Moving Microsoft SQL Speedbase Databases

1.   Introduction

This document has been written after testing with Microsoft SQL Server v7 and v2000 on Microsoft NT4 Server and Windows 2000 Server respectively.

The process will work when the source and destination databases are on the same version of Microsoft SQL Server or when going from v7 to v2000. It fails with cryptic errors when going from v2000 to v7. There may be other tools for going backwards.

Another point to watch out for is that the Microsoft SQL Enterprise Manager is set up to use the "sa" (System Administrator) login to SQL on both the Source and Destination Machine. This should normally be the case but if not you may need (there may be other methods) to change it by running "Edit SQL Server Registration Properties" in "Enterprise Manager" once you have dropped down to the Server Name level under SQL Server Group. If this "sa" login is not set up then SQL may display a message about not being allowed to do restores when you attempt them.

1.1 Summary of Files

First a summary of what files are involved in a Speedbase Microsoft SQL database is required to have a chance of understanding this document. A Speedbase Database in Microsoft SQL Format consists of 5 files and some information contained in the SQL Master Database:

1.   The Speedbase Dictionary File, DI*nnnnn*, stored in the Global file system.

2.   The Speedbase Schema file, DB*nnnnn*, stored on the same Global unit as above.

3.   The Speedbase BDCF file, this is stored in a Microsoft Directory and is pointed to by the Server Name and Directory path stored in the Schema file above. The BDCF file contains all the information that the Speedbase Microsoft SQL Gateway needs to access the database.

4.   The *dddd*.mdf SQL file this is the Main Data File for the Microsoft SQL database whose location was originally specified by the registry setting, MDFFileFolder, in the Speedbase section of the registry (see IN274); the *dddd* is the Database Name originally specified by the GLOBAL utility $BADS or $BS32. This information is also stored in the SQL Master Database at the time the database is created.

5.   The *dddd*.ldf SQL file which is the Log Data File for the Microsoft SQL database whose location was originally specified by the registry setting, LogFileFolder, in the Speedbase section of the registry (see IN274). This information is also stored in the SQL Master Database.

6.   Various information about the Database stored in the SQL Master Database. This appears to include some sort of capability to ensure you cannot substitute files 4 and 5 above with new copies.

2.   Preparing to move the Database.

On the Source machine you need to take copies of two things.

1.   The Speedbase Dictionary.

2.   A Microsoft SQL Backup of the Database.

First copy the Speedbase Dictionary to a $BBS file or a floppy so you can move it.

Backup the SQL Database using Microsoft SQL Enterprise Manager by:

a.   Double clicking on "Microsoft SQL Servers".

b.   Double clicking on "SQL Server Group".

c.   Double clicking on the Server Name containing the Database.

d.   Double clicking on "Databases".

e.   Single clicking on the Database you are interested in, this is the same name as provided in the original $BADS or $BS32 run to the "Database Name" prompt.

f.   On the "Tools" menu drop down to "Backup Database".

g.   This should bring up a window "SQL Server Backup - 'the database name you selected'".

h.   Make sure "Database Complete" is selected.

i.   Remove anything in the "Backup To:" sub window.

j.   Click ADD.

k.   Browse to the Directory you want to put the backup in and add a file name then OK.

l.   Then OK again and the Backup should proceed to write the file you specified in k.

If the above doesn't complete OK you will need a Microsoft SQL Database Administrator to assist.

Make a copy of this file on whatever interchange medium you want to use to transfer the file to the Destination machine.

3.   Restoring the Database.

On the Destination machine use $BADS or $BS32 to Create a new Empty Microsoft SQL Database from the Speedbase Dictionary you copied above. This will ensure that the Schema and BDCF Files are properly set up for the Destination machine. Make sure you use the same "Database Name" at the $BADS (or $BS32) prompt as you are planing to use in the restore process below.

Use Microsoft Enterprise Manager to Delete the SQL Database. This is done by going down to the Database level as described above in the Backup process then clicking on the Database, then dropping the "Action" menu down to "Delete". This process gets rid of all the entries relating to the Database in the SQL Master database and also the .mdf and .ldf files.

Use Microsoft SQL Enterprise Manager to Restore the database from the backup file that you have transferred to the destination machine:-

a.   Drop down to the "Databases" section in the tree as per the backup process.

b.   Select "Restore Database" from the "Tools" menu.

c.   Type the Database Name into the "Restore as Database" entry.

d.   Select "From Device".

e.   Click "Select Devices".

f.   Delete any existing entries in the Device Name Sub-Window.

g.   Select Add.

h.   Browse to the Directory you placed the backup file and Select it and Click OK.

i.   Click OK again.

j.   Click OK again.

k.   Select "Options".

l.   This should show a Window with the "Logical file Names" and the locations they were on at the time of the backup.

m.   Edit the locations to where you want them on the destination machine then click OK.

n.   Microsoft SQL should now restore the Database. Click OK and exit from Enterprise Manager.

If there are any problems in the above process you will need to consult your Microsoft SQL Database Administrator. You should now be able to access the Speedbase Database on the destination machine.