

# Automated Granger Causality Mapping tool for BrainVoyager

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## Usage

In the .zip archive downloadable from [the BV-wiki](#) you will find this manual, an executable (autoGCM.exe) and source files (\*.au3). Users not familiar with autoIT should simply run the executable.

1. The script asks for a folder which should contain:
  - one or more MDM files (for the VTCs to use, design matrix files ignored). A separate map will be created for each .mdm file.
  - a VMR (to be able to start the plugin)
  - a VOI file (all of the containing VOI definitions will be used as seed regions).
2. The VTCs specified in the MDMs should have valid, linked PRT files! These will be used for the interval selection/condition specification. For now the script expects a fully symmetric design, i.e. each condition should appear in each protocol file.
3. A text document should pop-up and remain open with some debug output.
4. The resulting GCM files will be prefixed with "autoGCM\_<date>\_<time>\_<mdm-filename>".

## Support

For help or suggestions, mail me [vandenBosch@med.uni-frankfurt.de](mailto:vandenBosch@med.uni-frankfurt.de) or Brain Innovation Support [support@brainvoyager.com](mailto:support@brainvoyager.com). For other contact details and more check [my BV wiki user page](#).

## Testing

The script is tested this on two systems:

"Dev" system; Windows XP 32-bit, BVQX Version 1.10.2.1198. No apparent bugs here right now.

"Processing" system; a Windows XP 64-bit installation on a VirtualBox hardware-assisted virtual machine (on an Ubuntu 7.04 host), BVQX Version 1.10.4.1250.

Here the script is currently unable to use the autoIT function "ControlClick" for these controls:

- on the Link VTC dialog>Browse button
- on the ROI analysis window> Load.. button

A workaround is to click these buttons manually as the script is running (only needed once), this however needs to be done within 15 seconds from when they appear.

- The "Global Tools Log Page" context menu. This results in the script waiting a constant time (set to 20 minutes) before starting the next .mdm.

Note that the script is best compiled in 32bit, since the windows APPDATA environment constant than refers to the correct Program Files folder to find Brainvoyager (If installed in default location.)