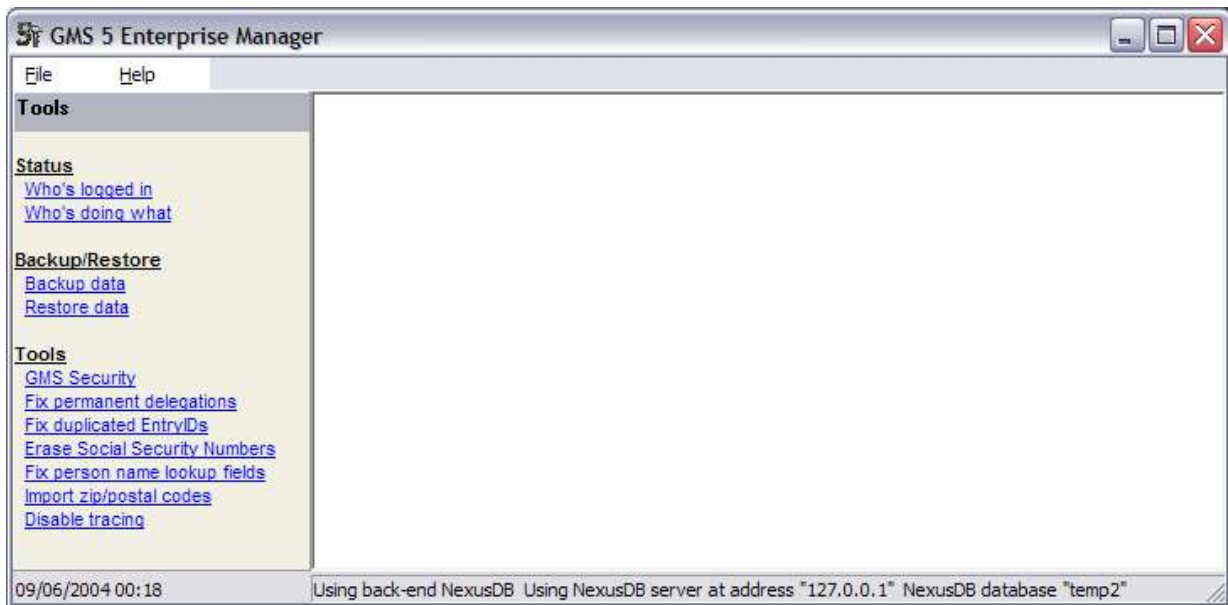


## **Introduction**

This section will cover GMS 5 Enterprise Manager (EM), a separate application from GMS that you can use to backup data, apply security settings, watch tracing, and fix problems with your data. GMS 5 EM works across with all back-end databases that GMS 5 does, and uses the same settings.

## **Getting Started**

Open GMS EM by clicking on the Windows “Start” button then go to “Programs” and “GMS 5” from there you will see “GMS 5 Enterprise Manager”. Click it and EM will open (see Illustration 1, Enterprise Manager).



*Illustration 1, Enterprise Manager*

Note that not all options are always visible on all installations. For example, options related to who's logged in or doing things are only valid when tracing is enabled.

On the “File” menu you'll find:

Setup GMS databases – use this to define the databases available when GMS 5 or GMS 5 Enterprise Manager start up.

Select database to start with next time – allows you to set the “default” GMS database which is used by GMS 5 or GMS 5 Enterprise Manager when it starts up. This can be set to any valid database or to “(have GMS ask for a database)” which will prompt you each time GMS is started.

**Status**

If GMS Security and tracing are both enabled, you can watch who logs in/out and users' activities in real time. Select “Who's logged in” to see who is currently active in GMS; see Illustration 2, Who's Logged In.

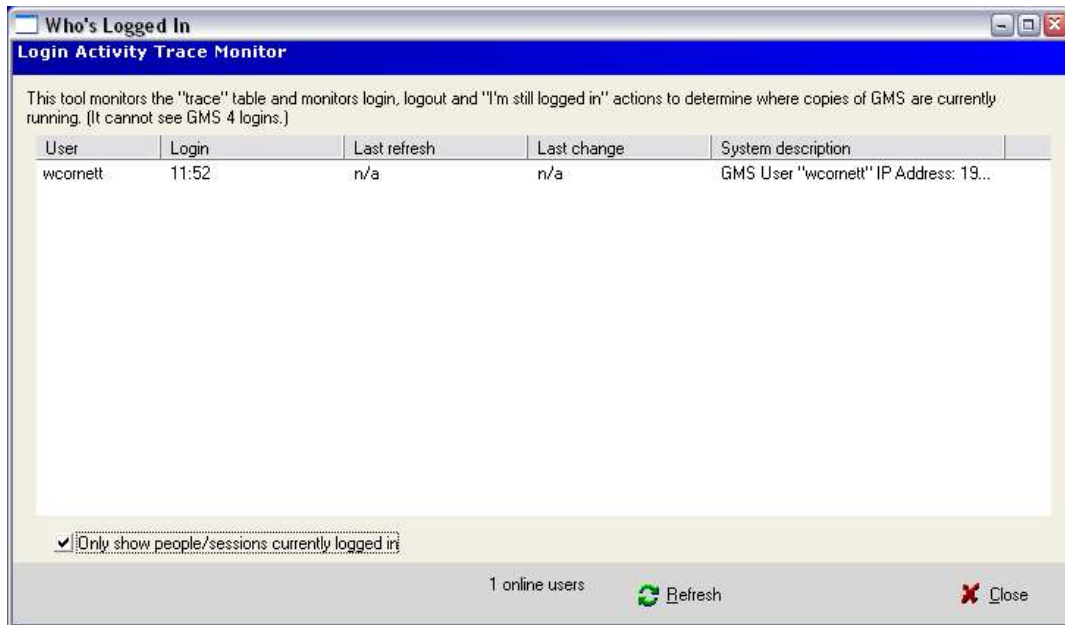


Illustration 2, Who's Logged In

This list will automatically update every few minutes. Note that if a user shuts down GMS abnormally, by either turning off the machine or using Task Manager, GMS won't record that user's logging off, but you can see from their “Last refresh” value the last time GMS was active.

Since a GMS user can log on more than once at the same time, a user may show up in the list multiple times.

If you right-click on a person, you'll get an option to see either what that person has done or what that person's current session has done. (Seeing what the person has done will also show you what he/she did in past sessions and on previous days.)

**Who's Doing What**

Click on “Who's doing what” to be prompted for a user. Select the user ID you whose activity you want to monitor then click on [Done].

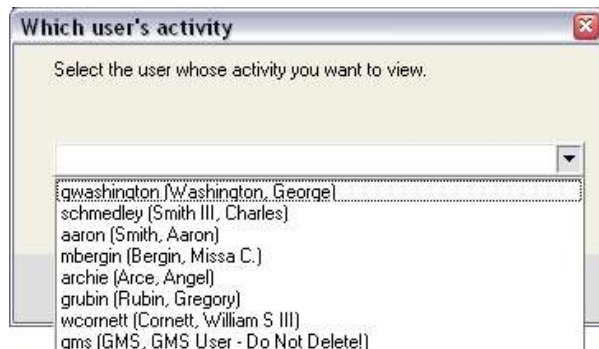
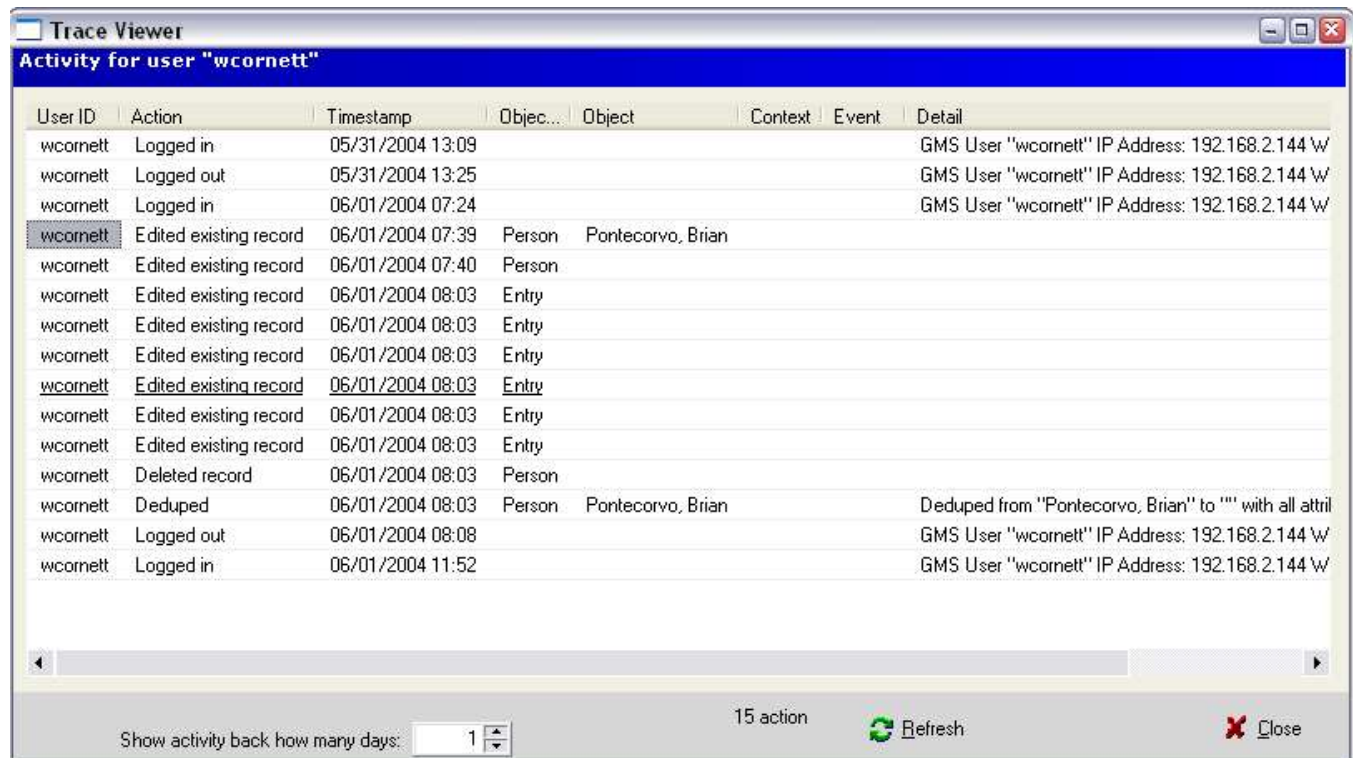


Illustration 3, Which user's activity



The screenshot shows a window titled "Trace Viewer" with a subtitle "Activity for user 'wcornett'". The window contains a table with the following columns: User ID, Action, Timestamp, Object, Context, Event, and Detail. The table lists various actions performed by the user 'wcornett' on 05/31/2004 and 06/01/2004. At the bottom of the window, there is a control bar with a scroll bar, a "Show activity back how many days:" label with a spinner set to 1, a "15 action" indicator, a "Refresh" button, and a "Close" button.

User ID	Action	Timestamp	Objec...	Object	Context	Event	Detail
wcornett	Logged in	05/31/2004 13:09					GMS User "wcornett" IP Address: 192.168.2.144 W
wcornett	Logged out	05/31/2004 13:25					GMS User "wcornett" IP Address: 192.168.2.144 W
wcornett	Logged in	06/01/2004 07:24					GMS User "wcornett" IP Address: 192.168.2.144 W
wcornett	Edited existing record	06/01/2004 07:39	Person	Pontecorvo, Brian			
wcornett	Edited existing record	06/01/2004 07:40	Person				
wcornett	Edited existing record	06/01/2004 08:03	Entry				
wcornett	Edited existing record	06/01/2004 08:03	Entry				
wcornett	Edited existing record	06/01/2004 08:03	Entry				
wcornett	Edited existing record	06/01/2004 08:03	Entry				
wcornett	Edited existing record	06/01/2004 08:03	Entry				
wcornett	Deleted record	06/01/2004 08:03	Person				
wcornett	Deduped	06/01/2004 08:03	Person	Pontecorvo, Brian			Deduped from "Pontecorvo, Brian" to "" with all attril
wcornett	Logged out	06/01/2004 08:08					GMS User "wcornett" IP Address: 192.168.2.144 W
wcornett	Logged in	06/01/2004 11:52					GMS User "wcornett" IP Address: 192.168.2.144 W

Illustration 4, Trace Viewer

This shows everything that this user has done in the past day; you can change the number of days that show at one time.

## Backup/Restore

To backup data click the “Backup data” link on the right side of the screen and you will see a window entitled “Data Backup” with a listing of tables in your set of data (see Illustration 5, Data Backup). All tables are automatically checked and in general you should back up all of your tables every time.

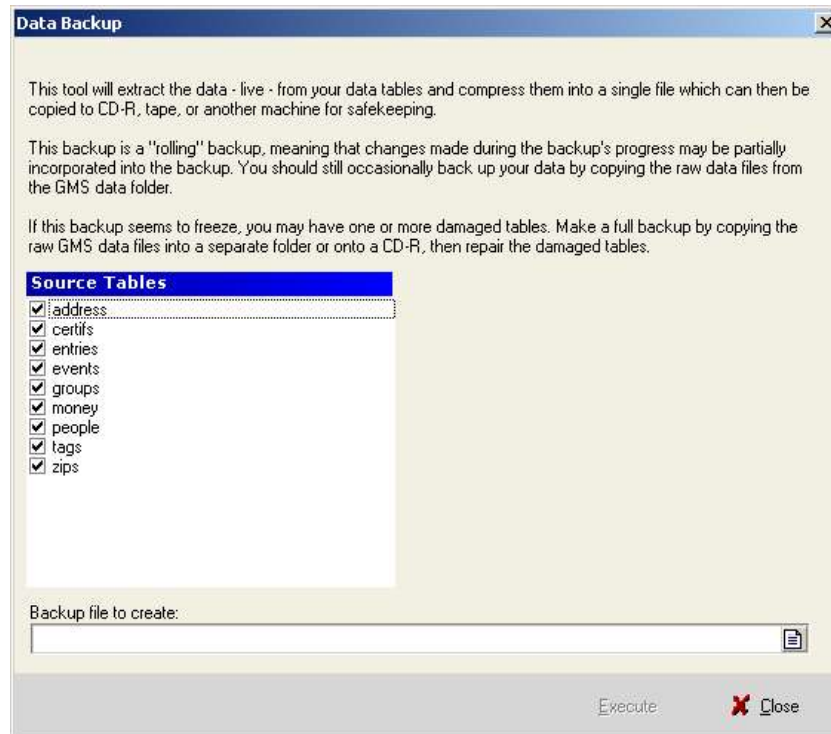


Illustration 5, Data Backup

Enter a name for your backup file (or use the icon at the end of the line), then click [Execute]. GMS will back up your files one by one, even if other users are in GMS at the same time.

When complete you will see a “Data successfully backed up to..” with the location and size of the file. Take this file and copy it to a CD-R, a network server, or some other location *not on your* computer for safekeeping.

Note: You can also run a backup from within GMS 5 itself by clicking on “Tools --> Tools --> Back up your data”

### Restore Data

You cannot directly restore your data while GMS 5 EM is running, since it's accessing tables that need to be overwritten. (If you click “Restore data” and you will get a window on screen with instructions saying that you're not allowed to do this.)

Before restoring a GMS backup, it is important that:

1. No one else be accessing the GMS database you want to restore into, and
2. You are very sure that you want to overwrite your existing data. GMS' security features are not active at this point, because these are dependent on GMS having access to the data. This means that it's possible for unauthorized users – if they have database rights to drop tables – to destroy your database.

If GMS normally does not start with a screen like Illustration 11, Erase Social Security Numbers, exit GMS. Then, when starting GMS 5 EM, hold down the left [Ctrl] key.

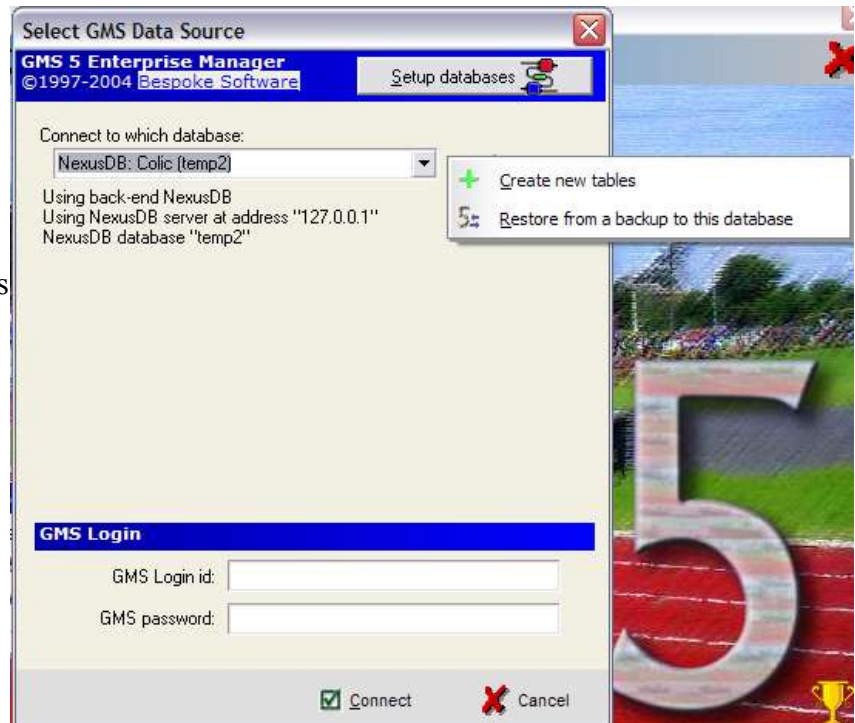


Illustration 6, Select GMS data source and restore

Select the database you want to restore your data into. Click on the [Tools] button and then “Restore from a backup to this database”.

Now enter the filename of the backup that you want to restore. You can click on the little disk icon to the right to bring up an Explorer window which can help you find your backup file.

Put a checkbox next to each of the tables that you want to restore. Normally you'll select all tables, but there are circumstances under which only some would be restored.

Click on the [Execute] button to restore your data.

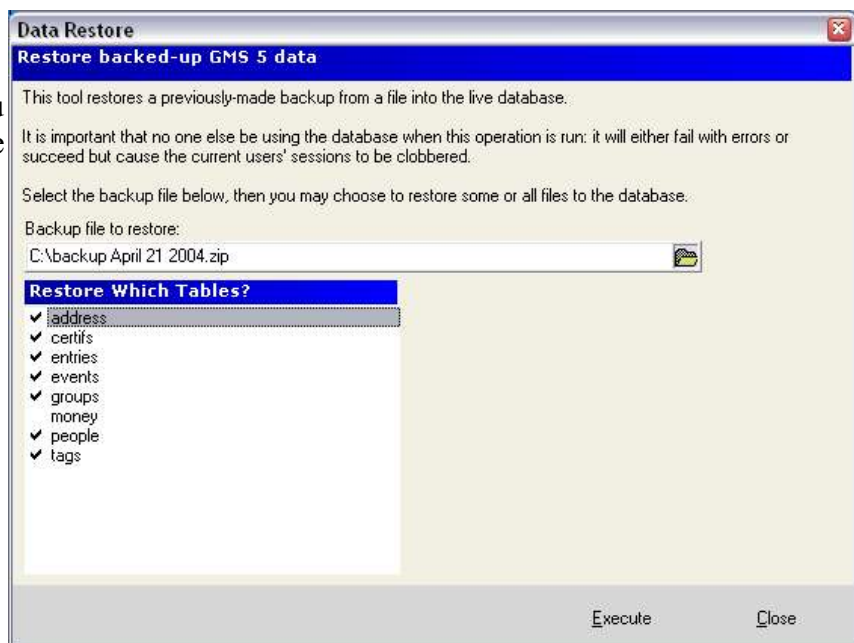


Illustration 7, Data Restore

## **Tools**

Here are various tools for fixing certain issues in GMS, modifying GMS Security, and enabling/disabling tracing.

### GMS Security

Use this to enable or disable GMS Security, create or modify users, and modify users' security rights. You must log in as a superuser to access GMS Security. For further details on GMS Security, see its associated documentation.

### Enable tracing/Disable tracing

Tracing is how GMS tracks when users log in and out and the actions they perform while logged in. All tracing is stored in the “trace” table, which is created automatically when you enable tracing. Disabling tracing does not delete this table, but does stop users' actions from writing to it.

### Fix permanent delegations

If you've deleted or lost any permanent delegations and you have people in the system who can't be found, this tool will search through all of the people in your system and if any are missing a permanent delegation, will either fix the problem or assign them new permanent delegations.

Running this tool on data which does not have any problems will not cause any new damage.

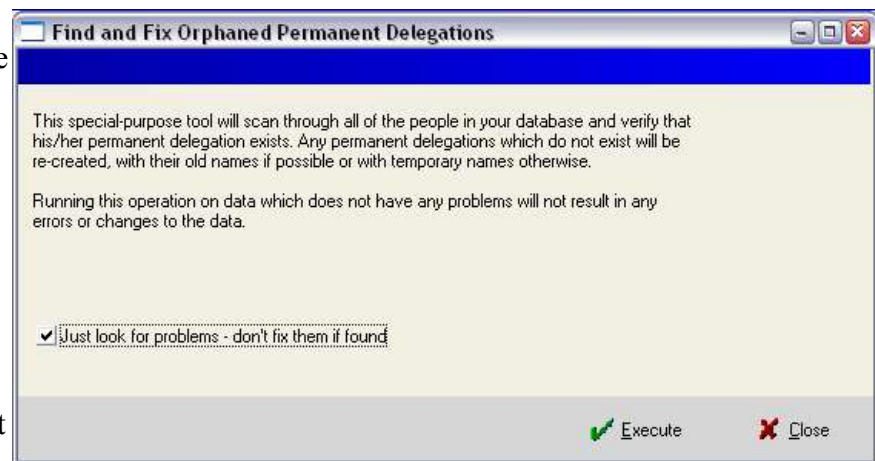


Illustration 8, Fix orphaned permanent delegations

### Fix duplicated EntryIDs

In some older versions of GMS, it's possible to corrupt the “entries” table by creating multiple records with the same “unique” value. If you get error messages along the lines of “Key Violation” in GMS, try running this utility to see if it fixes the problem. If your data does not have any problems, running this tool will not do any damage.

Note: this tool requires that you be using NexusDB server version 1.052 or higher, and that the “ServerInfo” plugin in NexusDB server be active.

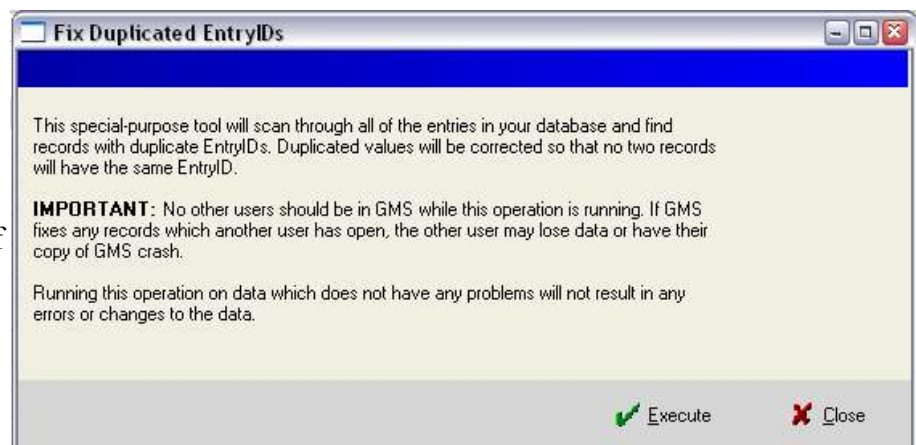


Illustration 9, Fix Duplicated EntryIDs

### Person Name Lookup Settings

While looking up people in GMS, the normal search on the last/family name field does not actually look up on the last/family name – it searches on a “sound-alike” version of the last/family name which allows names which are similar to be brought up when searching.

GMS can use one of three methods for determining what names sound alike:

- GMS sound-alike: this is a custom algorithm which is the only one compatible with GMS 4 data. If you're using GMS 4 and GMS 5 on the same database, *you must* use this method.
- Soundex – an industry standard method
- Raw family/last name – takes the raw bytes which make up the name and uses those instead of applying any soundalike processing. This is most useful for Chinese, Japanese and other names where GMS' lookup tools would otherwise mangle the name.

Select the method to be used, then click on [Execute]. GMS will reprocess every person record and apply the new lookup mechanism.

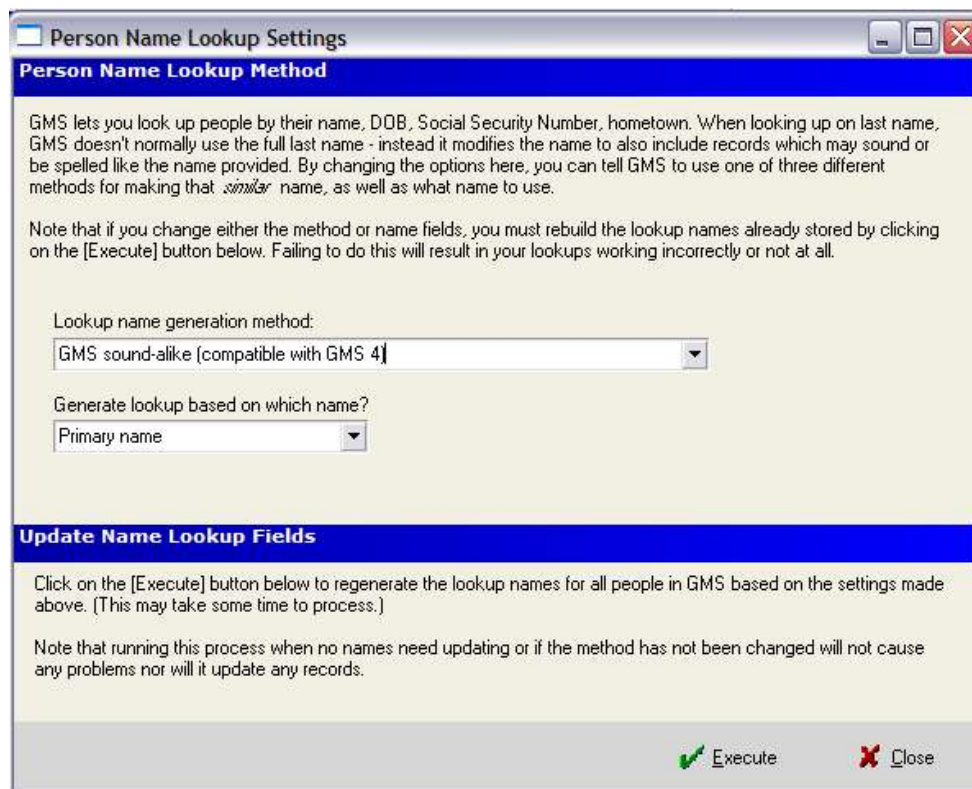


Illustration 10, Person Name Lookup Settings

Erase Social Security Numbers

Due to the increased incidence of identity fraud and the privacy issues associated with tracking Social Security Numbers, we highly recommend that you do *not* track Social Security Numbers in GMS. (You can use this field to hold other types of values.)

If you already have Social Security Numbers in your GMS data and want to remove them, use this tool to remove them. Select the permanent delegations whose Social Security Numbers you want to erase then click on [Execute].

NOTE: this operation is not reversible; once it's run, you cannot recover these values without restoring from as backup.

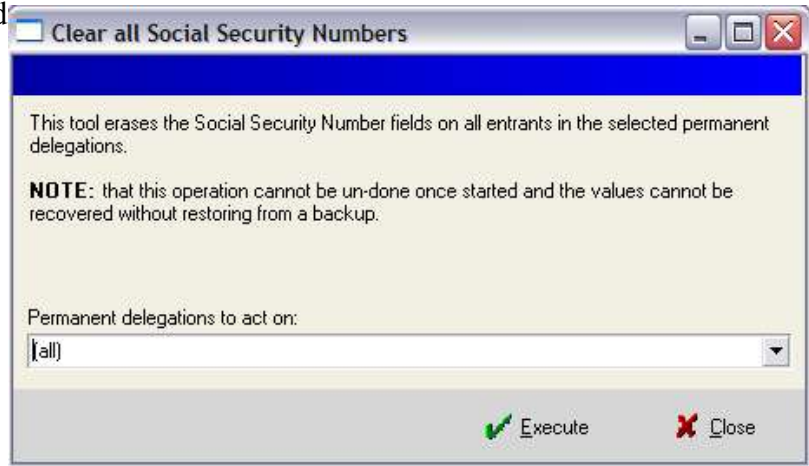


Illustration 11, Erase Social Security Numbers

### Import Zip/postal codes

GMS ships with a standard set of US-based zip codes for address lookups. This table is not useful outside of the United States, and since the USPS is constantly changing and adding zip codes, it can go out of date.

GMS 5 Enterprise Manager supports the import or update of this table via a dBase file. This incoming file can have the postal codes for any country and can either replace GMS' existing lookup file or append and edit it.

#### File format

City	Type	Width
Zip	Character	5-10
State	Character	5-10
County	Character	32-40
City	Character	33-50
Country	Character	50

If the “Country” column is omitted or the field is blank, it will be assumed to be “USA”.

For ease of distribution, GMS 5 Enterprise Manager allows the incoming table to be directly read from a standard, compressed .zip file. To do this, simply name your dBase file “zips.dbf” and compress it into a .zip file of any name.

NOTE: to import a file whose “Zip” field is wider than five characters, you *must* replace the file which comes with GMS, since its field would be too narrow.



Illustration 12, Zip/postal code importer

Batch backups – added in GMS 5 Enterprise Manager 5.1.0.0

GMS 5 Enterprise Manager supports a command-line option to automatically run a backup of specified tables to a specific file. This is intended primarily for administrators who want to back up GMS' data in a cron job without user intervention.

To run a backup in this fashion, add to the command line:

```
backup:filename,table1,table2,etc...
```

For example,

```
backup:c:\test1.zip,address,certifs,people,tags
```

This will back up the tables address, certifs, people and tags to the file c:\test1.zip.

For this process to work, GMS 5 Enterprise Manager must automatically start connected to a database, otherwise it will wait for a user to choose the proper database and only then start the backup process.

As of GMS 5 Enterprise Manager 5.2.0.5, the filename portion of the command can include date/time format strings, enclosed in curly brackets. For example, on 4 July 2005 at 11:35am,

```
c:\Backup{yy.mm.dd}-{hh.nn}.zip becomes c:\Backup050704-1135.zip
```

```
c:\Backup{yyyy}-{mm}-{dd}.zip becomes c:\Backup2005-07-04.zip
```