations. You MUST put the information in the correct order and format. First you type the name of your location, then a comma, then the coordinates to the location. So, type the following without the quotes: "Home, N38° 37.802 W90° 24.296". If you know the actual coordinates of your home then type those instead.
- 5. Click the **Ok** button to save the location.

Now in your **Locations** dropdown on the toolbar you should see "Home" listed. If you choose it, your distances will change to show the distance from the coordinates entered for Home.



Objective 1.1b: Add the coordinates of a cache as a location

Sometimes it may be easier to just add the coordinates of a cache that is near where you are going to stay. So, rather than look up the coordinates to a hotel and type them into the Locations tab, you can easily just add the coordinates to a cache into the Locations tab.

- 1. Open the **GSAK201** database.
- 2. Single click on the **BeeHave!** cache.
- 3. Click the Waypoint menu.

- 4. Click the **Add to Locations** menu item. A message box will appear telling you that the waypoint has been added to Locations.
- 5. Click the **Locations** dropdown. You will now see BeeHave! in the list!

1.2 Hiding Locations

Let's say you do a lot of travelling to the same place often so you add that location (for arguments sake, let's say there's a hotel next to BeeHave! and we go there all the time) to your Locations list. However, you don't really want it in your list when you are home. Rather than delete it and have to add it back again, we can just hide it.



Objective 1.2a: Hide the BeeHave! location

- 1. Click the **Tools** menu.
- 2. Click the **Options...** menu item to open the **Options** window.
- 3. Click the **Locations** tab to show the list of locations.
- 4. In the list of locations, type # before BeeHave!
- 5. Click the **OK** button.

Now when you check the Locations dropdown on your toolbar, BeeHave! will no longer be there.

1.3 Setting a Default Location for a Database

Each database can have it a default location that will be set when you open that database. So, if you don't want to change the location to BeeHave! every time you open the GSAK201 database, you can set it as the default.



Objective 1.3a: Set the default location to BeeHave!

- 1. In the Locations drop down on the toolbar, choose **BeeHave!**
- 2. Click the **Database** menu.
- 3. Click the **Properties...** menu item to open the **Database properties** window.
- 4. In the **Center point** section on the **Database properties** window, uncheck **Use same as last open of this database** and then click the **Grab current** button. You'll notice that GSAK will fill the **Description** and **Coordinates** boxes with the **BeeHave!** location information.
- 5. Click the **Apply** button to save the changes.

Now, every time you leave and come back to the GSAK201 database, the BeeHave! coordinates will be set as the location by default.

1.4 Deleting Locations

Well unfortunately our work near BeeHave! has come to an end so now we no longer need it in our list of locations at all. Let's go ahead and delete it from the list so it doesn't clutter up the dropdown list.



Objective 1.4a: Delete BeeHave! from the list of locations

- 1. Click the **Tools** menu.
- 2. Click the **Options...** menu item to open the **Options** window.
- 3. Click the **Locations** tab to show the list of locations.
- 4. In the list of locations, highlight and delete the entire line with BeeHave!
- 5. Click the **OK** button.

BeeHave! will no longer be in your list of locations on the Locations tab.

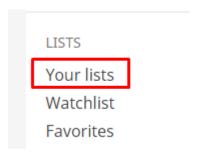
2.0 Adding to Bookmark Lists

On Geocaching.com you can create bookmark lists which are lists of caches that you want to mark for future use. Maybe you just want a list of caches that are on your own bucket list or a list of caches that are at museums. As you find them, you can add them to the list for easy access in the future. GSAK gives us the ability to add caches to lists that we have created on Geocaching.com.



Objective 2.0a: Create a bookmark list and add caches to it from GSAK

- 1. In your favorite browser, open <u>geocaching.com</u> and log into your account.
- 2. On the dashboard page, down the left side is a section called Lists. Click "Your lists".



3. In the blue banner at the top, click the "back to the old page" link.

Welcome to the new Lists page. If you don't like it, you can go back to the old page.

Let us know what you think

- 4. On the right side of the screen click the **Create New Bookmark List** link.
- 5. In the Name box type GSAK Class.
- 6. Description is not required, but you can enter anything you wish in the **Description** box.
- 7. Click the **Create Bookmark List** button.
- 8. Now that we have created our list, go back to GSAK and open the GSAK Class database.
- 9. Click the **Geocaching.com** access menu.
- 10. Click the Add to bookmark list... menu item to open the **Add to bookmark list** window. You will see a list of all of your bookmark lists that have been created.
- 11. Choose the GSAK Class bookmark list.
- 12. To add all of the caches in the current filter (in this case, the entire database of 10 caches) select the **All in current filter** option. (If you only wish to add 1 cache, select the cache, open this window and choose the **Current cache only** option).
- 13. Click the Add button.

GSAK will do its thing and add the cache(s) to the chosen bookmark list. If you now go back to geocaching.com and open the list, you'll see the items we just added.

3.0 Polygon/Line Drawing Tool

The Polygon/Line Drawing Tool is a web based tool, accessed through GSAK, that will allow you to draw a polygon on a map and then filter your database to only show caches within the polygon you drew.

Note that this functionality does not retrieve caches that are not in GSAK and then import them. This simply allows you to set a filter with <u>caches already in your GSAK database</u> that are within the borders that you determine.



I realize that there are more efficient ways to filter for caches in specific states. I'm just using New Mexico and Arizona as easy examples to show how the tool works.



Objective 3.0a: Filter for caches in New Mexico and Arizona using the Polygon/Line Drawing Tool.

- 1. Open your GSAK Class database.
- 2. Click the **Tools** menu.
- Click the Polygon/Line Drawing Tool menu item to open the GSAK Google Maps Polygon to CSV/GPX File Digitizer window in your internet browser.
- 4. In the top left corner of the map you will see 3 buttons. The hand is to tell the tool to stop drawing and allow you to drag the map around. The middle button is for drawing lines and the third is for polygons. I haven't really ever figured out the difference in functionality of the second two buttons. They both end with polygons so you can feel free to click either one to draw our polygon around New Mexico and Arizona.
- 5. After you click either the **Draw a line** or **Draw a shape** button you can begin to draw your polygon. Start by clicking on one corner. Then just click each spot around the shape you want until you get back to where you started. When finished you should have a polygon drawn around both states (roughly) and a list of coordinates on the right side.



- 6. If the shape you drew is satisfactory, click the **Send to GSAK** button. The **Set Filter** window will open with the **Arc/Poly** tab chosen and the list of coordinates already filled in the box.
- 7. Click the **Go** button and the filter will be set to only show caches that are within the polygon that you drew.

4.0 GSAK Ignore List

Much like geocaching.com, GSAK has the ability to ignore caches. Once you add a cache to the ignore list in GSAK, it will not be imported into this database again until you remove it from the ignore list.

The ignore list on geocaching.com and the ignore list in GSAK are not related to each other. If you want to ignore caches in both places, you must tell both individually that you want to ignore a cache.



Adding a cache to the ignore list for a database is database specific. It can still be imported into other databases while on the ignore list for another database.

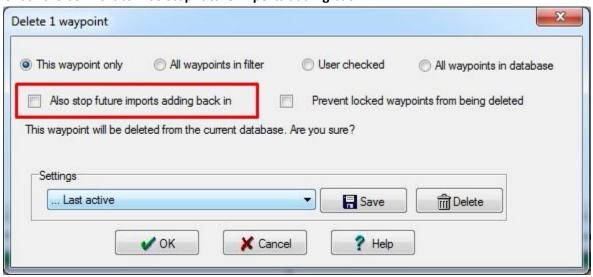
4.1 Adding Caches to the Ignore List

There is one way to add caches to the ignore list. When you delete a cache from a database, you will be able to tell GSAK to ignore it in the future.



Objective 4.1a: Add Old Griz to the ignore list

- 1. Open the GSAK Class database.
- 2. Single click on the **Old Griz** cache to highlight it. Highlighted caches are usually turquoise.
- 3. Right click on the cache to open a new menu.
- 4. Click on the **Delete waypoint...** menu item to open the **Delete Waypoint** window.
- 5. Make sure **This waypoint only** is chosen.
- 6. Check the box next to Also stop future imports adding back in.



7. Click the **OK** button.

Keep in mind that GSAK will remember your previous settings. Since we just deleted a cache and added it to the ignore list, the next time you go to delete a cache the "Also stop future imports adding back in" box will still be checked. Don't forget to uncheck it if you don't want the cache in the ignore list!

4.2 Deleting Caches from Your Ignore List

Checking to see which caches are in the ignore list, and removing them, is easy.



Objective 45.2a: Remove Old Griz from the GSAK Ignore List

- 1. Click the **Database** menu.
- 2. Click the **Maintain Ignore List...** menu item to open the **Ignore List** window.
- 3. Check the box next to **Old Griz**, or if you wish to remove all caches from your ignore list, click the **Check all** button.
- 4. Click the **Delete** button.

Your ignore list should no longer have Old Griz in it. You can now reimport the gsak201.gpx file and Old Griz will be added into the database.

5.0 Views

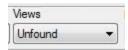
Views in GSAK are very handy if you like to have more than one setup for which columns to see. For example, in your found database you may want the **Found by Me** column showing but not showing in other databases since you know you haven't found any of them. With GSAK we can set up different views, save them, and use them any time we need without having to go and change the columns every time we want to switch.



Objective 5.0a: Create a View with the Found by Me column not visible

- 1. Open the **GSAK Class** database.
- 2. Find the **Found by Me** column and right click on it to open a small menu.
- 3. On the new menu, click **Remove Column**. This will remove the column from the current view. It does not delete any data. It just hides the column.
- 4. Click the View menu.
- 5. Click the **Save Current View...** menu item to open the **Save view** window.
- 6. In the Save view window type Unfound in the View name box.
- 7. Click the **OK** button.

You will now see **Unfound** in the **Views** dropdown on the toolbar. Any time you wish to use this view you can choose it in the dropdown and GSAK will switch to the columns you left visible in the view.





Objective 5.0b: Assign the view to be used every time you open the GSAK Class database

Sometimes you may want a specific view to be used on a particular database. Instead of just using whatever view is currently chosen, you can tell GSAK to use a specific view by default with a specific database.

- 1. Open the **GSAK Class** database.
- 2. Click the Database menu.
- 3. Click the **Properties...** menu item to open the **Database properties** window.
- 4. If the **Use defaults** checkbox is checked, uncheck it.
- 5. In the **Associated view** dropdown choose **Unfound**.
- 6. Click the Apply button.

Now when you switch between databases, when you open the GSAK Class database the Unfound view will always be shown by default. You can always change views by choosing a different one from the dropdown but that will be temporary since Unfound is set as the default view.



Objective 5.0c: Delete the Unfound view

- 1. Click the Views menu.
- 2. Click the **Delete a View...** menu item to open the **Delete a view** window.
- 3. Check the box next to **Unfound**.
- 4. Click the **Delete** button.

Now that the view is deleted, any databases that were using it as the default view will be changed to show the default view that is built into instead so you will want to check those databases and make sure an appropriate view is chosen for them.

6.0 Repair/Defrag

Databases are quirky things. They don't always do what you think they are doing. That isn't an issue most of the time. However, over time, your databases can become sluggish or corrupt. There is an easy way to fix most database issues in GSAK called Repair or Defrag (short for defragment). Databases can become fragmented with frequent use. For example, when you delete a cache, that record isn't really deleted from the database. It is just marked not to show. As you delete or move caches from a database, more and more unusable records accumulate. This causes a degradation of performance. Other times your database may become corrupt for any number of reasons. If you have any trouble using a database, just repair it!



Objective 6.0a: Repair/Defrag the GSAK Class database

- 1. Open the GSAK Class database.
- 2. Click the Database menu.
- 3. Click the **Repair/Defrag** menu item to begin the process. A message box will appear giving you a message that if the repair doesn't fix your problem, you may have to delete it. (Remember the backups from the 201 class!)
- 4. Click the Yes button if you wish to continue.

GSAK will now go through the database, clean it up and attempt to fix the corruption. Too bad we can't Repair/Defrag the three branches of government.

7.0 Shortcut Keys

GSAK has many shortcut keys already assigned to functions throughout the program. However, not all functions that you may use regularly are assigned shortcuts. You can tell if a function has a shortcut assigned by looking in the menus. For example, if you click the **Search** menu, you will see **Ctrl+F** to the right of **Filter...** and **F8** to the right of **User flag set**. That's telling you that if you press **Ctrl+F** on your keyboard it is the same thing as clicking **Filter...** with your mouse. And, pressing **F8** on your keyboard is the same as clicking **User flag set** with the mouse.



You'll notice in the screenshot that **Cancel Filter** do not have a shortcut key assigned. Let's go assign one now.

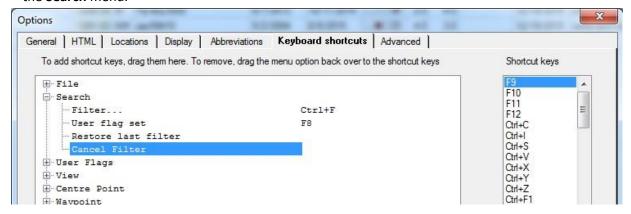


Shortcuts shown on menus, like the above screenshot, are not unique to GSAK. Most software has shortcuts assigned and they show what those are the same way that GSAK does.



Objective 7.0a: Assign F9 as the shortcut key for cancelling a filter

- 1. Click the **Tools** menu.
- 2. Click the **Options...** menu to open the **Options** window.
- 3. Click the **Keyboard Shortcuts** tab to see a tree view of the entire GSAK menu system.
- 4. Click the + next to **Search**, or just double click the word **Search** to expand the menu system for the **Search** menu.



5. In the pane on the right find **F9**. Drag it to the left pane and drop it onto **Cancel Filter**. You will see **F9** appear to the right of **Cancel Filter** indicating that **F9** is now the shortcut for **Cancel Filter**. You will also be able to see that **F9** will appear to the right of **Cancel Filter** in the dropdown menu in GSAK.

8.0 Quick Filters

In this section, we will cover a couple of alternate ways to filter your database quickly. GSAK refers to these as Quick Filters. We will also cover other ways to quickly filter although they aren't technically referred to by GSAK as "quick filters".

8.1 Using Quick Filters

When you have an open database, sometimes you may want to quickly filter on some sort of information. For example, you may want to filter on only Traditional cache types. Instead of creating a filter and unchecking all the boxes for other cache types on the **Filter** window, you can simply use Quick Filter.

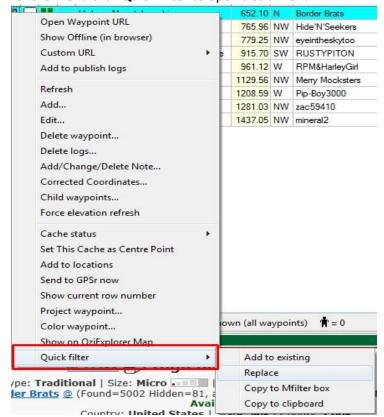


Objective 8.1a: Use quick filters to filter on Traditional caches only

- 1. Open the GSAK Class database.
- 2. In the column that shows the icons for the cache types, right click any of them that has a Traditional cache icon. The menu below will appear.

It's important to pause here and point out that you MUST right click anywhere in the column on which you want to filter AND not on the column header at the top of the column. If you right click on the Waypoint Name column you will not be able to quick filter for cache type. So, make sure, for this objective, that you right click in the Cache Type column.

3. At the bottom of the menu click **Quick filter** to open a sub menu.



4. In the sub menu that opens to the right, click **Replace**. This option will replace any filter that you currently have set. The menus will disappear and you should only see Traditional caches in your list. Do not clear this filter yet. We will use it in Objective 9.1b coming up next.



Objective 8.1b: Add to our existing filter to include only caches with a bearing of NW

- 1. If you did clear the filter from Objective 8.1a, go back and do it again but do not clear the filter.
- 2. Right click on the **Brg** (Bearing) column of a cache with a bearing value of **NW** to open the same menu as the previous objective.
- 3. Click on the **Quick filter** menu to open the sub menu.
- 4. On the sub menu click on Add to existing.

When the menus disappear, you should see only caches that are Traditional and have a NW bearing.

8.2 Filtering from the Status Bar

For the benefit of Major134, the **Status Bar** is the little bar of information that sits between your open database and the pane below it with the currently highlighted cache information. It should look similar to the screenshot below.



It contains 4 sections with different information in each. Starting from the left and moving right, they are:

- 1. **Subset**. If it says **None** then no filter is set. If it is red and says **filter**, then there is a filter set.
- 2. The next section shows you how many waypoints (caches) are currently visible and how many are marked with the user flag.
- 3. The third section tells you which **Centre point** you have selected.
- 4. The final section tells you how many caches in the current filter are found (yellow), unfound (white), archived or inactive (red) and how many belong to you (green).
- 1

Don't worry if your colors don't match mine. It's simply using the colors you have set in the **Tools > Options > General** tab in the **Status Attributes** section.



Objective 8.2a: Set a filter to show only found caches

- 1. Open your **GSAK Class** database.
- 2. For this objective, we are going to mark a cache found. Right click on the **BeeHave!** cache to open a menu.
- 3. Click on **Cache Status** to open a sub menu.
- 4. On the sub menu click **Set to Found**. The cache should show a found date and be colored yellow (or whatever color you have set for found caches).
- 5. In the far right, section of the status bar your **Counts** should now be 1, 9, 0 and 0. The 1 indicates that you have found one cache and the 9 is how many in the current database or filter that you have not found.
- 6. On the status bar, double click on the **1**. This will filter for caches that are marked found. You should now see only the **BeeHave!** cache in the list.

9.0 Custom Data

Sometimes the columns available in GSAK may not be enough for what you need, or want, to do. For example, you may want to put the name of the city where the cache is (there is a macro that will do this for you called GetLocations.gsk). Currently there is no column for city built into GSAK so we will have to create it.

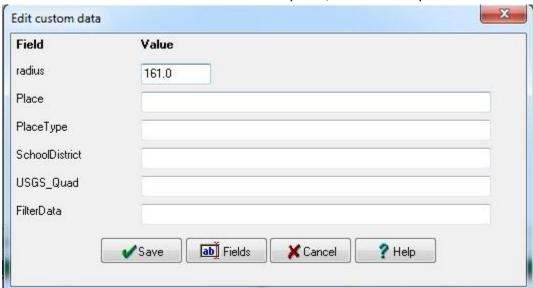


Custom column, custom field and custom data are all interchangeable terms and refer to the same thing.

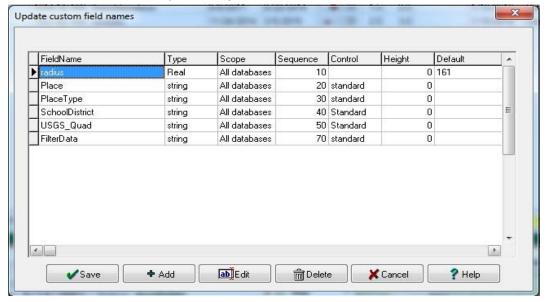


Objective 9.0a: Add a custom column for the city name where the cache is located

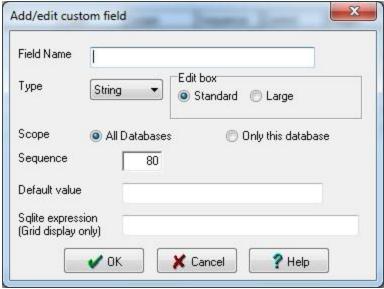
- 1. Open your GSAK Class database.
- 2. Click the Waypoint menu.
- 3. Click **Custom data...** to open the **Edit custom data** window.
- 4. You will see a list of custom columns that already exist, if there are any.



5. Click the **Fields** button to open the **Update custom field names** window.



Click the **Add** button to open the **Add/edit custom field** window.



- 6. In the **Field Name** box type **City**.
- 7. **Type** should be **String** since we will be typing normal text into this field.
- 8. **Edit box** should be **Standard** since we will have relatively short values. If you want to be able to type longer values like sentences or descriptions, you can choose **Large** and then play with the size of the box to show.
- 9. Choose **Only this database** for **Scope**. If you want the new column to be on all databases then choose **All Databases**.
- 10. **Sequence** will simply determine which order it will be shown on the edit window when you add a value to the cache. So, if you have 2 other columns and their sequences are set to 10 and 20, you could make this sequence 15 so that it will show in between the two. However, for this objective we will leave it at whatever the default value is that is showing.
- 11. If you want a default value for the field, set it in the **Default value** box. For now, leave it blank.
- 12. Leave the Sqlite expression field blank. That's for another class. ©
- 13. Click the **OK** button. The **Add/edit custom field** window will disappear and a row for **City** will now show in the **Update custom field names** window.
- 14. On the **Add/edit custom field** window click the **Save** button to add the field to the database. The window will disappear and the **Edit custom data** window will now be visible again. If you want to add a value to **City** for the currently highlighted cache, you can do it here.
- 15. Click the Save button.

You have now added **City** to the list of columns available for the **GSAK Class** database.



Objective 9.0b: Make the City custom field visible in the database grid

We just added a custom field but we still can't see it in our database grid. Let's go make it visible.

- 1. Open the **GSAK Class** database.
- 2. Click the View menu.
- 3. Click the Add/Remove columns... menu to open the Tools > Options window with the Display tab already chosen for you.
- 4. On this tab you will see two sets of check boxes. The ones on the left are the standard columns that are built into GSAK. The ones on the right are custom columns that you, or a macro, have added to GSAK. Check the box next to **City**.
- 5. Click the **OK** button.

The City column will now be visible on the far right of your open GSAK Class database.



Objective 9.0c: Add a value to the City custom field

- 1. Open your **GSAK Class** database.
- 2. Highlight (left click) the **BeeHave!** cache.
- 3. Right click the cache to open a menu.
- 4. Click Edit... on the open menu to open the Edit Current Waypoint window.
- 5. At the bottom of the window click the **Custom** button to open the **Edit custom data** window.
- 6. Enter a value for City in the box next to City.
- 7. Click the **Save** button.

The value you entered is now saved in the City column for that cache.



Objective 9.0d: Delete the City custom field

So, for whatever reason, we have decided that we no longer want or need the custom field called City that we created. Time to delete it.

- 1. Open the **GSAK Class** database.
- 2. Click the Waypoint menu.
- 3. Click the **Custom Data...** menu to open the **Edit custom data** window.
- Click the Fields button on the Edit custom data window to open the Update custom field names window.
- 5. Left click on the **City** field to highlight it.
- 6. Click the **Delete** button.
- 7. Click the **Save** button on the **Update custom field names** window.
- 8. Click the **Save** button on the **Edit custom data** window.

The **City** field will now be removed from your database.

Removing a custom field will also remove all data that was contained in that field. There is no "back" button and no "Are you sure you want to delete?" window. Make sure you really want to delete it before you do so. If you do delete it and didn't want to, you can restore a previous backup to get it back.



If you remove a field whose scope was set to All Databases when you created it, it will be removed from all databases, not just the one you have open at the time.