**Thread Viewer**

This thread viewer is a relatively simple script file that just loops continuously while all other scripts perform their tasks. The thread viewer reads the parm.previousthread value very rapidly, and uses this to determine when new threads start. Through console commands you can output the results to the console. With this information, you might be able to track down bugs in your scripts or just determine how many threads are running. The script even allows direct interaction with all threads. You can for example immediately terminate a thread of your choice.

[Download Thread Viewer](http://www.mods-r-us.net/freebrief/mohaa/tv/download/index.html)

**Installation**

To install the thread viewer you have to extract the jv\_tv00.pk3 file into your /main folder. In the script file of the map you're going to debug, you'll have to call the thread viewer using the following line:

01exec global/jv\_tv.scr

For single player scripts, just place this line at the very top of your script. For multiplayer, it is recommended to add this line below 'level waittill spawn', so that the thread viewer still works after a server restart.

**Console Commands**

The following console commands/variables are available:

* tv\_report 1 : Prints thread report to the console. Shows the number of threads currently active and the number of threads started since the thread viewer is active. For all threads a 'runtime' variable is recorded, which is the number of seconds ellapsed since the thread was started.
* tv\_endthread # : Terminates the thread with this number. You can get the number using the tv\_report command. It's important you use the endthread command immediately after the report command, otherwise the numbers could have changed meanwhile.
* tv\_pausethread # : Pauses the thread with the given number. The thread will pause execution until you use the tv\_pausethread command again.
* tv\_allowignore 1 or 0 : If set to '1' (default), the thread viewer ignores its own threads. These threads are needed to monitor other threads but don't affect the general scripting flow.

**Other Features**

There are a number of things you can add to your scripts to make the output of the thread viewer more useful. For example you can give threads a name for easy recognition. You can also prevent the thread viewer from monitoring this particular thread. You can do this with two variables:

* local.tv\_info : A string with a very short description of this thread.
* local.tv\_ignore : Set to '1' to make the thread viewer ignore this thread, unless the tv\_allowignore cvar is set to '0'.

**Example**

01exec global/jv\_tv.scr 02 03main: 04  local.tv\_info = "main" 05 06  level waittill prespawn 07 08  level waittill spawn 09 10  thread randomexplosions 11 12  (...) 13end 14 15randomexplosions: 16  local.tv\_info = "explosions" 17  local.tv\_ignore = 1 18 19  (...) 20end

**Remarks**

Sadly this thread viewer is not perfect. Since it uses the parm.previousthread variable it can't record all threads when this value changes very rapidly. For example, if a script starts two new threads immediately after each other, only the last thread will be recorded. Thus you'll never get a perfectly accurate report of all active threads.