4 Scala InfoChannel Content Manager 5 Backup and Restore Instructions

This document describes how to backup and restore Scala InfoChannel Content Manager 5. Databases currently supported are:

- PostgreSQL 8.1.x
- MySQL 4.1 or 5.0
- Microsoft SQL Server 2000
- Microsoft SQL Server 2005

Content Manager does not contain an automated backup/restore feature, so these instructions comprise a set of manual steps. These steps could be automated, but are beyond the scope of this document.

The backup process assumes that you have copied or archived the necessary files from the Content Manager system to another location. Likewise, the restore process relies on either copying or extracting the files from the backup location to the original location.

Scala does not make recommendations as to where your backup files should reside. However, it is assumed good backup principles are followed.

Backup Content Manager's data

Follow the five steps outlined below:

Step 1: Stopping Apache Tomcat and InfoChannel Transmission Server services

Since the backup process is not an integrated part of Content Manager, the Apache Tomcat and InfoChannel Transmission

Server services have to be stopped first.

Go to *Start -> Control Panel* then double-click on *Administrative Tools*. Double-click on *Services*, then find the *Apache Tomcat* service. Right-click and select *Stop*. Wait for the service to stop completely. Find the *Scala InfoChannel Transmission Server* service. Right-click and select *Stop*. Wait for the service to stop completely before moving to the next step.

Step 2: Backing up the data files

All data files must be backed up. By default, the location of this directory is:

C:\Documents and Settings\All Users\Application data\Scala\ InfoChannel Content Manager 5\Data

If your data location differs the one listed above, you can find the location in Content Manager under *Settings-> Server Settings -> System Paths* frame-> *Data root*.

You should backup all files, folders and subfolders from this directory *except* the folder ***WEB-INF***.

Step 3: Backing up the configuration files

The following configuration files must be backed up. By default, the location of this directory is:

C:\Documents and Settings\All Users\Application data\Scala\ InfoChannel Content Manager 5

You must backup these files and folders/subfolder within:

- *Conf* – All files and subfolders
- *License* – All files and subfolders
- *Logs* – Not necessary, but you might want to keep the log files

- *SavedValues* – All files and subfolders
- *license.xml* – The license file

Note: *The default location of the data files exists in the same location as the configuration files. So if you are using the InfoChannel Content Manager 5 installation default values, you can combine step 1 and step 2.*

You must also backup the configuration files for the InfoChannel Transmission Server. By default, the location of this directory is:

C:\Documents and Settings\All Users\Application data\Scala\ InfoChannel Transmission Server 5

All files and subfolders should be backed up.

Step 4: Backing up the database

Depending on the type of database server you are using, a different set of instructions are required in order to backup the InfoChannel Content Manager 5 database. You should only read and follow the instructions for the type of database you are using.

PostgreSQL

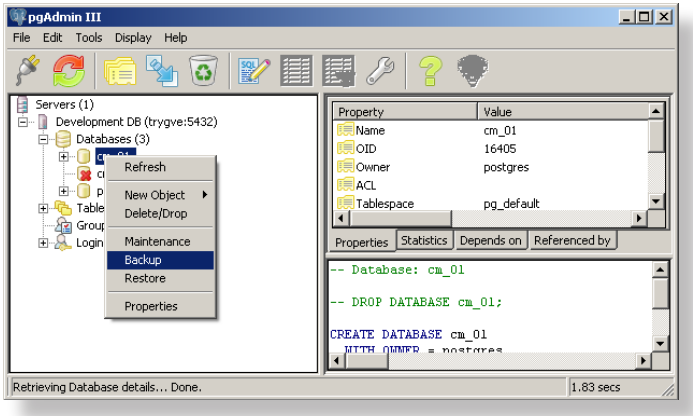
Backing up the PostgreSQL database is performed by either using the *pgAdmin* tool or the command line tool *pg_dump.exe*. A detailed explanation of the procedure using the *pgAdmin* tool follows as well as a short example of *pg_dump.exe* usage. The following steps illustrate the step-by-step process of performing a backup of a PostgreSQL database schema *cm_01*.

Note: *There is a significant performance increase in running pgAdmin from the same computer that the PostgreSQL database server is running on.*

1. Select database schema to backup

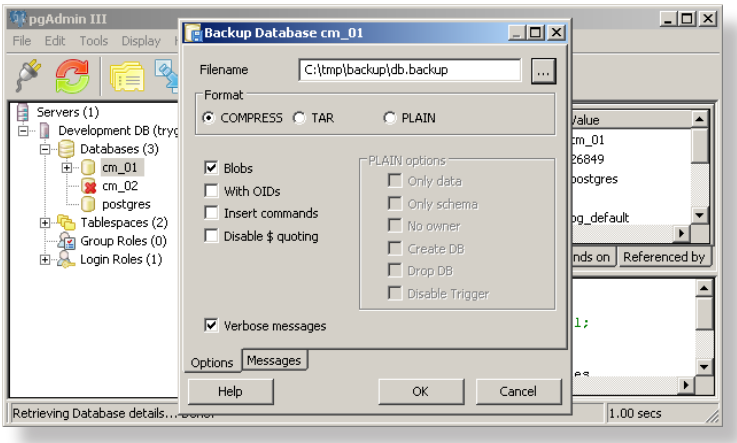
   Open pgAdmin by navigating to *Start -> Programs -> PostgresSQL 8.1 -> pgAdmin*. Connect to your database server using the same Username and Password you entered when you installed InfoChannel Content Manager 5. Select

the database schema you want to backup, then right-click and select *Backup*.



2. Set the backup options

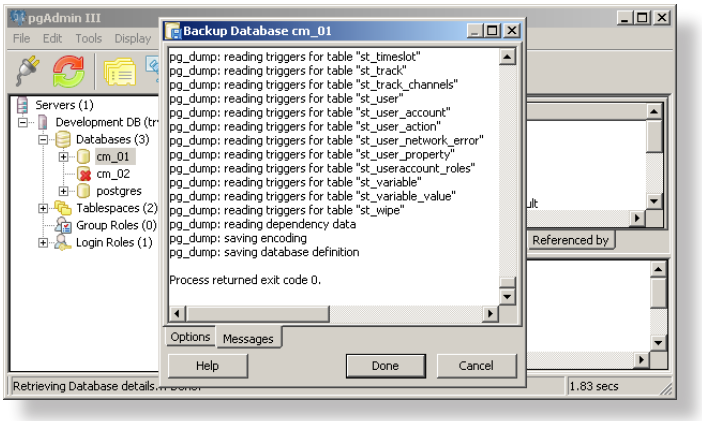
   In the *backup* dialog, choose a path and filename for the backup file, and press *OK* to start the backup.



3. Verify the result

   Wait for the backup process to finish, and verify that the final message is *Process returned exit code 0*. If the exit code is

different, this means that the backup was not successful.



Using command line

You may choose to use the command line tool *pg_dump.exe* to backup the database. To create the same backup as shown above, execute the following command:

pg_dump --format=custom --compress=5 -U postgres -W cm_01 > C:\tmp\backup\db.backup

Please refer to the PostgreSQL manual for more details when using the command line tools.

MySQL

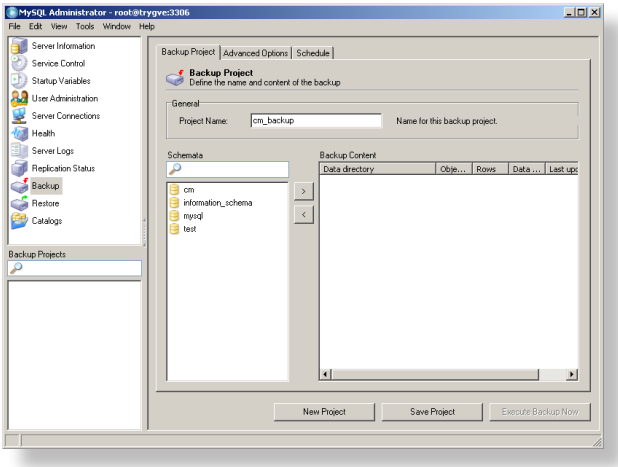
A backup of the MySQL database can be done either through the MySQL Administrator interface or using the command line tool *mysqldump.exe*. Detailed instructions on how to use MySQL Administrator are provided here, as well as a short example of *mysqldump.exe* usage.

Note: *A backup created using MySQL Administrator cannot be restored using mysqldump and visa-versa.*

The following steps illustrate the step-by-step process of performing a backup of a MySQL database schema *cm*.

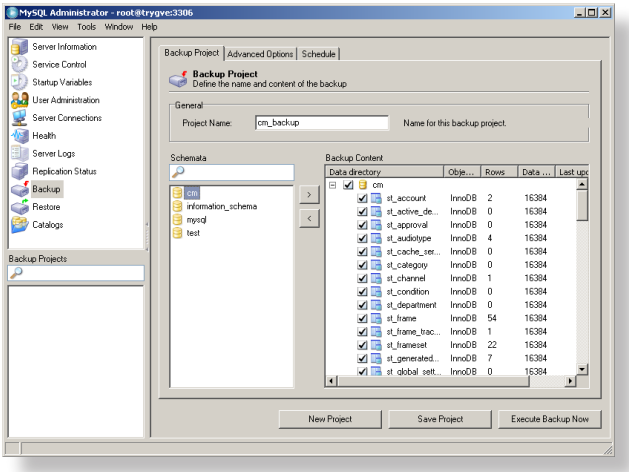
1. Create the backup project

Connect to your MySQL database server and select *Backup* from the left menu. Then click *New Project*, and give the project a name.



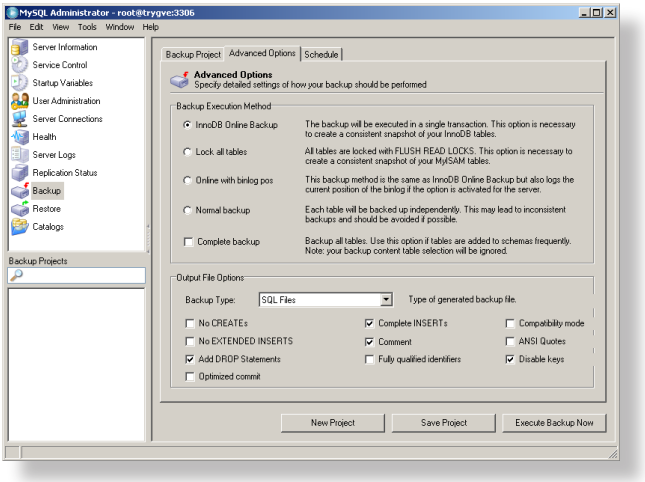
2. Select the database schema

   Select the cm database schema, and click the > button to select the contents of the schema. All tables should be selected.



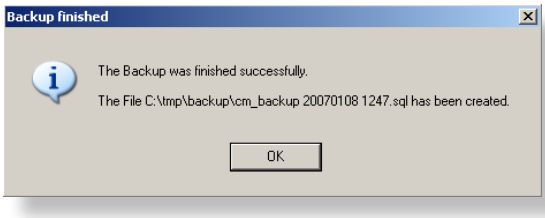
3. Check the options and execute backup

   The *Backup Execution Method* must be set to ***InnoDB Online Backup***. Scala recommends that the other options remain unchanged.



4. Execute the backup and verify the results

   Click the *Execute Backup Now* button, and verify that the backup completed successfully:



Using command line

You may choose to use the command line tool *mysqldump.exe* to backup the database. To create the same backup as shown above, execute the following command:

```
mysqldump -u root -p cm > C:\tmp\backup\cm_backup.sql
```

Please refer to the MySQL manual for more details for the command-line tools.

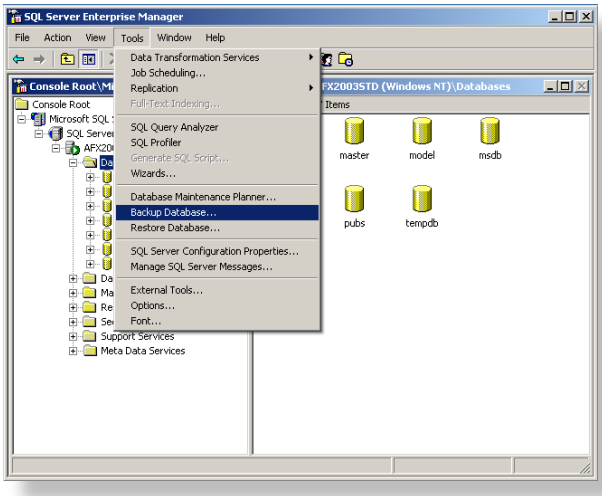
Microsoft SQL Server 2000

A backup of the Microsoft SQL Server 2000 can be performed using the Microsoft SQL Server Enterprise Manager. There are many different types of backup tools available for Microsoft SQL Server 2000. However, this guide only demonstrates how to create a single complete backup. If your networked database uses Microsoft SQL Server 2000, you are likely to use a more sophisticated (incremental) backup policy. Please consult the Microsoft SQL Server 2000 documentation or your database administrator for more information.

The following steps illustrate the step-by-step process of performing a backup of a Microsoft SQL Server 2000 database schema *cm*.

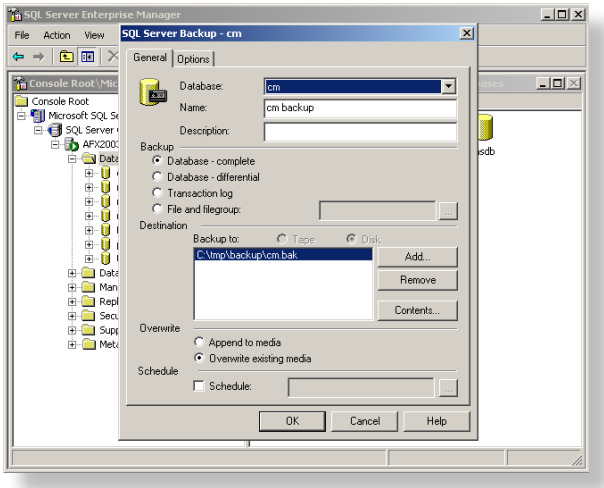
1. Create the backup project

   Connect to your database server using the Microsoft SQL Server Enterprise Manager, and start the *Backup Database* wizard.



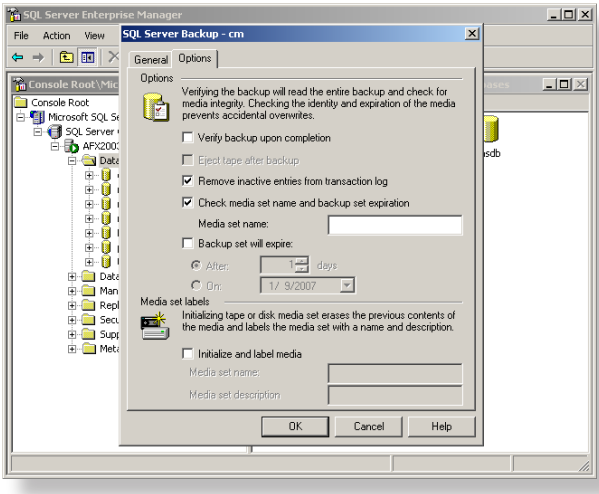
2. Select the database and the backup destination

   Select the database you want to backup, and add at least one destination for the backup. Set the *Overwrite* option to *Overwrite existing media*, if you don't want to keep previous backups. Also make sure the *Backup* option is set to *Database – complete* to ensure a complete backup is performed.



3. Check settings and execute backup

   Scala recommends that the default options remain unchanged. Execute the backup by pressing the *OK* button, and verify that the backup process completed successfully.



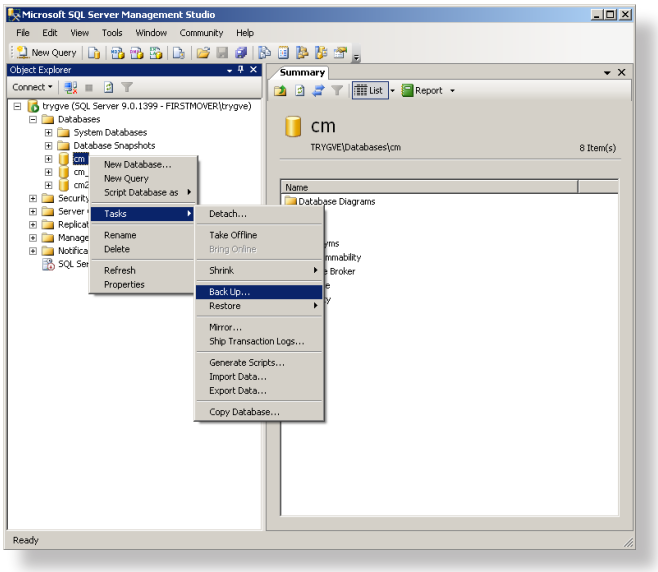
Microsoft SQL Server 2005

A backup of the Microsoft SQL Server 2005 can be performed using the Microsoft SQL Server Management Studio. There are many different types of backup tools available for Microsoft SQL Server 2005. However, this guide only demonstrates how to create a single complete backup. If your networked database uses Microsoft SQL Server 2005, you are likely to use a more sophisticated (incremental) backup policy. Please consult the Microsoft SQL Server 2005 documentation or your database administrator for more information.

The following steps illustrate the step-by-step process of performing a backup of a Microsoft SQL Server 2005 database schema *cm*.

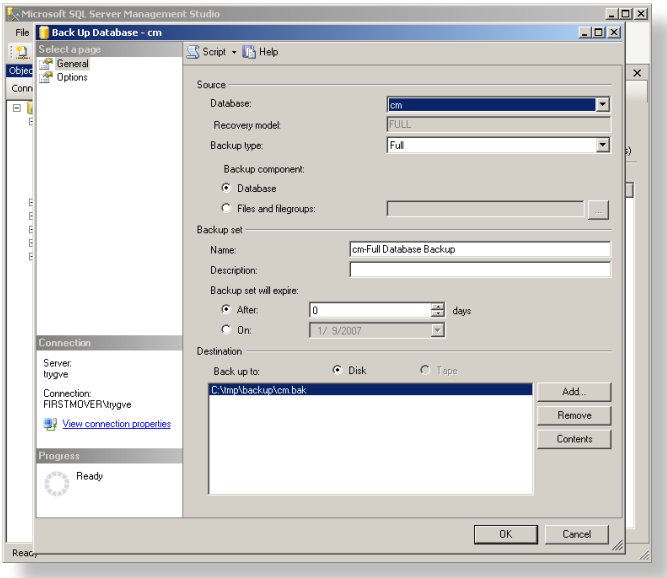
1. Select the database schema to backup

   Connect to your database server using Microsoft SQL Server Management Studio, and select the database you want to backup. Choose *Back Up* as shown below.



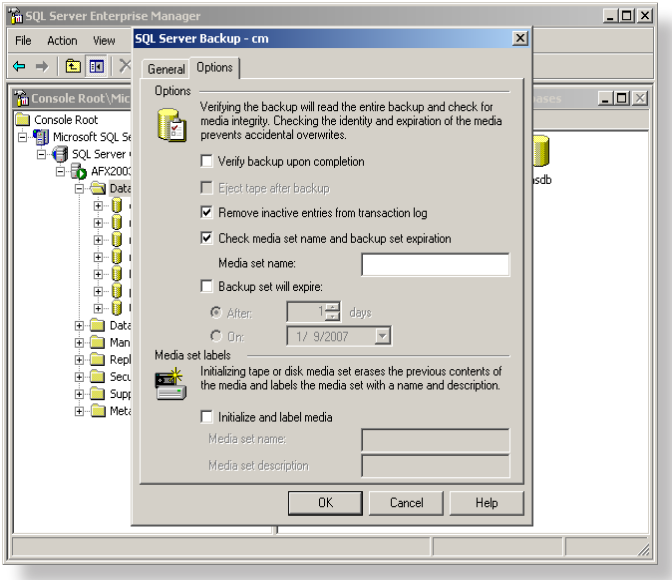
2. Select the backup destination

   Choose one or more destinations for the backup. Scala recommends that the other options remain unchanged.



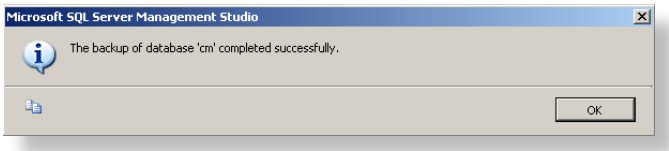
3. Check settings

   On the *Options* page, select *Overwrite all existing backup sets* if you want to overwrite old backups. Scala recommends that the other options remain unchanged.



4. Execute and Verify backup

   Press the *OK* button to start the backup. If the backup was successful you will see this message.



Step 5 – Start Apache Tomcat and InfoChannel Transmission Server services

The backup process is now complete. You can start Apache Tomcat and Scala InfoChannel Transmission Server services.

Go to *Start -> Control Panel* then double-click on *Administrative Tools*. Double-click on *Services*, then find the *Apache Tomcat* service. Right-click and select *Start*. Wait for the service to

start completely. Find the *Scala InfoChannel Transmission Server* service. Right-click and select *Start*. Wait for the service to start completely.

You can now access InfoChannel Content Manager 5.

Restoring Content Manager's data

By following the steps below, you can restore your InfoChannel Content Manager data 5 from a backup. There are many reasons for performing a restore. For example: you are recovering from a system crash (data loss) or reverting changes to the data.

Step 1: Perform a new install

If you're restoring to a system that already has InfoChannel Content Manager 5 installed, you must uninstall it first. Then you must delete its data and configuration files directories. You will also have to delete the configuration files directory for the InfoChannel Transmission Server.

Once completed, install the version of InfoChannel Content Manager that matches the one you have backup data for. At the end of the installation the installer will automatically open the welcome page in the browser for you. **DO NOT** configure Content Manager! Instead, close the browser.

Step 2: Stop Apache Tomcat and InfoChannel Transmission Server services

The installer automatically starts Apache Tomcat and the Scala InfoChannel Transmission Server services, so you must stop them before proceeding with the restore process.

Go to *Start -> Control Panel* then double-click on *Administrative Tools*. Double-click on *Services*, then find the *Apache Tomcat* service. Right-click and select *Stop*. Wait for the service to stop completely. Find the *Scala InfoChannel Transmission Server* service. Right-click and select *Stop*. Wait for the service to stop

completely before moving to the next step.

Step 3: Restore the data files

Restore the data files from the backup location to the data files directory. There should only be one folder, *WEB-INF,* in the data directory prior to restoring.

Step 4: Restore the configuration files

Restore the configuration files from the backup location to the configuration files directory. Some files are automatically created when Apache Tomcat was started by the installer, and must be overwritten when restoring.

You must also restore the Transmission Server configuration files. When restoring these files, existing files must be overwritten.

Step 5: Restore the database

Depending on the type of database server you are using, a different set of instructions are required in order to restore the InfoChannel Content Manager 5 database. You should only read and follow the instructions for the type of database you are using.

PostgreSQL

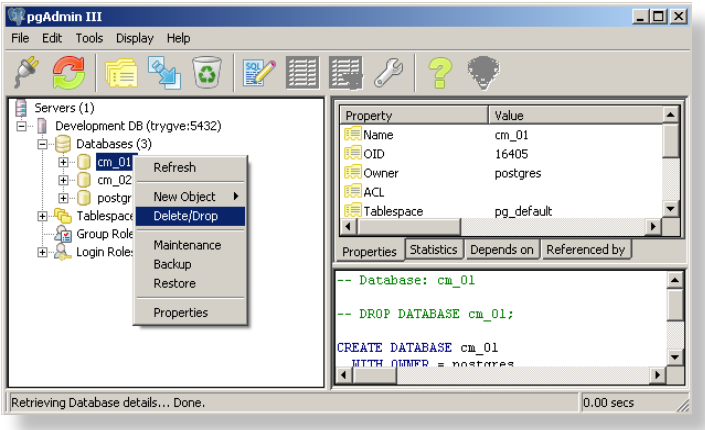
As with the backup process, pgAdmin is used to restore the database.

1. Delete existing database schema

   If the database schema you're restoring already exists, you must first delete it.

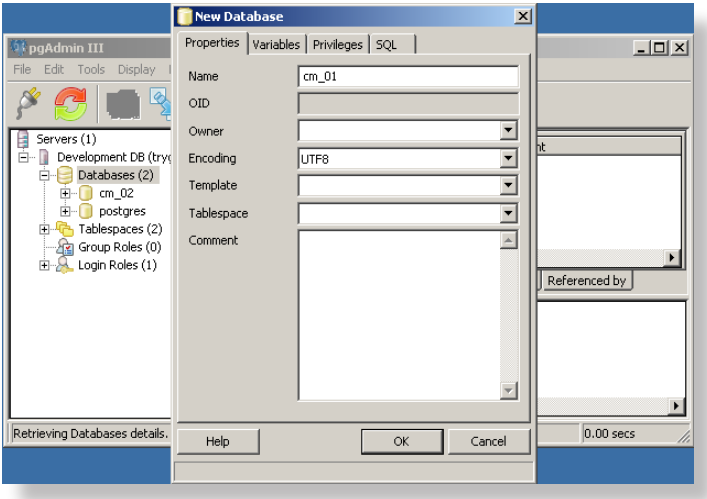
   Open pgAdmin by navigating to *Start -> Programs -> PostgresSQL 8.1 -> pgAdmin*. Connect to your database server using the same Username and Password you entered

when you installed InfoChannel Content Manager 5. Select the database schema you want to delete, then right-click and select *Delete/Drop*. In the *Drop Database?* dialog, click *Yes*.



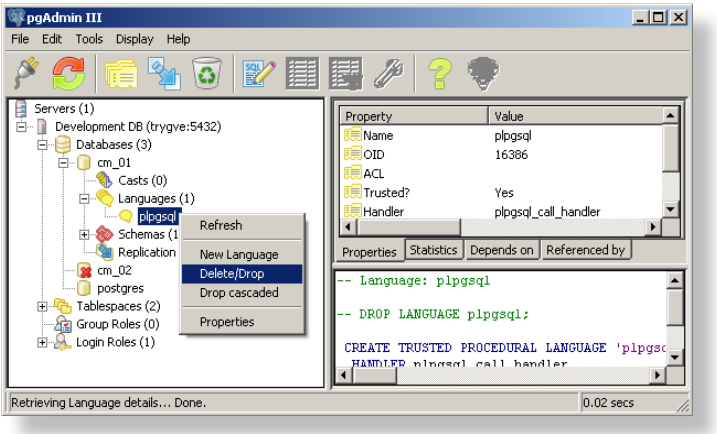
2. Create an empty database schema

   Select *Databases*, then click *Edit -> New Object -> New Database*. Type the database schema name you want to restore. Make sure the encoding is set to *UTF-8*. Click *OK*.



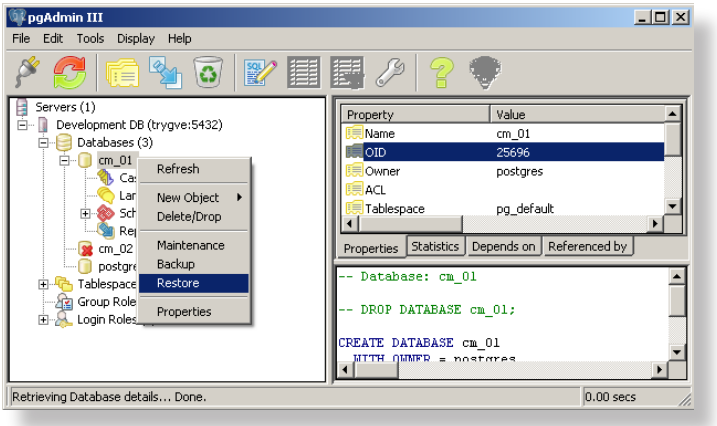
3. Delete the plpgsql language

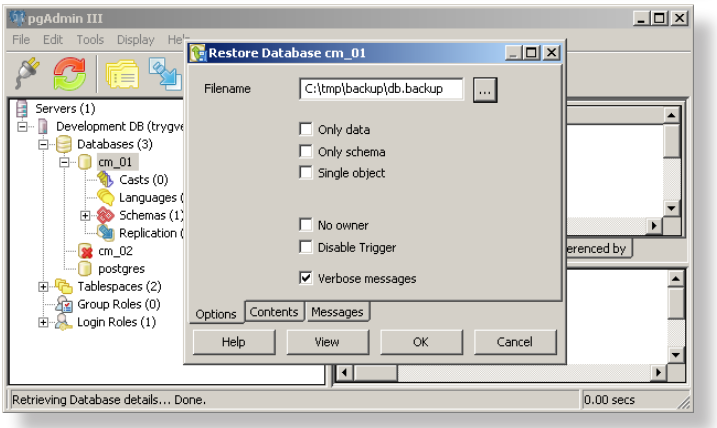
   The *plpgsql* language must be deleted. Select the database you just created, and expand it. Then expand the *Languages* entry. Select *plpgsql* then right click and select *Delete/Drop*. In the *Drop Language*? dialog, click *Yes*.



4. Restore the database tables and data

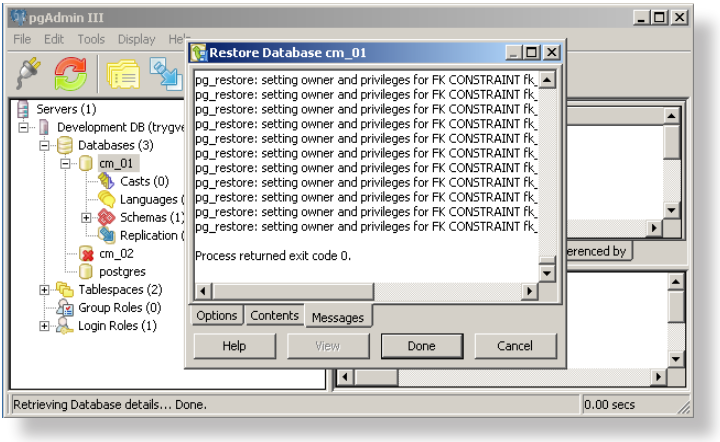
   You can now restore the tables and data. Select the database, right click, and choose *Restore*. In the resulting dialog box, choose the database backup file that was created. If you backed up the database using specific options, you must change the restore options accordingly. Otherwise the defaults are okay.





5. Verify the result

Wait for the restore process to finish, and verify that the final message is *Process returned exit code 0*. If a different exit code is shown, it indicates that some part of the restore process has failed.



Using command line

You may choose to use the command line tool *pg_restore.exe* to restore the database. To restore a backup, execute the following command:

```
pg_restore --dbname=cm_01 --format=custom -U postgres -W
C:\tmp\db.backup
```

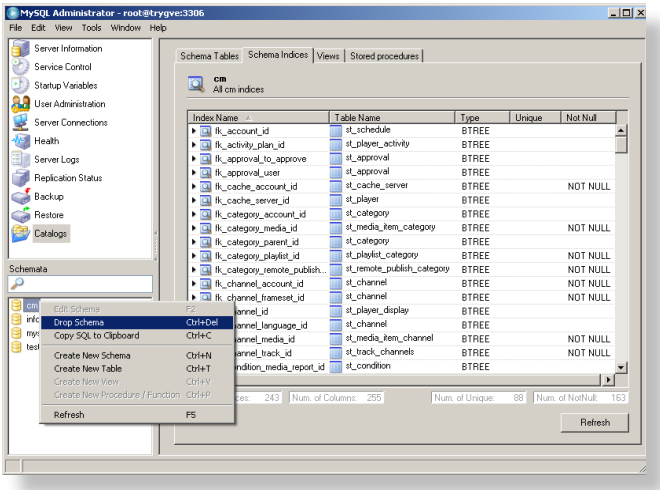
Please refer to the PostgreSQL manual for more details on the command line tools.

MySQL

If you are using the MySQL database, you must follow these steps to restore your backup. Like the backup process, restoring the database also uses MySQL Administrator.

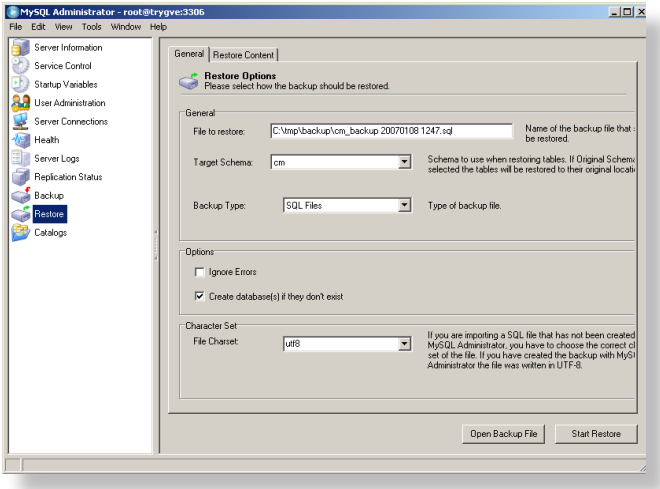
1. Drop existing schema

   If the schema you are restoring already exists, it must be dropped first.



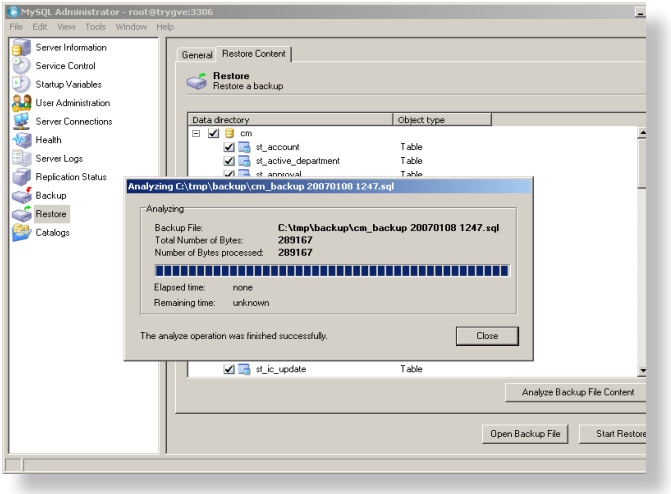
2. Open the backup file and select the schema

   Open the backup file you want to restore from by choosing *Restore* from the left menu, and clicking the *Open Backup File* button. Select the target schema or use the original schema, and check *Create database(s) if they don't exist*.



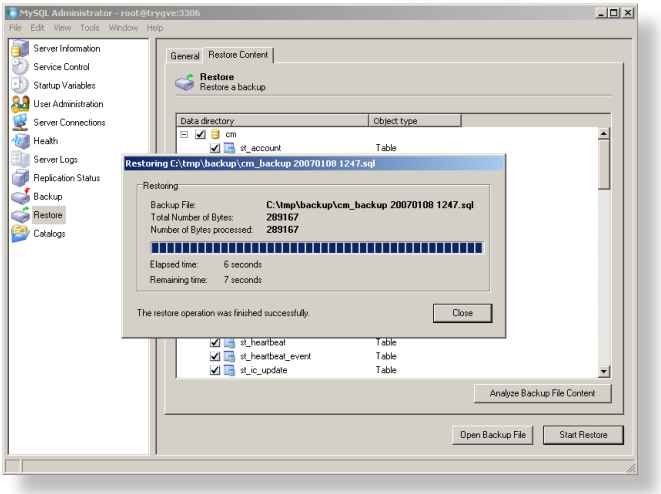
3. Select content to restore

   The backup file must be analyzed before its contents can be restored. Click the *Restore Content* tab, then *Analyze Backup File Content* button to perform this operation. Verify that the backup file was successfully analyzed. All tables should be selected for restore.



4. Start restore and verify result

   You are now ready to start the restore process. Click the *Start Restore* button to begin. When finished, verify that the restore completed successfully.



Using command line

You may choose to use the command line tool *mysql.exe* to restore the database. To restore a backup, execute the following command:

```
mysql -u root -p cm < C:\tmp\backup\cm_backup.sql
```

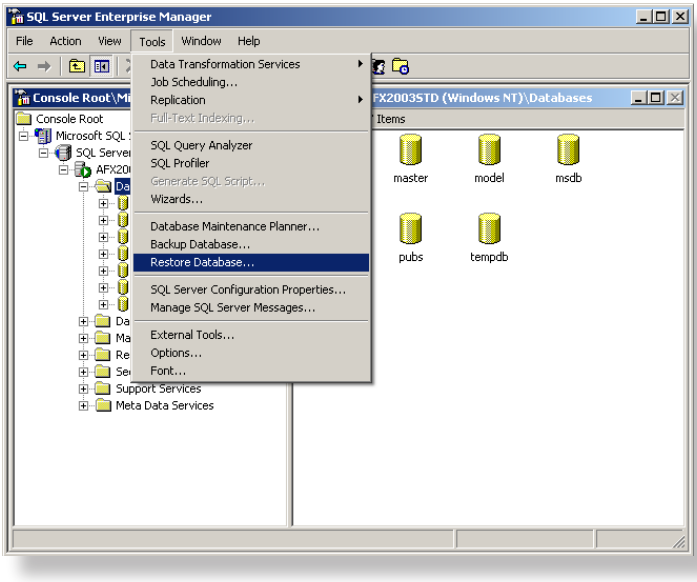
Please refer to the MySQL manual for more details on the command line tools.

Microsoft SQL Server 2000

If you are using the Microsoft SQL Server 2000 database, you must follow these steps to restore your backup. Like the backup process, restoring the database also uses Microsoft SQL Server Enterprise Manager.

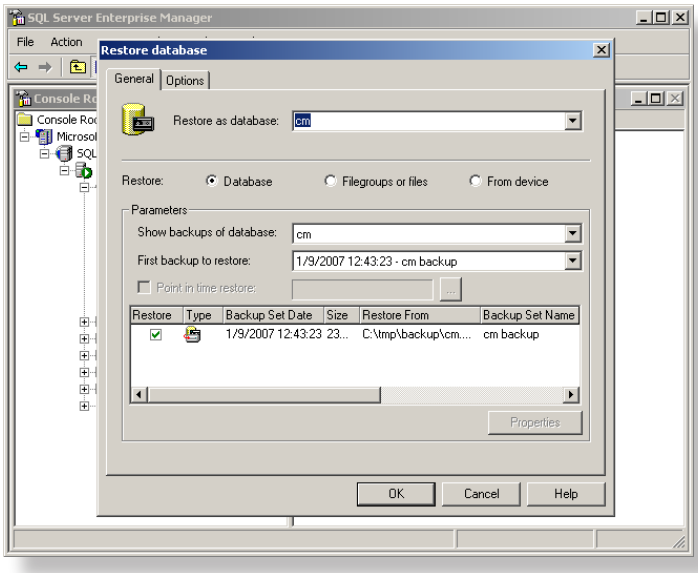
1. Start restore process

   Using Microsoft SQL Server Enterprise Manager, select the database you want to restore, and click *Tools -> Restore Database…*



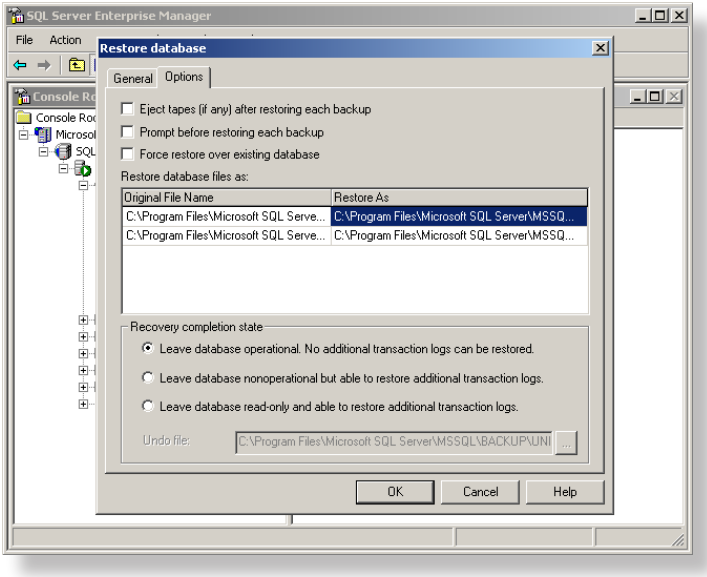
2. Select backup destination and source

   Select or type the name of the database you want to restore, then select the source to restore from.



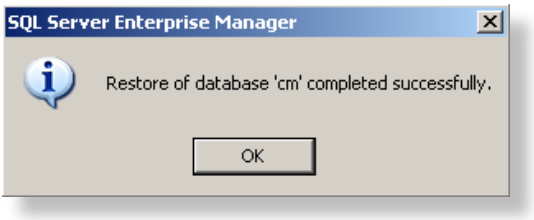
3. Check options and execute restore

   Click the *Options* tab. Scala recommends that the default options remain unchanged. Once chosen, click *OK*.



4. Verify results

   If the restore process is successful, you will see this dialog:

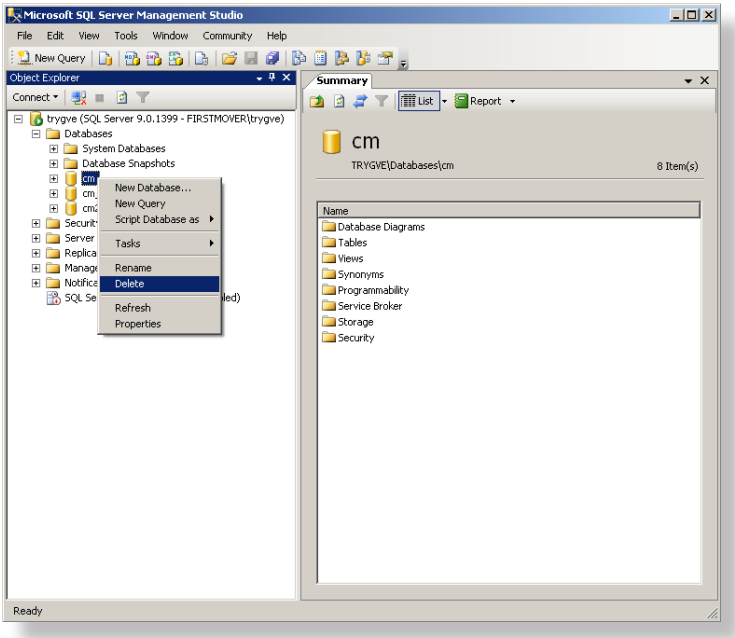


Microsoft SQL Server 2005

If you are using the Microsoft SQL Server 2005 database, you must follow these steps to restore your backup. Like the backup process, restoring the database also uses Microsoft SQL Server Management Studio.

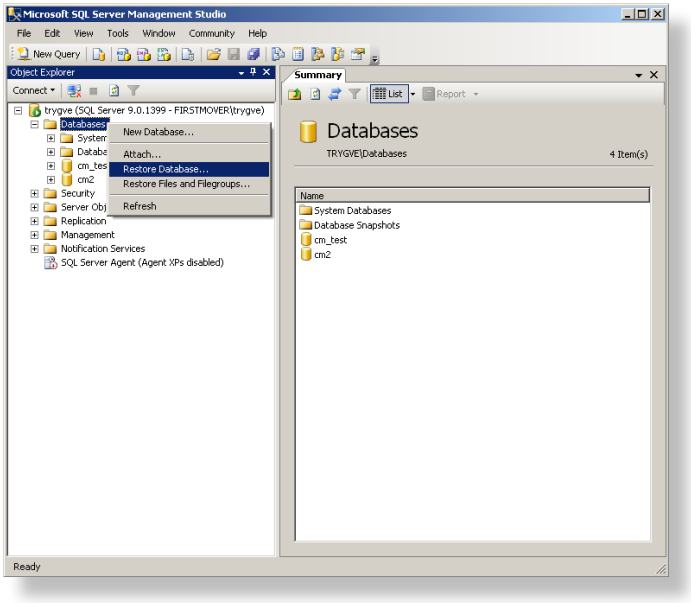
1. Step 1 – Delete existing database

   Using Microsoft SQL Server Management Studio, delete the existing database you want to restore to. **DO NOT** delete the backup and restore history information for the database.



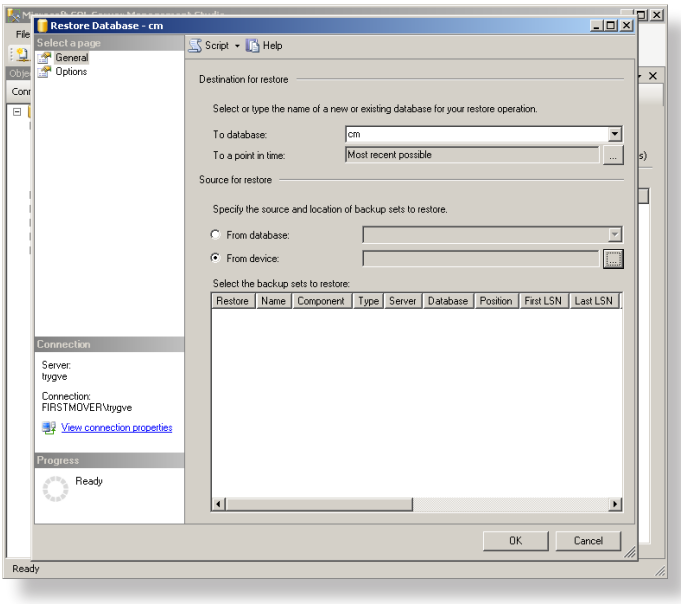
2. Start restore program

   Now start the restore process by right clicking the *Databases* element.



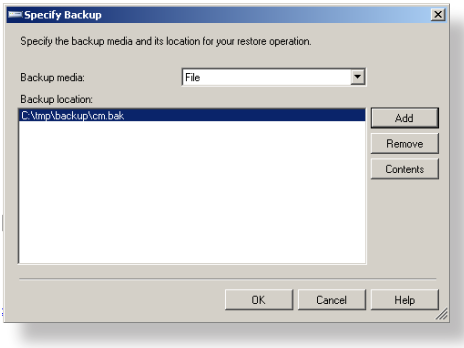
3. Select restore destination and source

   Type the name of the database you want to restore. Select the *From device* radio button and click the "..." button.

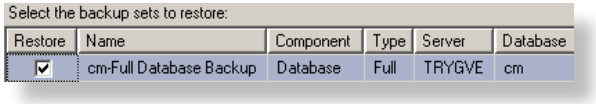


4. Add restore source

   Add the backup file you want to restore from to the list of backup locations, and click *OK*.

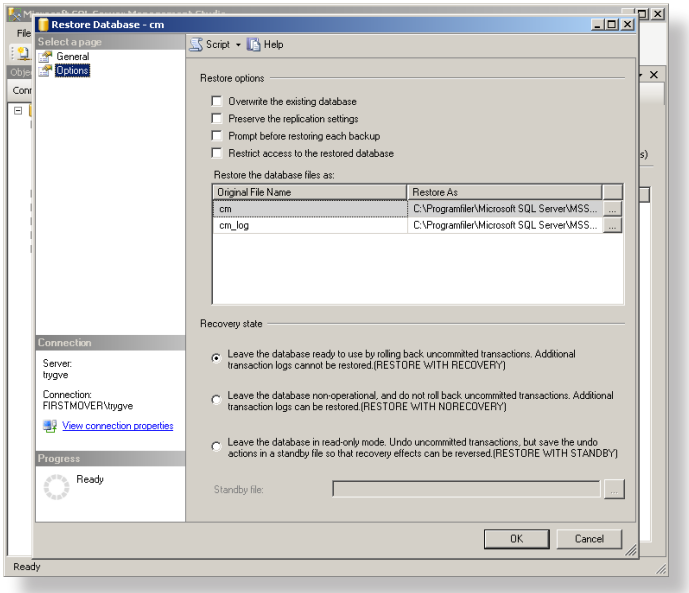


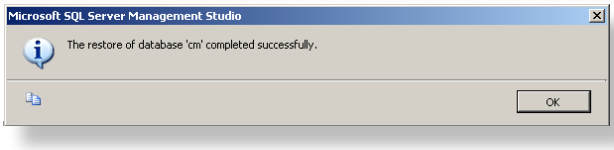
Make sure to select the *Restore* checkbox after adding the file:



5. Check options and execute restore

   Scala recommends that the default options remain unchanged. Click the *OK* button to start the restore process. Once complete, verify that the restore was successful.





Step 6: Start Apache Tomcat and InfoChannel Transmission Server services

The restore process is now complete. You can start Apache Tomcat and InfoChannel Transmission Server services.

Go to *Start -> Control Panel* then double-click on *Administrative Tools*. Double-click on *Services*, then find the *Apache Tomcat* service. Right-click and select *Start*. Wait for the service to start completely. Find the *Scala InfoChannel Transmission Server* service. Right-click and select *Start*. Wait for the service to start completely.

You can now access InfoChannel Content Manager 5.