GSAK – Introduction

(Geocaching Swiss Army Knife)

v8.0.1

by Rich Bianchi aka Cache U Nuts

What is GSAK?

- Offline database program for Windows tailored to geocaching
- Single developer – Clyde England from Australia
- Uses SQLite database engine (most widely deployed worldwide)
- Support for multiple databases and views
- Extensive filtering, sorting, and searching capabilities
- Displays waypoints using Google Maps
- GPS and PDA (CacheMate support) device input and output
- Export to various mapping programs
- Highly configurable
- Extendable through powerful macros
- Excellent support from GSAK developer and community via Forum
- $30 per user license (can be installed on multiple computers)
- Try unrestricted before buying for up to 21 days (then nag screen)

Offline vs. Online Database

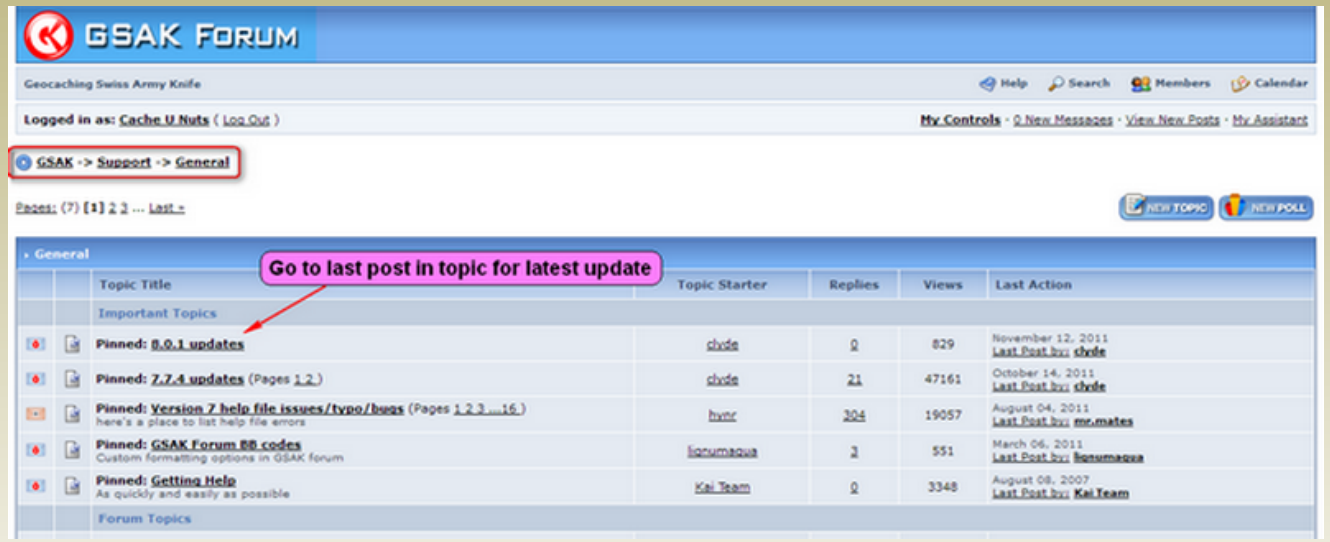
	Online	Offline
How many caches?	All	As many as you load
How many logs per cache?	All	As many as you load
How current is information?	Always current	Current as of last load
Internet access needed?	Yes	Only for Google Maps
Premium membership?	No	Yes
Additional waypoints?	Owner defined only	Owner and user defined
Corrected coordinates?	Owner and user defined	Owner and user defined
Select caches by criteria?	Limited support	Extensive support
Polygon selection?	No	Yes
Track First to Finds?	No	Yes
County information?	No	Yes
Customize GPS info?	No	Yes
Generate find stats?	Limited	Extensive (using macro)

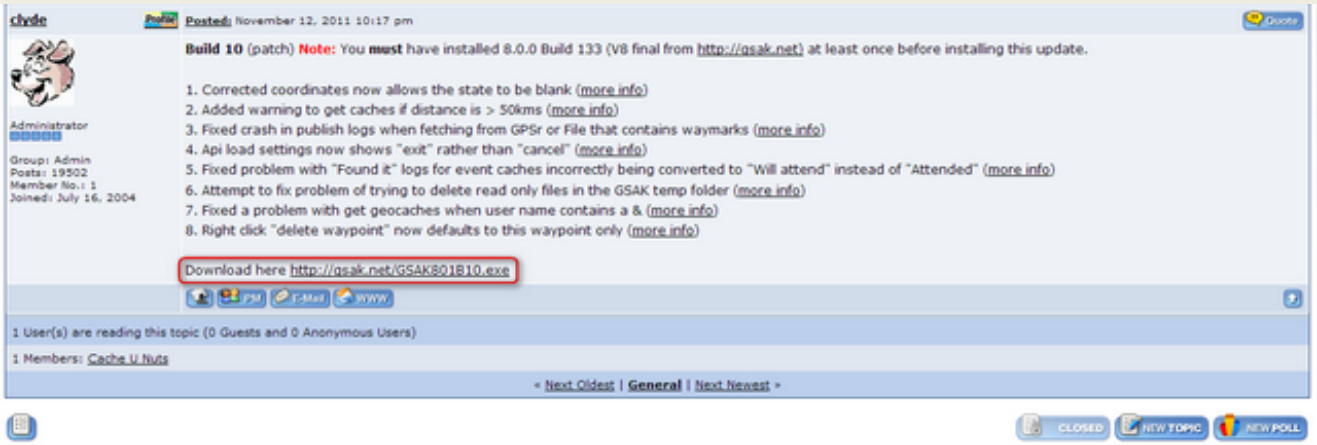
Installing GSAK

http://gsak.net

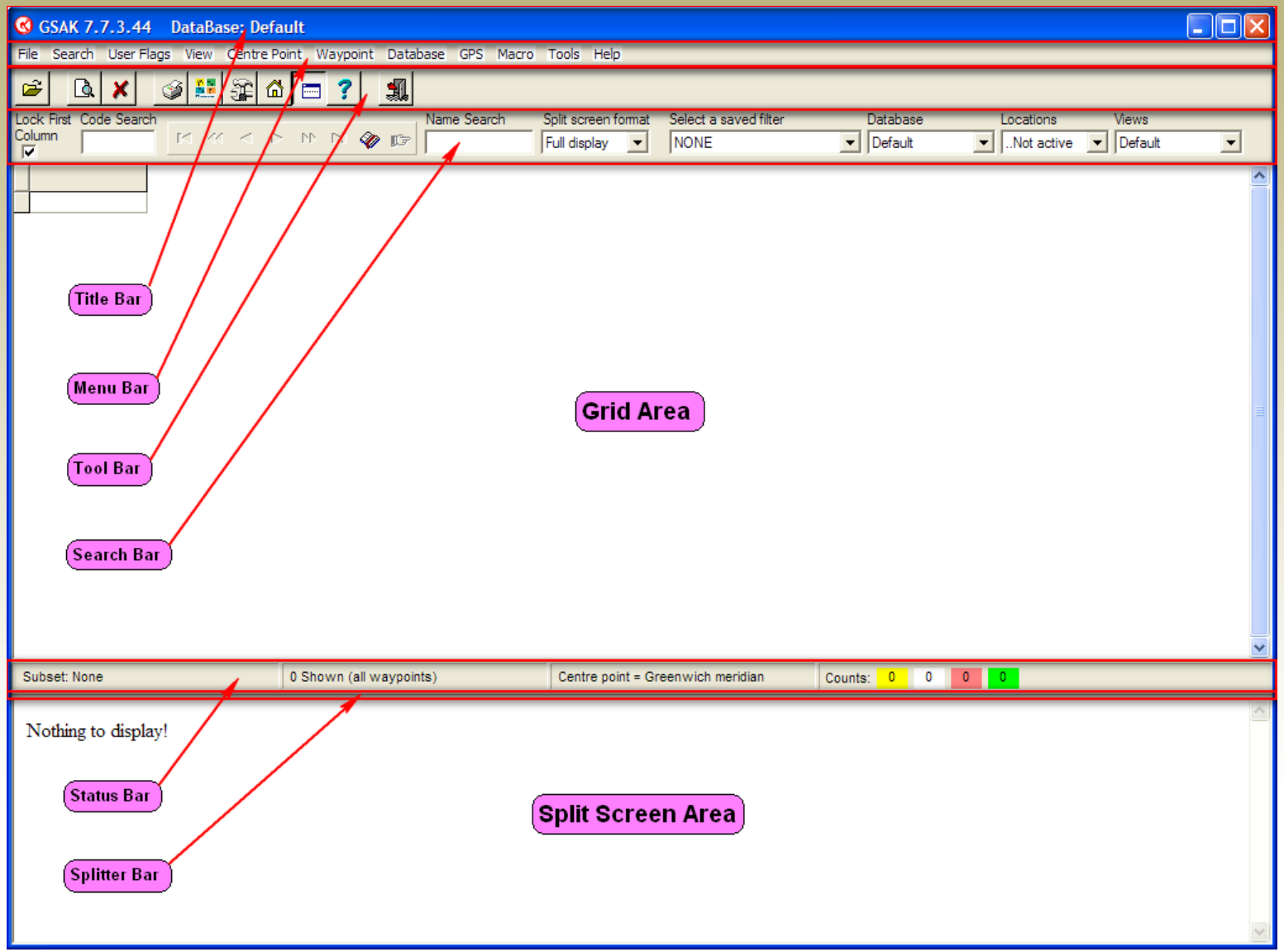
Installing GSAK – Latest Patch

http://gsak.net/board/...



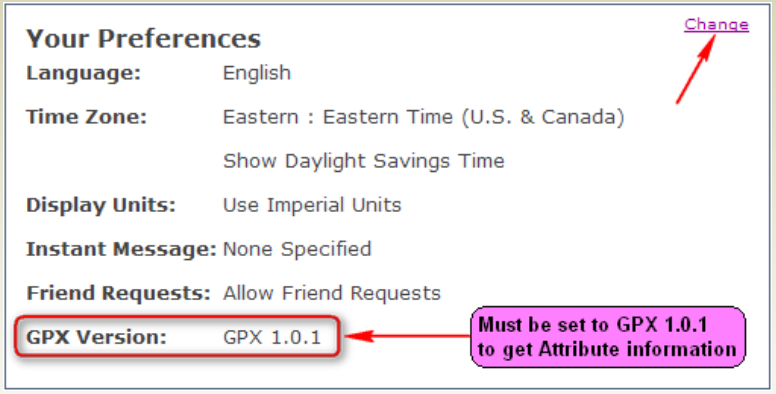


Screen Elements

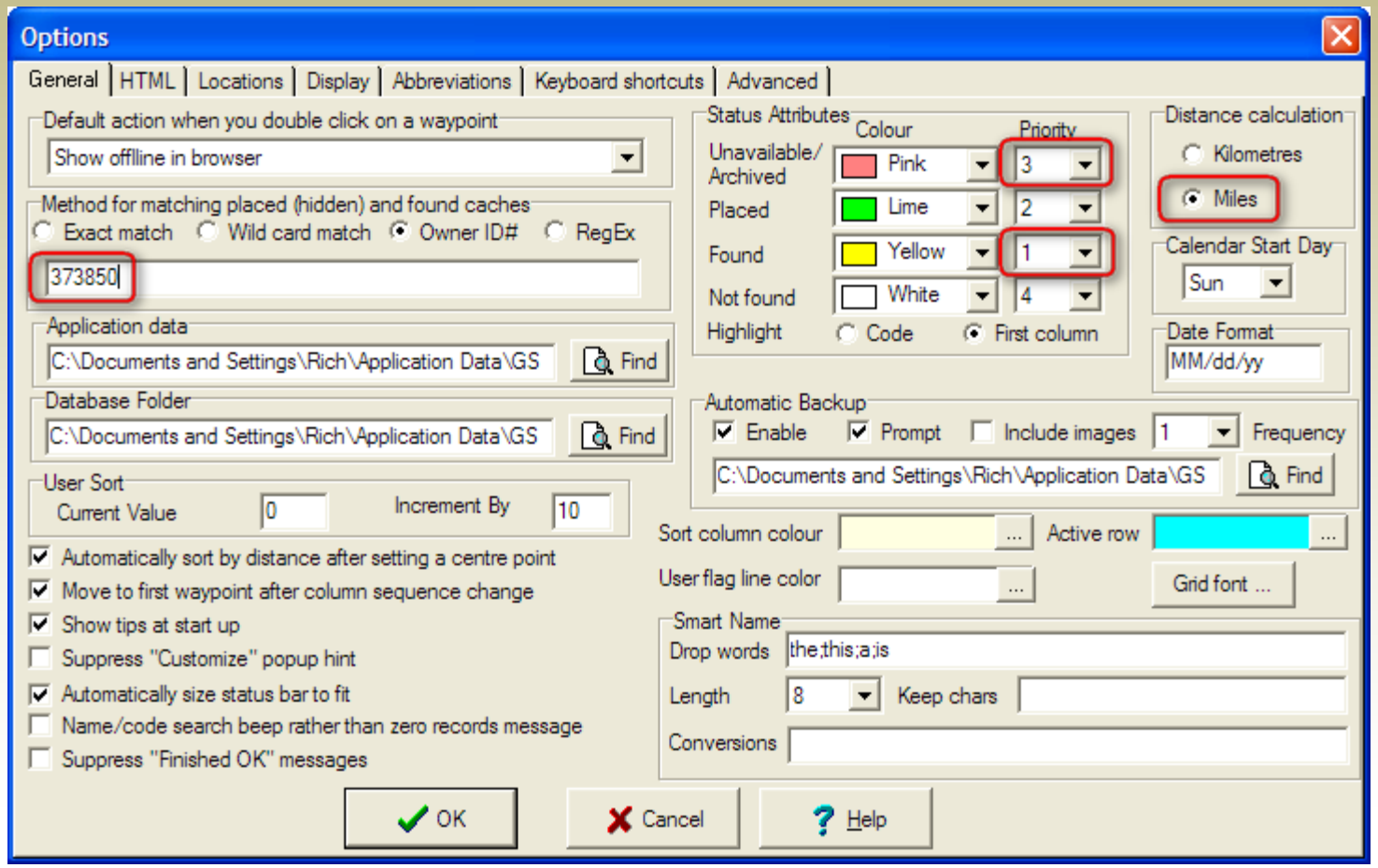


GC.com Member ID and GPX Version

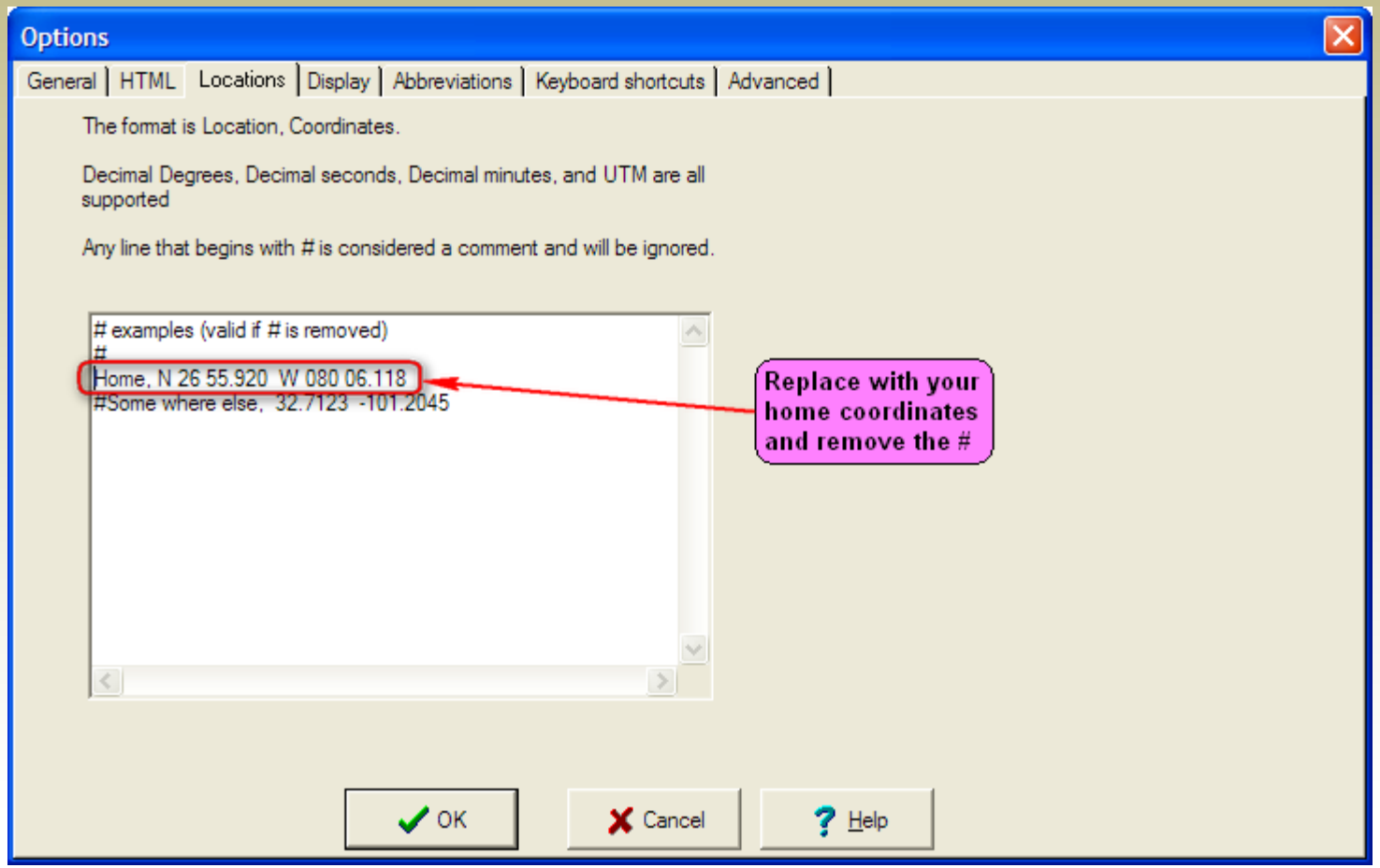
http://www.geocaching.com/account/default.aspx



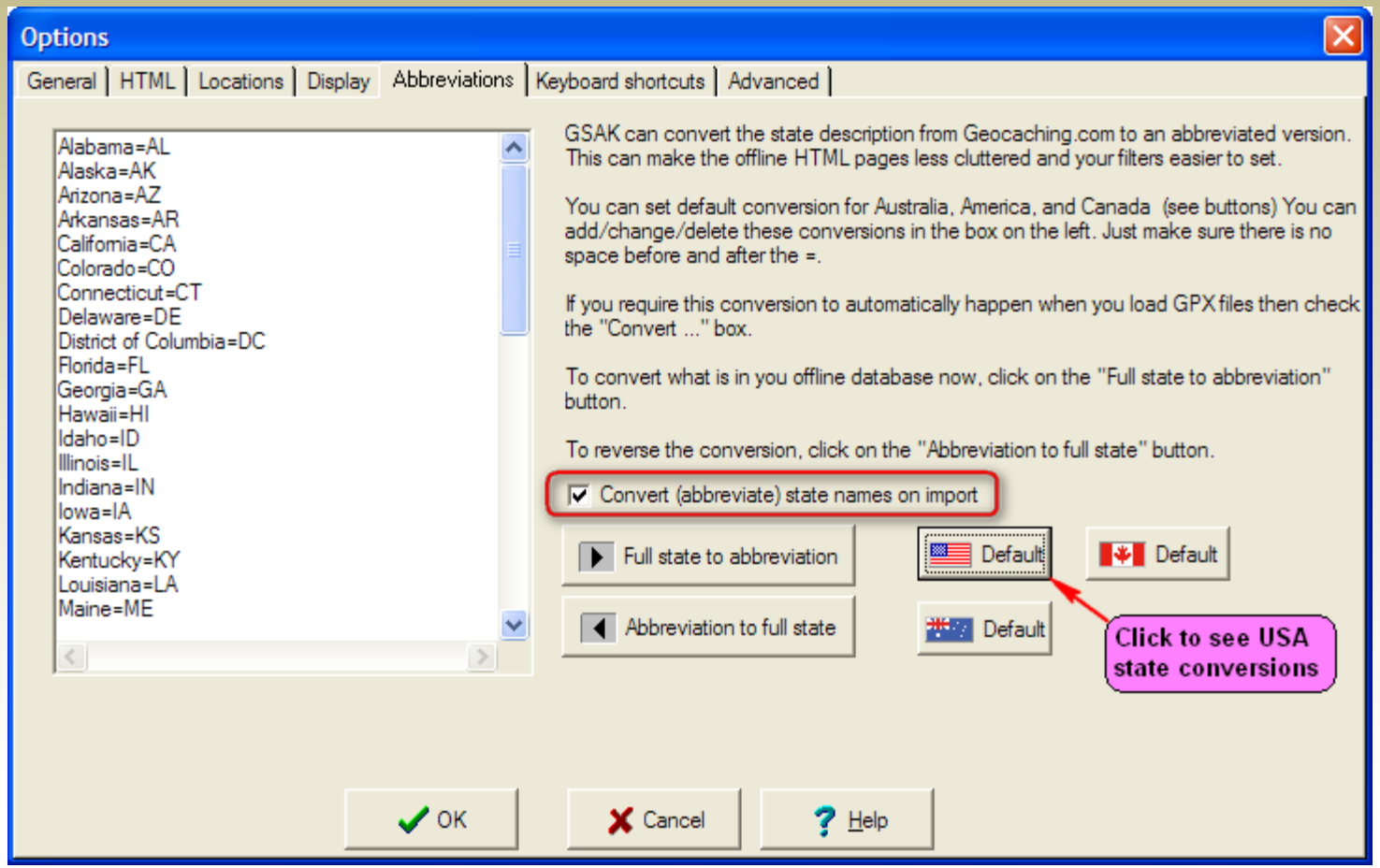
Initial Configuration – General



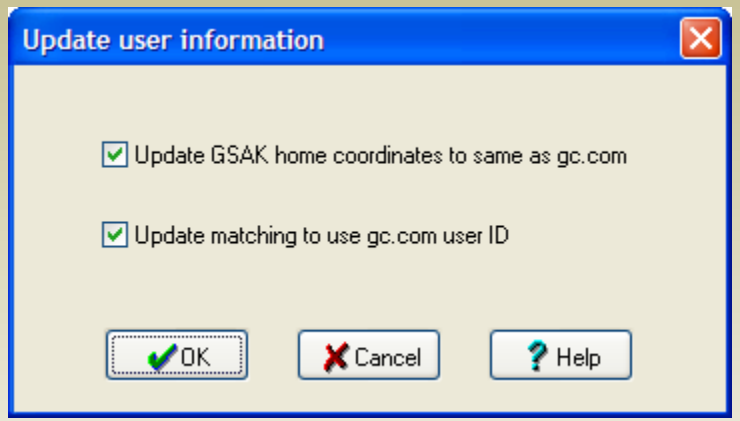
Initial Configuration – Locations



Initial Configuration – Abbreviations



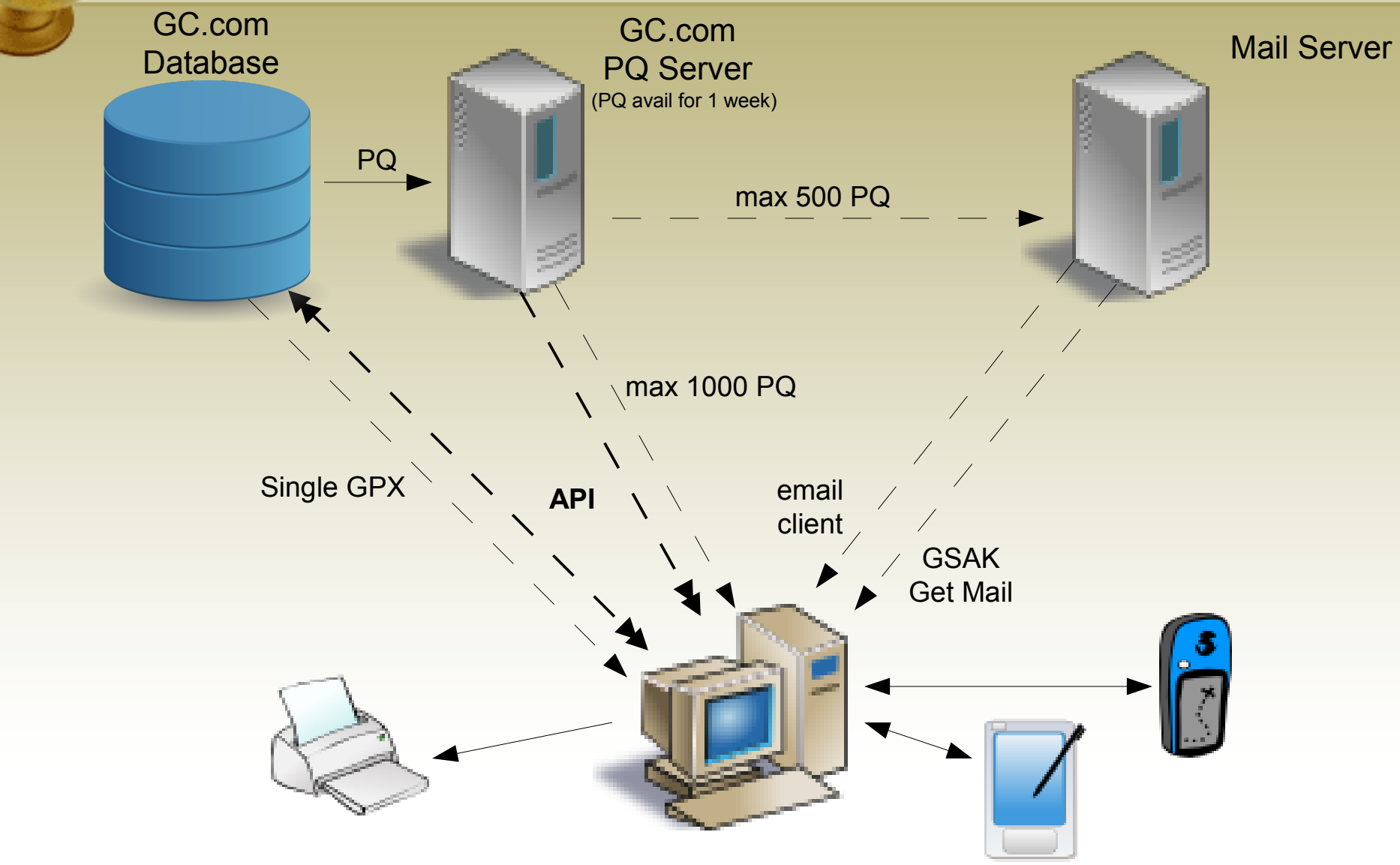
Update User Information



Regardless if these boxes are checked or not, GSAK also updates the table "UserInfo" in the database gsak.db3

uType	uKey	uData
General	FindCount	247
General	HideCount	7
General	UserId	152554
General	UserName	ClydeE
General	PublicGuid	b5601b17-3258-40b6-88ee-0dfc53bd3fef
General	HomeLat	-32.432217
General	HomeLon	115.76757100000002
General	MemberType	Premium
Profile	ForumTitle	GSAK Slave
Profile	LastVisit	2011-04-25T19:25:59
Profile	Location	Western Australia
Profile	MemberSince	2003-08-21T06:38:18.107
Profile	Occupation	
Profile	PhotoDescription	
Profile	PhotoName	Happy Hound
Profile	PhotoUrl	http://img.geocaching.com/user/152554_700.JPG
Favorites	DistinctFinds	0
Favorites	PercentComplete	70
Favorites	PointsAvailable	25
Favorites	TotalPoints	25
Favorites	TotalUntilNextPoint	3

Architecture and Work-flow



Pocket Query Types

- Individual GPX – single cache, on-demand
- Standard PQ – caches in a wide area, scheduled
- Bookmark PQ – user-defined set of caches, scheduled
- User Route PQ – caches within a user defined corridor, scheduled
- My Finds PQ – all your found caches, on-demand

	Individual GPX	Standard PQ	Bookmark PQ	User Route PQ	My Finds PQ
Cache Limit	1	500 / 1000	500 / 1000	500 / 1000	No limit
Archived Included	Yes	No	Yes	No	Yes
Number of Logs	20 + own	5 + own	5 + own	5 + own	Only own
Minimum Interval	Unlimited	5 per day (24 hour basis)			3 days
Saved PQs	N/A	Up To 40			N/A

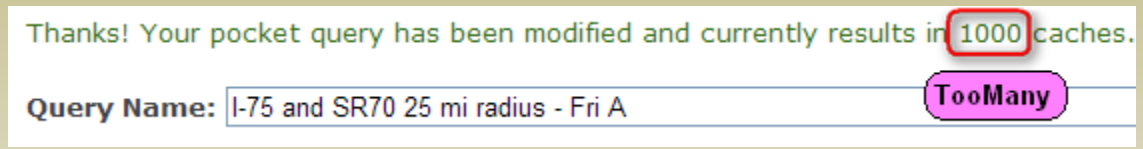
Standard PQs – Cache Selection Criteria

- Cache Type
- Container
- Difficulty Rating
- Terrain Rating
- Geographic Area – Within a Political Boundary
  - Country
  - State / Province
- Geographic Area – Within Radius of an Origin
  - Home Coordinates
  - Specified Cache
  - Specified Postal Code
  - Specified Coordinates
- Placed Date
- Misc – Active, Not Found, Recently Found, etc.

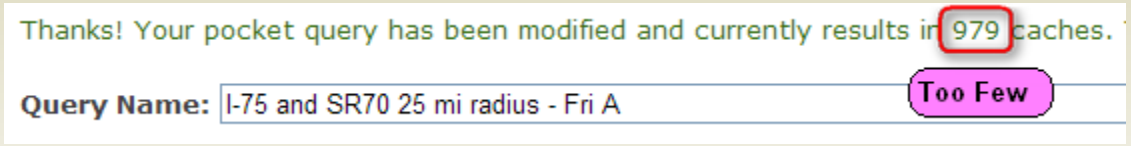
PQs – Using “Date Placed” Ranges

It takes some trial and error to ‘dial it in’… Around 990 is best!

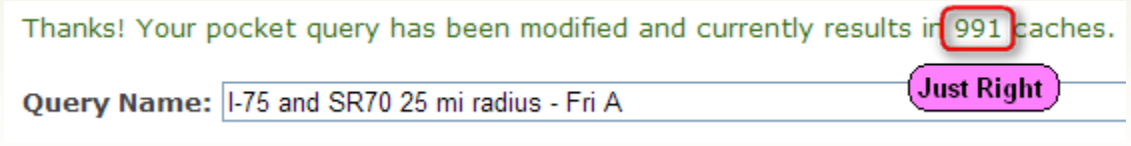
- From May 3, 2000 to Jul 1, 2010



- From May 3, 2000 to Jun 1, 2010

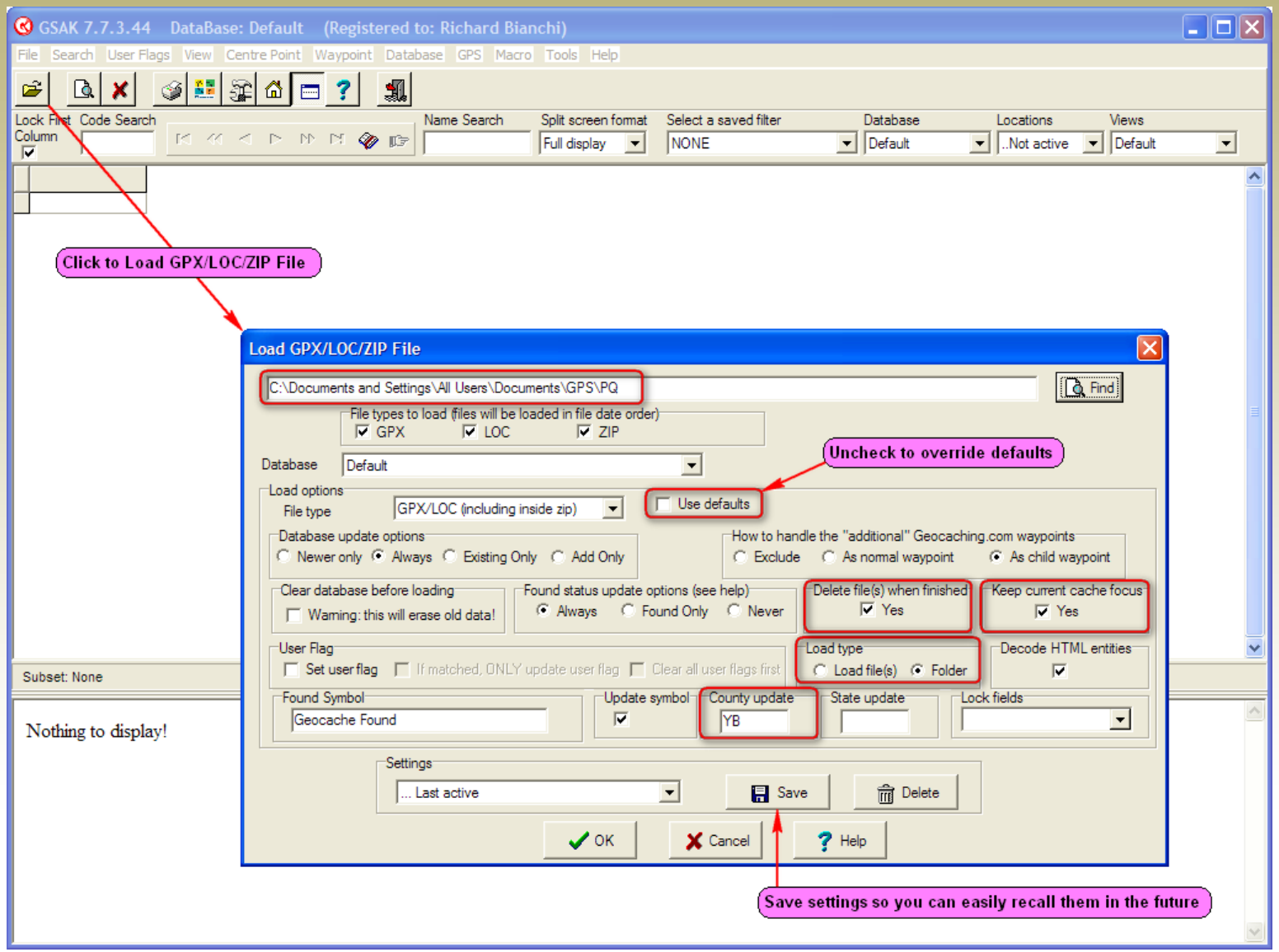


- From May 3, 2000 to Jun 20, 2010



The next PQ should start on Jun 21, 2010…
Be sure to copy the PQ by clicking on the icon

Load Pocket Query



Pocket Query Load Summary

Total # of caches that were updated (new/changed logs, descriptions, coordinates, etc.)

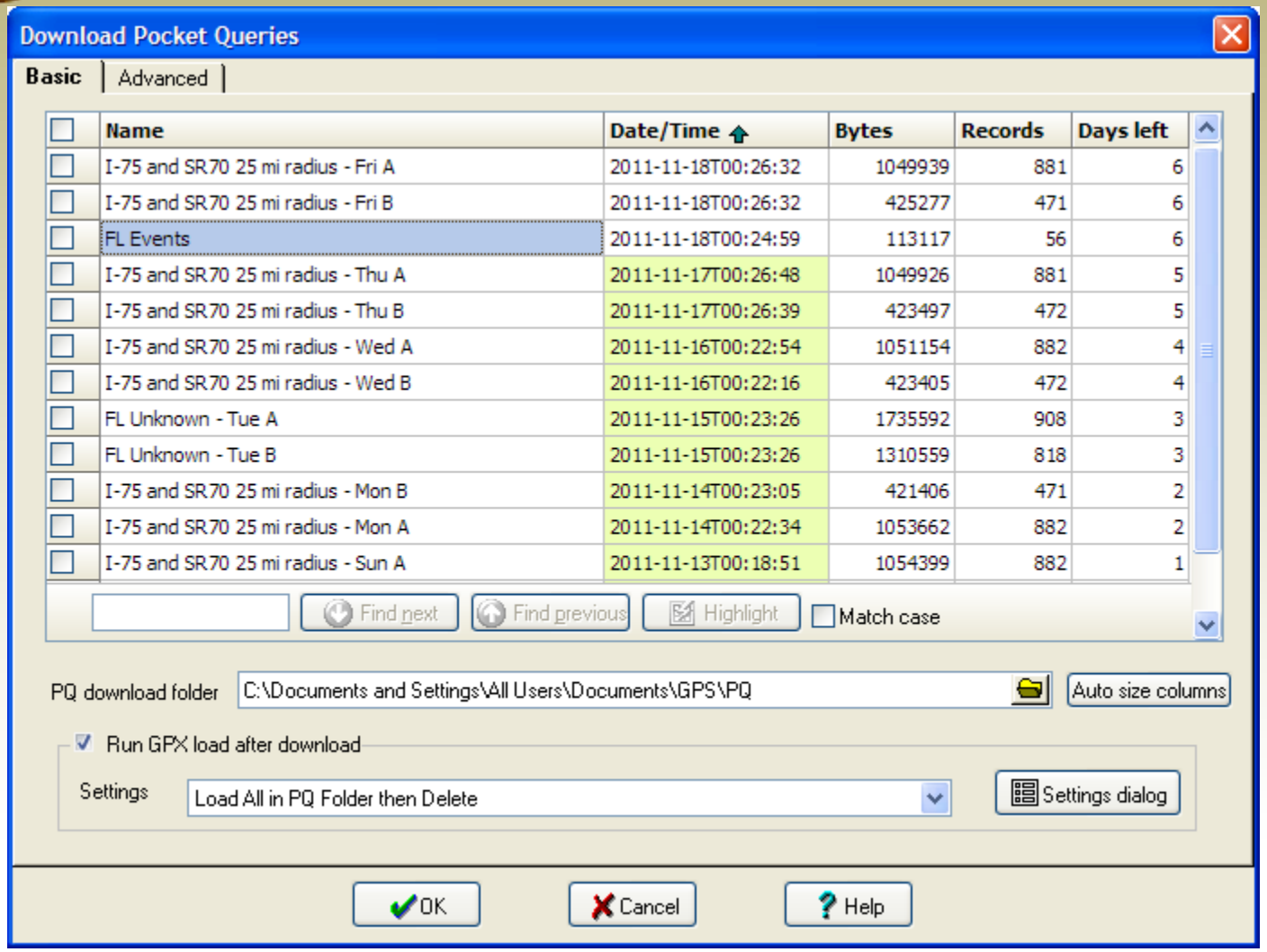
Totals	
Waypoints in file(s) loaded	1111
Existing Waypoints updated in GSAK	109
Waypoints already up to date in GSAK	1002
Show full change log	
Waypoints in each file	
973526.gpx (I-75 and SR70 25 mi radius - Thu A)	987
973542.gpx (I-75 and SR70 25 mi radius - Thu B)	124
973526-wpts.gpx (children)	101
973542-wpts.gpx (children)	5

Total # of caches in all files

Number of caches in each file

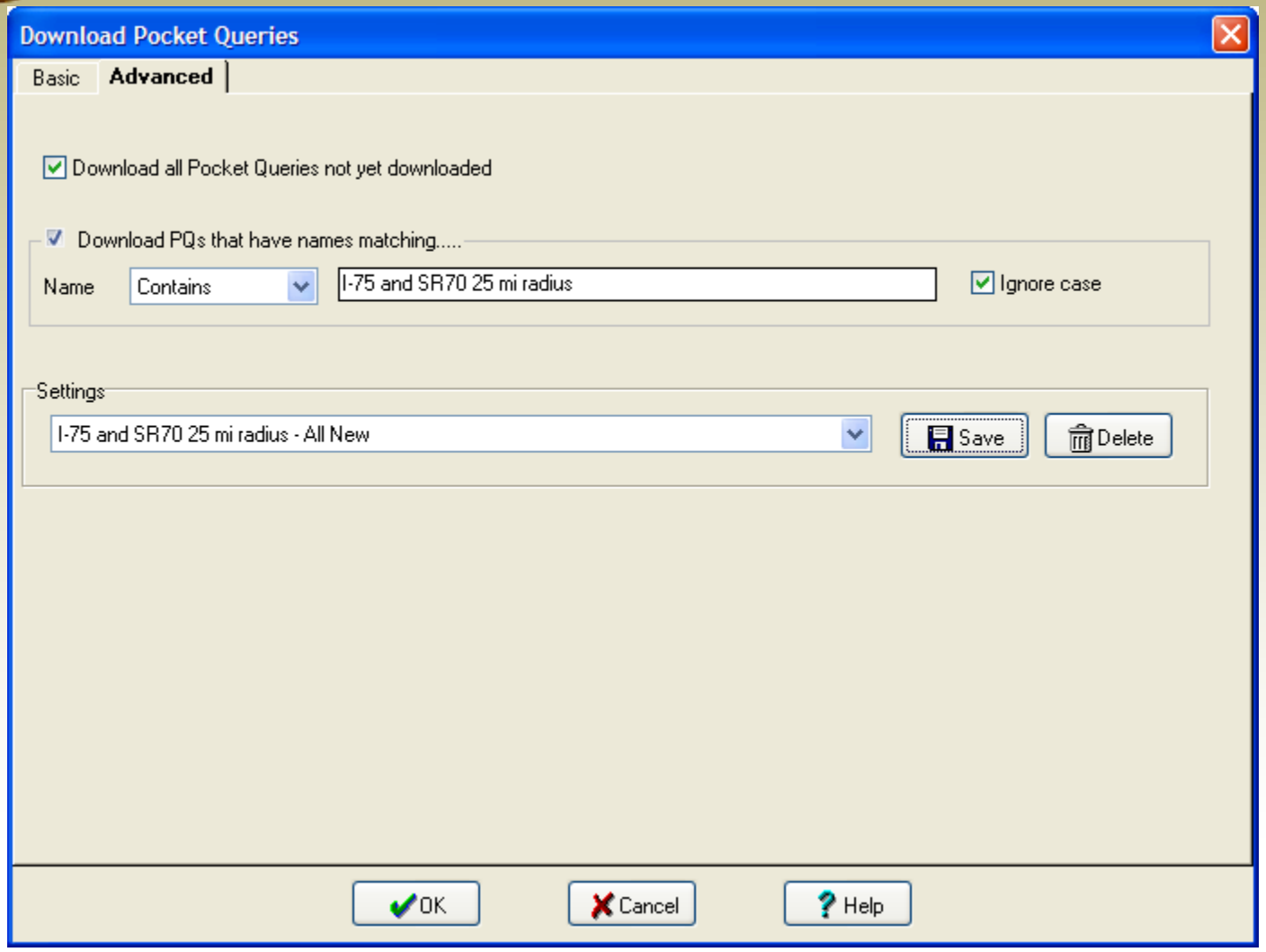
WARNING:
If any GPX file has 1000 caches you will need to adjust its PQ.

Download Pocket Queries – Basic tab



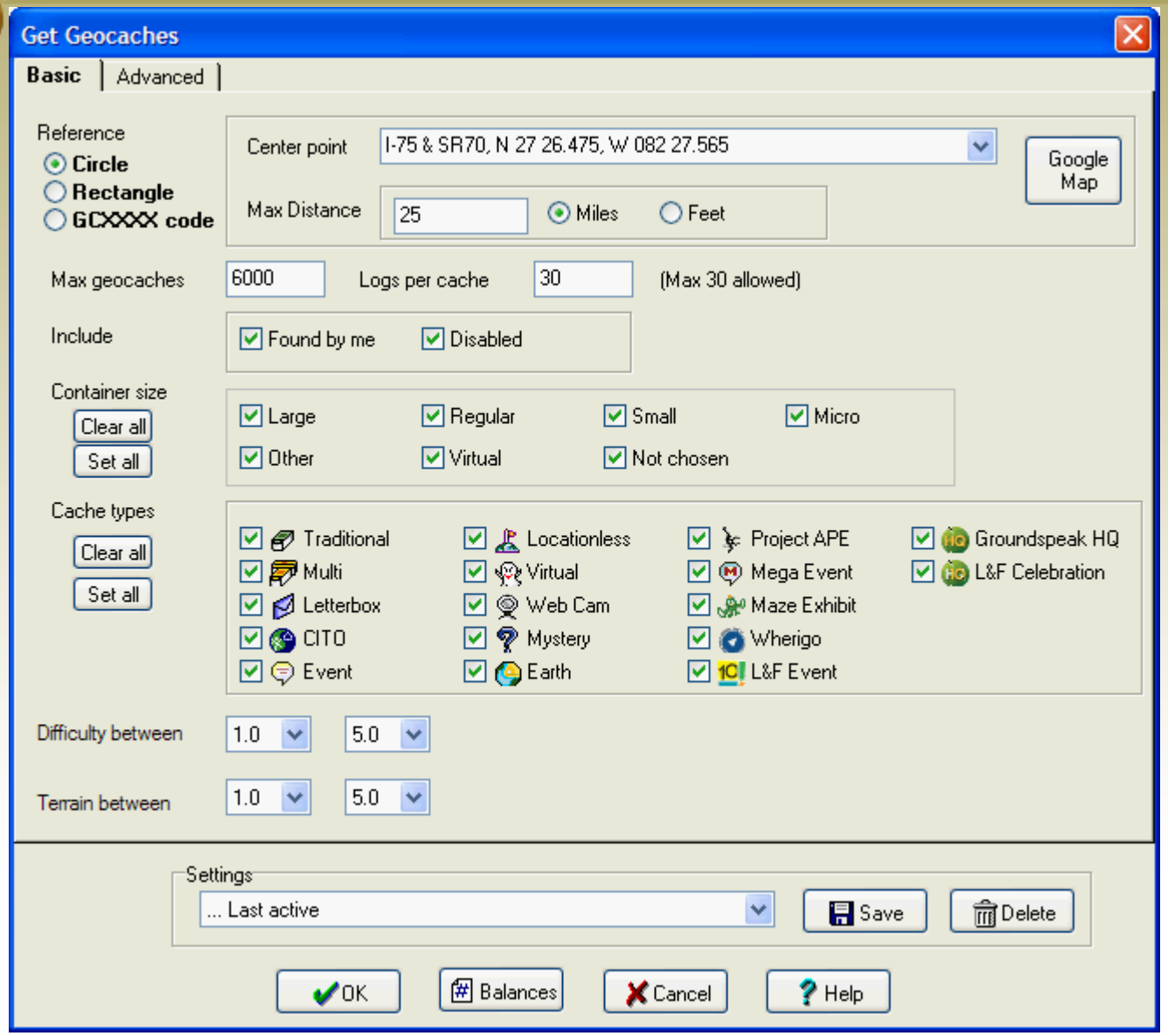
- Grid shows all PQs that have run in the last week and are available for download
- PQs that have already been downloaded have Date/Time highlighted
- They can optionally be loaded into database after download using specified GPX Load settings

Download Pocket Queries – Advanced tab



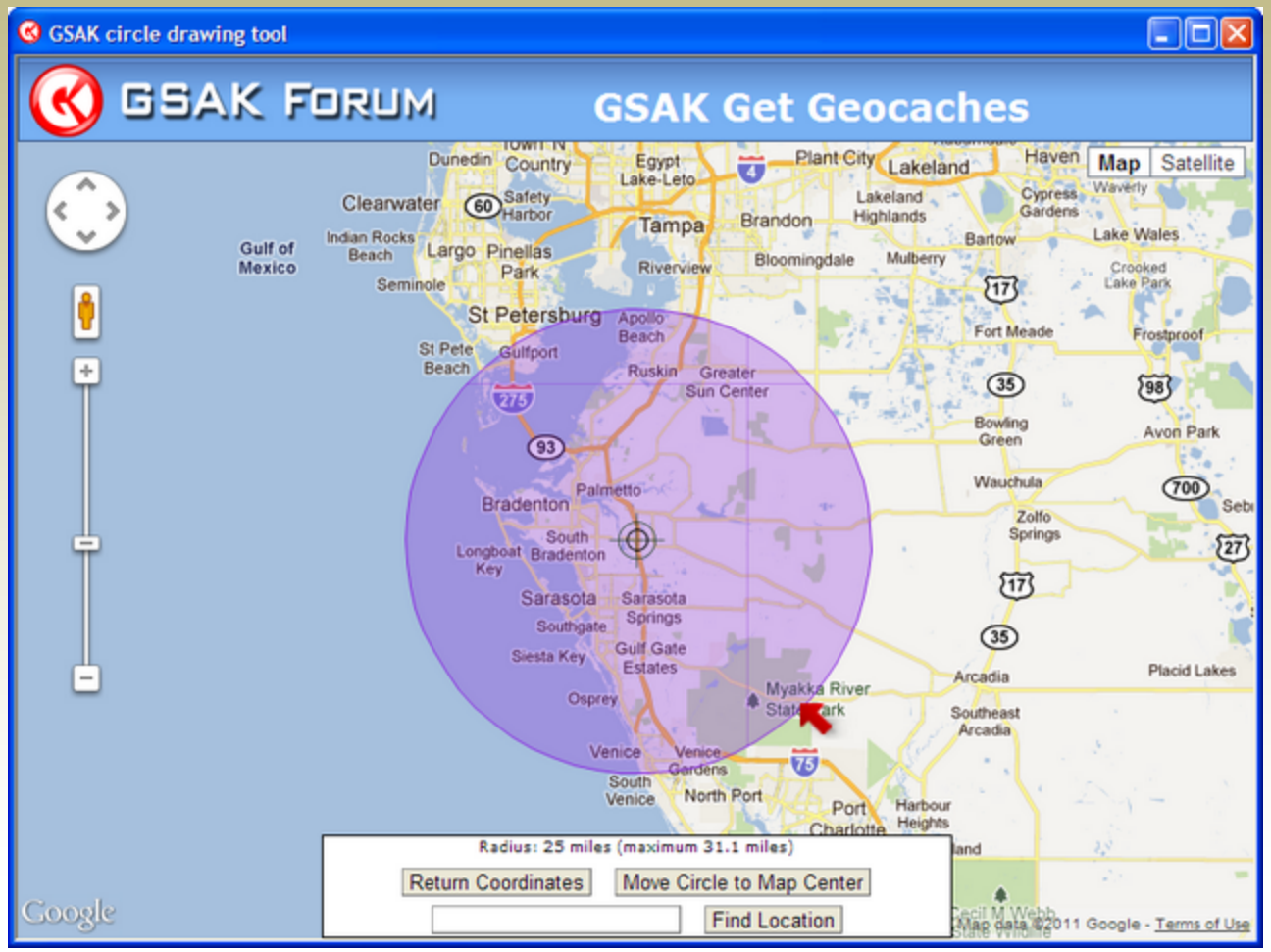
- Instead of manually selecting which PQs to download, you can choose all that have not yet been downloaded
- Additionally, or alternately, you can restrict the selection by PQ Name

Get Geocaches – Basic tab



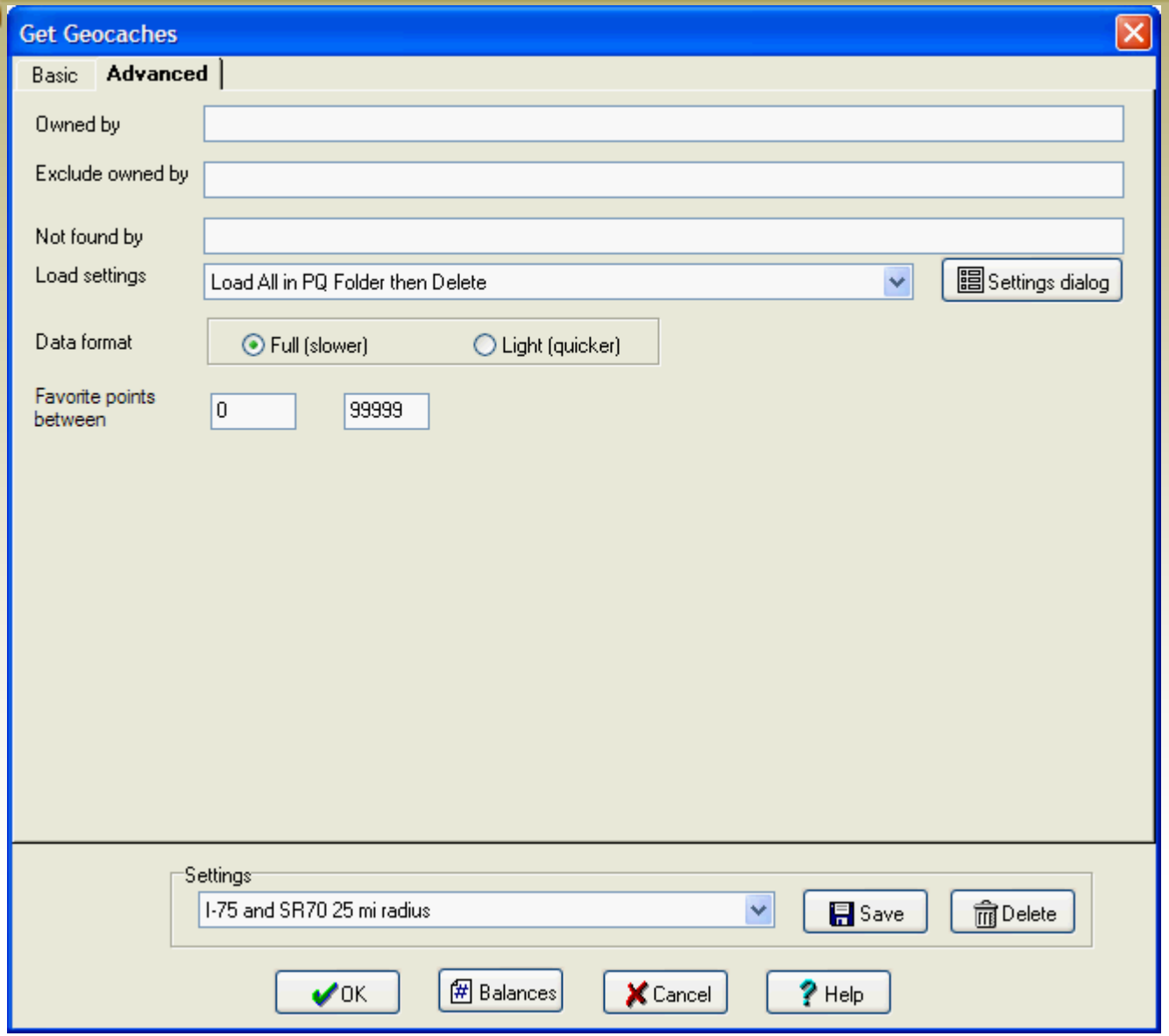
- Center Point – enter directly or chose from predefined Locations
- Max Distance – limited to 31 miles currently but will soon be increased to be 124 miles max.
- Bounding box – you can use this *instead of* the circular area (limit on distance between the two points is same as diameter)
- GCXXXX – a maximum of 30 coma-separated GC codes
- Max geocaches to get – limited to 6000 per day for Full format or 10000 for Light format
- Logs per cache – gets *only* the last N logs (unlike a PQ which also includes all of *your* logs)

Get Geocaches – Google Map Tool



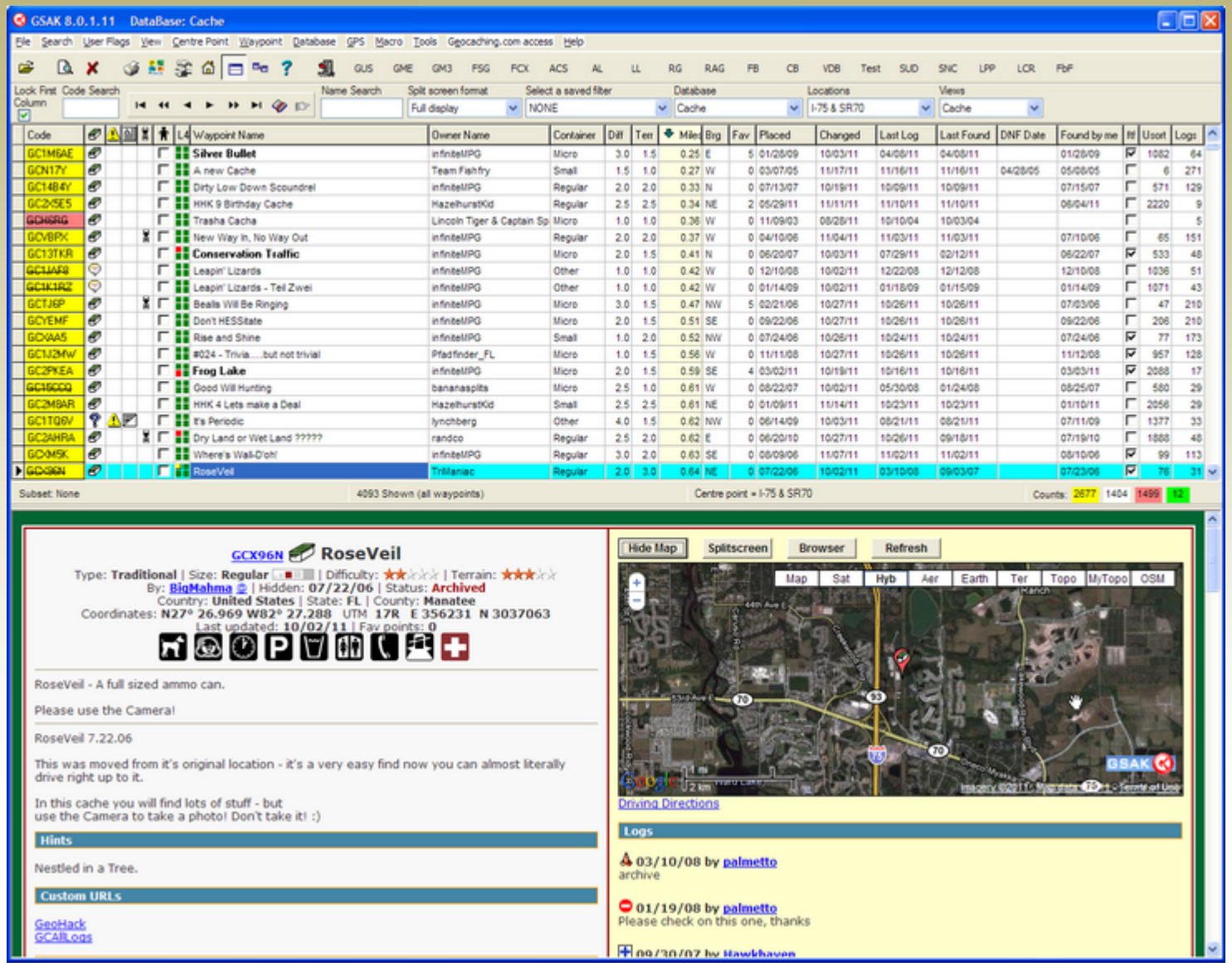
- Map can be panned and zoomed just like any Google Map
- Find Location – accepts all methods supported by Google search (town name, post code, etc)
- Center Point can be dragged to new location
- Red arrows can be dragged to change size of enclosed area
- Circle Drawing Tool – red arrow adjusts radius
- Rectangle Drawing Tool – red arrows adjust top left and bottom right
- Return Coordinates – click to return to Basic tab with defined coords

Get Geocaches – Advanced tab

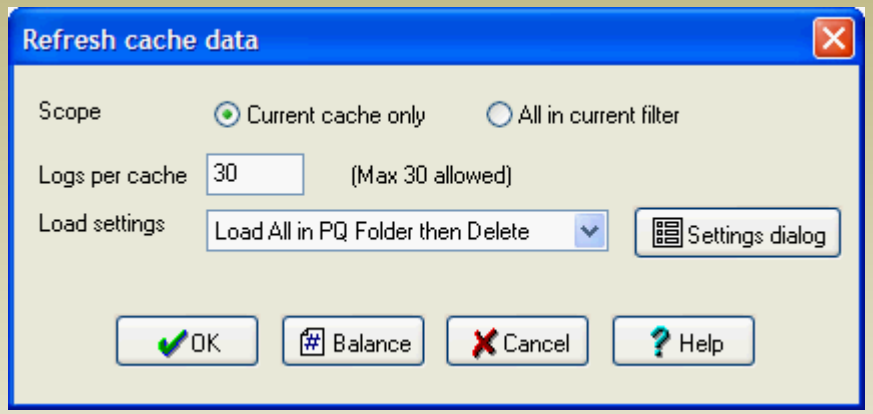


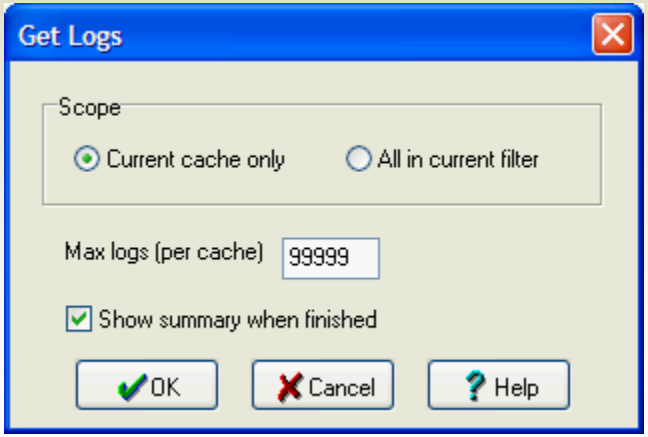
- Owned by – up to 5 comma-separated owner names
- Exclude owned by – up to 5 comma-separated cacher names
- Not found by – up to 5 comma-separated cacher names
- Load settings – this is the GPX Load setting
- Full format includes information not currently contained in a GPX file (e.g. Favorite Points and Premium cache indication)
- Light format does not include descriptions or logs

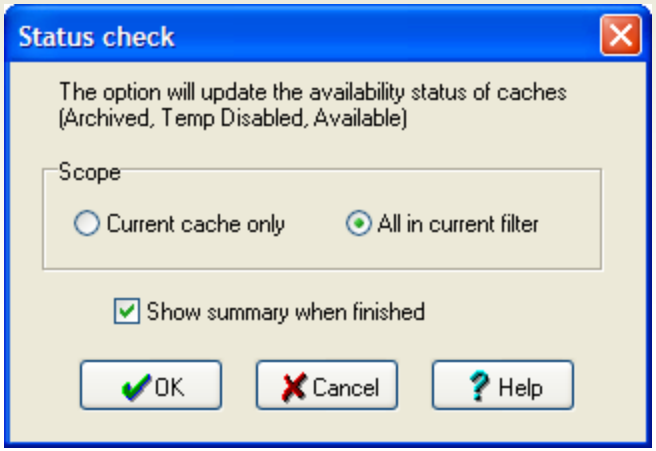
Main Window


GSAK 8.0.1.11 DataBase: Cache
File Search User Flags View Centre Point Waypoint Database GPS Macro Tools Geocaching.com access Help
Code Waypoint Name Owner Name Container Diff Ter Miles Brg Fav Placed Changed Last Log Last Found DNF Date Found by me Ttf Usort Logs
GC1M6AE Silver Bullet infiniteMPG Micro 3.0 1.5 0.25 E 5 01/28/09 10/03/11 04/08/11 04/08/11 01/28/09 1082 64
GCN17Y A new Cache Team Fishfry Small 1.5 1.0 0.27 W 0 03/07/05 11/17/11 11/16/11 11/16/11 04/28/05 05/08/05 6 271
GC14B4Y Dirty Low Down Scoundrel infiniteMPG Regular 2.0 2.0 0.33 N 0 07/13/07 10/19/11 10/09/11 10/09/11 07/15/07 571 129
GC2X5E5 HHK 9 Birthday Cache HazelhurstKid Regular 2.5 2.5 0.34 NE 2 05/29/11 11/11/11 11/10/11 11/10/11 06/04/11 2220 9
GCH6RG Trasha Cacha Lincoln Tiger & Captain Sp Micro 1.0 1.0 0.36 W 0 11/09/03 08/28/11 10/10/04 10/03/04 5
GCVBPX New Way In, No Way Out infiniteMPG Regular 2.0 2.0 0.37 W 0 04/10/06 11/04/11 11/03/11 11/03/11 07/10/06 65 151
GC13TKR Conservation Traffic infiniteMPG Micro 2.0 1.5 0.41 N 0 06/20/07 10/03/11 07/29/11 02/12/11 06/22/07 533 48
GC1JAF8 Leapin' Lizards infiniteMPG Other 1.0 1.0 0.42 W 0 12/10/08 10/02/11 12/22/08 12/12/08 12/10/08 1036 51
GC1K1RZ Leapin' Lizards - Teil Zwei infiniteMPG Other 1.0 1.0 0.42 W 0 01/14/09 10/02/11 01/18/09 01/15/09 01/14/09 1071 43
GCTJ6P Beals Will Be Ringing infiniteMPG Micro 3.0 1.5 0.47 NW 5 02/21/06 10/27/11 10/26/11 10/26/11 07/03/06 47 210
GCYEMF Don't HESSitate infiniteMPG Micro 2.0 1.5 0.51 SE 0 09/22/06 10/27/11 10/26/11 10/26/11 09/22/06 206 210
GCXAA5 Rise and Shine infiniteMPG Small 1.0 2.0 0.52 NW 0 07/24/06 10/26/11 10/24/11 10/24/11 07/24/06 77 173
GC1J2MW #024 - Trivia....but not trivial Pfadfinder_FL Micro 1.0 1.5 0.56 W 0 11/11/08 10/27/11 10/26/11 10/26/11 11/12/08 957 128
GC2PKEA Frog Lake infiniteMPG Micro 2.0 1.5 0.59 SE 4 03/02/11 10/19/11 10/16/11 10/16/11 03/03/11 2088 17
GC16CCQ Good Will Hunting bananasplits Micro 2.5 1.0 0.61 W 0 08/22/07 10/02/11 05/30/08 01/24/08 08/25/07 580 29
GC2MBAR HHK 4 Lets make a Deal HazelhurstKid Small 2.5 2.5 0.61 NE 0 01/09/11 11/14/11 10/23/11 10/23/11 01/10/11 2056 29
GC1TQ6V It's Periodic lynchberg Other 4.0 1.5 0.62 NW 0 06/14/09 10/03/11 08/21/11 08/21/11 07/11/09 1377 33
GC2AHRA Dry Land or Wet Land ????? randco Regular 2.5 2.0 0.62 E 0 06/20/10 10/27/11 10/26/11 09/18/11 07/19/10 1888 48
GCXM5K Where's Wall-D'oh! infiniteMPG Regular 3.0 2.0 0.63 SE 0 08/09/06 11/07/11 11/02/11 11/02/11 08/10/06 99 113
GCX96N RoseVeil Trifilaniac Regular 2.0 3.0 0.64 NE 0 07/22/06 10/02/11 03/10/08 09/03/07 07/23/06 76 31
Subset: None
4093 Shown (all waypoints)
Centre point = I-75 & SR70
Counts: 2677 1404 1499 12
GCX96N RoseVeil
Type: Traditional | Size: Regular | Difficulty: | Terrain:
By: BigMahma | Hidden: 07/22/06 | Status: Archived
Country: United States | State: FL | County: Manatee
Coordinates: N27° 26.969 W82° 27.288 UTM 17R E 356231 N 3037063
Last updated: 10/02/11 | Fav points: 0
RoseVeil - A full sized ammo can.
Please use the Camera!
RoseVeil 7.22.06
This was moved from it's original location - it's a very easy find now you can almost literally drive right up to it.
In this cache you will find lots of stuff - but use the Camera to take a photo! Don't take it! :)
Hints
Nestled in a Tree.
Custom URLs
GeoHack
GCAllLogs
Hide Map
Splitscreen
Browser
Refresh
Map Sat Hyb Aer Earth Ter Topo MyTopo OSM
Driving Directions
Logs
03/10/08 by palmetto
archive
01/19/08 by palmetto
Please check on this one, thanks
09/30/07 by Hawkhaven

Updating Existing Caches in Database

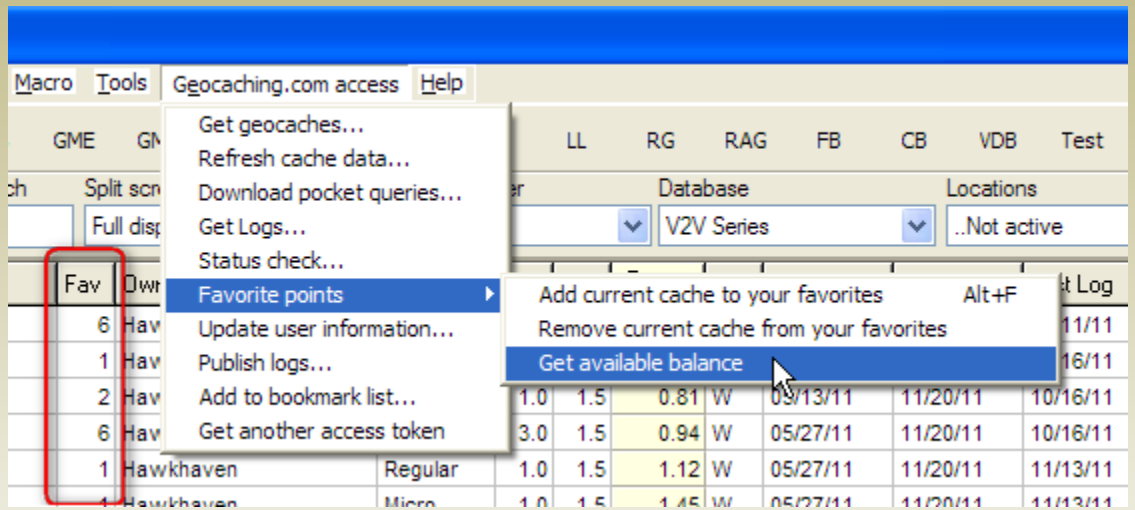


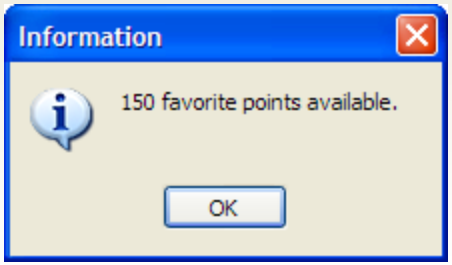




- Caches refreshed count against the 6000 cache per day limit
- Max caches per hour of 2000 is automatically paced by GSAK
- Logs per cache – gets *only* the last N logs (unlike a PQ which also includes all of *your* logs)
- Max logs – can be set to a very large number to get all logs

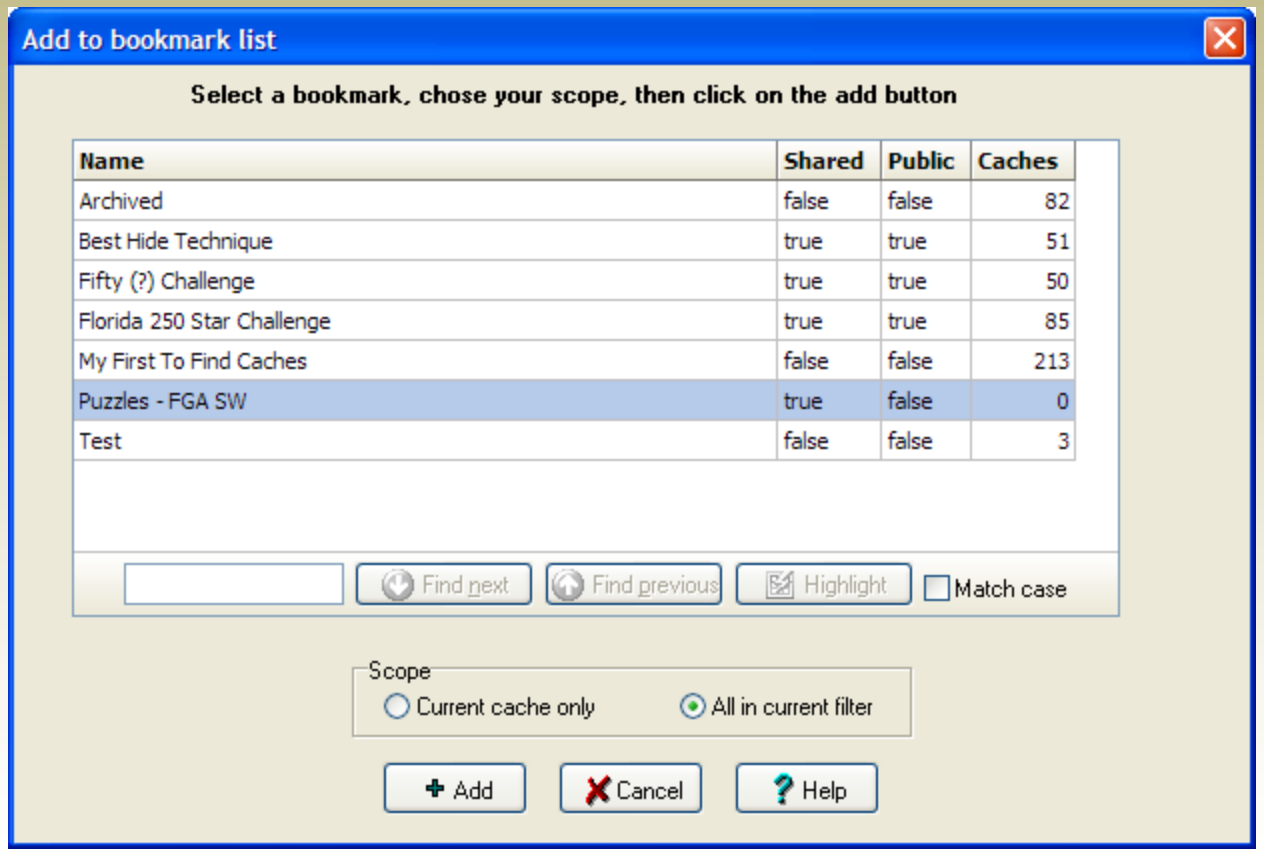
Favorite Points





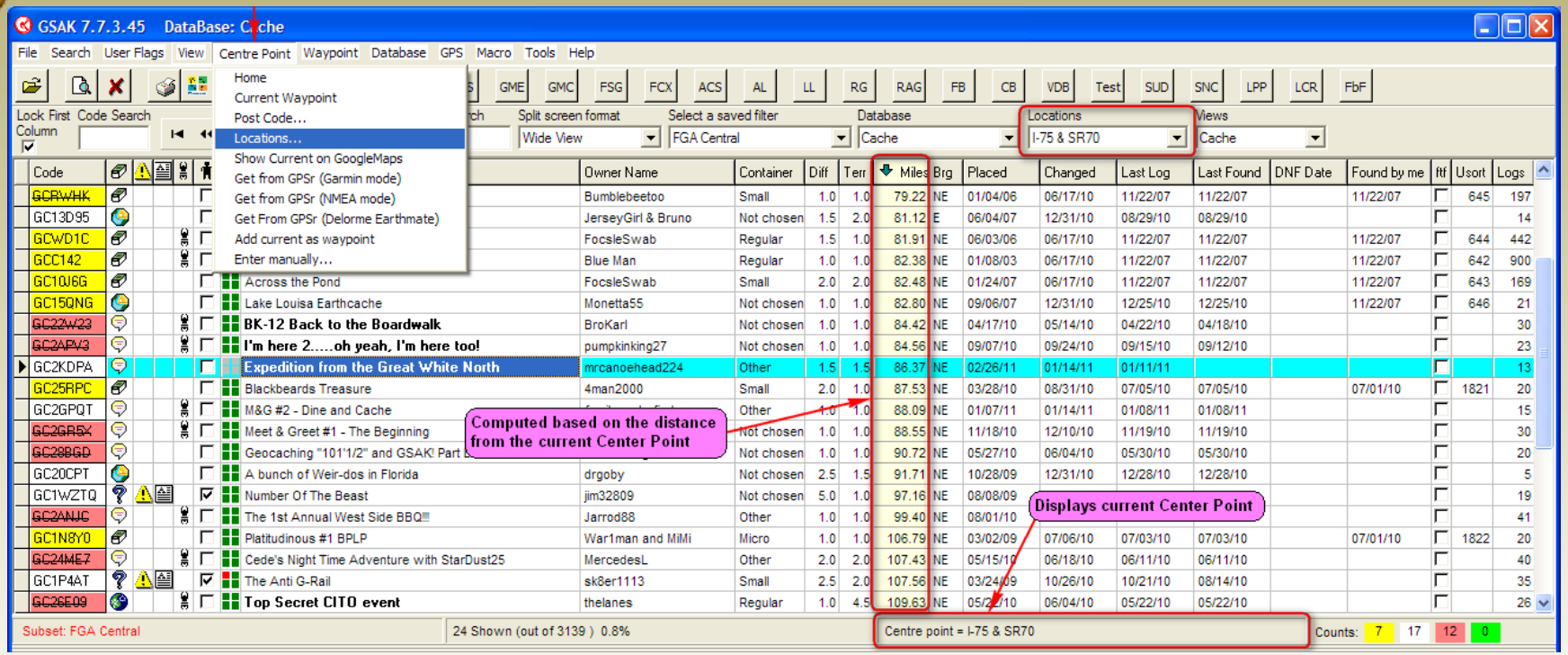
- API functions include information about favorite points
- The favorite point field can be added to the grid
- A favorite point can be added to or removed from the current cache
- The number of available favorite points can be checked

Add to Bookmark List



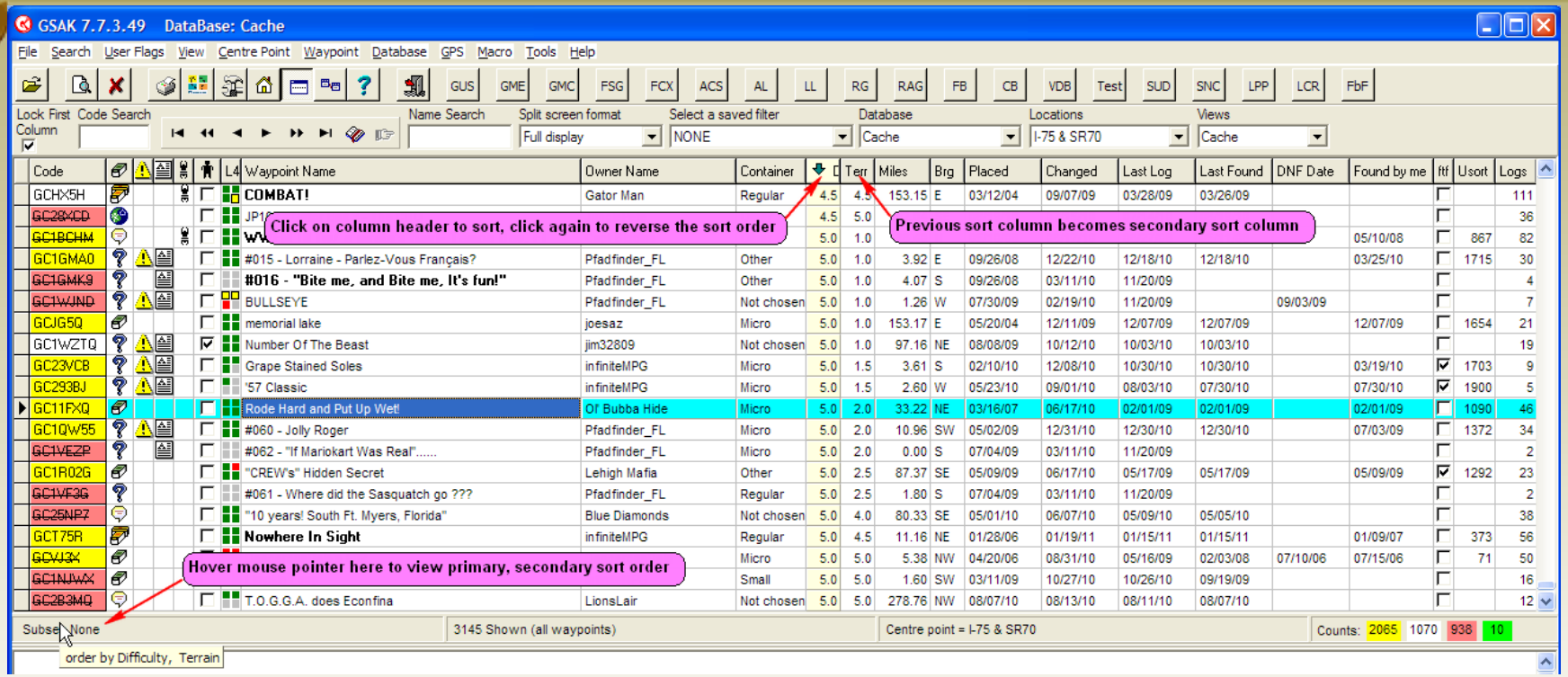
- API can not create a bookmark list, so you must first make sure you have created the bookmark list online

Center Point



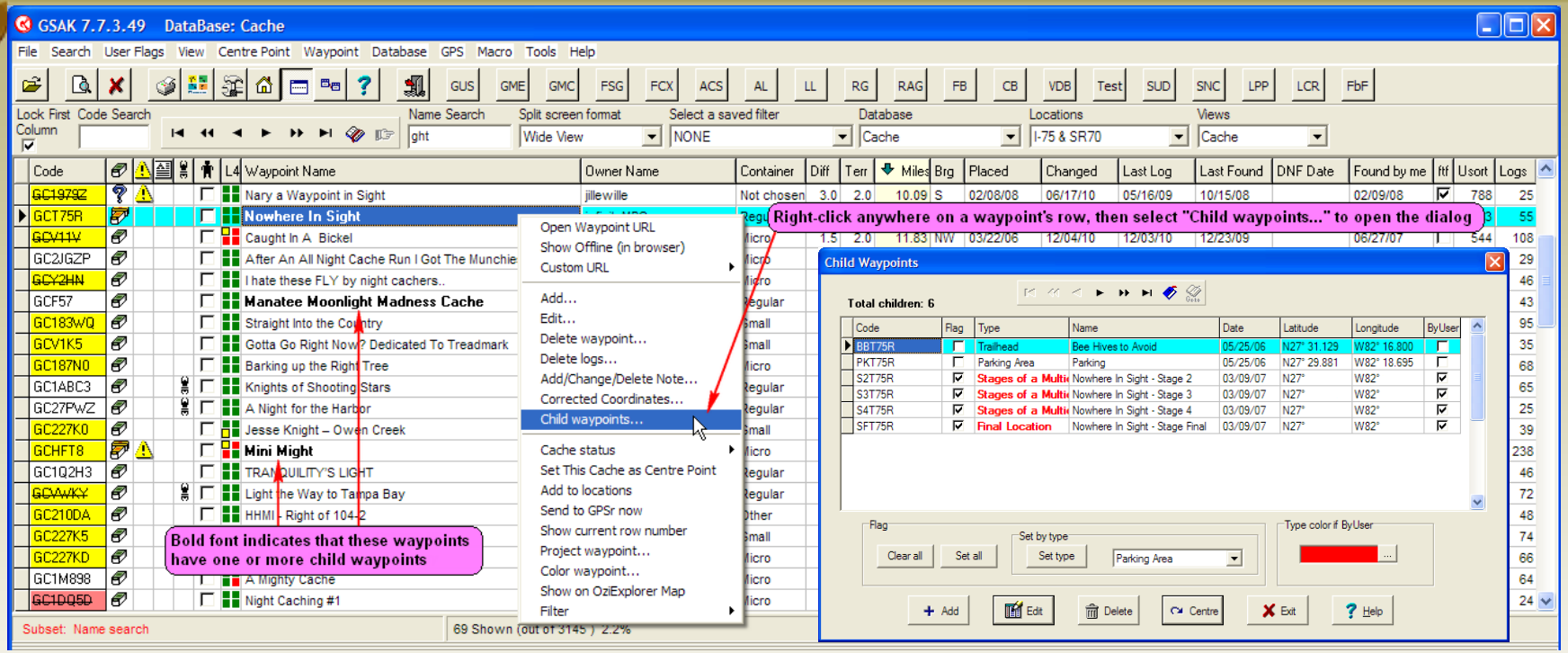
- Multiple locations can be defined and selected from dropdown list
- Can be set based on post code or manually entered Lat/Lon
- Can be set to current physical location by a connected GPSr
- Distance column computed based on Center Point

Sorting



- String fields sort alphabetically (not case-sensitive)
- String fields can be sorted numerically by using leading zeros
- Date fields sort chronologically (stored internally as YYYY-MM-DD)
- Support for primary and secondary sorting

Child (Additional) Waypoints

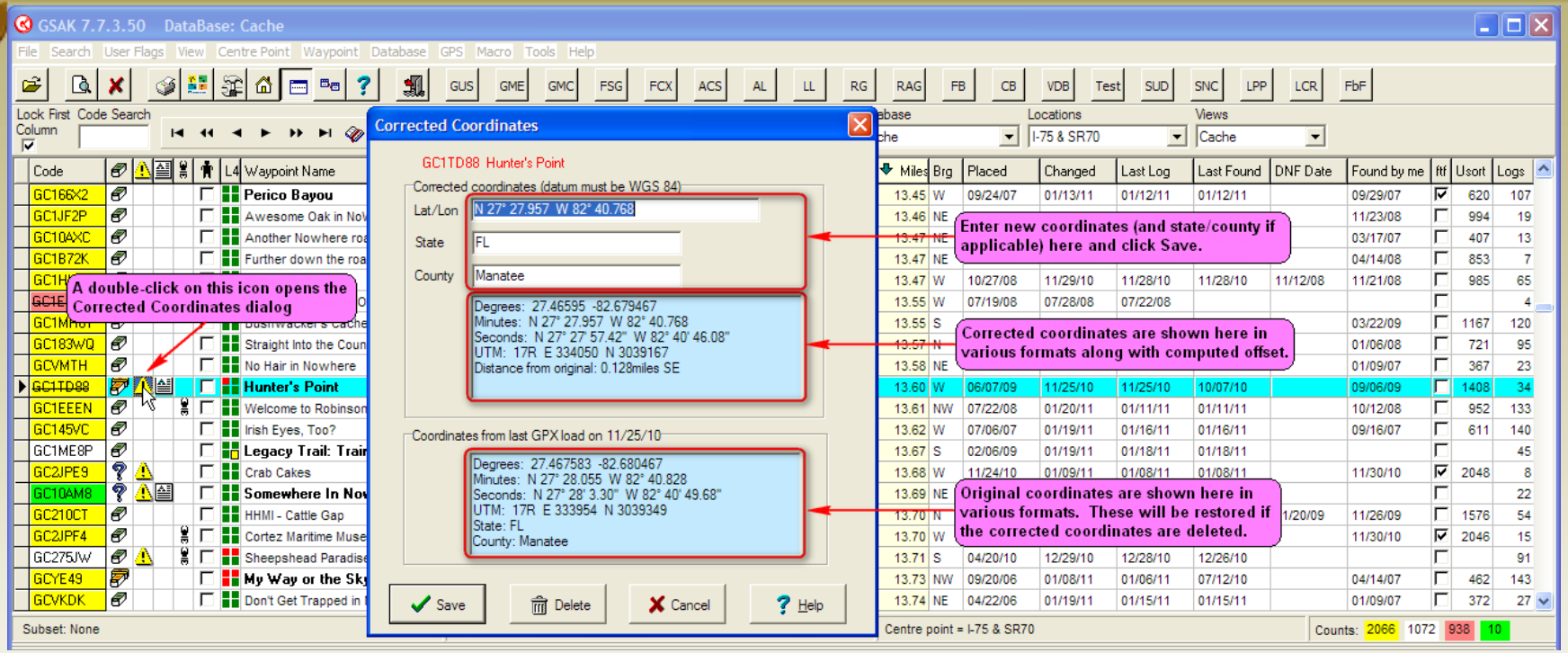


Child Waypoint Types

Final Location
Parking Area
Question to Answer
Stages of a Multicache
Trailhead
Reference Point

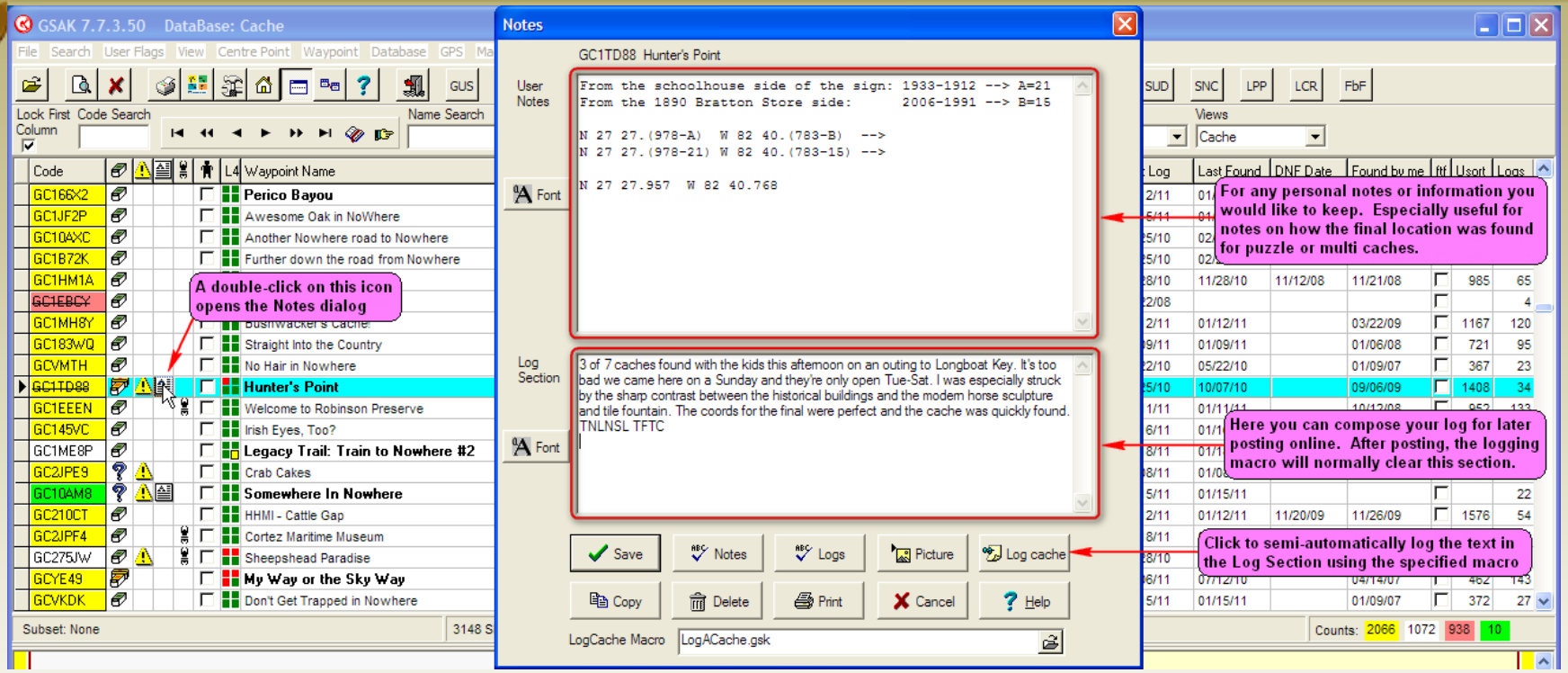
- Published by cache owner or defined by user
- Sent to GPSr for navigation (optional)
- Some macros will display on map (optional)
- Listed in Split Screen

Corrected Coordinates



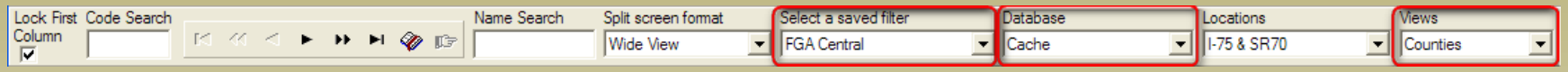
- Corrected coordinates override, not replace, original coordinates
- Are treated like the originals ones (e.g. when downloading to GPSr)
- Are not overwritten on PQ load, and revert to original when deleted
- Often used for solved puzzles and final location of multis

Notes



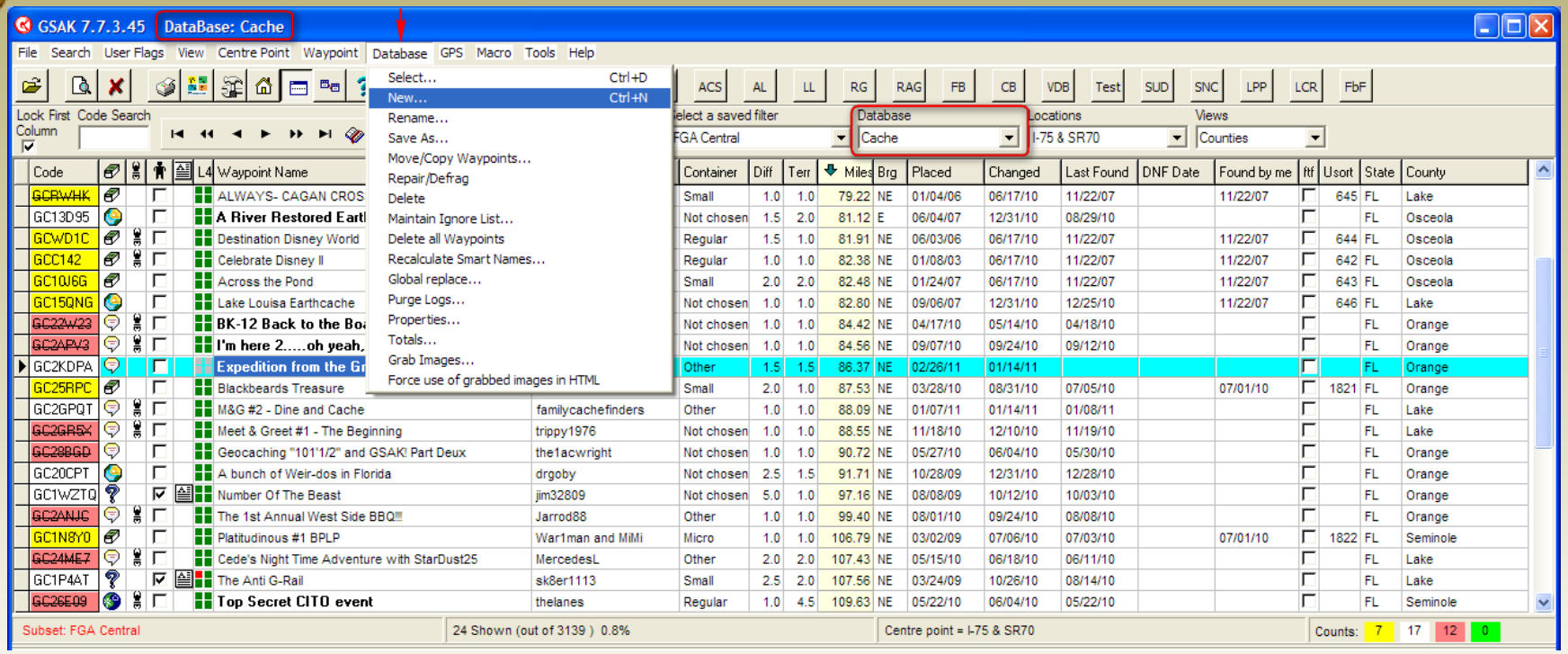
- Each waypoint can have a note consisting of user and log sections
- The notes support a combination plain text and HTML
- Spell checking is provided and pictures/graphics are supported
- Semi-automatic logging can be done using a specified macro

Key Concepts



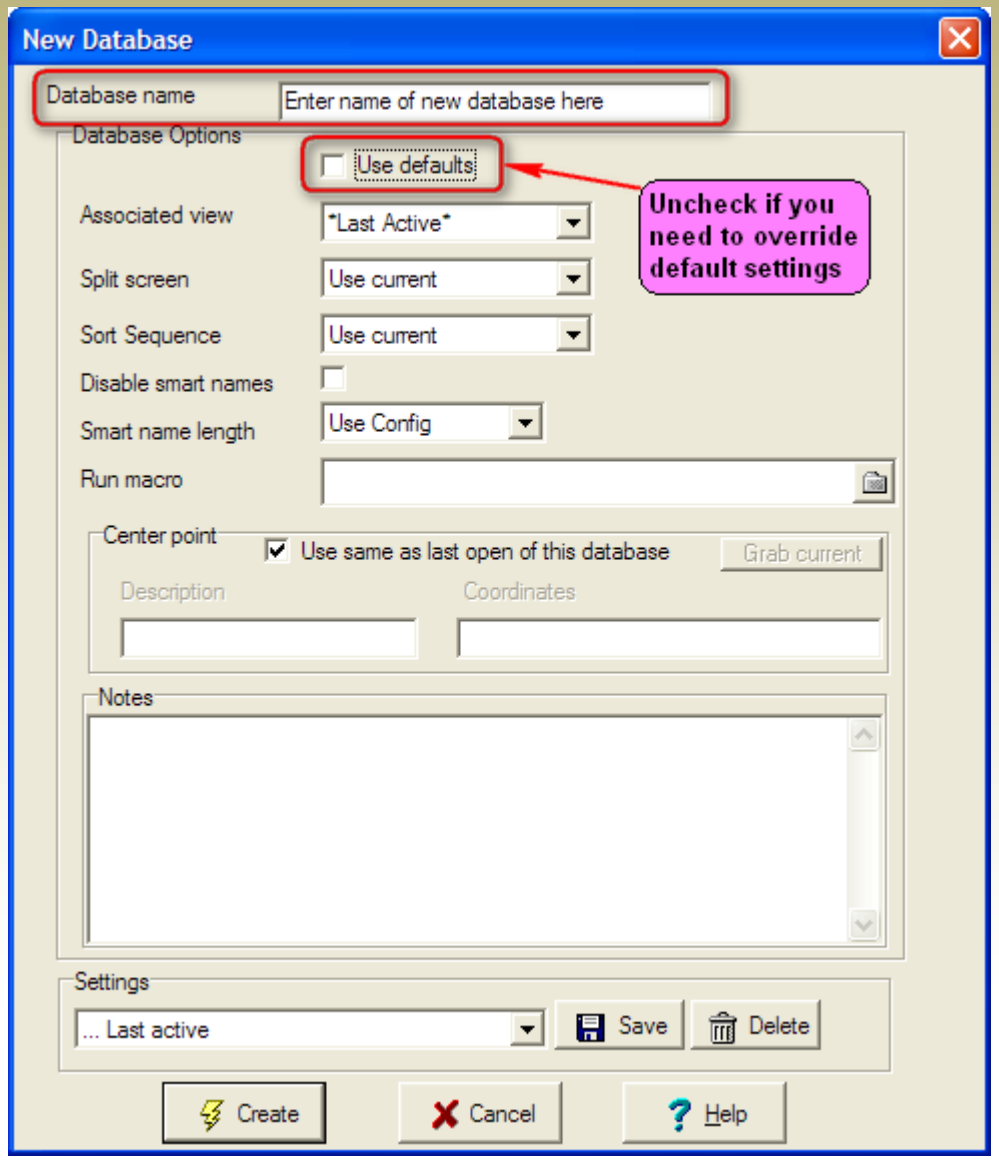
- Database – Collection of data items
  - Caches, Benchmarks, Trackables, etc.
  - Records (rows) of Fields (columns)
  - Usually populated by GPX files (PQs)
- View – Subset of columns
  - Selection, Order, Width
  - Sortable by column (primary, secondary)
- Filter – Subset of rows
  - GUI, Arc/Poly, or SQLite-based
  - Also filtered by Code/Name Search
  - Most actions only act on filter

Databases

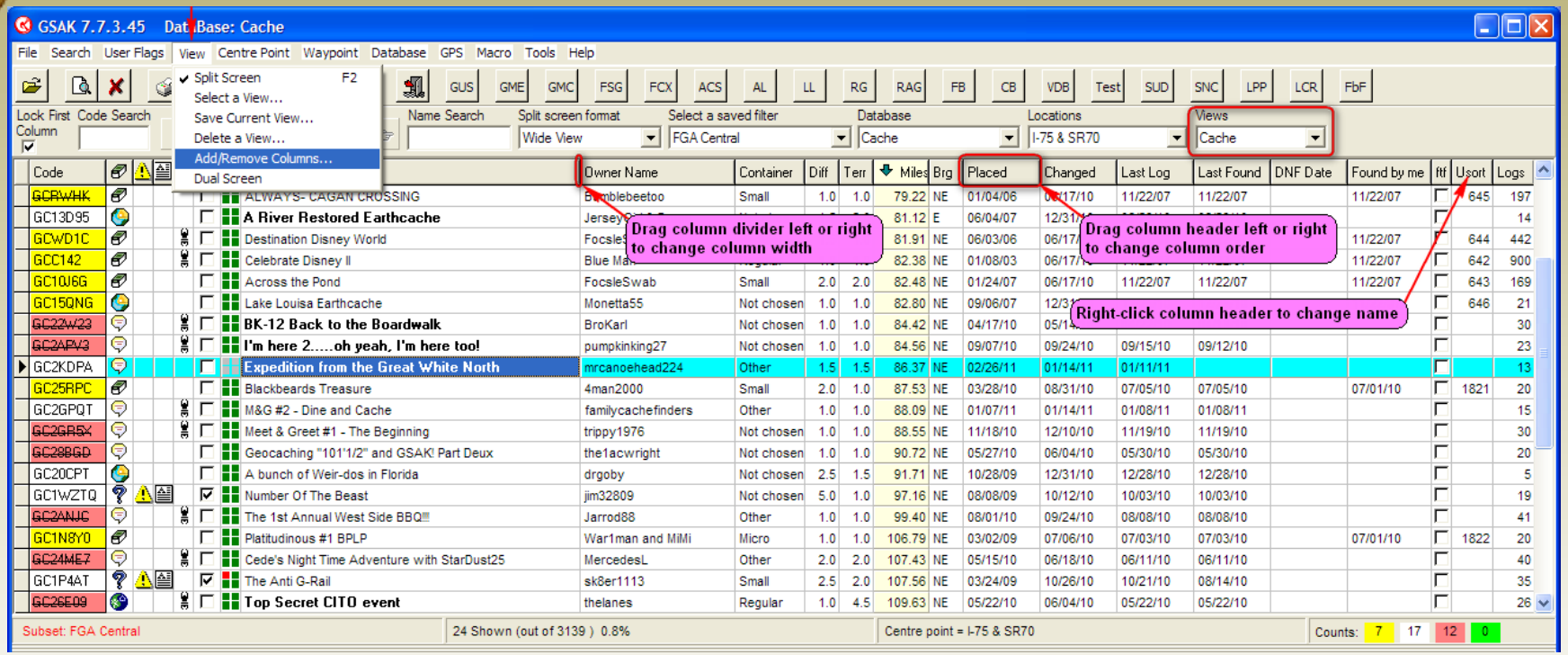


- Multiple databases can be created and selected from dropdown list
- Image data can be grabbed and cached locally for offline viewing
- Waypoints can be moved or copied between databases
- Global replace for field changes across many waypoints

Creating a New Database

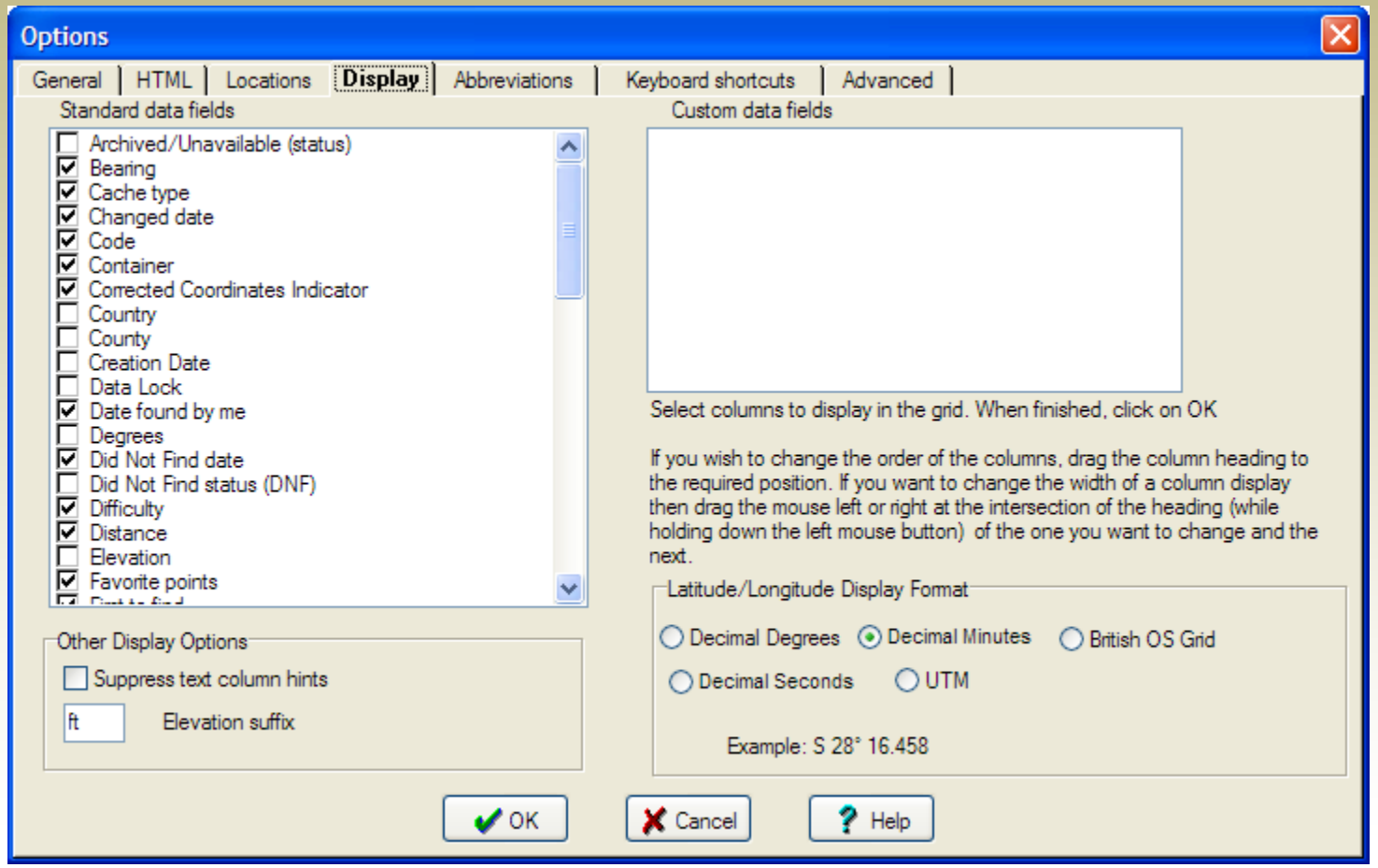


Views



- Multiple views can be created and selected from dropdown list
- View defined by column selection, order, width, and name
- Can be scrolled horizontally to view off-screen columns
- First column can be locked in place to exempt from scrolling

Views – Selecting Columns (Fields)



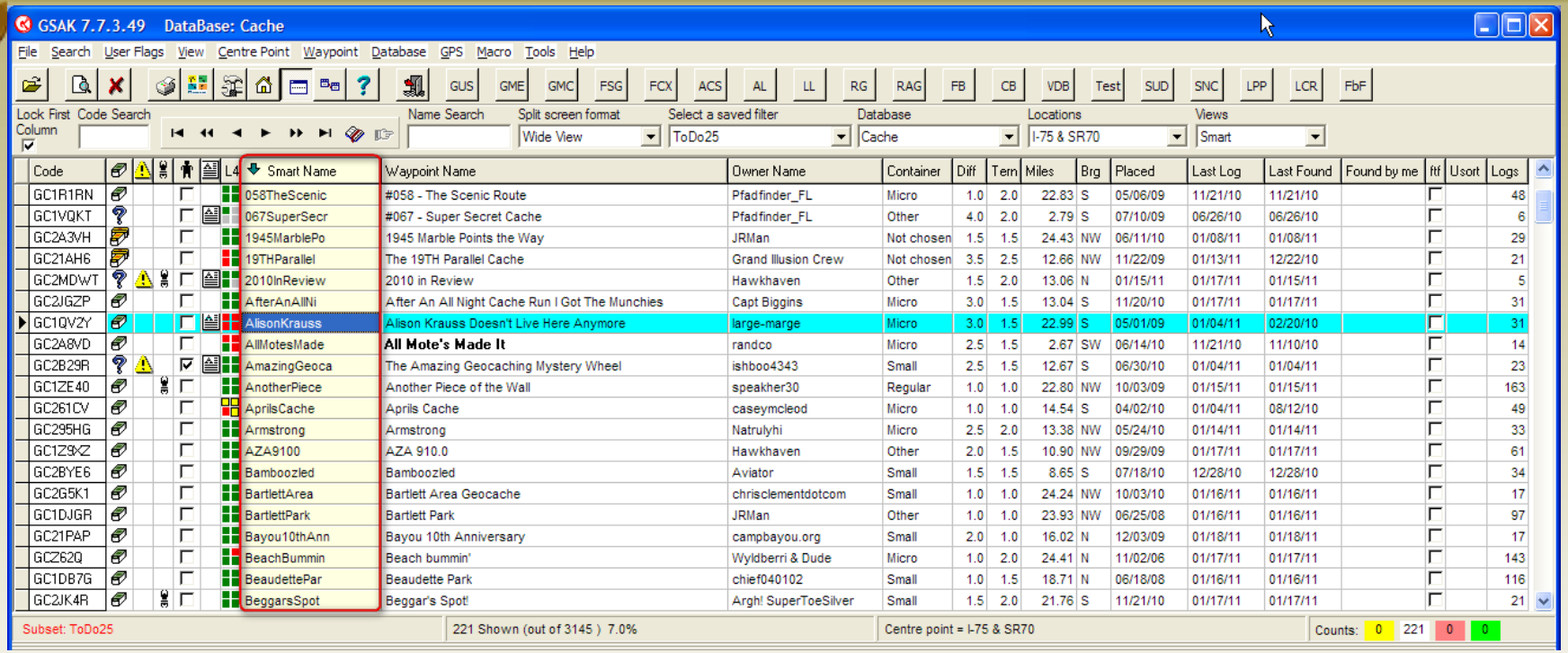
Views – Supported Columns (Fields)

Derived from GPX	Managed by GSAK	Managed by User
Archived/Unavailable (Status)	Bearing	Corrected Coordinates Indicator
Cache Type	Changed Date	Data Lock
Code	County	Notes
Container	Creation Date	User Data
Country	Date Found By Me	User Data 2
Difficulty	Degrees	User Data 3
Favorite Points *	Did Not Find Date	User Data 4
GC.com Note *	Did Not Find Status (DNF)	User Flag
Guid *	Distance	User Sort
Hints	Elevation	Watch Status
Latitude	Found Count	
Longitude	Found Status	
Owner ID	Last Found	
Owner Name	Last Four Logs	
Placed By	Last GPX Update	
Placed Date	Last Log Date	
Premium *	Last User Update	
Source	Macro Sort	
State	Number of Logs	
Terrain	Resolution	
Travel Bugs	Row Number	
URL	Smart Name	
Waypoint Name		

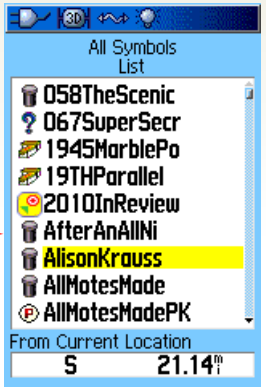
Additional user-defined Custom Data fields are also supported.

* currently only populated by API

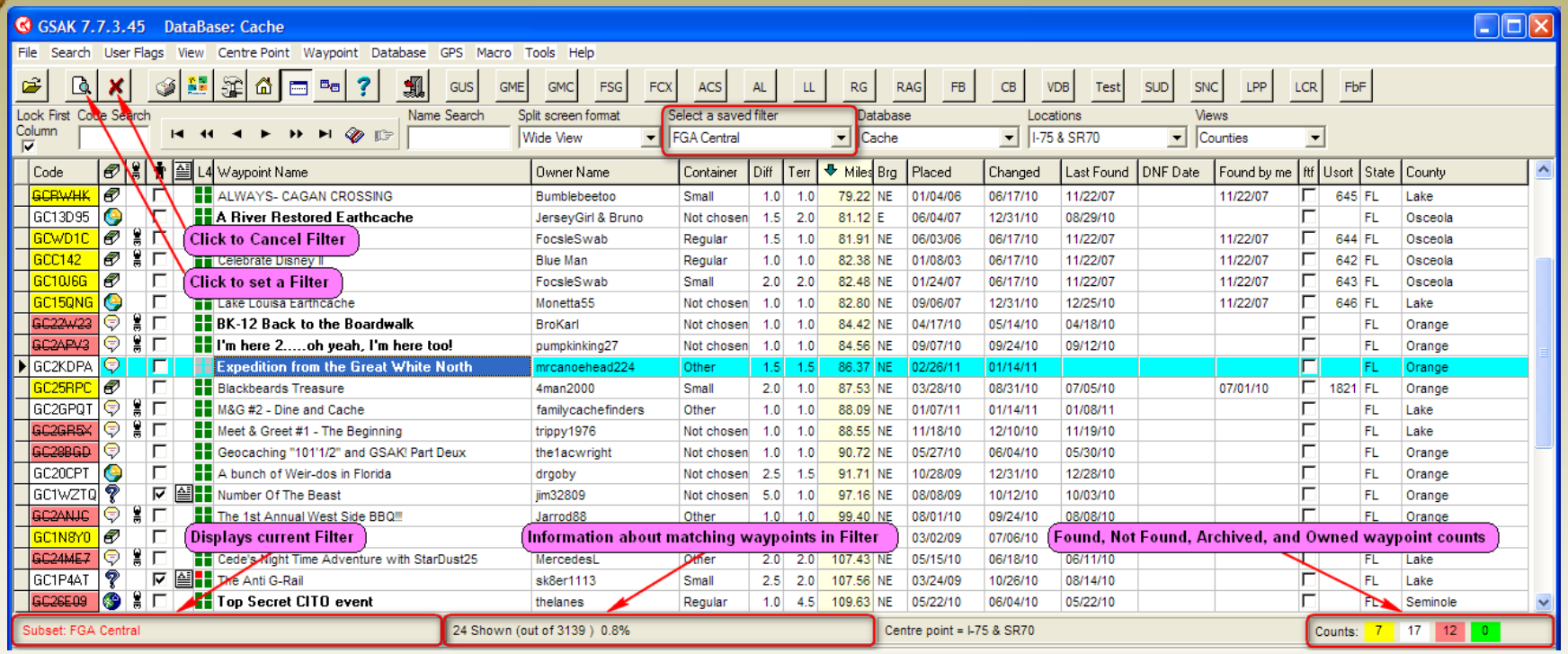
Smart Names



- Short form of waypoint name that's guaranteed unique
- Drops superfluous words, characters, and spaces
- More meaningful than GC code on GPSr
- Length set globally in Options or specifically with %smart=nn

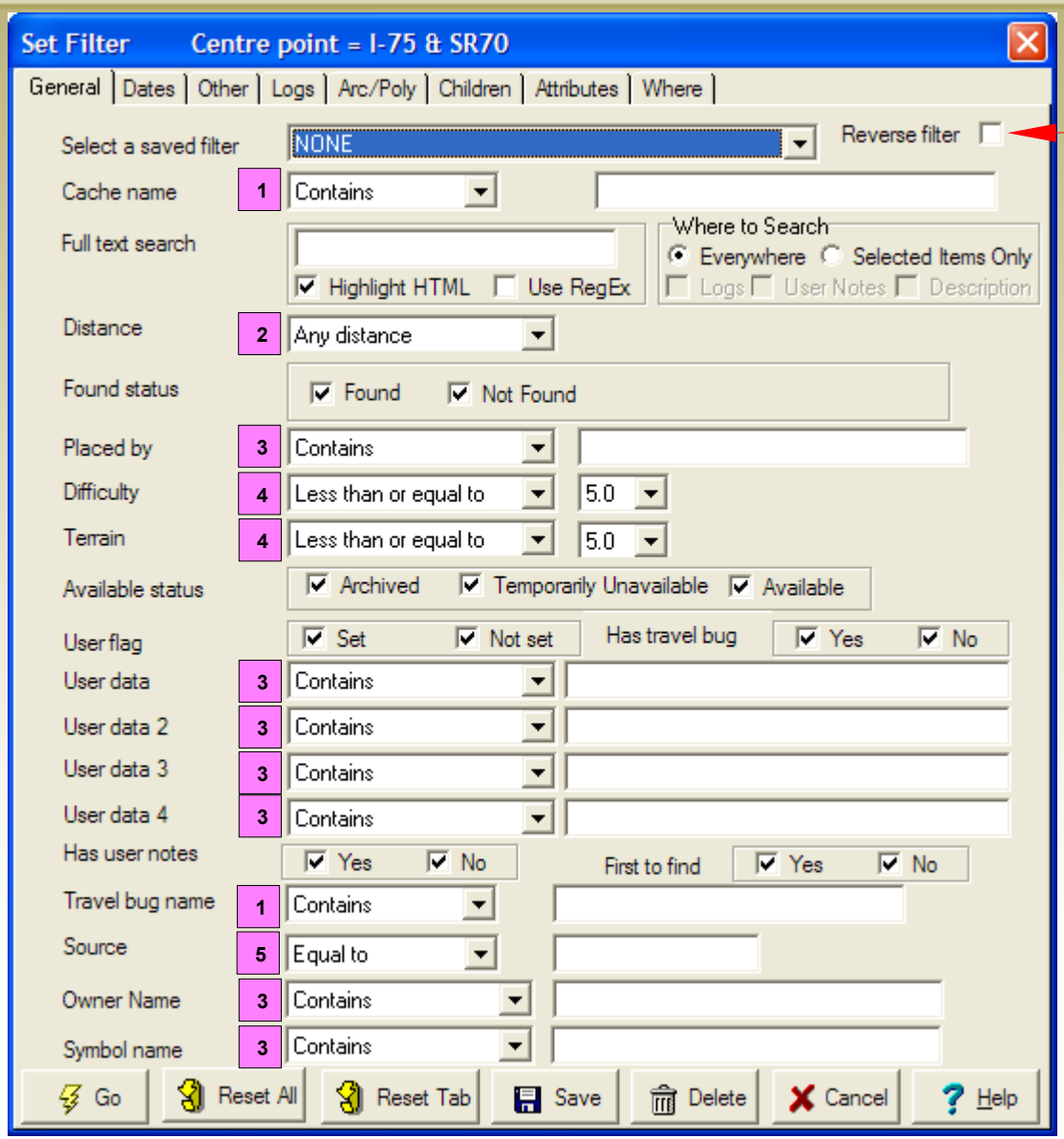


Filters



- Multiple filters can be defined and selected from dropdown list
- Most filters can be specified using simple GUI controls
- More complex filters can be specified using SQLite WHERE clause
- Most operations in GSAK only apply to filtered waypoints

Filters – General tab



1
Contains
Does not contain
RegEx
Not(RegEx)

2
Any distance
Less than or equal to
Greater than or equal to
Equal to
Between (inclusive)

3
Contains
Does not contain
Equal to
Not equal to
Is empty
Is not empty
In list
RegEx
Not(RegEx)

4
Less than or equal to
Greater than or equal to
Equal to
Between (inclusive)

5
Equal to
Not equal to
Is empty
Is not empty
In list

Entire filter can be reversed

Filters – Dates tab

Common behavior for all fields

1

Not applicable	
On or before	→ Date
On or after	→ Date
Equal to	→ Date
Between (inclusive)	→ Date, Date
During	→ #, **2**
Not during	→ #, **2**
Compared to	→ **3**, **4**

2

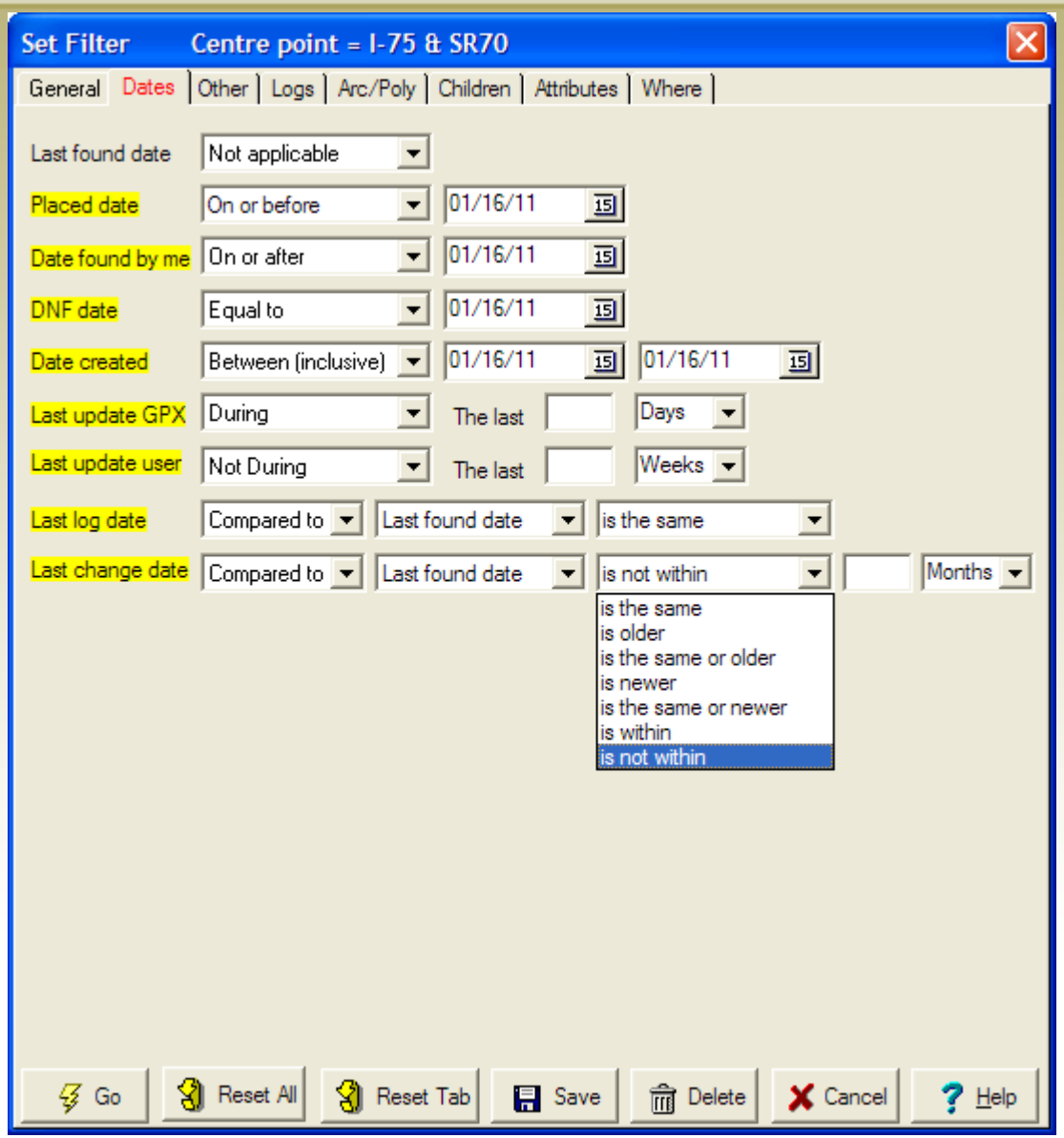
- Days
- Weeks
- Months
- Years

3

- Last found date
- Placed date
- Found by me date
- DNF date
- Created date
- Last update GPX
- Last update user
- Last log date
- Last change date

4

is the same	
is older	
is the same or older	
is newer	
is the same or newer	
is within	→ #, **2**
is not within	→ #, **2**



Filters – Other tab

1
In range
Not in range

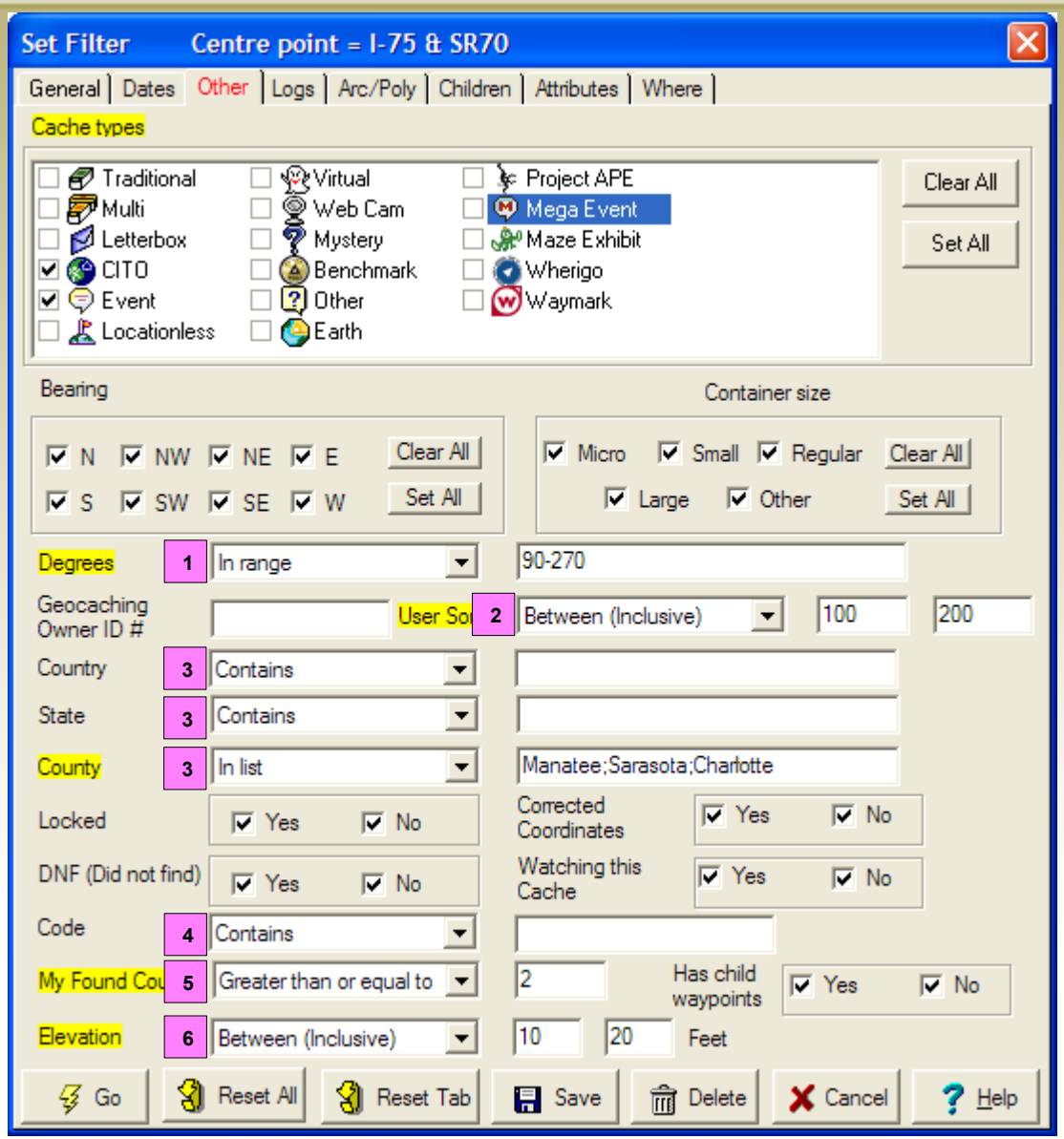
2
Not applicable
Less than or equal to
Greater than or equal to
Equal to
Between (inclusive)

3
Contains
Does not contain
Equal to
Not equal to
Is empty
Is not empty
In list
RegEx
Not(RegEx)

4
Contains
Does not contain
Equal to
Not equal to
In list
RegEx
Not(RegEx)

5
Not applicable
Less than or equal to
Greater than or equal to
Equal to

6
Any
Less than or equal to
Greater than or equal to
Equal to
Between (inclusive)



Filters – Logs tab

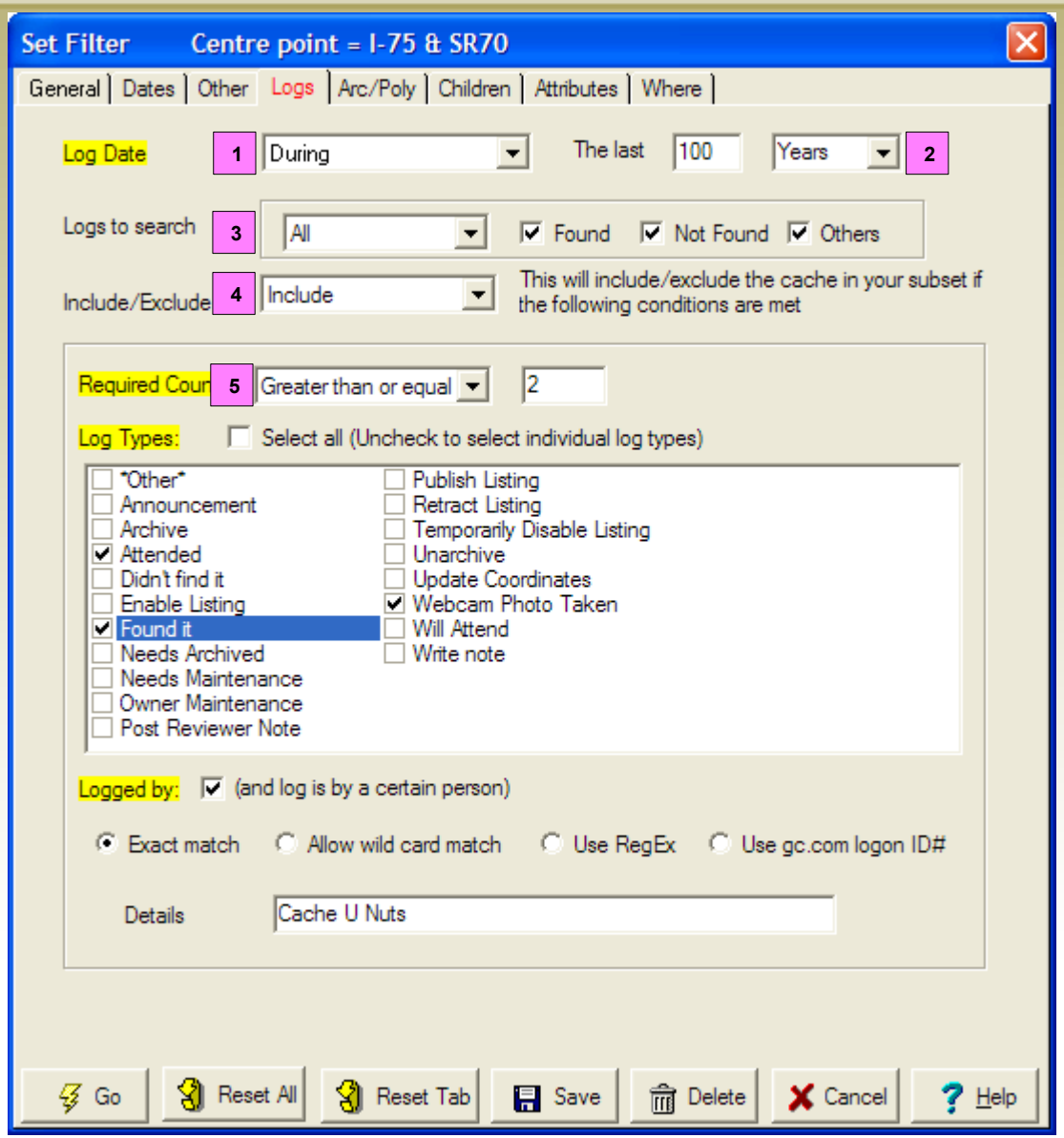
1
- Not applicable
- On or before → Date
- On or after → Date
- Equal to → Date
- Between (inclusive) → Date, Date
- During → #, **2**
- Not during → #, **2**

2
- Days
- Weeks
- Months
- Years

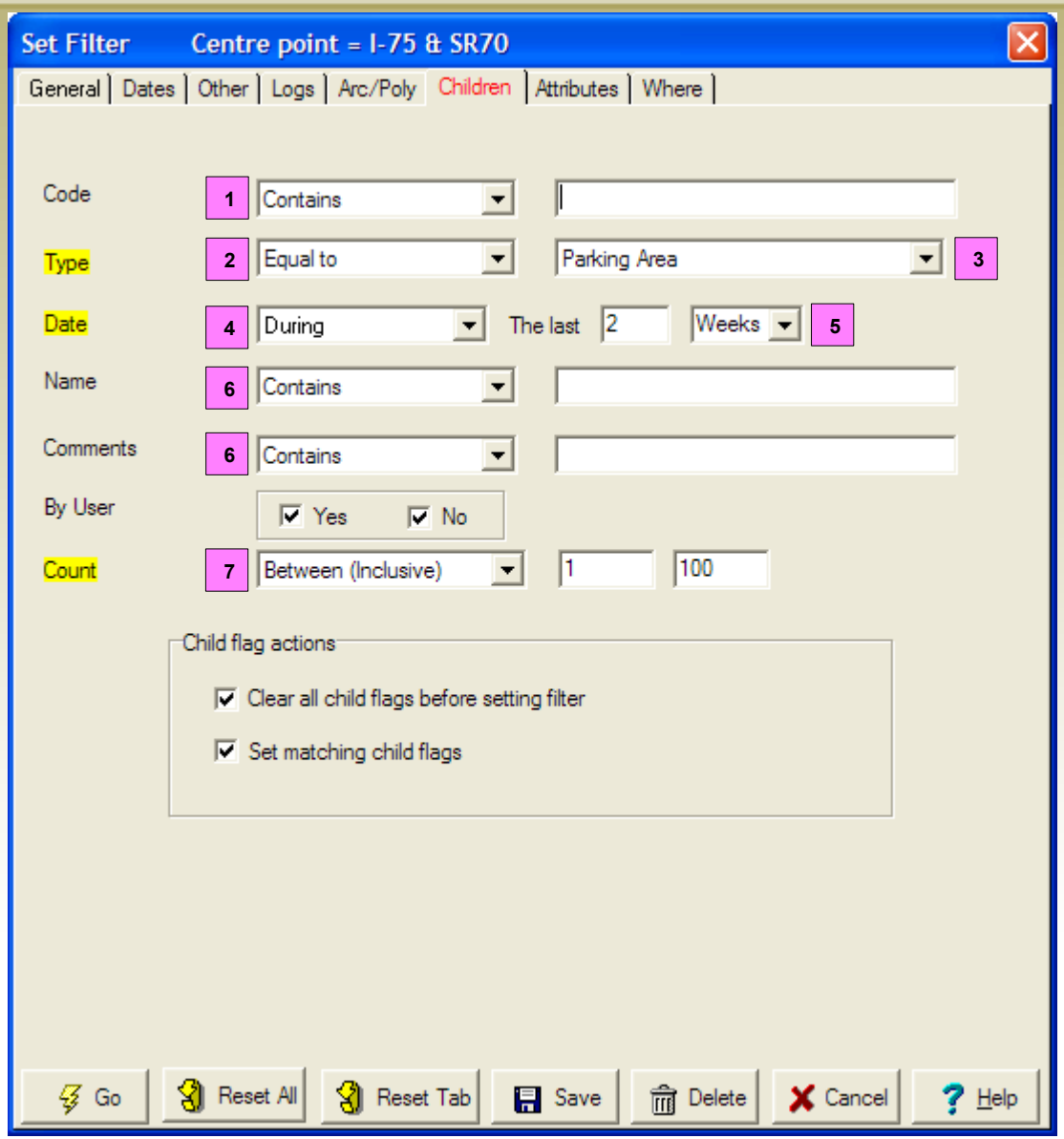
3
- All
- Last 1
- ↓
- Last 10
- Last 15
- Last 20
- Last 30
- Last 40
- Last 50
- Last 100

4
- Include
- Exclude

5
- Any number > 0
- Less than or equal to
- Greater than or equal to
- Equal to
- Between (inclusive)



Filters – Children tab



1
- Contains
- Does not contain
- RegEx
- Not(RegEx)

2
- Contains
- Does not contain
- Equal to
- Not equal to
- Is empty
- Is not empty
- In list
- RegEx
- Not(RegEx)

3
- Final Location
- Parking Area
- Question to Answer
- Stages of a Multicache
- Trailhead
- Reference Point

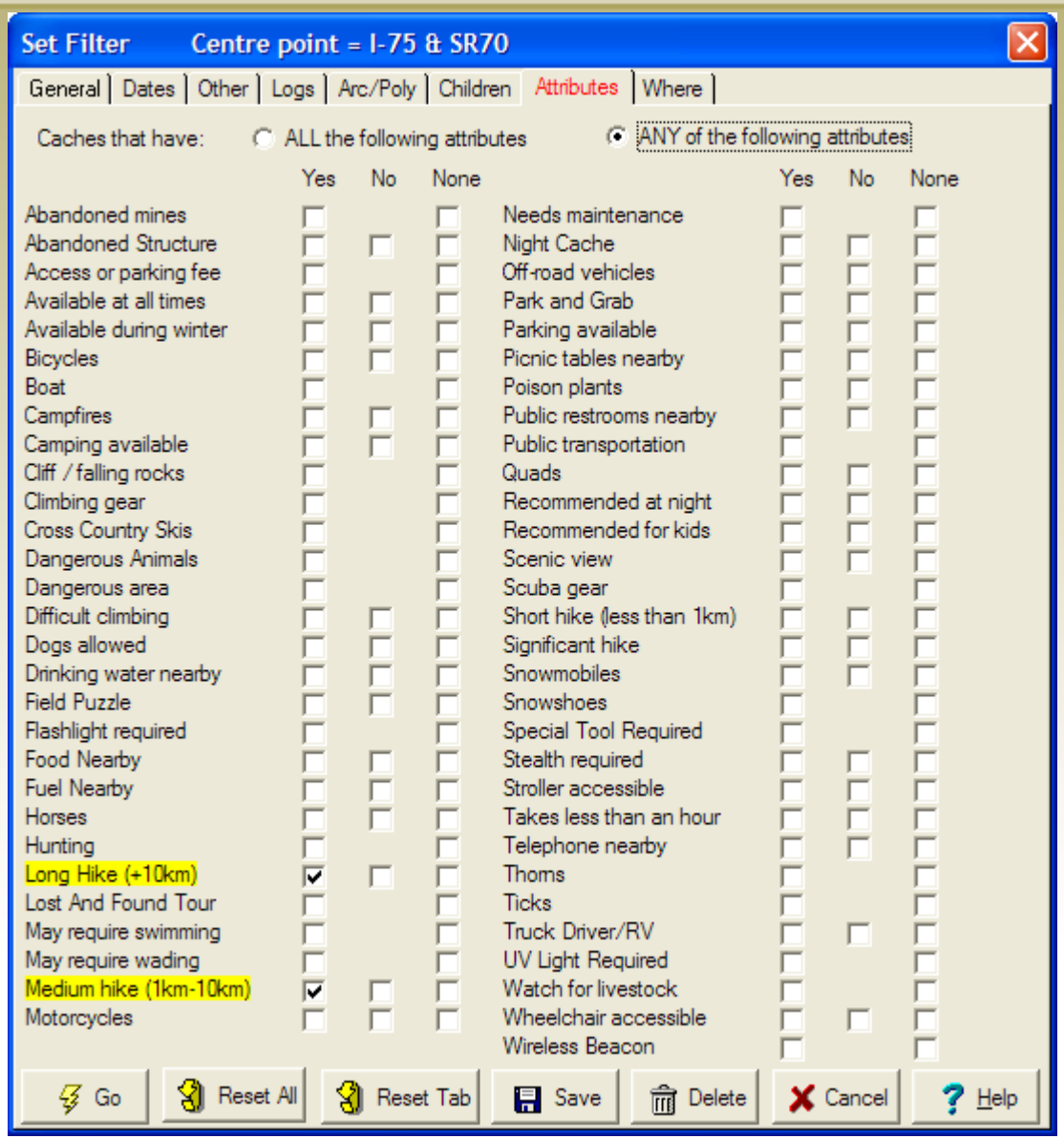
4
- Not applicable
- On or before → Date
- On or after → Date
- Equal to → Date
- Between (inclusive) → Date, Date
- During → #, **5**
- Not during → #, **5**

5
- Days
- Weeks
- Months
- Years

6
- Contains
- Does not contain
- Is empty
- Is not empty
- RegEx
- Not(RegEx)

7
- Not applicable
- Less than or equal to
- Greater than or equal to
- Equal to
- Between (inclusive)

Filters – Attributes tab

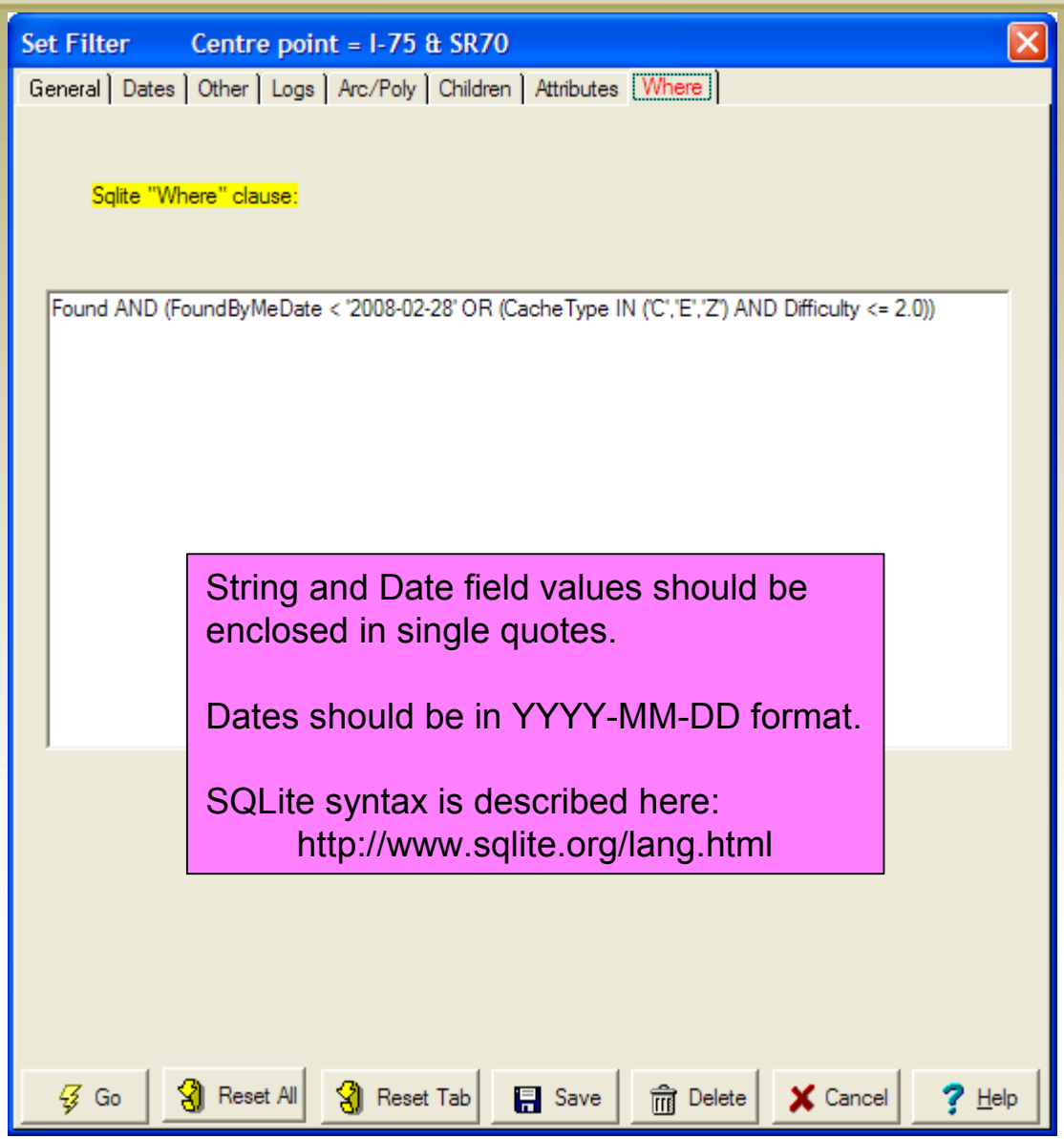


Filters – Where tab

Boolean fields
DNF
Found
FTF
HasCorrected
HasTravelBug
HasUserNote
Lock
LongHTM
MacroFlag
ShortHTM
SmartOverride
UserFlag
Watch

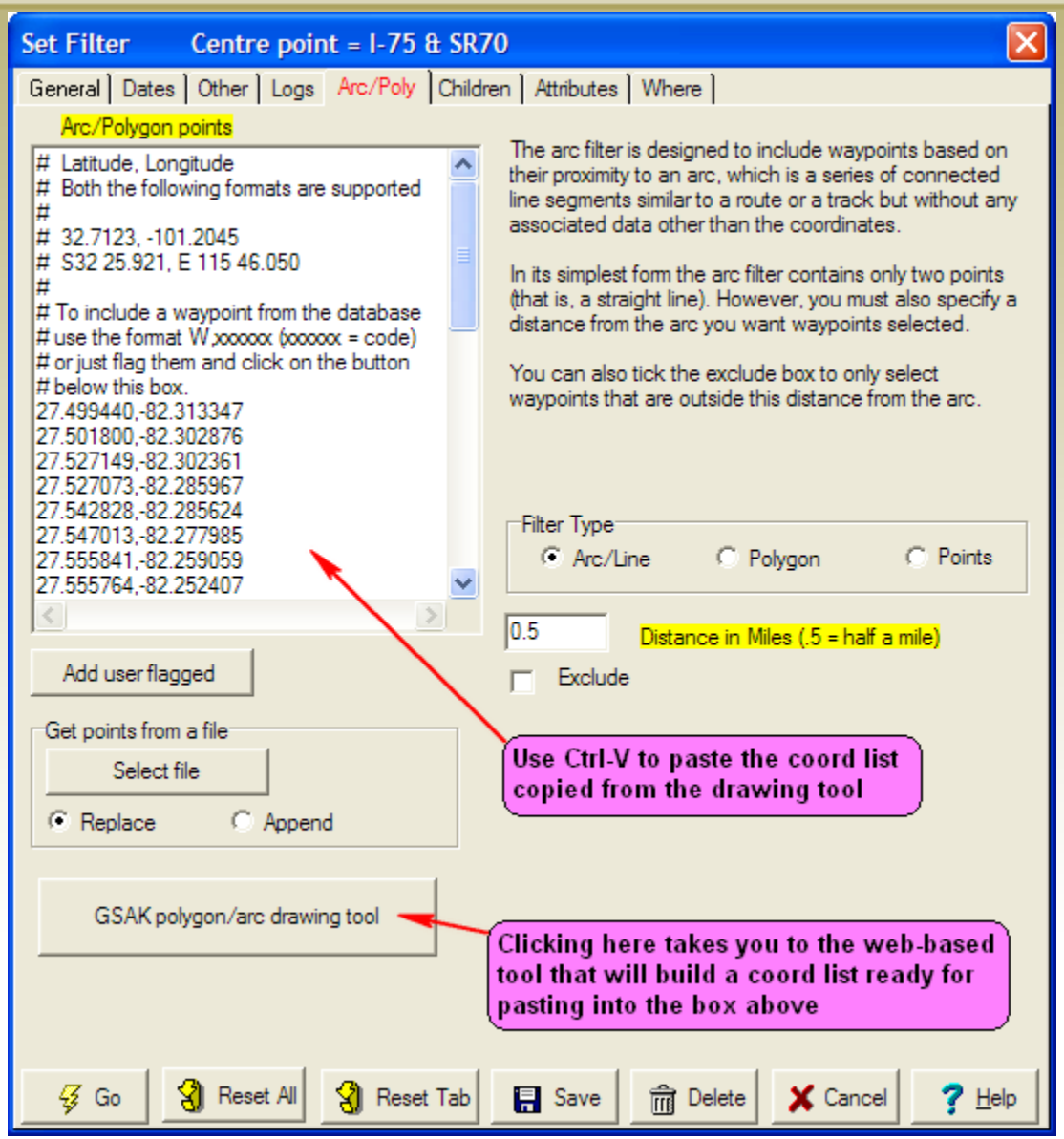
Numeric fields
Degrees
Difficulty
Distance
Elevation
FoundCount
NumberOfLogs
Terrain
UserSort

Date fields
Changed
Created
DNFDate
FoundByMeDate
LastFoundDate
LastGPXDate
LastLog
LastUserDate
PlacedDate
UserNoteDate



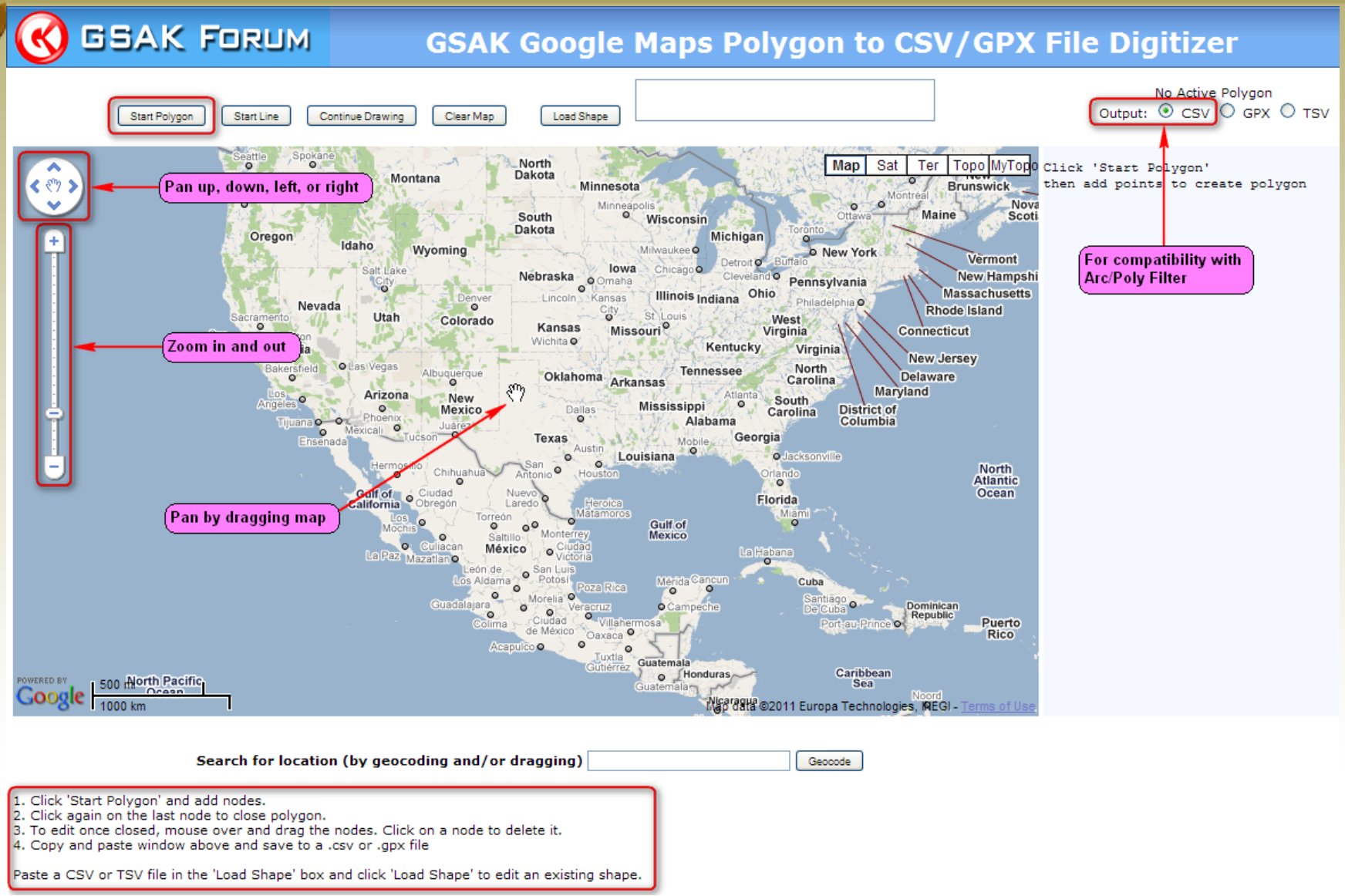
String fields
Bearing
CacheID
CacheType
Code
Container
Country
County
Hints
Latitude
LatOriginal
LongDescription
Longitude
LonOriginal
MacroSort
Name
OwnerId
OwnerName
PlacedBy
Resolution
ShortDescription
SmartName
Source
State
Status
Symbol
TravelBugs
Url
User2
User3
User4
UserData
UserNote

Filters – Arc/Poly tab

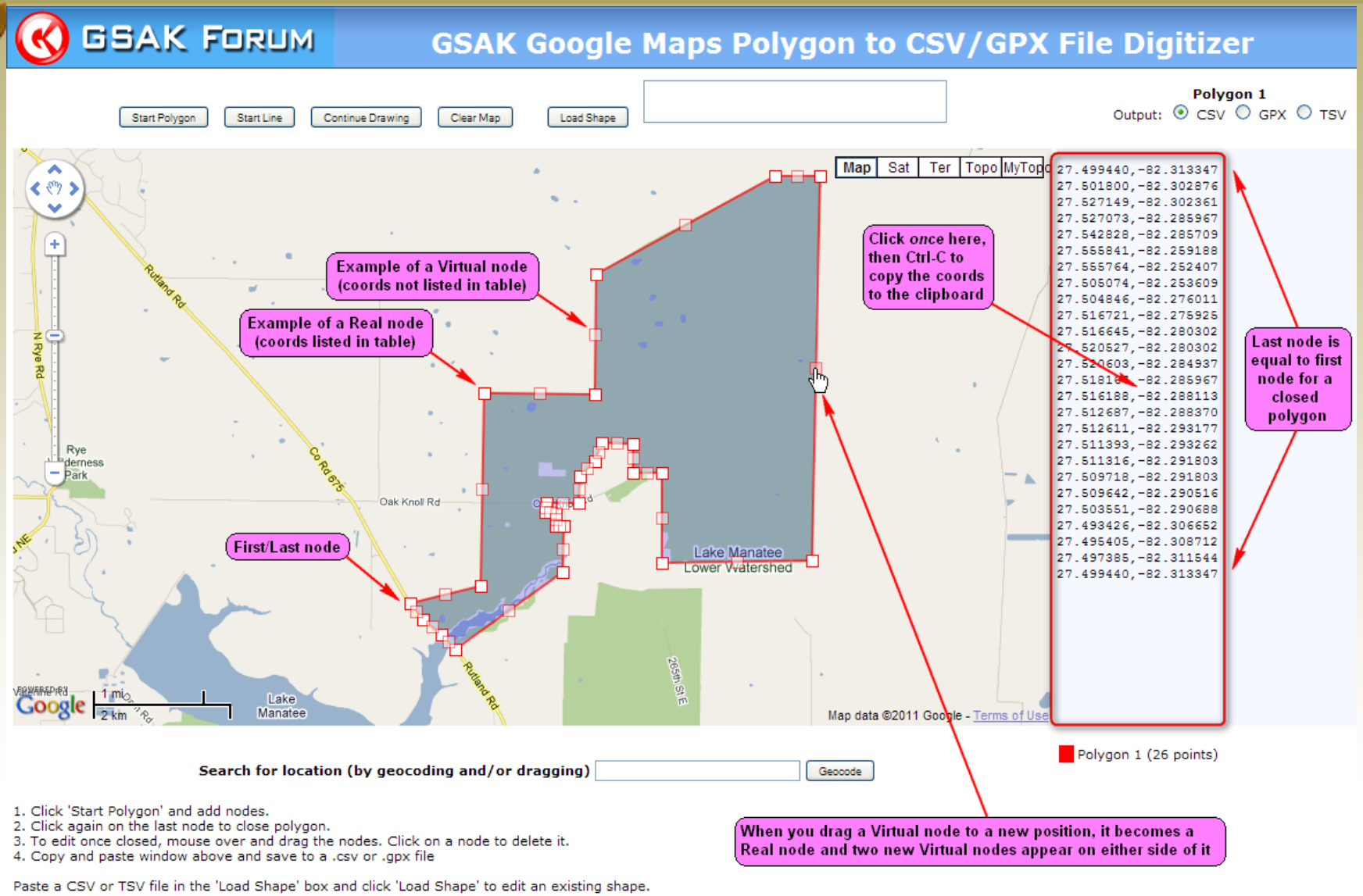


- Arc/Line
  - Path made of line segments
  - Selectable distance from lines
  - Useful for caches along a route
- Polygon
  - Closed path made of line segments
  - Area is defined by interior
  - Useful for caches within a park
- Points
  - Collection of distinct points
  - Selectable distance from points
  - Useful for caches near hwy exits

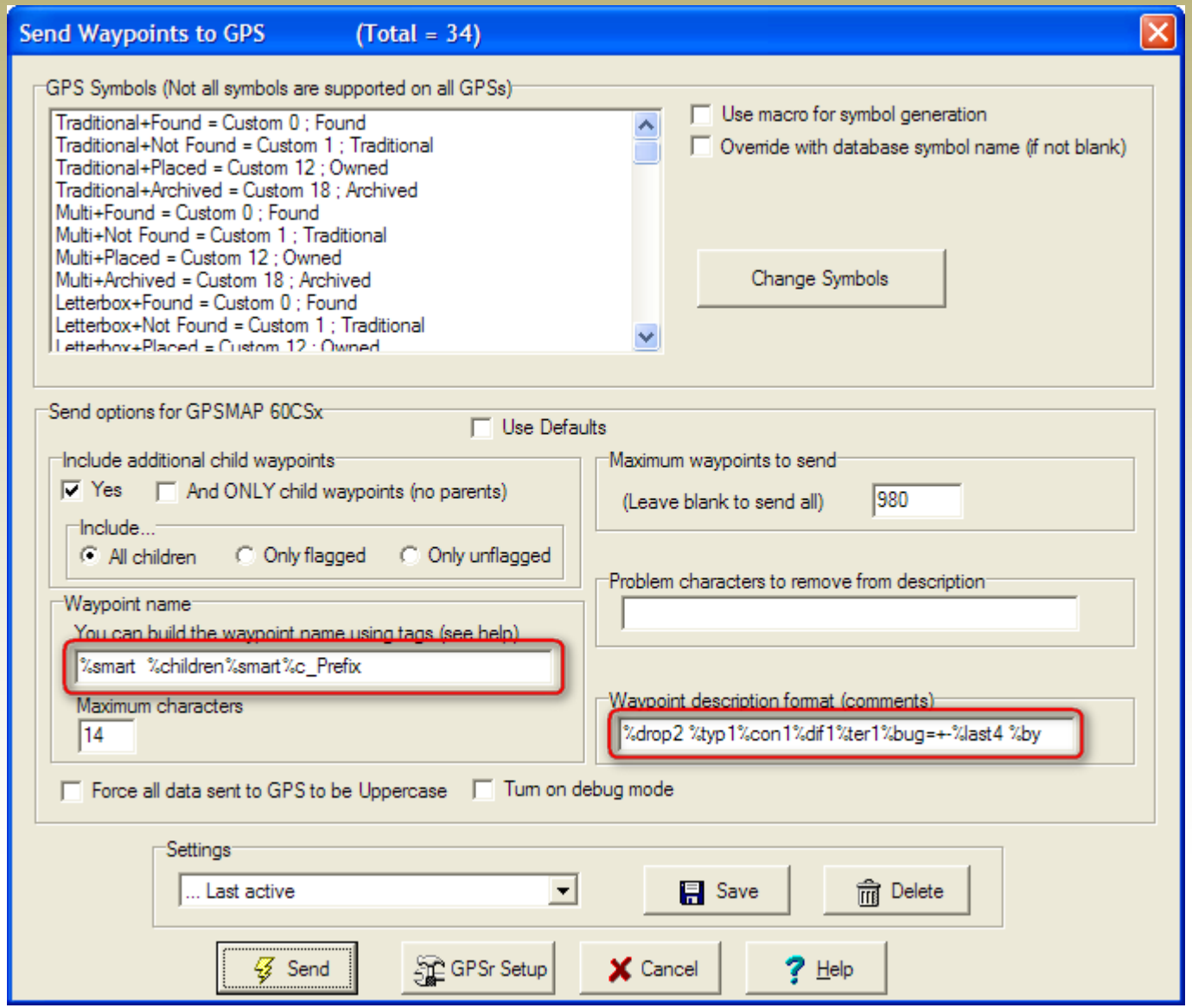
GSAK Polygon/Arc Drawing Tool



GSAK Polygon/Arc Drawing Tool (cont)



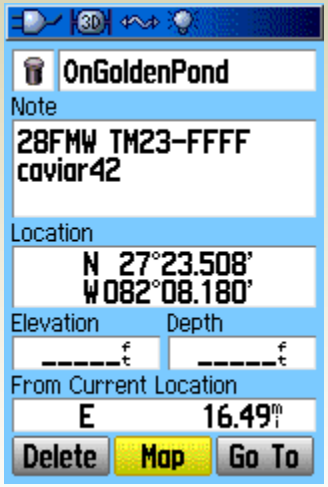
Sending to GPS



Sending to GPS – Special Tags

%bug	Travel bug status
%by	Placed by
%c_Code	Child full code
%c_Code1	Child 1 character code
%c_Comment	Child comments
%c_Name	Child name
%c_Prefix	Child prefix
%c_ShortName	Child short name
%c_Type	Child type
%children	Child separator in format string
%code	Waypoint code (e.g. GCXXXX code)
%con	Container type
%con1	Container type (M,S,R,L,V,U)
%correct	Corrected coordinate status
%county	County name
%crypt	Encrypted hint
%datelf	Date last found
%dif	Difficulty in full
%dif1	Difficulty (1,2,3,4,...,8,9)
%dif1a	Difficulty (1,A,2,B,...,D,5)
%drop2	Like %code without first 2 chars
%hint	Decoded hint
%last4	Last 4 found/not found logs
%mtag	Macro tag optimized for speed
%name	Cache name
%ownerName	Cache owner name
%smart	GSAK "unique smart name"
%shortname	Like %smart but not unique
%ter	Terrain in full
%ter1	Terrain (1,2,3,4,...,8,9)
%ter1a	Terrain (1,A,2,B,...,D,5)
%typ	Cache type
%typ1	Cache type (T,M,B,C,E,V,W,R,I,U)
%user	User data
%user2	User data 2
%UserNote	User note (without log section)
%UserSort	User sort

Example using the following waypoint format strings –
Name: `%smart %children%smart%c_Prefix`
Description: `%drop2 %typ1%con1%dif1%ter1%bug=+-%last4 %by`



%smart	OnGoldenPond
%drop2	28FMW
%typ1	T (Traditional)
%con1	M (Micro)
%diff1	2 (D=1.5)
%ter1	3 (T=2.0)
%bug=+-	- (noTravel Bug)
%last4	FFFF (all Finds)
%by	caviar42

Sending to GPS – Macro Symbol Generation

```
# Symbol Generation Macro for the Garmin GPSmap 60SCx

BEGINCASE
CASE IsOwner()
  $_Symbol = "Custom 12"     # Owned
CASE $d_Found
  $_Symbol = "Custom 0"      # Found
CASE $d_Archived OR $d_TempDisabled
  $_Symbol = "Custom 18"     # Archived / Temp Disabled
CASE $d_DNF
  $_Symbol = "Custom 6"      # Not Found (DNF)
CASE $d_CacheType = "T" AND $d_Container = "Micro"
  $_Symbol = "Custom 4"      # Traditional Micro
CASE $d_CacheType = "T"
  $_Symbol = "Custom 1"      # Traditional
CASE $d_CacheType = "M" AND $d_HasCorrected
  $_Symbol = "Custom 10"     # Multi with corrected coords
CASE $d_CacheType = "M"
  $_Symbol = "Custom 2"      # Multi
CASE $d_CacheType = "U" AND $d_HasCorrected
  $_Symbol = "Custom 10"     # Unknown/Mystery with corrected coords
CASE $d_CacheType = "U"
  $_Symbol = "Custom 3"      # Unknown/Mystery
CASE $d_CacheType = "V"
  $_Symbol = "Custom 7"      # Virtual
CASE $d_CacheType = "W"
  $_Symbol = "Custom 13"     # Webcam
CASE $d_CacheType = "B"
  $_Symbol = "Custom 8"      # Letterbox
CASE $d_CacheType = "E" OR $d_CacheType = "Z" OR $d_CacheType = "X"
  $_Symbol = "Custom 14"     # Event / Mega Event / GPS Adventures Maze
CASE $d_CacheType = "R"
  $_Symbol = "Custom 9"      # Earth
CASE $d_CacheType = "C"
  $_Symbol = "Custom 15"     # CITO
                 :
                 :
```

Using a macro for symbol generation provides the most control over how symbols are assigned since it can take into account more than just cache type and status.

Custom 0 to 5:
Custom 6 to 11:
Custom 12 to 17:
Custom 18 to 23:

Getting Help

- Help File
  - Accessed from button on toolbar, or help menu
  - Thoroughly documented and well organized
  - Many common problems are covered in the GSAK FAQ
  - Most screen graphics can be clicked on to get specific help
- Dialog Help Buttons
  - Gives you context-sensitive help
- GSAK Forum (http://gsak.net/board)
  - Knowledgeable, and patient with new users (no flaming)
  - Getting Started – Read Me First!
- Read the Tutorials in the GSAK Forum
  - GSAK 101 – Getting Started
  - GSAK 201 – Customizing GSAK
  - GSAK 302 – Macros

- Title Slide “GSAK – Introduction”
- What is GSAK?
- Offline vs. Online Database
- Installing GSAK
- Installing GSAK – Latest Patch
- Screen Elements
- GC.com Member ID and GPX Version
- Initial Configuration – General
- Initial Configuration – Locations
- Initial Configuration – Abbreviations
- Update User Information
- Architecture and Work-flow
- Pocket Query Types
- Standard PQs – Cache Selection Criteria
- PQs – Using “Date Placed” Ranges
- Load Pocket Query
- Pocket Query Load Summary
- Download Pocket Queries – Basic Tab
- Download Pocket Queries – Advanced Tab
- Get Geocaches – Basic Tab
- Get Geocaches – Google Map Tool
- Get Geocaches – Advanced Tab
- Main Window
- Updating Existing Caches in Database
- Favorite Points
- Add to Bookmark List
- Center Point
- Sorting
- Child (Additional) Waypoints
- Corrected Coordinates
- Notes
- Key Concepts
- Databases
- Creating a New Database
- Views
- Views – Selecting Columns (Fields)
- Views – Supported Columns (Fields)
- Smart Names
- Filters
- Filters – General tab
- Filters – Dates tab
- Filters – Other tab
- Filters – Logs tab
- Filters – Children tab
- Filters – Attributes tab
- Filters – Where tab
- Filters – Arc/Poly tab
- GSAK Polygon/Arc Drawing Tool
- GSAK Polygon/Arc Drawing Tool (cont)
- Sending to GPS
- Sending to GPS – Special Tags
- Sending to GPS – Macro Symbol Generation
- Getting Help

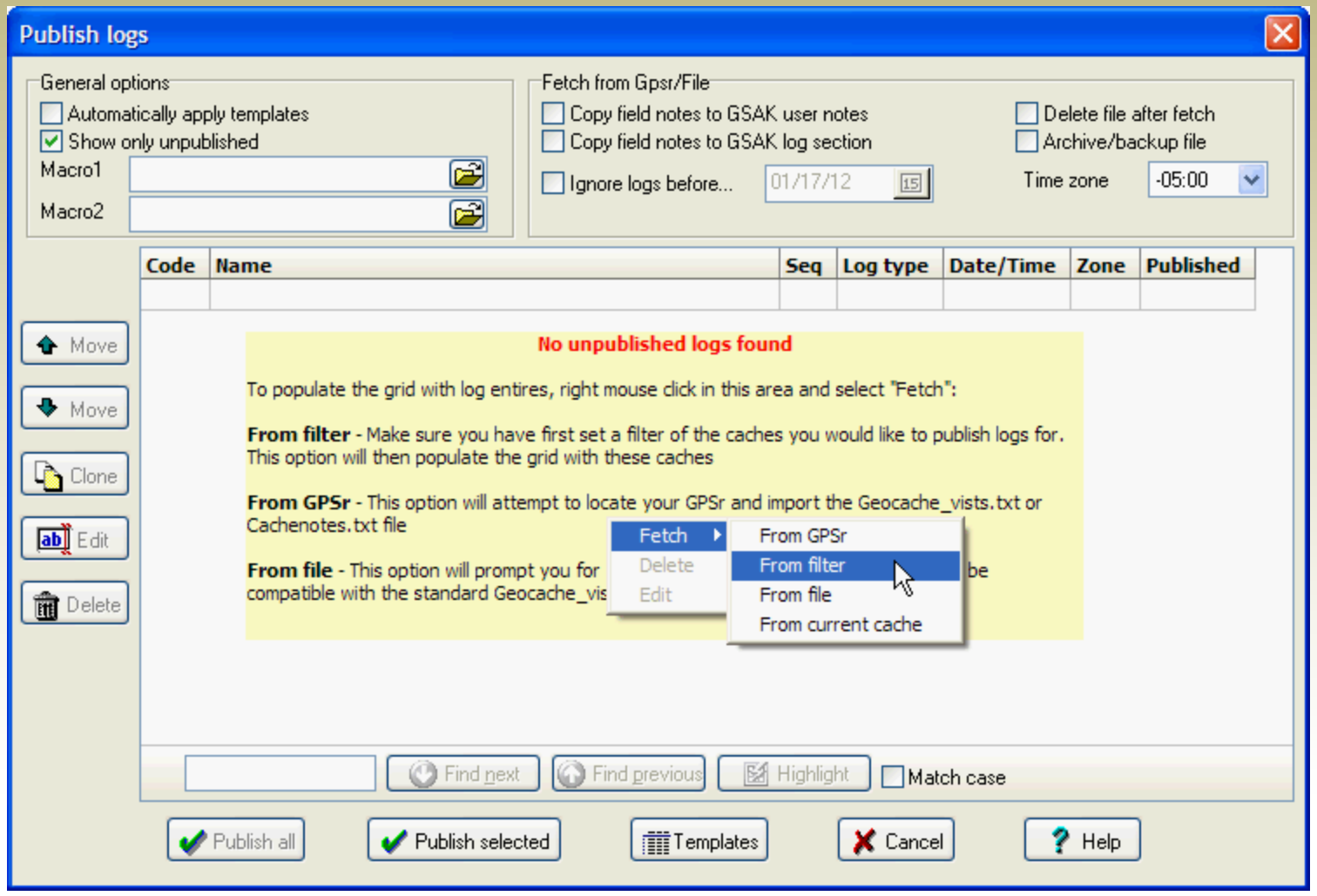
GSAK – Advanced

(Geocaching Swiss Army Knife)

v8.0.1

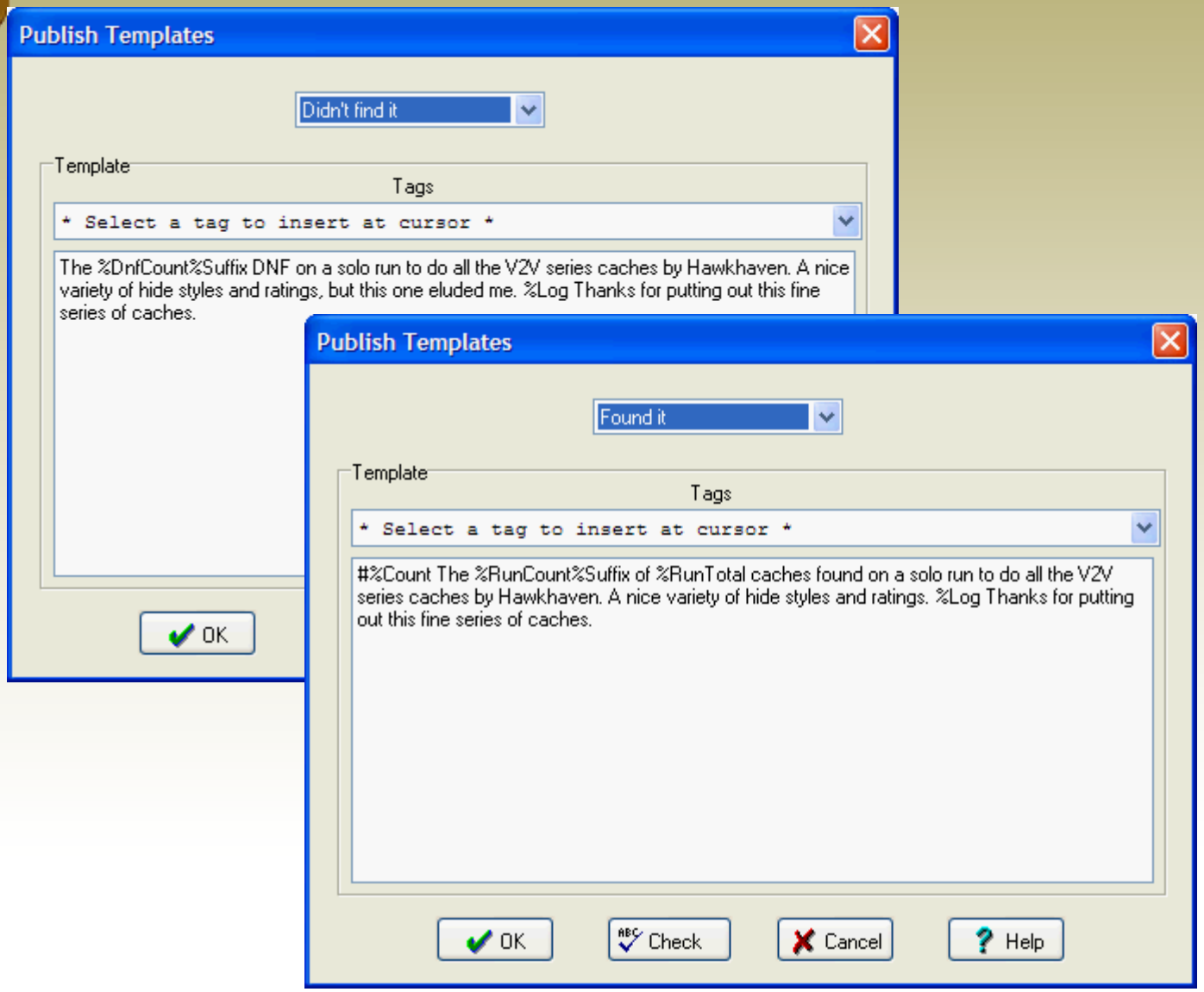
by Rich Bianchi aka Cache U Nuts

Publish Logs – Fetch



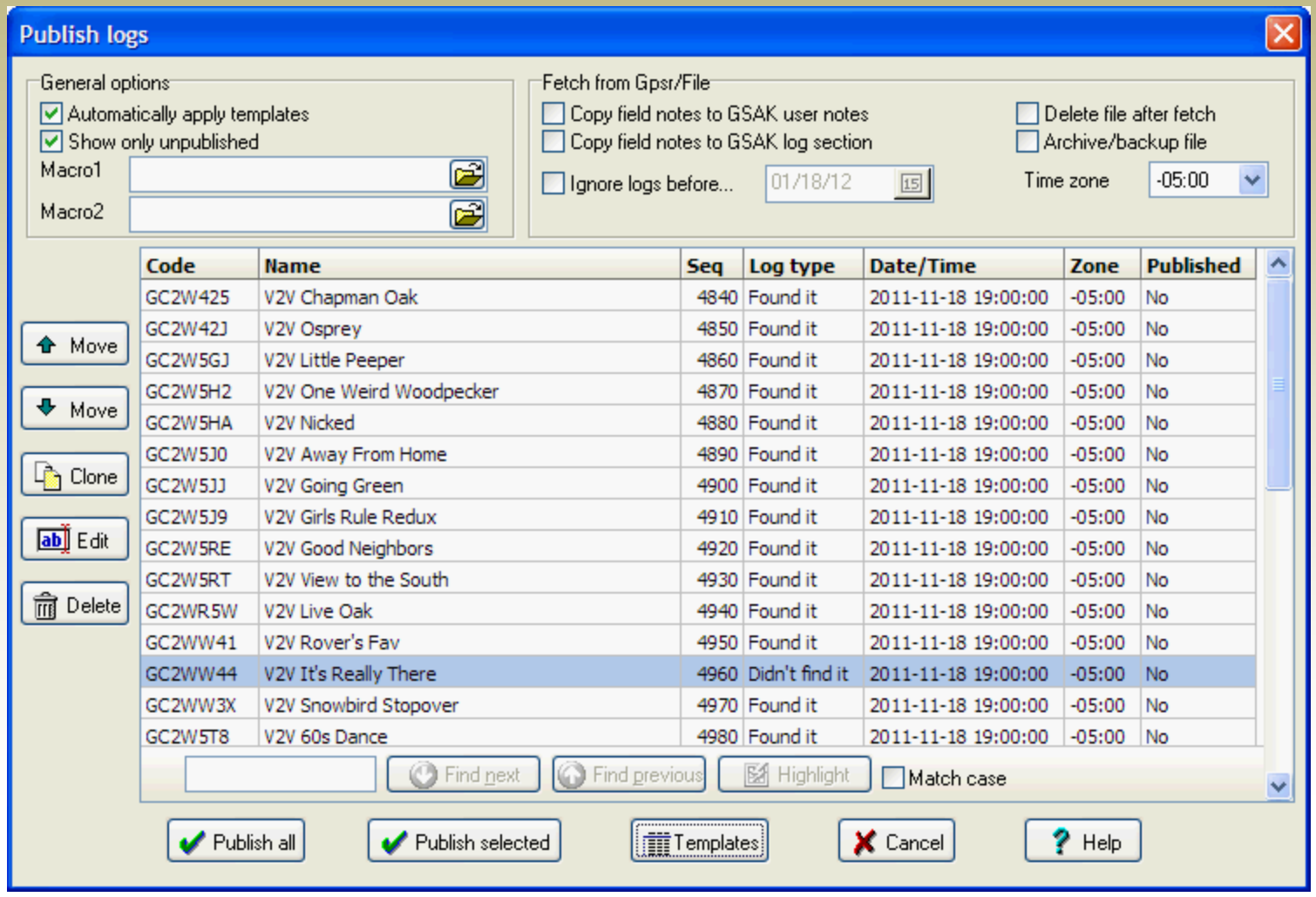
- Enter log text in the User Notes of each cache first before doing the fetch
- If you will be using Fetch From Filter, filter for caches to publish and sort in chronological order before the fetch
- If you will be using Templates, define them first before doing the fetch
- Make sure the Time Zone is set before doing the fetch

Publish Logs – Templates



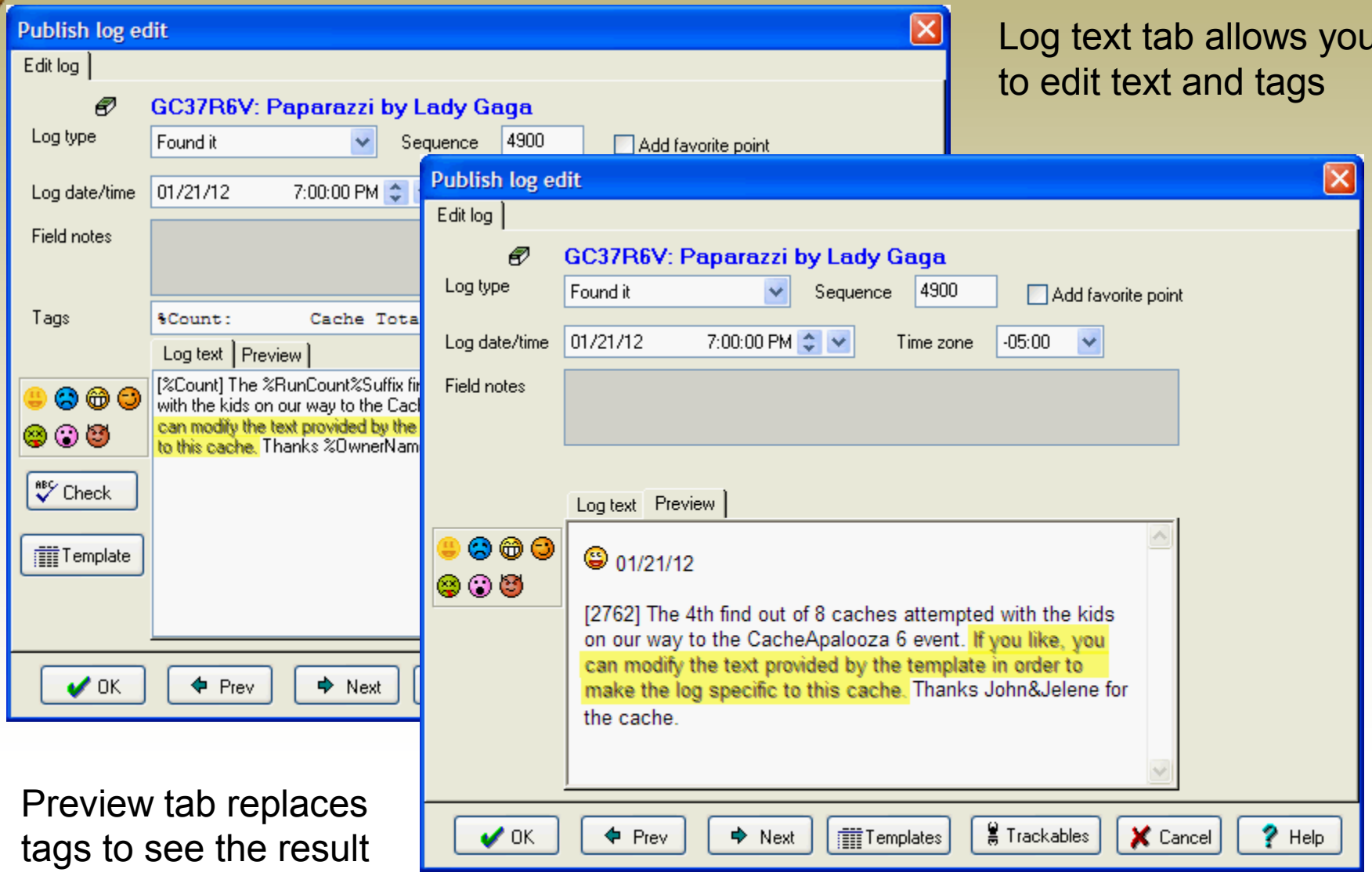
- Define a template to use for each log type required
- Various tags can be selected from the drop down list to provide commonly used dynamic values
- %Date and %Time allow for a number of different formats (see Help for info)
- %Count tag gets its starting value from GC.com
- %Log tag gets its text from the Log portion of the User Note of the cache (you can use this to include personalized notes for each log)

Publish Logs – Populated Grid



- Seq – Sequence number used only for ordering logs (can be changed to alter fetched order)
- Log type – shown if defined (finds on all events are converted to "Attended" and webcam finds are converted to "Webcam Photo Taken")
- Date/Time – are shown in UMT format
- You can remove caches from the list by selecting them and clicking on the Delete button
- Standard selection is supported

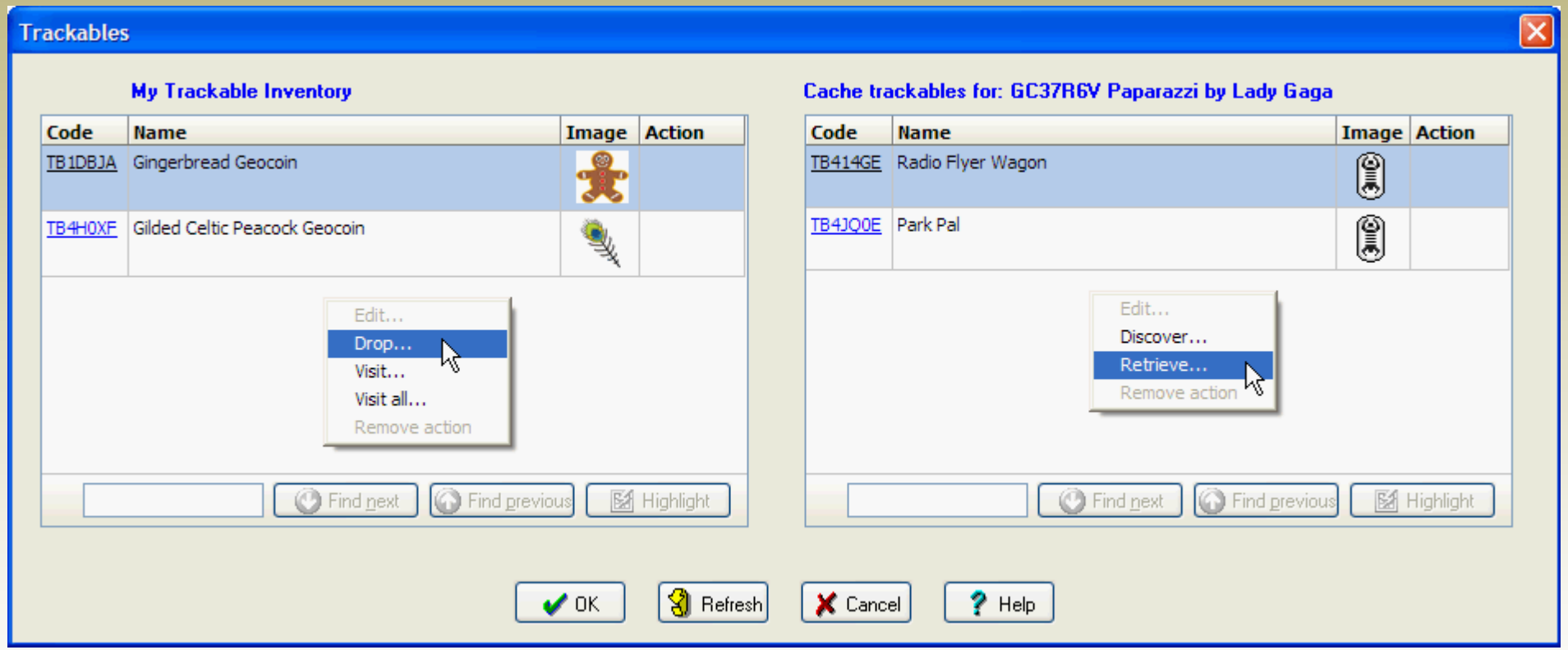
Publish Logs – Edit



Log text tab allows you to edit text and tags

Preview tab replaces tags to see the result

Publish Logs – Trackables



- Get here by clicking Trackables button on Publish Log Edit dialog
- Used to manage trackables when logging (retrieve, drop, etc.)
- Selecting an action prompts for tracking number and comments

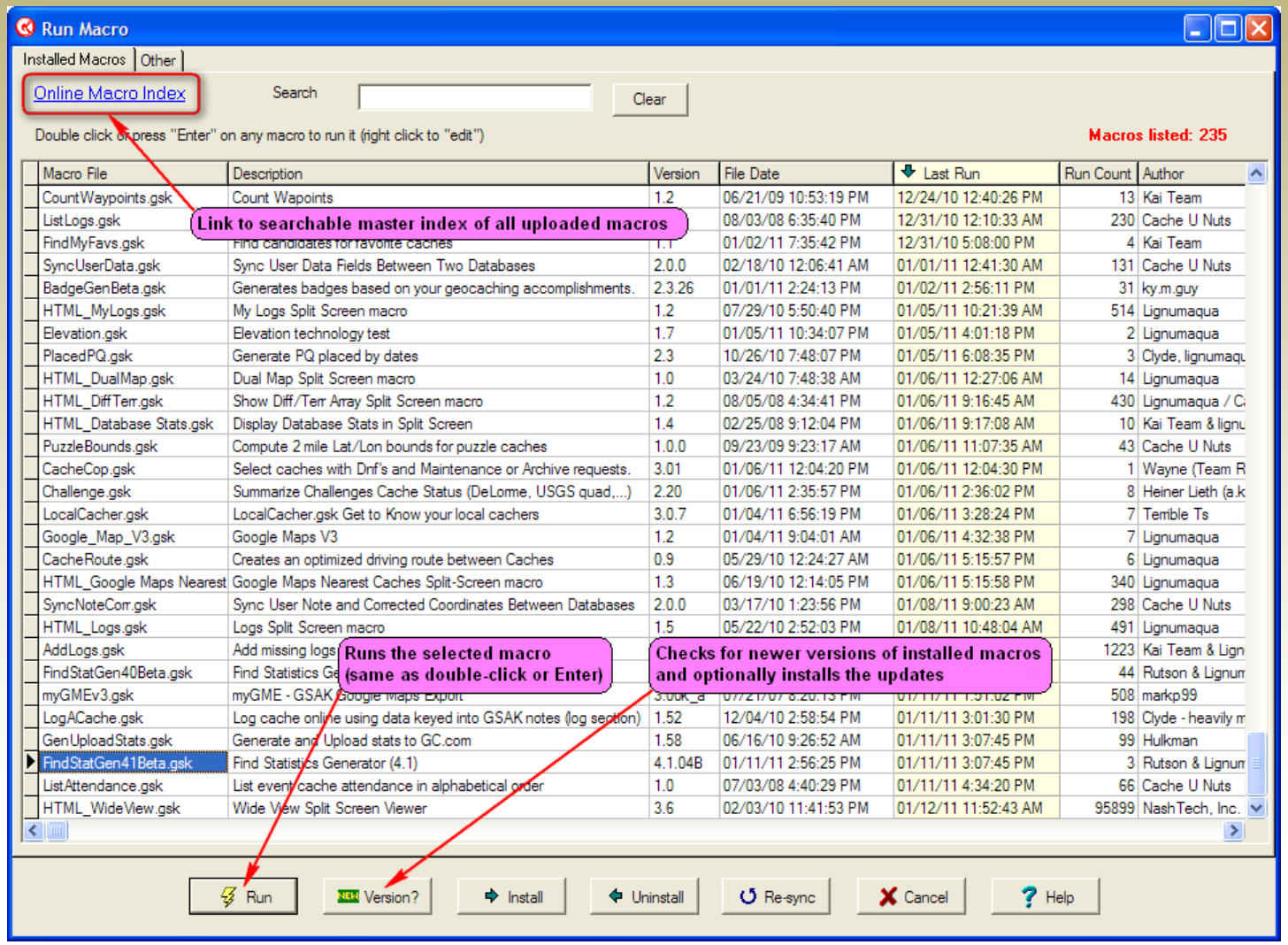
Macros – Overview

- Written in proprietary GSAK Macro Language
- Plain text file with default GSK extension
- Has full access to the SQLite Database
- Supports GUI Dialogs for user interaction
- Hundreds of macros submitted by users
- Most complex is over 20K lines of code
- Download from GSAK Forum Macro Library
- A macro can be run:
  - From the Macro Manager
  - By clicking on a user-defined Tool Button
  - By double-clicking on the file in Explorer

Macros – Simple Code Example

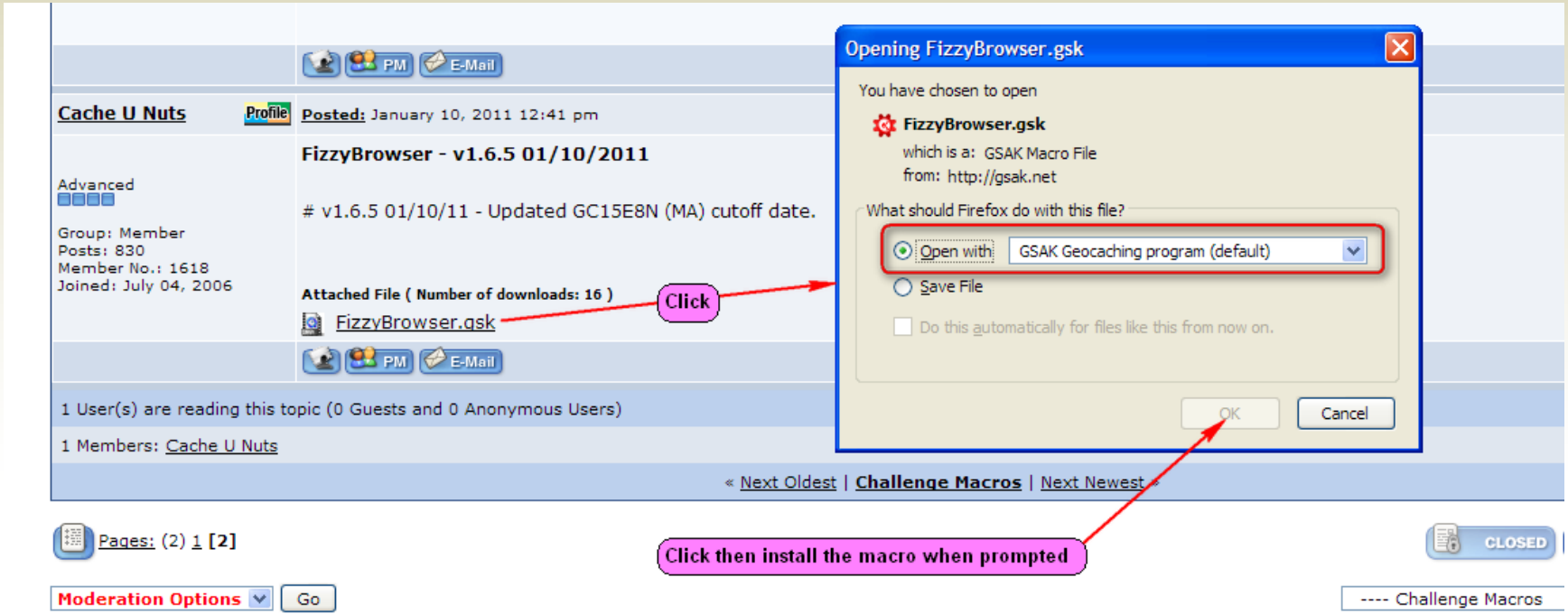
```
# Select the nn closest caches to current

CENTER
SORT By="Distance” Sequence=A
INPUT Msg="nn closest caches to select" Default="200"
$Number = Val($Result)
GOTO Position=Top
MACROFLAG Type=Clear Range=All
MACROFLAG Type=Set Range=$Number
MFILTER If=$d_MacroFlag
```

Macros – Macro Manager



Macro File	Description	Version	File Date	Last Run	Run Count	Author
CountWaypoints.gsk	Count Wapoints	1.2	06/21/09 10:53:19 PM	12/24/10 12:40:26 PM	13	Kai Team
ListLogs.gsk			08/03/08 6:35:40 PM	12/31/10 12:10:33 AM	230	Cache U Nuts
FindMyFavs.gsk	Find candidates for favorite caches	1.1	01/02/11 7:35:42 PM	12/31/10 5:08:00 PM	4	Kai Team
SyncUserData.gsk	Sync User Data Fields Between Two Databases	2.0.0	02/18/10 12:06:41 AM	01/01/11 12:41:30 AM	131	Cache U Nuts
BadgeGenBeta.gsk	Generates badges based on your geocaching accomplishments.	2.3.26	01/01/11 2:24:13 PM	01/02/11 2:56:11 PM	31	ky.m.guy
HTML_MyLogs.gsk	My Logs Split Screen macro	1.2	07/29/10 5:50:40 PM	01/05/11 10:21:39 AM	514	Lignumaqua
Elevation.gsk	Elevation technology test	1.7	01/05/11 10:34:07 PM	01/05/11 4:01:18 PM	2	Lignumaqua
PlacedPQ.gsk	Generate PQ placed by dates	2.3	10/26/10 7:48:07 PM	01/05/11 6:08:35 PM	3	Clyde, lignumaqu
HTML_DualMap.gsk	Dual Map Split Screen macro	1.0	03/24/10 7:48:38 AM	01/06/11 12:27:06 AM	14	Lignumaqua
HTML_DiffTerr.gsk	Show Diff/Terr Array Split Screen macro	1.2	08/05/08 4:34:41 PM	01/06/11 9:16:45 AM	430	Lignumaqua / C
HTML_Database Stats.gsk	Display Database Stats in Split Screen	1.4	02/25/08 9:12:04 PM	01/06/11 9:17:08 AM	10	Kai Team & lignu
PuzzleBounds.gsk	Compute 2 mile Lat/Lon bounds for puzzle caches	1.0.0	09/23/09 9:23:17 AM	01/06/11 11:07:35 AM	43	Cache U Nuts
CacheCop.gsk	Select caches with Dnf's and Maintenance or Archive requests.	3.01	01/06/11 12:04:20 PM	01/06/11 12:04:30 PM	1	Wayne (Team R
Challenge.gsk	Summarize Challenges Cache Status (DeLorme, USGS quad,...)	2.20	01/06/11 2:35:57 PM	01/06/11 2:36:02 PM	8	Heiner Lieth (a.k
LocalCacher.gsk	LocalCacher.gsk Get to Know your local cachers	3.0.7	01/04/11 6:56:19 PM	01/06/11 3:28:24 PM	7	Terrible Ts
Google_Map_V3.gsk	Google Maps V3	1.2	01/04/11 9:04:01 AM	01/06/11 4:32:38 PM	7	Lignumaqua
CacheRoute.gsk	Creates an optimized driving route between Caches	0.9	05/29/10 12:24:27 AM	01/06/11 5:15:57 PM	6	Lignumaqua
HTML_Google Maps Nearest	Google Maps Nearest Caches Split-Screen macro	1.3	06/19/10 12:14:05 PM	01/06/11 5:15:58 PM	340	Lignumaqua
SyncNoteCorr.gsk	Sync User Note and Corrected Coordinates Between Databases	2.0.0	03/17/10 1:23:56 PM	01/08/11 9:00:23 AM	298	Cache U Nuts
HTML_Logs.gsk	Logs Split Screen macro	1.5	05/22/10 2:52:03 PM	01/08/11 10:48:04 AM	491	Lignumaqua
AddLogs.gsk	Add missing logs				1223	Kai Team & Lign
FindStatGen40Beta.gsk	Find Statistics Ge				44	Rutson & Lignum
myGMEv3.gsk	myGME - GSAK Google Maps Export	3.0dK_a	07/21/07 8:20:13 PM	01/11/11 1:51:02 PM	508	markp99
LogACache.gsk	Log cache online using data keyed into GSAK notes (log section)	1.52	12/04/10 2:58:54 PM	01/11/11 3:01:30 PM	198	Clyde - heavily m
GenUploadStats.gsk	Generate and Upload stats to GC.com	1.58	06/16/10 9:26:52 AM	01/11/11 3:07:45 PM	99	Hulkman
FindStatGen41Beta.gsk	Find Statistics Generator (4.1)	4.1.04B	01/11/11 2:56:25 PM	01/11/11 3:07:45 PM	3	Rutson & Lignum
ListAttendance.gsk	List event cache attendance in alphabetical order	1.0	07/03/08 4:40:29 PM	01/11/11 4:34:20 PM	66	Cache U Nuts
HTML_WideView.gsk	Wide View Split Screen Viewer	3.6	02/03/10 11:41:53 PM	01/12/11 11:52:43 AM	95899	NashTech, Inc.

Macros – Install Macro



Macros – Some Very Useful Macros

	Split Screen
HTML_GoogleMapsNearestV3	Google map showing caches near currently selected cache
HTML_Google_Map_Elevation	Google map with elevation profile of interactively defined path
HTML_Logs	Lists expandable summary of logs for selected cache
HTML_MyLogs	Displays own logs only
	Map
MyGMEv3	Full-featured map output
Google_Map_V3	Google map high-performance map (handles large numbers of caches)
CacheRoute	Creates an optimized driving route between caches (limit 25)
	Challenge
Challenge	Maps progress for various DeLorme-style challenges
FizzyBrowser	Shows Found/Unfound candidates for various Fizzy-style challenges
LocalCacher	Lists progress for various Know Your Local Cacher-style challenges
	Statistics
FindStatGen	The ultimate Found Statistics generator
BadgeGen	Generates badges for various achievements

Macros – Some Very Useful Macros (cont)

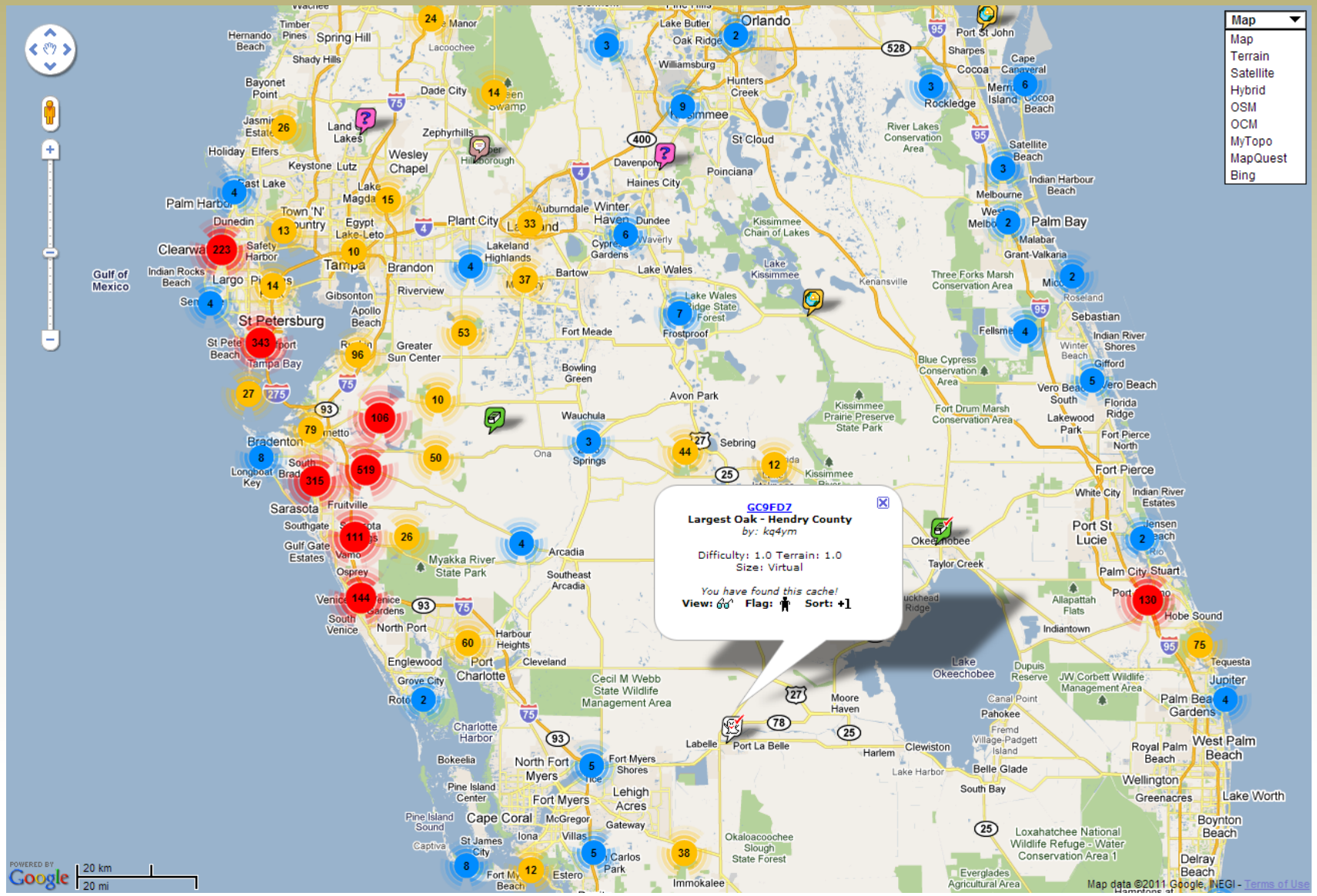
FSG Plugins

FSGPlugin_CacheMap	Display a map of found or placed caches
FSGPlugin_CachesIAwardedFavoritePoint	Display caches you awarded a favorite point
FSGPlugin_DTChartWithList	Display Diff/Terr chart with ability to show a list of caches
FSGPlugin_FirstCacheByCounty	Display the 1st cache you found in every county
FSGPlugin_ABC	Display alphabetical challenge progress
FSGPlugin_Oldest	Display 10 oldest caches found

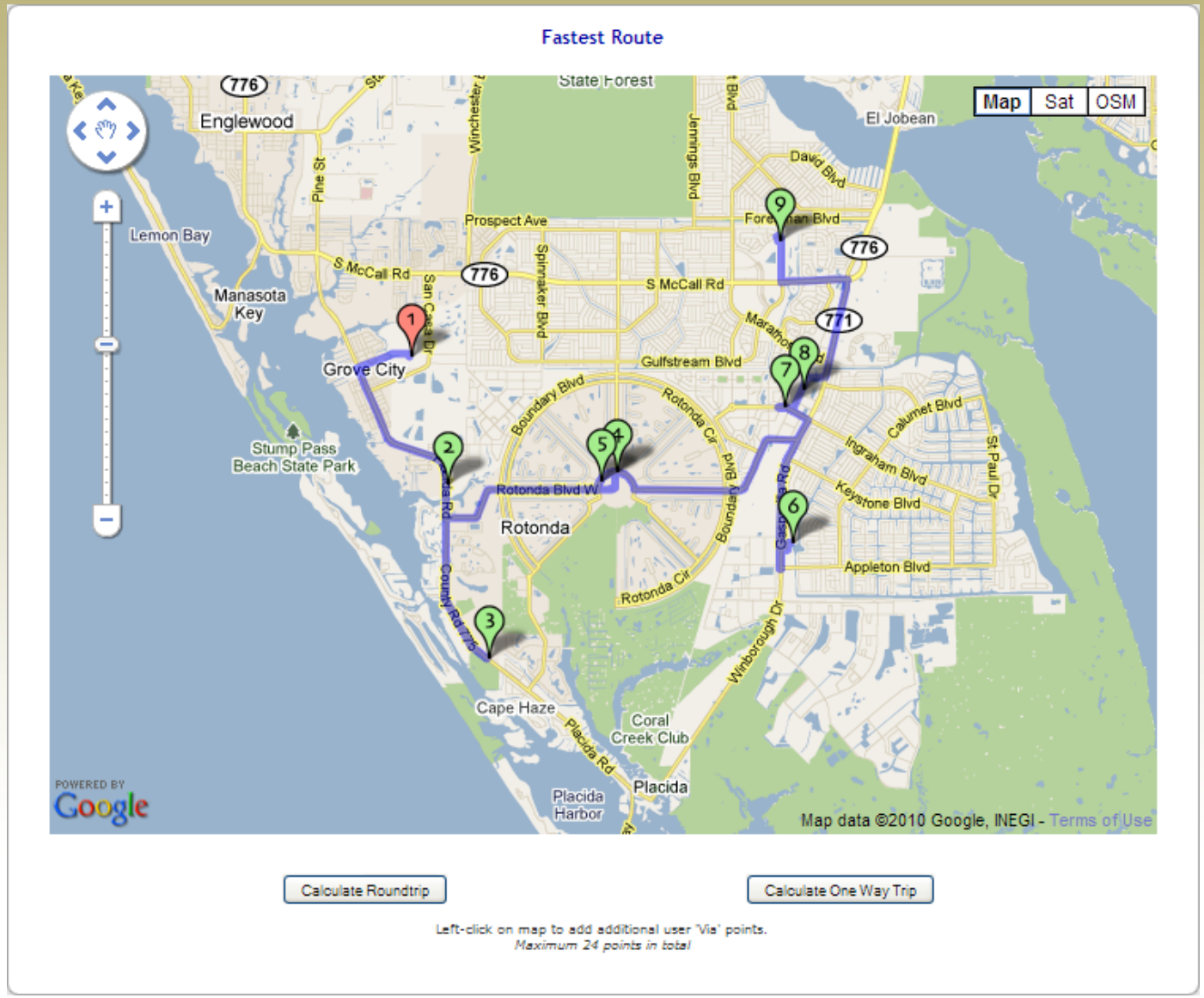
Misc

LogACache	Enter log online from User Note
CacheMateLogging	Cachemate to GSAK Logging
NuviExport	Basic Nuvi Export for 36xx series (and other models)
TomTom	Cache and Child Waypoint exporter for TomTom Navigators
CopyColumnToColumn	Copy data from one GSAK column to another column

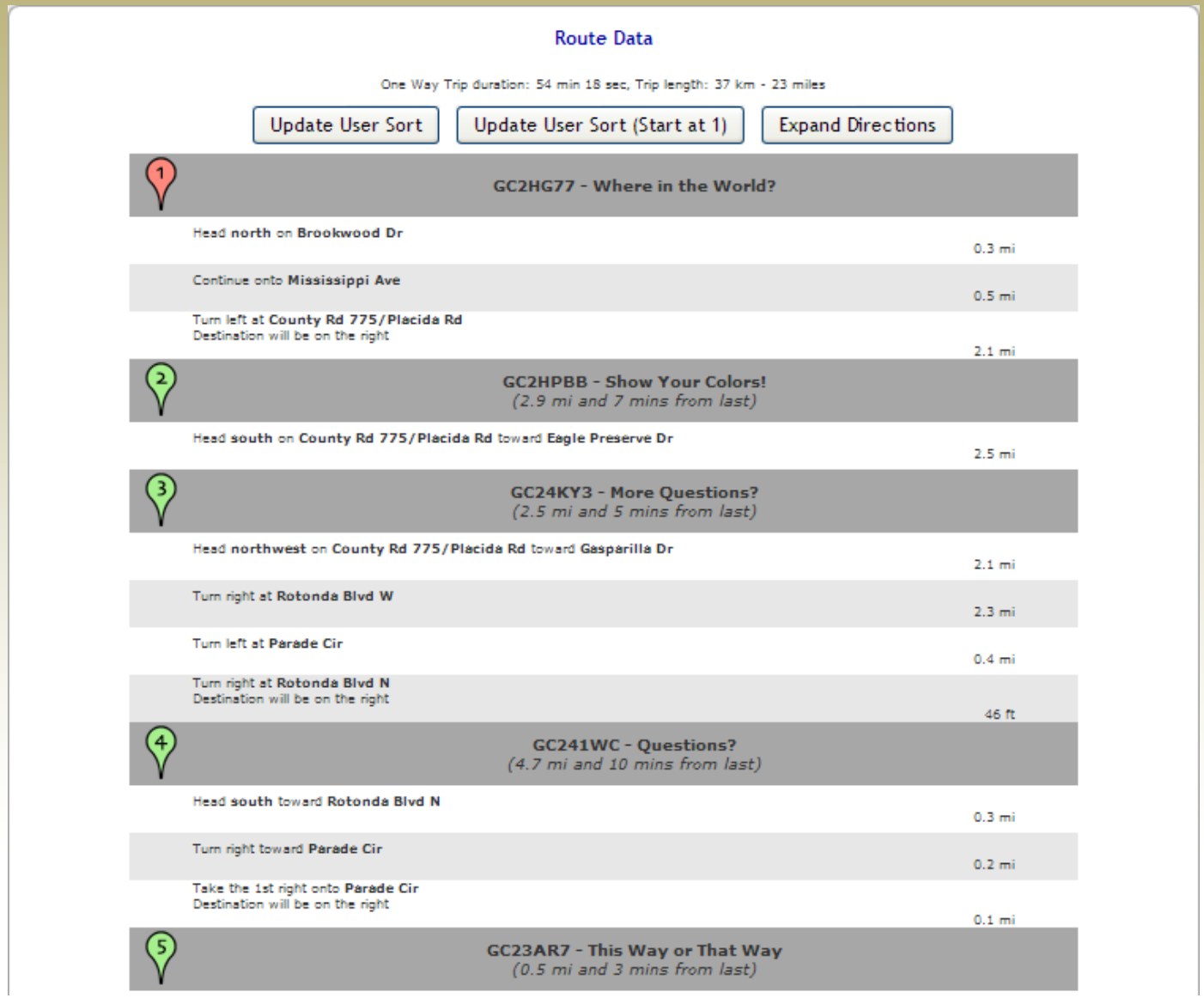
Macros – Google_Map_V3.gsk



Macros – CacheRoute.gsk



Macros – CacheRoute.gsk (cont)



Route Data

One Way Trip duration: 54 min 18 sec, Trip length: 37 km - 23 miles

Update User Sort | Update User Sort (Start at 1) | Expand Directions

1 GC2HG77 - Where in the World?

Head **north** on **Brookwood Dr** — 0.3 mi

Continue onto **Mississippi Ave** — 0.5 mi

Turn left at **County Rd 775/Placida Rd**
Destination will be on the right — 2.1 mi

2 GC2HPBB - Show Your Colors!
(2.9 mi and 7 mins from last)

Head **south** on **County Rd 775/Placida Rd** toward **Eagle Preserve Dr** — 2.5 mi

3 GC24KY3 - More Questions?
(2.5 mi and 5 mins from last)

Head **northwest** on **County Rd 775/Placida Rd** toward **Gasparilla Dr** — 2.1 mi

Turn right at **Rotonda Blvd W** — 2.3 mi

Turn left at **Parade Cir** — 0.4 mi

Turn right at **Rotonda Blvd N**
Destination will be on the right — 46 ft

4 GC241WC - Questions?
(4.7 mi and 10 mins from last)

Head **south** toward **Rotonda Blvd N** — 0.3 mi

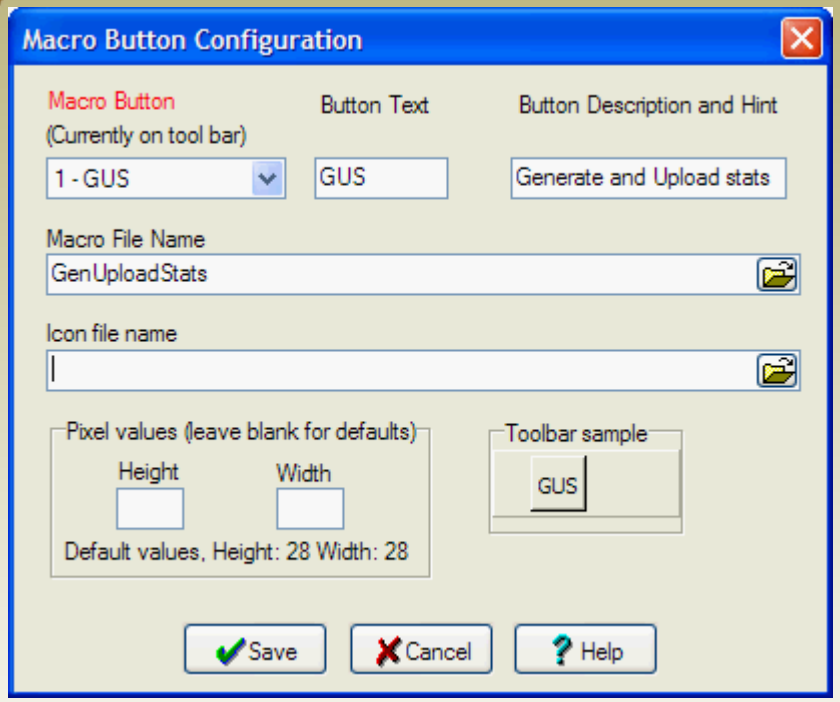
Turn right toward **Parade Cir** — 0.2 mi

Take the 1st right onto **Parade Cir**
Destination will be on the right — 0.1 mi

5 GC23AR7 - This Way or That Way
(0.5 mi and 3 mins from last)

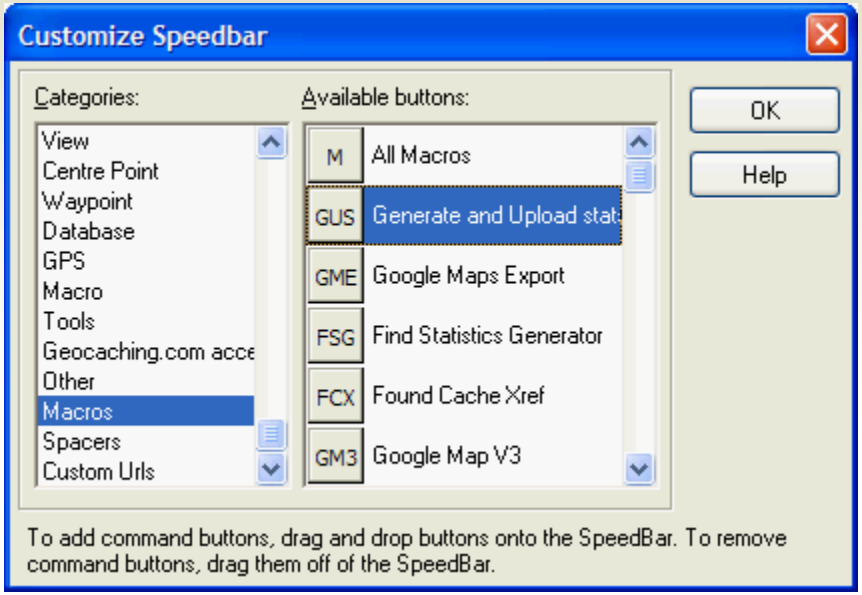
Macros – BadgeGen.gsk

Customization – Macro Buttons

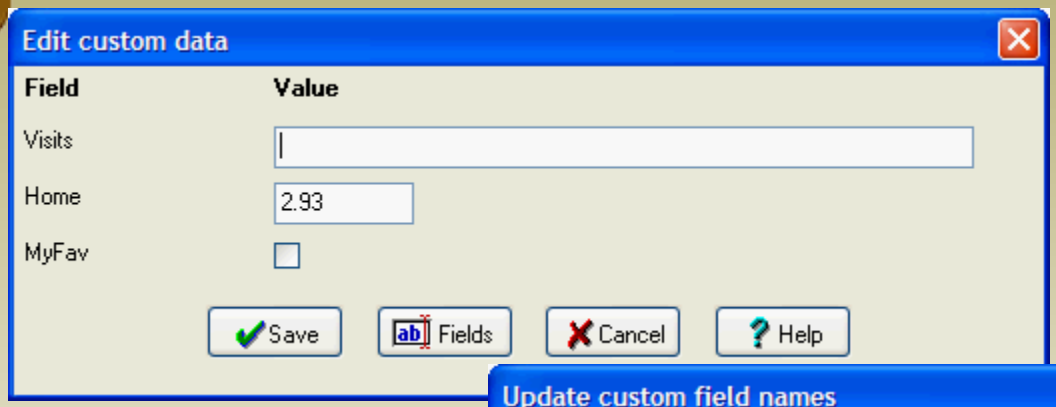


- Defines up to 20 macro buttons
- Button height and width will apply to all defined buttons

- Be sure to select “Macros” and *not* “Macro” category!
- Drag one of the available buttons to the Speedbar to add it
- Drag a button off the Speedbar to remove it



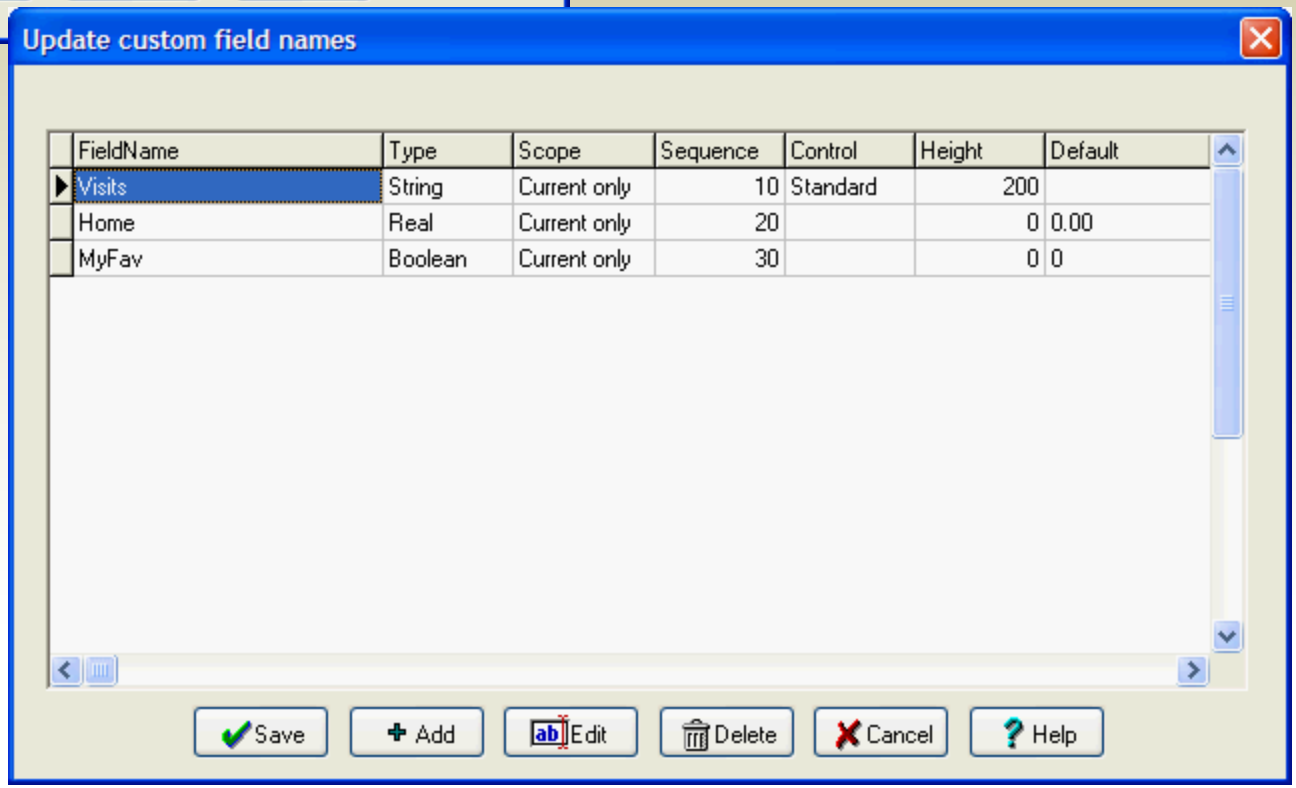
Customization – Custom Fields



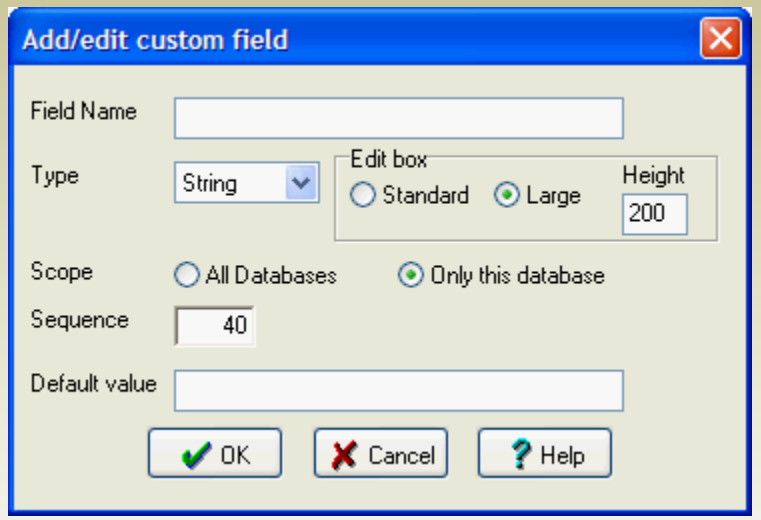
Arrive at this dialog by:

- Waypoint=>Custom Data
- clicking the "Custom" button in the Waypoint=>Edit dialog

Arrive at this dialog by clicking the "Fields" button in the dialog above



Customization – Custom Fields (cont)



- Field Name - Name used to reference this field
- Type – String, Integer, Real, Date, or Boolean.
- Standard String is one line, Large String is the specified height
- Scope - Designate the field to appear in all databases, or just the current one only (global vs local)
- Sequence - The order the field will display in dialogs
- Default - The default value when a new cache record is added to the database

Open Discussion

Can I …

How do I …

I'm having problems with ...

What's the best way to ...

Why can't I ...

- Title Slide “GSAK – Advanced”
- Publish Logs – Fetch
- Publish Logs – Templates
- Publish Logs – Populated Grid
- Publish Logs – Edit
- Publish Logs – Trackables
- Macros – Overview
- Macros – Simple Code Example
- Macros – Macro Manager
- Macros – Install Macro
- Macros – Some Very Useful Macros
- Macros – Some Very Useful Macros (cont)
- Macros – Google_Map_V3.gsk
- Macros – CacheRoute.gsk
- Macros – CacheRoute.gsk (cont)
- Macros – BadgeGen.gsk
- Customization – Macro Buttons
- Customization – Custom Fields
- Customization – Custom Fields (cont)
- Open Discussion