HammerDB Remote Modes

This guide gives you an introduction to using HammerDB Remote Modes for connecting together multiple instances of HammerDB.

Introduction to Remote Modes

HammerDB allows for multiple instances of the HammerDB program to run in Master and Slave modes. Running with multiple modes enables the additional instances to be controlled by a single master instance either on the same load testing server or across the network. This functionality can be particularly applicable when testing Virtualized environments and the desire is to test multiple databases running in virtualized guests at the same time. Similarly this functionality is useful for clustered databases with multiple instances such as Oracle Real Application Clusters and wishing to partition a load precisely across servers. HammerDB Remote Modes are entirely operating system independent and therefore an instance of HammerDB running on Windows can be Master to one or more instances running on Linux and vice versa. Additionally there is no requirement for the workload to be the same and therefore it would be possible to connect multiple instances of HammerDB running on Windows and Linux simultaneously testing SQL Server, Oracle, MySQL and PostrgreSQL workloads in a virtualized environment.

Enabling Remote Modes

To enable remote modes firstly note that in the bottom right hand corner of the interface the status bar shows the mode that HammerDB is running in. As shown in Figure 1 by default this will be Local Mode.
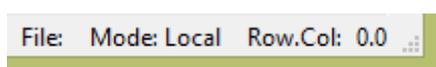

Figure 1 Local Mode

From either the Options menu or treeview select Mode as shown in Figure 2.
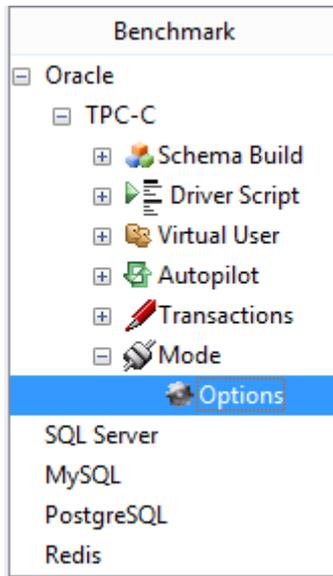
Figure 2 Mode Menu

This displays the Mode Options as shown in Figure 3 confirming that the current mode is Local.
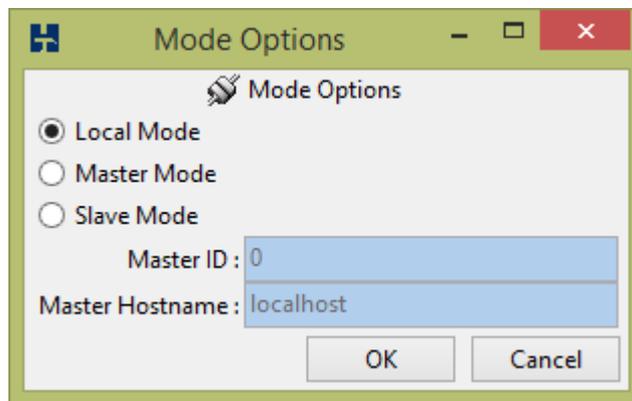

Figure 3 Mode Options
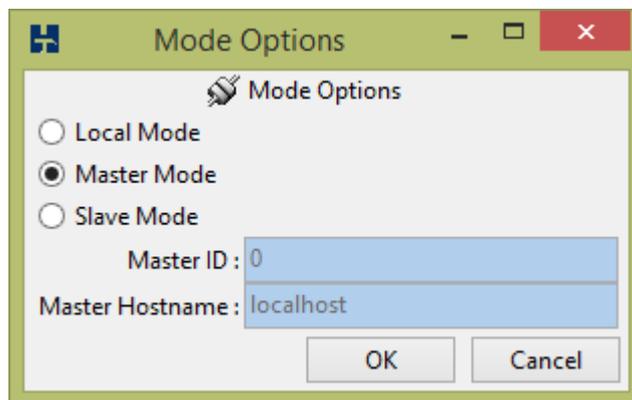
As shown in Figure 4 select Master Mode and click OK.

Figure 4 Master Mode Options

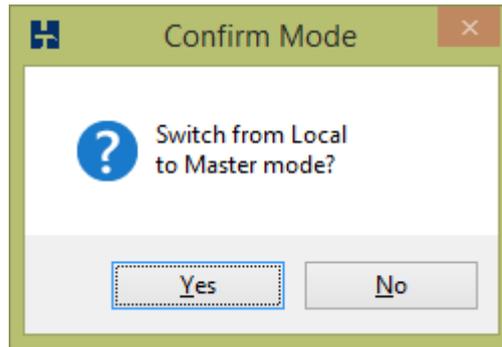Confirm the selection as shown in Figure 5.

Figure 5 Confirm Selection

This will show that Master Mode is now active and the ID and hostname it is running on.
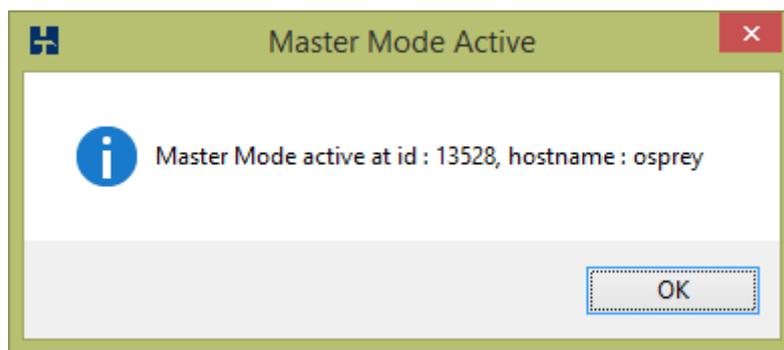

Figure 6 Master Mode id and hostname

Note that this will also be recorded in the console display

```
Setting Master Mode at id : 13528, hostname : osprey
```

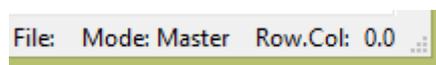And as shown in Figure 7 the status bar will now show a status of Master.

Figure 7 Status Bar showing Master Status

On another instance of HammerDB, either on the same server or on another server across the network, select Mode Options as previously and enter the ID and hostname of the Master as shown in Figure 8.
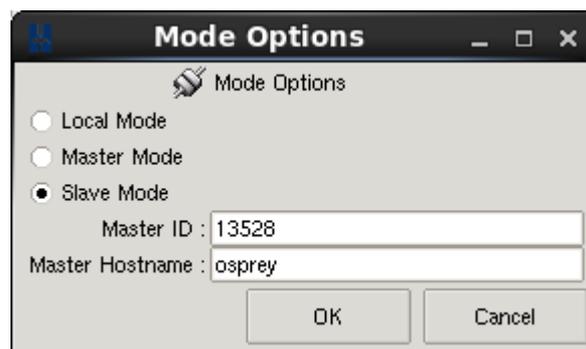

Figure 8 Status Bar Slave Mode

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Press OK and confirm the selection as before. As shown in Figure 9 the selection shows details in the console having succeeded and the status bar updates its state.
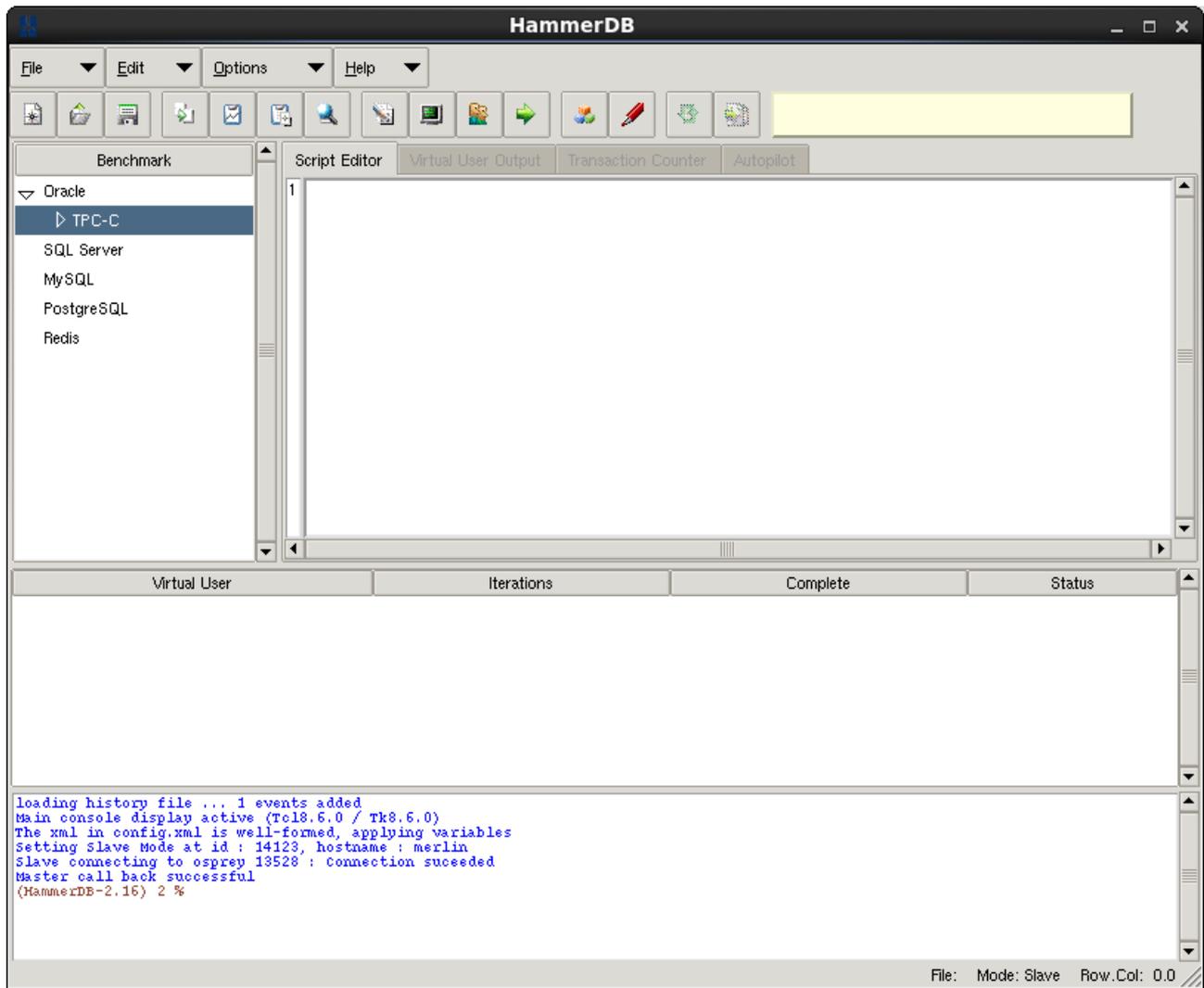

Figure 9 Connection Succeeded

Back on the Master the console will also report the successful connection.

```
Setting Master Mode at id : 13528, hostname : osprey
Received a new slave connection from host 192.168.1.78
New slave joined : {14123 merlin}
```

At this point, the Master Distribution button becomes enabled on the Master as shown in Figured 10.

Figure 10 Master Distribution button

Pressing this button enables the distribution of the contents of the Script Editor to all connected instances.

```
Distributing to 14123 merlin ...Succeeded
```

The contents however may remain to be individually edited on remote instances. Note that in particular the OLTP timed tests account for the particular mode that an instance is running.

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```
12  |set mode "Master" :# HammerDB operational mode
```

For example with 2 instances running the same workload the instance running as Master will time the test and capture the statistics whereas the instance running as Slave will report the first user as having completed with no workload to run.

Now run your workload as normal on the Master, all of your workload choices of creating and running and closing down virtual users will be replicated automatically on the connected Slaves enabling control and simultaneous timing from a central point. However, note that running a schema creation with multiple connected instances is not supported.

Disabling Remote Modes

To disable remote modes follow the same procedure as enabling remote modes on the Master however select to return to Local Mode as shown in Figure 11 and confirm at the dialogue box.
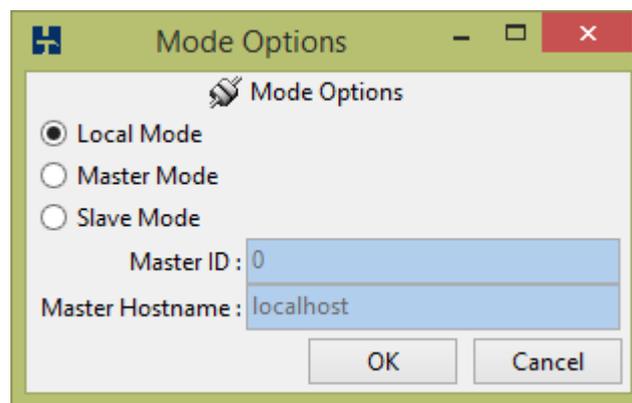

Figure 11 Master Distribution button

As shown in figure 12 the Master and all connected Slaves will automatically exit and return to Local Mode as shown in Figure 12.
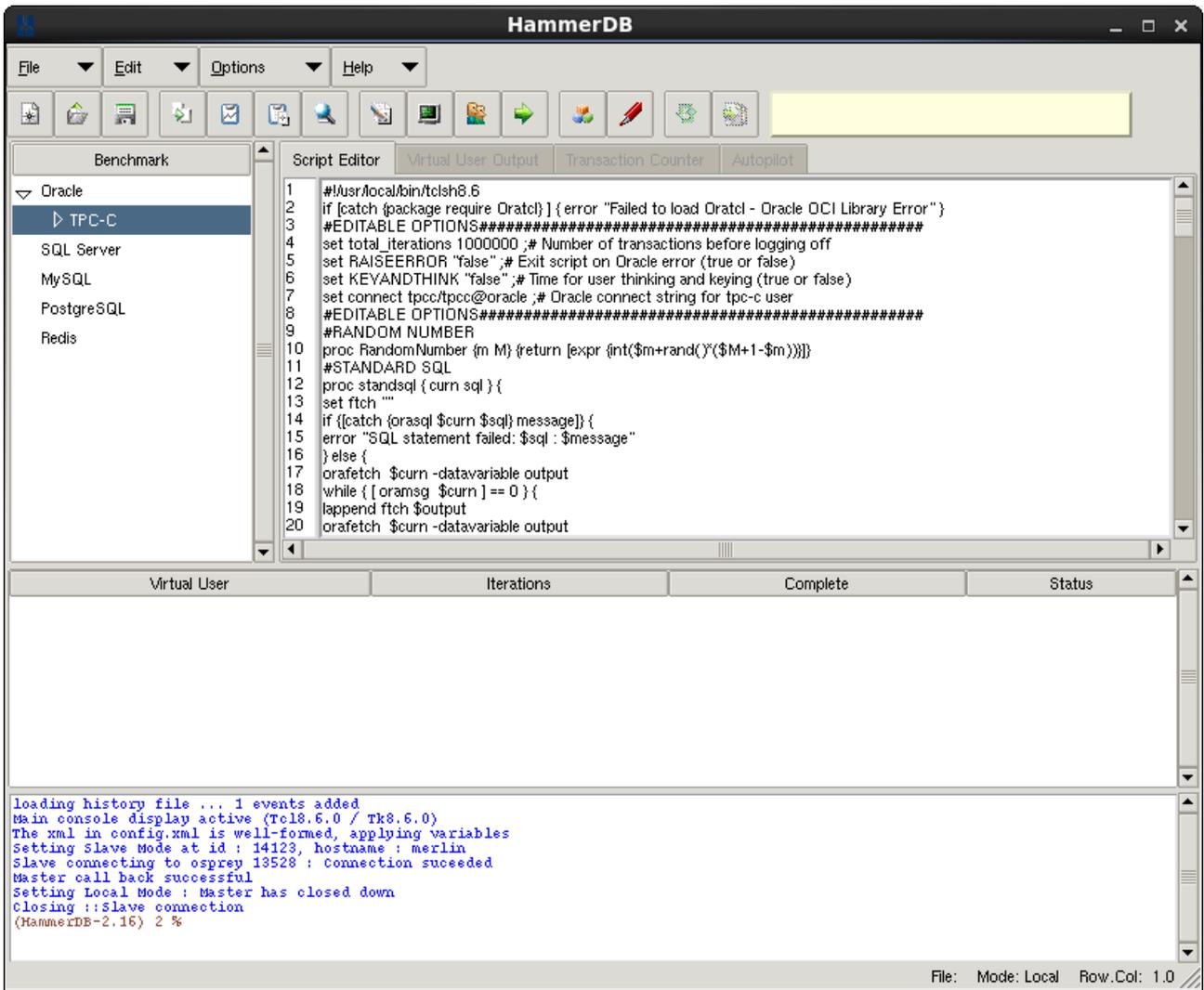
Figure 12 Master Closed Down

Support and Questions

For help use the HammerDB Sourceforge forum available at the HammerDB sourceforge project.