NexusDB Embedded AWE Setup

The new AWE DLL functionality allows any Embedded application compiled with NexusDB v3.11.1 or later to use all available memory on the machine for database caching (adjustable by the TnxServerEngine MaxRam setting), just by adding a DLL to your setup.

The AWE functionality is licensed on a per machine basis. The license is enforced by the supplied nxmman.dll file. The DLL will create a machinekey file unique to the machine the Embedded application is running on; the machinekey is then sent to NexusDB, and a licensekey file is sent back to unlock the license.

A license key can be requested for any Embedded application. If no customer info is provided, the license key will be a one-time 30 day trial key.

The short "todo" list:

- Ensure account privilege is created
- Ensure DLL is present in exe directory
- Start Embedded application to create machinekey
- Email machinekey file, receive licensekey file back
- Restart Embedded application, AWE enabled

The Details:

In order to use AWE, there is a special windows account privilege that needs to be turned on for the windows user account that the Embedded application is running under.

Go to Control Panel | Administrative Tools | Local Security Policy | Local policies | User Right Assignment. On the right-hand side, you'll have a list of policies; find the one named "Lock pages in memory". Doubleclick it, and add the user account that Embedded application is running under. Reboot the machine. Now, manually setting the Server Engine setting "Max RAM" to a value like "Total Machine RAM" - 2048 (the setting is in MB; eg your machine has 16GB RAM, so calculate 16384 - 2048) should use all the assigned RAM for database caching if you have large enough data tables. As default (Max Ram = -1) 4GB will be left for OS and other processes. This means that even on a 8GB machine, an AWE enabled server will have 4GB cache, as opposed to only 1.5GB when run without AWE.

Place the nxmman.dll file in the same directory as your Embedded application, then (re) start it. This will cause the Embedded application to write a nxmm.machinekey file to the system drive.

To provide user feedback to find this file and check the DLL status, call the TnxServerEngine. GetStatsCaptions()/GetStatsValues() methods, and display the "License Key Status" value (the following image shows how this info looks in the nxServer web configuration statistics page), also, the "AWE Edition" value will return "Yes, Active" to indicate that AWE is in use.

. To programmatically locate the folder, use this code:

```
nxGetCSIDLShellFolder(CSIDL_COMMON_APPDATA) + 'nxmm\'
```

Server Engine Statistics

Statistics Name	Value
License Key Status	C:\ProgramData\nxmm\nxmm.licensekey does not exist
Uptime	0.00:00:19
Sessions	0
Databases	0
Transaction Contexts	0

In order to receive the licensekey file, you should email the nxmm.machinekey file as an attachment to awelicenserequest@nexusdb.com (click link to open your default email application). The email subject should be "AWE". If you are requesting a trial license, leave the email body empty.

If you have purchased a license, enter your customer ID (not extended ID) on the first line of the email body, and enter the name of the company that will be using the Embedded application as the second line of the email body. No blank lines please.

Please allow for at least 15 minutes after sending the email for processing and returning, and check spam folders if no return email should appear.

After the nxmm.licensekey file has been successfully returned to your email, place that file into the same directory as the nxmm.machinekey file, and (re)start the Embedded application. The company name and other registration data will be available for display programmatically by the "License Key Status" value mentioned previously.

If any problems or questions arise, please email support@nexusdb.com.