

# How to Prepare and Use the Magistrates Court Data Import Process

*On how to prepare and use the Victorian Magistrates Court data import process.*

## Introduction

The Magistrates Court Data Import Process (MCDIP) is used to import court data into illion databases. There is a CMS that is provided by Court Service Victoria where users are able to login to download the data text files that are used as the source data for this data import process.

This document refers to xxx

## Data Files

The data files are text files and the ones from the CMS test area are named:

xxx.txt  
xxx.txt  
xxx.txt

They have fixed character sized columns. The data specifications for the various columns can be found in the document "xxx.docx" in the section "xxx."

## Databases and Tables

The development database server is xxx and the test database server is xxx. The main two tables that the courts data is imported into are xxx..xxx and xxx..xxx, which are related by the common column xxx.

The data is initially imported from the data text files into a temporary import table prior to the above two tables getting populated. Once the data is imported into this temporary table, it is then used to populate above two tables.

This temporary data import table is xxx..xxx. Prior to the processing of each data text file, this table's data is truncated (completely cleared) if it exists in the xxx database or this table created if it does not.

## Data Import Utilities

The data import process uses several data utilities from Microsoft SQL Server. The utilities are usually installed with SQL Server and can also be separately installed by downloading and installing Microsoft Command Line Utilities 15 for SQL Server or later which can be obtained from the following location:

<https://docs.microsoft.com/en-us/sql/tools/bcp-utility>

The latest version of this software at the time of writing this document is 15, as above. Ideally the latest version should be installed and tested for use. The files are usually installed to this hard drive location:

C:\Program Files\Microsoft SQL Server\Client SDK\ODBC\170\Tools\Binn

and there are two executable files:

bcp.exe  
SQLCMD.EXE

The bcp.exe program is SQL Server's bulk data copy or import program. It is used for importing data from files such as text files into SQL Server. It requires the data format file to be provided, which specifies information required for the data import process including the data types, lengths and SQL Server table column names. For this data import process, the format file is viccourt.fmt and can be found in the test files network location, which is the test area for this process:

xxx

This file can be viewed and edited using any standard text editor such as Windows Notepad. More information on data format files can be found at this location:

<https://docs.microsoft.com/en-us/sql/relational-databases/import-export/create-a-format-file-sql-server>

SQLCMD.EXE is used for executing SQL scripts against a SQL Server database. Once installed this can be executed from the Windows Command line.

There is another program that is used in the data import process called isql, but this program seems to be no longer be supported by Microsoft and seems to have been replaced by SQLCMD.EXE.

## Running the Data Import Process

The files for the data import process can be found in test files network location, which is the test area for this process:

xxx

The main file that does the processing is xxx.bat, which is a Windows batch file. It can be edited with any text editor such as Windows Notepad and executed at the Windows Command line. At the Windows Command line the following command can be entered to execute it:

xxx xxx xxx username password xxx.txt

xxx is the name of the batch file that is the executed process, xxx is the database server that the data should be imported into, xxx is the database where the data is initially imported into, into the temporary table xxx..xxx, username is the SQL Server login name, password is the SQL Server password and xxx.txt is the name of the data text file to be imported.

## Data Import Preparation

The data import process should be run on the local computer's hard drive. These files:

xxx.bat  
xxx.fmt  
xxx.SQL  
xxx.SQL

from the test files network location:

xxx

should first be copied to the local hard drive into a temporary location such as:

xxx

A folder should be created for the storage of the processing log files such as:

xxx

This is where the processing logs would be stored. A folder should be created for storing the data text files such as:

xxx

The data text files to be processed should be copied into this folder. A folder should be created for storing processed data text files such as:

xxx

This is where the processed data text file would be moved to once the processing is finished.

## Editing the Batch File

The viccourt.bat can be opened and edited using a standard text editor such as Windows Notepad. These lines refer to the command line arguments passed into the batch file during execution:

xxx  
xxx  
xxx  
xxx  
xxx

They equate to the command line arguments passed to the xxx batch file command:

xxx xxx xxx username password xxx.txt

See the values below:

xxx is xxx  
xxx is xxx  
xxx is username  
xxx is password  
xxx is xxx.txt

The values are used later in the batch file as per below. This line moves the data text file (xxx.txt) for local processing from the xxx sub-folder as created above:

```
move xxx\xxx*
```

This line that uses the SQLCMD.EXE program, creates the temporary data import table xxx..xxx or truncates (completely clears) the data in it if it already exists using the SQL script xxx.SQL:

```
SQLCMD -S %MACHINE_NAME% -d %DATABASE_NAME% -U  
%DATABASE_USER% -P %DATABASE_PASS% -i xxx.SQL -o Create_  
%INPUT_FILE%.log
```

as mentioned above. Notice how it also creates a log file for logging the database table creation and in this instance, it is:

```
xxx.txt.log
```

The log files will be available in:

```
xxx
```

after processing. This line that uses the bcp.exe program, imports the data from the data text file into the xxx..xxx temporary data import table using the xxx.fmt data format:

```
BCP %DATABASE_NAME%..xxx IN %INPUT_FILE% -S %MACHINE_NAME% -U  
%DATABASE_USER% -P %DATABASE_PASS% -f xxx.fmt
```

This line processes the temporarily imported data that is in xxx..xxx and populates the two tables xxx..xxx and xxx..xxx utilising a SQL cursor:

```
SQLCMD -S %MACHINE_NAME% -d %DATABASE_NAME% -U  
%DATABASE_USER% -P %DATABASE_PASS% -i xxx.SQL -o Process_  
%INPUT_FILE%.log
```

It uses the SQL script xxx.SQL. Notice how it also creates a log file for logging the processing and in this instance it is:

```
xxx.txt.log
```

There may be a version of this line that uses isql, but since this program no longer seems to be supported by Microsoft, it should be commented out / disabled. But for the batch file in the network location specified in this document has already been fixed for this in addition to other issues. Refer to the Jira ticket for more information on this.

These lines perform database logging of the processing using the stored procedures xxx..xxx and xxx..xxx:

```
SQLCMD -S %MACHINE_NAME% -d %DATABASE_NAME% -U  
%DATABASE_USER% -P %DATABASE_PASS% -Q "exec xxx..xxx  
'xxx', '%INPUT_FILE%'"  
SQLCMD -S %MACHINE_NAME% -d %DATABASE_NAME% -U  
%DATABASE_USER% -P %DATABASE_PASS% -Q "exec xxx..xxx  
'xxx', '%INPUT_FILE%'"
```

These two stored procedures should be available in the xxx database and if they do not exist, they can be created using the SQL scripts xxx.sql and xxx.sql which should be available in:

xxx

Notice how it passes the parameter 'xxx' into this stored procedure. This is because these stored procedures also do logging for other data load types and 'xxx' is the parameter used for this process. The other parameter passed is the name of the data text file.

This line moves the processed data text file into the xxx folder as created above:

```
MOVE %INPUT_FILE% xxx\.
```

This line moves the log files into the xxx folder as created above:

```
MOVE *.log log
```

This line moves the processing to the :JOBEND label so that it displays the date and time of processing and ends processing:

```
GOTO JOBEND
```

The :USAGE label is only executed if the user executed the viccourt batch file without supplying the data text file parameter. This also does 'Check LOG file' logging to the xxx.xxx table using this line:

```
SQLCMD -S %MACHINE_NAME% -d %DATABASE_NAME% -U  
%DATABASE_USER% -P %DATABASE_PASS% -Q "exec xxx..xxx 'xxx','NIL'"
```

It passes the parameter 'xxx' into the stored procedure as earlier and 'NIL' for the data text file name as it was not supplied.

## Meeting Recording

There was a meeting on the 25th of August 2022 and this document also refers to that meeting. The recording of this meeting is available at this network location:

xxx

It is in the folder named "2022-08-25 EN-140210 Change to VIC Magistrates Court Data Feed into Pubrec" at the above network location.

There was a meeting on the 06th of October 2022 which covers most of the details in this document and the recording of this meeting is available at the same network location above, in the folder named "2022-10-06 EN-140210 Change to VIC Magistrates Court Data Feed into Pubrec Testing Overview".