



MaintScape Upgrade Instructions (Build 132)

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Please follow these Instructions Carefully

Please read and follow these upgrade instructions **CAREFULLY**. The most complex part of this process is upgrading the database, although it will not appear so complex once you have done it the first time. GrandRavine Software can perform this task for you if necessary. The chance of failure or data loss is high if you do not follow **EXACTLY** the prescribed process. These instructions are constantly being revised based on customer experiences, and are also designed to protect your data.

You must be familiar with basic computer principles in order to successfully perform the upgrade process – for example, file directory structures, copying files, etc. You do not have to be a ‘Computer Person’, however if available, we do recommend delegating this task to one.

Introduction to the Upgrade Process

MaintScape is a client/server computer system. Therefore one component of MaintScape is installed on a server computer and a separate component is installed on one or more end-user client computers.

MaintScape may run in either a network or stand-alone configuration. In stand-alone configuration, the client and server components run on the same physical computer. MaintScape will then only run on that one computer.

The server component and the client component on each MaintScape client computer must be upgraded when upgrading your MaintScape software. One or more ‘database update scripts’ are run on your production database to upgrade the server component. Your production database is then rebuilt to ensure optimum performance and guarantee integrity. To upgrade the client component, you must run an installation program on each computer that should run MaintScape. The installation program will first un-install the existing version of MaintScape if one is found.

A MaintScape release is identified by its *Build Number*. Select menu item Help/About within MaintScape to see what build number you are running. MaintScape ensures that client and server components are of the same build number. If not, MaintScape will not run.

Use the Correct Instructions Document Version

Please be sure to use the version of this document that matches the version (Build number) of MaintScape that you are upgrading to. If in doubt, the correct version is available as document “install.doc” in the “Document” folder of your MaintScape CD-ROM.

Your MaintScape ‘upgrade package’

The CD ROM in your package contain the full MaintScape product - just like the installation set you received for your first version of MaintScape. This means the upgrade software is not a ‘patch’ and can be used to install MaintScape on client computers for the first time.

Upgrading the Server Component

Introduction to upgrading the Server Component

The Server Component of MaintScape consists of:

- A licensed copy of the SQL Anywhere relational database engine by Sybase Inc.
- MaintScape database file, “maintscp.db”.
- MaintScape database transaction log file, “maintscp.log”.

You will upgrade the MaintScape server component by running one or more database upgrade scripts supplied by GrandRavine Software against your database. Each script must be run in sequence, and will upgrade your database up one ‘build level’. This step should ideally be carried out by technical personnel, especially if MaintScape is running in a network configuration.

If you received your MaintScape upgrade before creating production data with a prior version, you can bypass the *Upgrading the Server Component* step. Instead, delete or move (safer) your “maintscp.db” AND “maintscp.log” files, then install a new “maintscp.db” file by running “setup initial database.exe” from the MaintScape CD-ROM. See appendix A if you are not sure where to find the database files.

IMPORTANT DATABASE BACKUP NOTICE:

DO NOT assume your normal backup procedures will backup MaintScape database files. Be sure to read the *MaintScape Database Backup and Recovery* document, “dbsafety.doc”, included in the “Document” folder of your MaintScape CD-ROM.

IMPORTANT WARRANTY AND SUPPORT NOTICE:

In order to preserve your warranty, your ability to upgrade to new MaintScape versions, and the terms of your support agreement:

- Data in the MaintScape database may only be created, updated or deleted using MaintScape interfaces provided by GrandRavine Software.
- The internal structure of your MaintScape database may only be modified using upgrade programs and scripts provided by GrandRavine Software.

Procedure for upgrading the Server Component:

1. Perform this step only if you run MaintScape with Multi-Site functionality enabled. Multi-Site is an optional module. This step most likely does not apply to you if you or the MaintScape users are not aware of this module. If this step applies to you and you do not perform it, the subsequent step to upgrade a copy of your database file will produce an error.

You will need to disable multi-site functionality. To do this, first log in as user “dba” (‘sql’ is the default password, but may have been changed). Click on MaintScape main menu icon "System Administration", then select action "Multi Site". If the resulting window says multi-site is enabled, then click the lightning bolt button and select action "Disable Multi-Site". This action may be time consuming, during which time your only visual cue will be an hourglass cursor.

2. Ensure no end users are running MaintScape.

When MaintScape runs in Network Configuration:

To determine whether end users are running MaintScape: Run MaintScape and log on as the system administration user “dba” (‘sql’ is the default password, but may have been changed). Click on main menu icon, “System Administration”, then select action “Active MaintScape Users”. No other users are using MaintScape if you only see your connection listed.

3. Shut down the SQL Anywhere database engine.

When MaintScape runs in Network Configuration:

Terminate the Database Engine. If you are running the engine as a Windows Service, then ensure the Service is stopped (see appendix B).

When MaintScape runs in Stand-alone Configuration:

Ensure the SQL Anywhere icon is not on your task bar or system tray. If it is, right-click on the icon and select ‘close’.

4. Decide which computer you will use to upgrade your database file.

Choose the option below which best matches your situation.

- If you are running MaintScape in stand-alone configuration, then you will upgrade your database on the computer which runs MaintScape.

- If you are running MaintScape in network configuration with SQL Anywhere on a Microsoft Windows server, then you may either:
 - Upgrade your database on the SQL Anywhere server computer (this is simplest).
 - Install the Sybase SQL Anywhere stand-alone database engine on a separate computer, and then use this computer to upgrade your database.
- If you are running MaintScape in network configuration with SQL Anywhere on a non-Microsoft Windows server (e.g. Novell Netware, UNIX), then you must install the Sybase SQL Anywhere stand-alone database engine on a separate computer, and use this computer to upgrade your database.

If you decide to install a SQL Anywhere stand-alone database engine for the purpose of upgrading, consult the MaintScape installation instructions document, “install.doc”, included in the “Document” folder of your MaintScape CD-ROM. In particular, refer to section ‘Install Sybase SQL Anywhere Database Software’ for your version of SQL Anywhere. Be sure to use the same SQL Anywhere version as you are running in production, and also to un-install the Sybase software after upgrading to comply with your license agreement.

5. Copy your production MaintScape database files

You will make two copies of your MaintScape database files (“maintscp.db” and “maintscp.log”) and place the copies into separate directories. See appendix A if you are not sure where to find these files. Contact MaintScape technical support if you are not sure how to copy these files.

Copy 1 This is your ‘safety backup copy’ which you can revert to in case of any problems. For example, copy to directory ‘c:\maintscp\db\backup’.

Copy 2 This is your ‘upgrade copy’ to which you will apply upgrades. The remainder of this document refers to this directory as your *upgrade directory*. For example, copy to directory ‘c:\maintscp\db\upgrade’ (this directory is referred to in the following steps).

THIS ‘COPY FILES’ STEP IS VERY IMPORTANT: YOU WILL BE APPLYING STRUCTURAL CHANGES TO YOUR DATABASE. YOU MUST BE ABLE TO REVERT SHOULD ANY PROBLEMS ARISE.

5. Copy all files from the “Database” folder of your MaintScape upgrade CD-ROM into the *upgrade directory* - e.g. ‘c:\maintscp\db\upgrade’. You will use these files when carrying out the steps below.
6. Connect to your MaintScape database using the Sybase SQL Anywhere ‘Interactive SQL’ utility (ISQL).

A command file is provided to simplify this task. Go to a command prompt and set the current directory to the *upgrade directory*. E.g.

```
cd c:\maintscp\db\upgrade
```

Issue a command similar to the following - please refer to the parameter descriptions below to ensure values are appropriate for you. You can also get detailed documentation by running the command with no parameter values:

```
msisql 11 maintscp sql
```

Parameters:

- | | |
|----------|--|
| 11 | Identifies the SQL Anywhere version that you are using. Supported values are: 11, 9. If uncertain, run the command with no parameters to see which versions are installed. |
| maintscp | Name of the MaintScape database file to upgrade (important – omit the ‘.db’ file extension). Value specified is almost always ‘maintscp’. |
| sql | Password for the system administration user ‘dba’ (‘sql’ is the default password, but may have been changed). You must connect as user dba to perform the upgrades. |

At this point the ISQL program window should be display. The middle ‘statistics’ sub-window should display the message: ‘Connected to database.’.

7. Test your database connection:

If all has gone well up to this point, type the following into the ISQL 'command' sub-window:

```
select mntscp_bld_no from maintscape;
```

Press the 'Execute' button. The top ISQL 'Data' sub-window should show you the build number for your MaintScape database.

8. Apply the database upgrades.

You will run one database upgrade script for every build level you are upgrading. For example, if you are upgrading from Build 98 to Build 104, you will run upgrade scripts 'bld_099.sql', 'bld_100.sql' through 'bld_104.sql' IN THE CORRECT ORDER. Each script brings you up to the build level for which it is named.

The 'bld_nnn.sql' files were copied into your *upgrade directory* from the MaintScape CD-ROM "Database" directory. You may find that you are missing some required files. This may happen if GrandRavine Software shipped you an upgrade in the past which you did not install. In this case, the ZIP file "bld_n - active.zip" should have any such file you need.

Do not worry about breaking anything - you have backed up your database in step 4. Also, you will be warned if you try to run the upgrade scripts in an incorrect order - be sure not to click 'continue' after you get a warning message.

To run database upgrade script 'bld_099.sql', type the following into the ISQL 'command' sub-window, then press 'execute':

```
read bld_099.sql
```

The upgrade script may take a long time to run. Actual time required depends on the type of database upgrades applied by the script, the volume of data in your database, and the speed of your computer.

Please disregard any error messages in the ISQL 'statistics window' of the form, "there is already a variable named ...".

Contact MaintScape technical support if any other errors arise during this process, especially errors displayed within a pop-up window. **Do not** click 'continue' in the error window. Proper operation of MaintScape **ABSOLUTELY REQUIRES** that no errors occur in the upgrade process, apart from those indicated as acceptable above.

9. Ensure your database is upgraded to the proper Build level.

Once you have run all the database upgrade scripts, you may re-run the following ISQL command to ensure that the database is up to your upgrade build level

```
select mntscp_bld_no from maintscape;
```

If this check succeeds, you may terminate ISQL.

10. Rebuild your database.

Rebuilding your database ensures optimal performance, and more importantly, ensures your database integrity is completely intact.

Rebuilding your database involves unloading all data and structure information, creating an 'empty' database, and then reloading the data and structure. GrandRavine Software provides a command file which makes this process very simple. The supplied command file **must** be used rather than the default Sybase tools - otherwise security and other definitions will be lost.

Rebuild your database using the following steps:

- Go to a command prompt and set the current directory is the *upgrade directory*. The command prompt may still be available from a prior step. If not, be sure to set current directory:

```
cd c:\maintscp\db\upgrade
```

- Issue a command similar to the following. Please refer to the parameter descriptions below to ensure values are appropriate for you. You can also get detailed documentation by running the command with no parameter values:

```
msrbld2 11 maintscp sql 2000
```

Parameters are as follows:

- | | |
|----------|---|
| 9, or 11 | Version of SQL Anywhere you are using. If uncertain, run the command with no parameters to see which versions are installed. |
| maintscp | Name of the MaintScape database file to rebuild (important - no '.db' file extension). Value specified is almost always 'maintscp'. |
| sql | Password for the system administration user 'dba' ('sql' is the default password, but may have been changed). You must connect as user dba to perform the rebuild. |
| 2000 | Optional number of 'empty pages' to incorporate into the rebuilt database. Empty pages allow the database to dynamically grow more efficiently. Disk space is automatically allocated when the database must grow and there are no available empty pages. However this space may not be contiguous with the rest of the database, leading to database fragmentation and reduction in performance. |

If the rebuild is successful, your new "maintscp.db" database file is created into a **sub-directory** of your *upgrade directory* named 'rebuild'. E.g. the file is "c:\maintscp\db\upgrade\rebuild\maintscp.db".

11. Are you upgrading to a newer version of SQL Anywhere as well as upgrading to a newer version of MaintScape? If so, please perform steps outlined in appendix D before continuing to the next step.
12. Replace your current production "maintscp.db" file (which you initially copied in step 4) with the upgraded and rebuilt "maintscp.db" file created into the "rebuild" sub-directory by the rebuild step above.

Delete the transaction log file, "maintscp.log", that is in the production database directory. A new file will be created when the SQL Anywhere server opens your database.

If there is no "maintscp.log" file in the production database directory, you most likely followed the *MaintScape Database Backup and Recovery* documentation ("dbsafety.doc") instructions to move it to another disk volume. If so, you should perform the process outlined in that document again since rebuilding your database reset the database's expectation of the transaction log file location back to default (same directory as the database).

GrandRavine Software encourages separating the database and transaction log files onto separate disk volumes. Please refer to the *MaintScape Database Backup and Recovery* documentation ("dbsafety.doc") for reasons and instructions.

13. *When MaintScape runs in Network Configuration:*

Restart the SQL Anywhere database engine using your usual command (see appendix B if database engine runs as a Windows service). The newly upgraded and rebuilt database file will be used.

If you upgraded to a newer version of SQL Anywhere, you must use a different database engine startup command. For instructions on configuring the new SQL Anywhere version to run your upgraded database, consult the MaintScape installation instructions document, "install.doc", included in the "Document" folder of your MaintScape CD-ROM. In particular, refer to section "Configure Sybase SQL Anywhere Database Software" for your version of SQL Anywhere.

Upgrading the Client Component

Introduction to upgrading the Client Component

You must install the new client component of MaintScape on any computer that should run MaintScape. There will be only one such computer if you are upgrading MaintScape running in stand-alone configuration.

The MaintScape client installation program will first ask you to un-install the currently installed version if one is found. A few files are not un-installed from the prior version. In particular, your prior "maintscp_user.ini" file which records your preferences is preserved.

The MaintScape client installation program sent with a MaintScape upgrade can be used to install MaintScape on a computer that has never run MaintScape before.

If you are installing the MaintScape client component onto computers without a CD-ROM or onto many computers, you may find it more convenient to copy the entire MaintScape CD-ROM into a network directory and then run "setup.exe" from the network directory from each computer.

Procedure for upgrading the Client Component:

1. Install the new MaintScape client component on every computer that should run MaintScape by running SETUP.EXE from the MaintScape CD-ROM (or directory containing the MaintScape CD-ROM image). As mentioned above, the installation program will first ask you to un-install the currently installed version if one is found.

Please see the "MaintScape Installation Instructions" document, section "Installing the Client Program", for detailed documentation on the installation program and its options. You will find this document in the "Documents" folder of your MaintScape CD-ROM

Be sure to configure the computer running MaintScapeBatch to again run MaintScapeBatch after the upgrade. Alternatively, you may want to take advantage of MaintScapeBatch if upgrading from a version of MaintScape that did not offer MaintScapeBatch. MaintScapeBatch is described in the "MaintScape Installation Instructions" document.

2. Perform this step only if you run MaintScape with Multi-Site functionality enabled. This step will apply if you disabled Multi-Site functionality at the start of the Upgrading the Server Component step.

You will need to re-enable multi-site functionality. To do this, first log in as user "dba" ('sql' is the default password, but may have been changed). Click on MaintScape main menu icon "System Administration", then select action "Multi Site". If the resulting window says multi-site is disabled, then click the lightning bolt button and select action "Enable Multi-Site". This action may be time consuming, during which time your only visual cue will be an hourglass cursor.

Upgrade Process Complete

Please log to MaintScape in as system administration user 'dba' as soon as possible to review important MaintScape notices which may now be pending. If there are pending MaintScape notices, they will be presented to you automatically upon logging on. These notices are only displayed when logging on as 'dba' - if they are relevant to other users, you will have to communicate to them separately. Set the 'Suppress' radio button for each message if you do not want to see these messages again.

Appendices

Appendix A) Where is my production MaintScape Database File?

When MaintScape runs in Network Configuration:

The file location is easily identified within the command you use to start the Sybase SQL Anywhere database server. Consult the MaintScape installation instructions document, “install.doc”, included in the “Document” folder of your MaintScape CD-ROM. In particular, refer to documentation section, “Configure Sybase SQL Anywhere Database Software” for your version of SQL Anywhere.

When MaintScape runs in Stand-Alone Configuration:

Run ‘ODBC Administrator’ by double-clicking ‘ODBC Data Sources’ within the ‘Administrative Tools’ folder of Control Panel. If you cannot find this entry, click the ‘Start’ button, select ‘Run...’, then type “odbcad32.exe” (no quotes), then click ‘OK’.

Find the Data Source named ‘MaintScape’ on either the ‘User DSN’ or ‘System DSN’ tab page. When found, highlight it by clicking on it, then click ‘Configure...’. Switch to the ‘Database’ tab page. Your database file location is specified by the ‘Database file’ field.

Appendix B) Starting/Stopping or modifying the SQL Anywhere Windows Service

This appendix applies when the SQL Anywhere server running the MaintScape database is set up as a service on a Windows server which support services. To see how this was done, consult the MaintScape installation instructions document, “install.doc”, included in the “Document” folder of your MaintScape CD-ROM. In particular, refer to section ‘Configure Sybase SQL Anywhere Database Software’ for your version of SQL Anywhere

SQL Anywhere 11

- Run ‘Sybase Central’ by clicking the ‘Start’ button, then selecting menu item ‘Programs’ / ‘SQL Anywhere 11’ / ‘Sybase Central’.
- Double-click plug-in “SQL Anywhere 11” in the right pane of Sybase Central.
- Click on the “Services” tab in the right pane of Sybase Central.
- You should now see the SQL Anywhere service for the MaintScape database listed in the right pane of Sybase Central. Its current Started/Stopped status is displayed as well. To change status or modify the service properties, right-click on the service name and select an appropriate action from the pop-up menu.

SQL Anywhere 9

- Run ‘Sybase Central’ by clicking the ‘Start’ button, then selecting menu item ‘Programs’ / ‘SQL Anywhere 9’ / ‘Sybase Central’.
- Select tree node “Adaptive Server Anywhere 9” in the left pane of Sybase Central.
- Click on the “Services” tab in the right pane of Sybase Central.
- You should now see the SQL Anywhere service for the MaintScape database listed in the right pane of Sybase Central. Its current Started/Stopped status is displayed as well. To change status or modify the service properties, right-click on the service name and select an appropriate action from the pop-up menu.

Appendix C) MaintScape Evaluation Software

GrandRavine Software no longer ships an ‘evaluation copy’ of MaintScape with the MaintScape product. You may, however, still find it useful to have a non-production database to explore new features without ‘polluting’ your production database with bad data. If so, you can create an environment where separate MaintScape icons launch MaintScape to run against different databases. One of these databases would be your production database, the other a copy of this database, or a database available from GrandRavine Software with sample data.

Appendices F and H of the MaintScape installation instructions document, “install.doc”, provide all the information you need to do this when you are running MaintScape in network configuration. “Install.doc” is included in the “Document” folder of your MaintScape CD-ROM. Contact GrandRavine Software if you need help, or if you need instructions when running MaintScape in stand-alone configuration.

Appendix D) Upgrading your Database to a newer version of SQL Anywhere

Upgrading your database to a newer version of SQL Anywhere is best done in conjunction with upgrading MaintScape. The *Upgrading the Server Component* instructions, above, indicate when this step should be taken.

These instructions are not sufficient if you are upgrading from a SQL Anywhere version prior to 9. Please contact GrandRavine Software for assistance if this is the case – we can help you with the upgrade, or do it for you.

If you are upgrading your SQL Anywhere version as part of a MaintScape Upgrade:

You should have the following files in the following directories. Move the ‘upgraded and rebuilt database files’ to replace the ‘upgraded database files’.

Files	Description
c:\maintscp\db\upgrade\maintscp.db c:\maintscp\db\upgrade\maintscp.log	Upgraded* database files.
c:\maintscp\db\upgrade\rebuild\maintscp.db c:\maintscp\db\upgrade\rebuild\maintscp.log	Upgraded* and rebuilt database files.

* ‘upgraded’ refers to ‘MaintScape version upgraded’ not ‘Sybase version upgraded’

If you are upgrading your SQL Anywhere version NOT as part of a MaintScape Upgrade:

Rebuild your database file using your current SQL Anywhere database version. This process is described within the MaintScape upgrade instructions, above.

The rest of these instructions assume that a rebuilt database to upgrade to a new SQL Anywhere version is in directory ‘c:\maintscp\db\upgrade’. They also assume all files from the “Database” folder of your MaintScape upgrade CD-ROM are copied into this directory.

Procedure:

1. Install the new SQL Anywhere software.

When running in network configuration: Install the newer version of SQL Anywhere on your server computer. When running in stand-alone configuration: Install the newer version of SQL Anywhere on your MaintScape computer.

Consult the MaintScape installation instructions document, “install.doc”, included in the “Document” folder of your MaintScape CD-ROM. In particular, refer to documentation section ‘Install Sybase SQL Anywhere Database Software’ for your version of SQL Anywhere.

Multiple versions of SQL Anywhere may be installed on the same computer without interfering with each-other.

If you are running MaintScape in network configuration with SQL Anywhere on a non-Microsoft Windows server (e.g. Novell Network, UNIX), then you must install the new version Sybase SQL Anywhere stand-alone database engine on a separate computer, and use this computer to upgrade your database.

2. Delete *upgrade directory* subdirectories “rebuild” and “unload” if they exist. The “rebuild” directory should NOT have a “maintscp.db” file in it. If it does, you most likely did not carry forward this file in a previous step.
3. Go to a command prompt and set the current directory to the *upgrade directory*. The command prompt may still be available from a prior step. If not, be sure to set current directory:

```
cd c:\maintscp\db\upgrade
```

4. Issue a command similar to the following - please refer to the parameter descriptions below to ensure values are appropriate for you. You can also get detailed documentation by running the command with no parameter values:

```
msupgr 9 11 maintscp sql 2000 4096
```

Parameters:

9	Version of SQL Anywhere you are upgrading from . Supported values are: 9. If uncertain, run the command with no parameters to see which versions are installed.
11	Version of SQL Anywhere you are upgrading to . Supported values are: 11, 9. If uncertain, run the command with no parameters to see which versions are installed.
maintscp	Name of the MaintScape database file to rebuild (important - no '.db' file extension). Value specified is almost always 'maintscp'.
sql	Password for the system administration user 'dba' ('sql' is the default password, but may have been changed). You must connect as user dba to perform the upgrade.
2000	Optional number of 'empty pages' to incorporate into the rebuilt database. Empty pages allow the database to dynamically grow more efficiently. Disk space is automatically allocated when the database must grow and there are no available empty pages. However this space may not be contiguous with the rest of the database, leading to database fragmentation and reduction in performance.
4096	Database 'page size' - 4096 is recommended for databases which may grow large.

If the rebuild is successful, your upgraded and rebuilt "maintscp.db" database file is created into a **sub-directory** of your *upgrade directory* named 'rebuild'. E.g. the file is "c:\maintscp\db\upgrade\rebuild\maintscp.db".

If you are upgrading your SQL Anywhere version as part of a MaintScape Upgrade:

Continue with the *Upgrading the Server Component* instructions, above, at the point where you left off.

If you are upgrading your SQL Anywhere version NOT as part of a MaintScape Upgrade:

Perform the *Upgrading the Server Component* instructions immediately following the step, "Are you upgrading to a newer version of SQL Anywhere...".

You must then uninstall MaintScape from all client computers and re-install from your current MaintScape CD specifying the new SQL Anywhere version when prompted.

If you are upgrading from SQL Anywhere 5.5

Sybase client software was required by MaintScape to connect to the SQL Anywhere 5.5 database engine. Sybase client software is no longer required once you are running MaintScape against a later SQL Anywhere version. If you have upgraded from SQL Anywhere 5.5, and your upgrade is successful, you can un-install the Sybase 5.5 client software from MaintScape client computers using control panel, 'add/remove programs'.