The $BALOCK Utility

1. Introduction

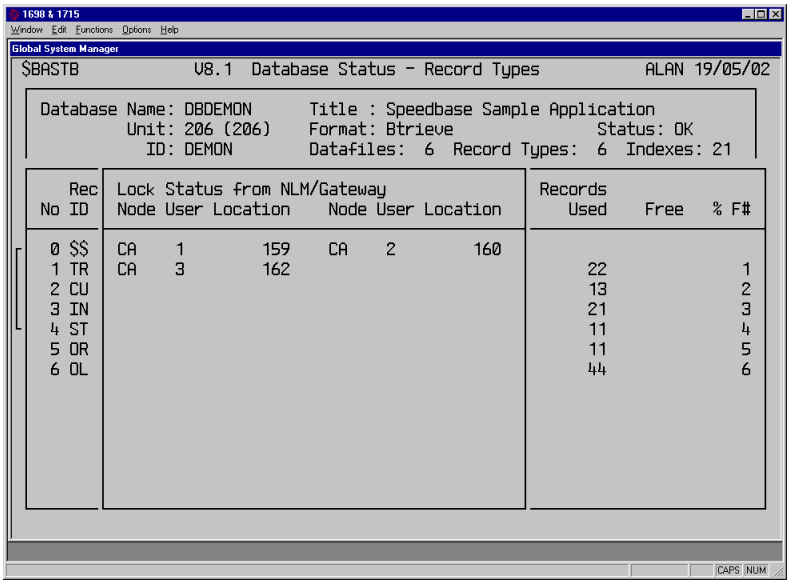
The implementation of Speedbase on Pervasive SQL and SQL-2000 (formerly known as Btrieve) and Microsoft SQL version 7 and SQL-2000 includes a restriction that is not present in the Speedbase Global (native) database implementation. Whereas the $STATUS "LOC" function can be used to return details of all the outstanding locks on a Global format Speedbase database, $STATUS cannot be used to list the outstanding locks on PSQL format or MSQL format Speedbase databases.

This document describes the various methods that are now available to obtain detailed lock information from the Speedbase Gateway, culminating in the release of the $BALOCK utility (see section 4).

For clarity, throughout the rest of this document Pervasive SQL and Pervasive SQL-2000 will be referred to as "PQSL"; and Microsoft SQL version 7 and SQL-2000 will be referred to as "MSQL".

2. $BAST Lock Information Pop-Up

A new feature of $BAST introduced with GSM V8.1j and V1.60 versions of the Speedbase Gateway/NLM allows all the locks on a particular record set in a particular PSQL or MSQL format Speedbase database to be displayed. This feature is enabled by keying <F1> in the Record Type display window when the required record type is selected. For example:



Although this $BAST option is very useful to track locks on a particular database/record-set combination it is inconvenient to use when a system-wide lock report is required.

3. The Speedbase Gateway Lock Dump File

The V2.01s, and later, versions of the Speedbase Gateway and NLM include a new feature to write a "Lock Snapshot" to a text-file SPEEDBAS.LCK. Note that V2.01s is an "internal only" version of the Gateway/NLM and first external Gateway/NLM release to include this new feature is V2.04.

The Lock Snapshot option is only enabled in the Speedbase Gateway if the following registry setting is set to "On" etc.:

..\Global\Speedbase\EnableLockSnapshot

The Lock Snapshot option is only enabled in the Speedbase NLM if the "Enable Lock Snapshot" Parameter in the parameters Menu is enabled or the /K=1 command line option is specified.

The SPEEDBAS.LCK file is created the same directory as the more familiar SPEEDBAS.LOG file. The default directory for both SPEEDBAS.LCK and SPEEDBAS.LOG can be overridden by the following registry option:

..\Global\Speedbase\SpeedbaseLogFileFolder

The SPEEDBAS.LCK text file can be inspected using any Windows text editor (e.g. Notepad, WordPad etc.)

A "Lock Snapshot" will be executed by the Gateway/NLM, **creating** a new SPEEDBAS.LCK file, every time <F1> is keyed on a record line in $BAST (see section 2) or every time the $BALOCK utility is used (see section 4).

4. The $BALOCK Utility

The $BALOCK utility builds upon the new Gateway functionality described in section 3. This 32-bit utility allows the SPEEDBAS.LCK (see above) that is created on the Speedbase Server to be inspected or emailed from a user running on a GX thin-client.

$BALOCK will only operate on a GX thin-client and will produce the standard error message if an attempt is made to run $BALOCK on GSMWIN32.EXE or the "GUI" console of GLOBAL.EXE:

This utility can only be used with the Global Application Explorer

In addition to the "..\Global\Speedbase\EnableLockSnapshot=On" registry setting described in section 3 on the Speedbase Server (i.e. the server that is running SPEEDBAS.EXE) a number of registry settings must be enabled on the Global host (i.e. the server that is running GLOBAL.EXE). For most thin-client configurations these servers will be one and the same. The mandatory registry settings are:

..\Global\Client\Debug\EmailToAddress
..\Global\Client\Debug\SpeedbaseLockLogFileName

The self-explanatory "EmailToAddress" setting is described in section 3 of global33.doc.

The SpeedbaseLockLogFileName should be the full pathname of the SPEEDBAS.LCK file on the server that is running the Speedbase Gateway.

For example, if the Speedbase Gateway and the Global Client are running on the same server (from directory C:\GSM) and the SpeedbaseLogFileFolder is not used then the "SpeedbaseLockLogFileName" setting should be set to:

C:\GSM\SPEEDBAS.LCK

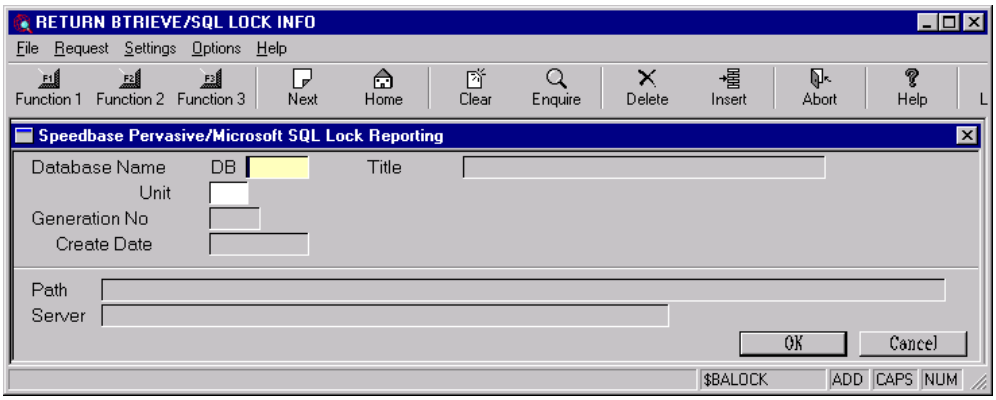
If the Speedbase Gateway and the Global Client are running on the same server (from directory C:\GSM) and the SpeedbaseLogFileFolder is set to "E:\LOG" then the "SpeedbaseLockLogFileName" setting should be set to:

E:\LOG\SPEEDBAS.LCK

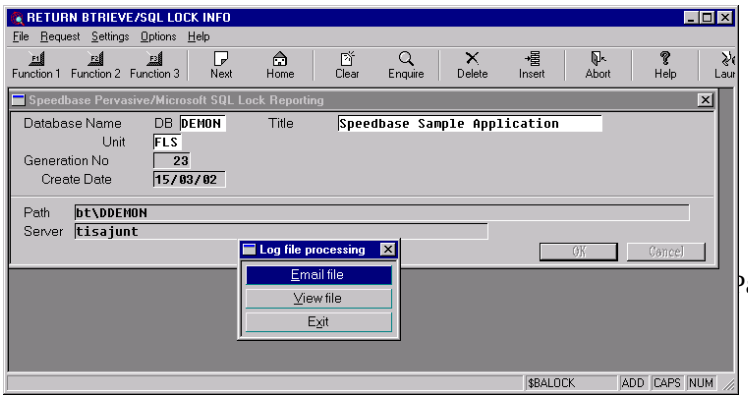
If the Speedbase Gateway and the Global Client are running on **different** servers then the SpeedbaseLogFileFolder must be set to a shareable directory (e.g. "LOGSHARE") on the Gateway server (e.g. "SERVER1") that can be accessed from the Global Server. In this case the "SpeedbaseLockLogFileName" setting should be set to:

\\SERVER1\LOGSHARE\SPEEDBAS.LCK

$BALOCK commences by displaying the following window:

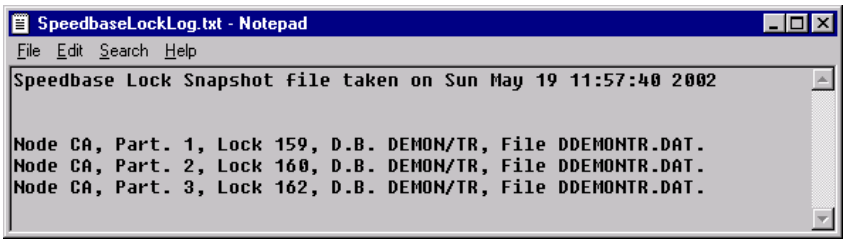


You must specify the schema file name and unit of any PSQL or MSQL format Speedbase database on the target server.
$BALOCK connects to Speedbase Gateway on the target server, displays brief details of



the specified database and calls the Gateway to generate the Lock Snapshot file. The Lock Snapshot file is copied from the Gateway Server to a temporary directory on the GX thin-client PC.

The Log File Processing pop-menu is displayed allowing you to inspect the Lock Snapshot file or to email to the recipient specified by the EmailToAddress registry setting. A typical Lock Snapshot file will appear as:



Any error encountered with the email interface will appear as a message, with a unique error code, within a dialogue box. If a problem with the email interface does occur please quote the full error message when reporting the incident to the Hotline.