

Dream Housekeeping

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1. Backups and Exports

1.1. Exports

Exporting a Dream database using the SQSDBA, Export Database menu item is not the same as backing up the database. What this process does is to export the contents of some, but not all, of the database tables. It does not back up views, stored procedures or bespoke data tables.

It is possible to configure a Database Export to miss out certain tables (in addition to the system tables that it already misses out). This is achieved by setting up a 'skip list' of tables to miss out when copying the data. However, there is no notification that a skip list has been used, or the tables that have been missed.

The Export is useful when copying data from one database format to another (e.g. Oracle to SQL Server).

1.2. Backups

Your database Server should be configured to backup your databases on at least a nightly basis. Setting up the backup routine is a job for a suitably qualified database administrator, but the key Dream users should also have an understanding of the processes that are in place.

It is possible to, for instance, set up a full backup overnight with intermediate backups taken throughout the day. It is questionable, though, as to how useful these intermediate backups may be. Dream does not carry out any process in one hit – even posting one Document is broken down into many different steps. If the intermediate backup takes place half-way through a posting, restoring from that backup will cause problems. It would be far worse if the backup happened half-way through posting a playlist or processing a year-end.

1.3. Transaction Logs

We have found that in a number of cases the backup processes that have been put in place by the database administrator have not truncated the transaction logs and shrunk the log files after a full backup. This can result in unrestricted growth of the log file and, eventually, the system stopping due to a lack of disk space.

There is no reason why the transaction logs should not be truncated and the log files shrunk after a full backup.

1.4. Dream Related Data and Applications

In most organizations the key financial data is stored in more than one place. There are, usually, other systems involved in storing and processing key data.

It is, therefore, as important to ensure that the Dream related data and applications are as secure as the database itself.

1.5. Disaster Recovery

Backing up data should form part of a disaster recovery process but regularly backing up your data is not the same as having an effective disaster recovery plan. There is an entire industry based on disaster recovery and many books written on the subject, but at a basic level it is a simple idea. The essential steps are:

- Identifying the foreseeable risks;
- Devising scenario-based solutions;
- Taking appropriate action.

2. Audits

2.1. Carrying out an Audit

Dream Audits are carried out by accessing the Admin, Audit dialog. Generally speaking an Audit should only be carried out when other users are not accessing the system, so as not to impact on the performance of the database and to avoid false errors caused by, for example, checking balances half-way through a posting.

It is possible to 'schedule' an Audit to run at a later time but you have to leave the machine up and running.

One of the major downsides of the Dream Audit is that it will only check one Company and one Transaction type at a time. It is possible to program multiple Audits using Dream Automation.

2.2. User Count

One irritation with the Audit is the way that it reports whether or not other users are accessing the system. Dream is inconsistent about how it counts the number of users. For the purposes of the Audit, and some other things, it relies on a parameter value that is incremented every time someone logs in and decremented when the log off. If one or more sessions bomb out for any reason the parameter value is not corrected. The 'Dream User Count' parameter is almost always over-stated.

For licensing purposes Dream uses the records in the M_DBACCESS table. Each Dream session updates this table about once a minute, so the SQL:

```
SELECT * FROM SQSDBA.M_DBACCESS WHERE GETDATE()-ACCESSDATE<0.0007 ORDER BY USERID
```

Should give a more accurate idea of how many users are logged on – as well as the UserID's. The value 0.0007 represents 60.48 seconds expressed as a number of days.

2.3. When to Audit

It is good practice to carry out Audits on a regular basis. Once per Period is usually sufficient, unless the Audits regularly report issues that should be addressed more frequently than that.

If you rely on the Audit to check balances, rather than checking in some other way, then you should carry out an Audit immediately before any major reporting and before processing a Year End. The Year End process relies on calculations based on balances, rather than the underlying details.

2.4. Rebuilding Balances

One of the most common issues dealt with by the Audit is when the balances do not match the details. This can happen for a whole variety of different reasons.

If this is a regular problem you might consider setting up a process on the database server to rebuild the balances. This approach has the advantage of checking all the balances, regardless of transaction type, across all Companies at once. Processes like this are not supported by CODA.

3. Database Indexes

3.1. Indexes and Indices

There may be some confusion about Indexes and Indices, so to be clear:

- Dream 'Indices' are codes, usually attached to Nominals and Accounts, that are used for grouping or aliasing;
- Database Indexes are used by the database server to look up records in a database table.

Database indexes allow the server to assemble sub-sets of data from a table, or tables, more quickly than would otherwise be the case. They may also be used to enforce integrity of the data. For example, there is a database index on the M_ACCOUNT table based on the combination of Ledger and Account codes.

As the database tables increase in size the indexes can become less and less effective, causing Dream to get slower and slower. One way to reduce the impact of this is to rebuild the indexes.

Each version of Dream has a set of indexes designed for the tables in that version. However, in some cases, due to that way that Dream is used in particular sites, there may be additional indexes that have been set up to improve performance. For example, at Jarvis Hotels some key information is held in the UserFields of the Details table – these fields are not indexed by Dream but have been indexed by Jarvis.

3.2. Dream Rebuild Indexes

Dream has always had a utility in it for rebuilding the database indexes. In earlier versions of the software it used to be in the main Dream program, but in the current version it is part of Dream Database Manager.

Rebuilding the indexes should only be carried out when there are no other users accessing the system. How long it takes depends on how big the database is, how powerful the server is, and how much disk space is available. It would be unusual for it to take more than, say, an hour.

If there are additional, non-standard, indexes on the Dream tables, or indexes on other non-standard tables, the Dream Rebuild Indexes utility will not rebuild these indexes. In fact, for older versions of Dream (and this may still be the case for the current version), using the utility would normally result in losing any non-standard indexes on the Dream tables. It is, therefore, important to find out whether there are any non-standard indexes on the Dream tables before using the Dream Rebuild Indexes utility.

3.3. Alternative Approaches

I have put an alternative approach in place in several client sites. This involves setting up a table with a list of all the indexes, a procedure to drop and rebuild all the listed indexes, and a job to run the procedure each night.

This approach has the following advantages:

- The indexes are always at most one day old, so performance does not decline over a period;
- It can handle all the standard and non-standard indexes on all the Dream and non-Dream tables.

This approach is not supported by CODA.

4. Users and Security

4.1. The 'sa' password

The SQL Server system administrator 'sa' password is required in Dream in order to create and maintain Users and Groups, and in Dream Database Manager for creating new Dream databases.

4.2. SQSDBA Password and SQSDBA Group

The SQSDBA password is only required for logging on as the SQSDBA user. It should not be generally known and it should be changed on a regular basis.

Rather than using the SQSDBA user, we would recommend that you use a user that is a member of the SQSDBA Group for higher level tasks. That way you should have a more useful audit trail.

Wherever possible you should avoid using the SQSDBA user for interfaces or external reports.

4.3. SQL Users vs Windows Authentication

SQL Users are named database users with passwords held in the database server and Windows Authenticated users are SQL users that are linked to Windows accounts and do not require passwords. Many existing installations use SQL users rather than Windows Authentication because of the restrictions on the support for Windows user names in older versions of Dream (i.e. maximum of 20 characters, no spaces, etc.).

In Dream 3.3 it is possible to map a Dream user to a Windows User with a completely different name without the old restrictions. If you are using SQL Users and you have implemented Dream 3.3, or are planning to implement it, it would be worth considering switching to Windows Authentication.

4.4. External Reporting

If you have a significant number of external reports (Crystal, Excel etc) it may be worth reviewing user access to the reports. Wherever possible, access to reports should be provided via the User's own login (either SQL or Windows authenticated).

It is possible to set up reports that allow individual users access to only the data that they should see in Dream. In other words, the report shows different sets of data depending on who is logged in to the report. Setting this up is a little involved and beyond the scope of this topic.

4.5. Inactive Users

Dream allows you to set up groups whose members cannot access the Dream application. This is achieved by setting the Group's Access Level to 0. Groups with an Access Level of 0 are usually referred to as being 'inactive'.

When a Dream user leaves the organization they should be transferred to an inactive Group. Dream does not allow Users to be deleted, because doing so would damage the audit trail in the database.

For inactive users who should be kept out of the database (i.e. staff who have left the organization) you should also consider disabling the underlying database login, or possibly dropping it altogether. Provided that you do not delete the record from the M_USER table it does not matter whether the associated database user actually exists or not.

5. Closing Years, Periods and VAT Periods

5.1. Years and Periods

Periods and Years should have their access levels increased to 9 when they have been closed off. There is no equivalent to the 'Input Allowed' flag for Periods and Years, so it is impossible to stop users with an access level of 9 from posting to old periods and years.

5.2. VAT Periods

Assuming that you are using the standard VAT processing (i.e. with primary VAT postings going to a Dream VAT Ledger) each VAT period should be allocated and closed as the figures are reported to HMRC.

5.3. Year End Processing

Before carrying out a Year End we would recommend that you should:

- Run an Audit on the Company;
- Check that the previous Years have been processed correctly;
- Check for any Nominals or Accounts that have balances for processing, where the Input Allowed flag is switched off.

How much of an Audit you do depends on the extent to which you use Dream and the time limitations, but you should at the very least check the balances.

To check each of the previous Years (assuming that you have the recommended Year End Periods):

- Run Trial Balance for periods 00 to 98 and check that all the Trading Nominal balances are zero;
- Run Trail balance for periods 00 to 99 and check that all the balances are zero;
- Compare a Trial Balance for periods 00 to 98 of the Year to Trial Balance for period 00 of the following year – they should be the same (except, perhaps, for transfers between fixed asset Nominals).

Dream processes Year Ends by posting Documents. The usual rules for posting Documents apply to Year End processing, therefore the process will fail if it attempts to post to a Nominal or Account where the Input Allowed flag is switched off, or if the VAT Account is closed. Dream does not check this in advance and does not provide you with a list of Nominals or Accounts to check. If this is likely to be an issue you should consider writing a report to identify the Nominals and Accounts – this would make it easier to change the settings in one go, and gives you a check list of the Nominals and Accounts to turn off again after processing.

6. Redundant Data

6.1. Indices

During implementation it is quite common for the team to create a number of Nominal or Account Indices that are never used, or for Indices to fall out of use over time. These 'redundant' indices can cause confusion during upgrade or restructuring projects.

We would consider it good practice to delete any unused Indices.

6.2. UDI's

If you have any redundant Input Forms in your database we would recommend that you export them (keeping the exported files in a safe place), detach them from any Document Types and delete them. This will help reduce unnecessary development and testing during future upgrades or other projects.

6.3. Nominals, Accounts and Document Types

Nominals, Accounts and Document Types that have been used, but are no longer required, cannot be deleted. It is, however, worth turning off the Input Allowed flag to prevent accidental postings. Note that turning off the Input Allowed flag will stop any user from posting, whereas setting the Access Level to 9 will not stop members of the SQSDBA Group from posting, and SQSDBA Group members cannot have access security switched off either.

7. Procedures and Documentation

7.1. Procedures

Documenting your procedures is useful because:

- It reduces training time for new staff;
- It should make it easier for you to take time off without being pestered;
- It provides useful backup when dealing with difficult staff issues;
- It can provide extremely valuable information during upgrades and other projects.

This information is extremely useful during upgrades and other projects if it explains the relationship between the design of the procedures and the limitations of the functionality in the software. If that area of functionality has changed then it opens up the possibility of streamlining the processes. If the information is not available it makes it more difficult to know whether changes are appropriate.

7.2. External Reports and Interfaces

Having an up to date list of all your current external reports and interfaces will make it easier to estimate the amount of work involved in upgrading your database.

7.3. Attachments

Using Attachments in Dream is a useful way of storing additional information about, for example, Document postings. For example, copies of letters from the Auditors, copies of complex spreadsheets etc..

Attachments are stored in the file system, not the database, so they need to be stored somewhere that is regularly backed up. You should also be aware that access to the file will be controlled by the file system, not Dream security, so it may be worth password protecting sensitive files, or having a sensitive files attachment location.