

"How To" Guides for IBM DB2 UDB Databases

Extracting data from DB2 using FTP

Data can be extracted remotely from DB2 and easily loaded into spreadsheets or other applications.

Create a file containing the SQL to be used for extracting the data.

Use FTP to connect to the system where DB2 is running and upload the SQL file.

```
site filetype=seq
```

```
put myquery.sql
```

Extract the data to a different file name.

```
site filetype=sql
```

```
site db2=db2x
```

```
site spread
```

```
get myquery.sql myquery.dat
```

db2x is the DB2 system that the data is to be extracted from. With site spread, the downloaded file will be in tab-delimited format, which makes it easier to load into most applications, such as Microsoft Excel. site nospread can be used for applications that do not support tab-delimited files. Note that some FTP clients do not support the site command, but may allow the command to be executed by preceding it with quote.

```
quote site ...
```

If the system that the data is to be downloaded to has an FTP server running, the data can be sent from an FTP client running on the host system. This allows the data to be sent automatically by scheduling the transfer as a batch job. In this case, the locsite command is used to set parameters on the local system where the FTP client is running.

```
locsite filetype=sql
```

```
locsite db2=db2x
```

```
locsite spread
```

```
put myquery.sql myquery.dat
```

Using JDBC to access DB2 UDB from Java

Types of JDBC drivers

When using a JDBC driver to access a database from Java, the JDBC protocols must be converted to the native database protocols on either the client or the server. A Type 2 JDBC driver uses the native database software installed on the client system. A Type 4 driver can be implemented in pure Java on the client, but may require some routines (stored procedures, for example) to be installed on the server side.

The Type 4 JDBC driver uses a number of stored procedures that in the SYSIBM schema. These routines are provided with DB2 and require DbVisualizer call these stored procedures over an RRSF connection and therefore require Workload Manager and RSS.

DB2 Binder

The DB2Binder can be run in the directory containing the db2jcc.jar and db2jcc_license_cisuz.jar JAR files with the following command:

```
java -classpath db2jcc.jar;db2jcc_license_cisuz.jar com.ibm.db2.jcc.DB2Binder -url
```

```
jdbc:db2://hostname:port#/dblocation -user username -password password -action replace
```

```
-collection is omitted because some applications expect to find the packages under NULLID,
```

which is the default value. The names of the JAR files in the CLASSPATH would need to be qualified unless they are in the current directory.

Functions and stored procedures can be defined with either NO WLM ENVIRONMENT or with a specific workload manager environment. In the latter case, the application environment must be configured in the active Workload Manager policy (see DB2 for z/OS and OS/390: Ready for Java) and RRS (Resource Recovery Services) must be running (see the System Programmer's Guide to Resource Recovery Services (RRS)). Routines in different DB2 regions or with different performance characteristics (transactions vs. reports, for example) should be configured with different application environment names so they will run in different address spaces with appropriate priorities.

DbVisualizer by Minq Software

On a mainframe running z/OS, DbVisualizer connects to DB2 using JDBC and therefore requires the packages bound by the DB2 Binder.

If you use a PDS for the analysis output dataset, RC/Migrator treats it the same as a sequential data set and overwrites it every time an analysis is run, unless you change the dataset or member name. There is an option to automatically change the member name, but it is not easy to find.

Go to RC/Migrator.

Go to Profile.

Go to RC/Migrator Profile Variables.

Change update output specifications to Y to display the screen where the specifications for output data sets can be changed.

Make sure analysis output to pds is Y and enter the PDS name for the default analysis pds.

Since the strategy name will be used for the member name in the analysis PDS, don't use the same name for different strategies, even if they are stored in different DB2 regions.

How To Restore DB2 TableSpaces

Determine the approximate date and time of the restore point.

Restore a backup of the BSDS that was taken after the restore point, During the restore, rename the dataset to something different than the current active BSDS.

```
//USRNAMEA JOB CLASS=A,MSGCLASS=X,NOTIFY=USRNAME
```

```
//STEP1 EXEC PGM=ADRDSSU,REGION=0M
```

```
//SYSPRINT DD SYSOUT=*
```

```
//TAPE01 DD DSN=BACKUP.DATASET,VOL=SER=(006596),
```

```
// DISP=(OLD,KEEP),UNIT=3590-1,LABEL=(1,SL)
```

```
//DISK01 DD UNIT=SYSDA,DISP=OLD
```

```
//SYSIN DD *
```

```
RESTORE DATASET(INCLUDE(DB2PROD.BSDS01.**)) -
```

```
RENAMEUNCONDITIONAL(USRNAME) -
```

```
INDDNAME(TAPE01) -
```

```
OUTDDNAME(DISK01) -
```

```
CATALOG
```

```
//
```

Run the LOGMAP utility to get the log RBAs at the checkpoints.

```
//DEVDRGSA JOB CLASS=A,MSGCLASS=X,NOTIFY=DEVDRGS
```

```
//LOGMAP EXEC PGM=DSNJU004,REGION=0M
```

```
//SYSUT1 DD DSN=DEVDRGS.BSDS01,DISP=SHR
```

```
//SYSPRINT DD SYSOUT=*
```

//

Select the RBA of the desired restore point. If the checkpoint queue in the report does not span the entire range of time between backups of the BSDS, increase CHKFREQ in DSNZPARMs or back up the BSDS more frequently.

Using the DSN1LOGP utility or a log analyzer, adjust the RBA of the restore point, if necessary, to avoid any units of work in progress.

"How To" Guides for QMF

Show global variables

```
sh g  
show globals
```

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