**NAME**

gma go image-audit − GMA server image accuracy audit

**SYNOPSIS**

[`gma go`] `image-audit` [`-delete`][`-help`][`-list`] `-sqlite` *path* `-webroot` *path*

**DESCRIPTION**

`Image-audit` is run on a system which hosts both a GMA server and the web server which offers the map image tiles to mapper clients (or at least has filesystem access to those files).

It checks for any files in the server's database (which means they will be offered by the server to any clients asking about those images) which do not have actual image files being served for them.

It is important that the server doesn't advertise images to any mapper clients which don't actually exist on the server. This will cause the mappers to report errors when the download of the images fail, and eventually the server may kick them off when their repeated requests for the same image files is interpreted as a DoS attack.

**N.B.** The `image-audit` program can't check for, or correct, everything that could go wrong. For example, it will be satisfied if any image file exists to satisfy requests for the corresponding database entry. However, it does not check to ensure that this image file is available in all (or any) specific graphic format (e.g., GIF or PNG) that your map clients will request. You must still make sure the files are provided in all formats your clients care about.

Also, in the case of animated images, no check is made that all expected frames are available or that any individual frame files exist; just that there is some image file at the advertised location.

**OPTIONS**

The command-line options described below may be introduced with either one or two hyphens (e.g., `-delete` or `--delete`). Options which take parameter values may have the value separated from the option name by a space or an equals sign (e.g., `-sqlite=mygame.db` or `-sqlite mygame.db`), except for boolean flags which may be given alone (e.g., `-delete`) to indicate that the option is set to "true" or may be given an explicit value which must be attached to the option with an equals sign (e.g., `-delete=true` or `-delete=false`).

`-delete`

When images are defined in the server's database but no corresponding image file is actually found, actually delete the image's definition from the server's database file so it won't continue to tell clients that it knows their location. If you update the database later (say, by loading a map file which defines images), be sure the web server actually has those files available for download at that point.

`-list`    In addition to messages normally printed about missing files or removed database entries, this option causes `image-audit` to name all the files that don't seem to be in the right place or have names not conforming to the expected format (as opposed to just reporting how many of them were found), and to list all known files (whether mentioned in the database or discovered in the web server's GMA image directory tree), along with their status. The status is indicated by a set of single letter flags:

`?`   The file's type could not be determined.

`I`   This is an image file.

`M`   This is a map file.

`c`   This file is known to the server but stored by a client, not on the web server.

`d`   This file is known in the database and should be stored on the web server.

`w`   This file was found on the web server.

`-h, -help`

Print a usage summary and exit.

-sqlite *path*
> Read the file specified by *path* as the a sqlite database the server uses for its persistent storage (as specified to the server program's own -sqlite option). Image-audit may be run while the server is also accessing this file, but note that updating the database by either program may briefly lock the other out from accessing it. Therefore, it is best to run image-audit when the server is shut down or at least quiescent.

-webroot *dir*
> Consider all the files from dir down to be the directory structure behind what the GMA mapper client knows as the "image base URL". Thus, a server image ID of "abcdef" corresponds to disk file *dir*/a/ab/abcdef.png, et al.

## SEE ALSO
gma(6), gma-mapper(5), gma-go-server(6). gma-mapper(6),

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## BUGS

There are more checks that image-audit could make to do more to evaluate the integrity of the server's image storage, but this is a first start.

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