eWiSACWIS Case Management Interface Extractor

August 4, 2004

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1. Overview

The Case Management Interface Extractor MS Access database and application is provided to counties implementing a Case Management Interface (CMI) between eWiSACWIS and a local county system with no warranty. **The State eWiSACWIS Team will not be responsible for maintaining this software.** The intended purpose is just to give counties implementing CMI a head start in their development. The purpose of the CMI Extractor is to run an SQL query or a series of SQL queries against the Oracle Lite replicated database residing in the county environment and generate a delimited text file output from the SQL result set. This delimited text file can then be moved to the environment where the county system resides and processed. The CMI Extractor can also generate an Excel spreadsheet as an output from any of the SQL queries. These spreadsheets can be used as a report or as input to an interface process. The CMI Extractor is preloaded with more than 30 queries that should satisfy the CMI requirements of most counties. If a county identifies a CMI need that is not handled by one of the existing queries, then they should contact the eWiSACWIS Team for support in developing the new query.

# 2. Establish a Connection to the Oracle Lite Replication Database

The CMI queries provided with the Extractor are run as pass through queries. In other words, Oracle Lite compliant SQL was used to develop these queries. The POlite ODBC datasource must be set up to point at the REPL database that will be used to run the queries against. The eWiSACWIS Team recommends that after the replication process completes, a copy of the REPL database be made and used for the CMI process.

A County may also have a need to use the REPL tables directly for investigation or to develop Access queries to view some of the REPL data. The REPL tables can be set up as linked tables in the CMI Extractor to satisfy these other needs.

These two processes, setting up the ODBC connection to REPL and setting up the REPL tables as linked tables, are described below.

A. Oracle Lite ODBC Connection to REPL

When Oracle Lite is installed, an ODBC datasource called "POlite" is automatically created. This data source can be used to view the data in the Oracle Lite database (REPL) or use it for the Case Management Interface. Note: Installing Oracle Lite is the <u>only</u> way to get the ODBC driver; it is not available for separate installation.
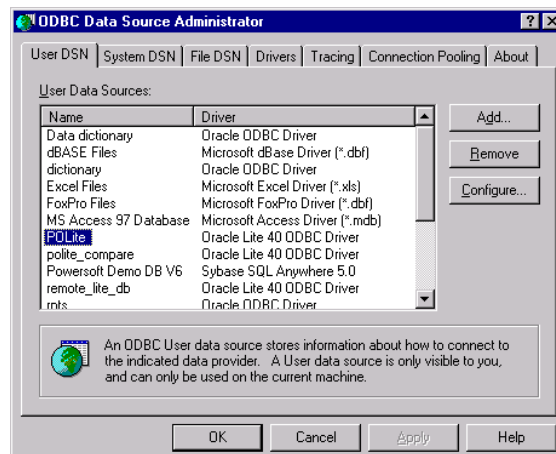
1) Click Start, Settings, Control Panel, and Data Sources (ODBC) to open the ODBC Data Source Administrator. The menu options may be different depending on the operating system of the PC.

2) Highlight the POlite datasource and click Configure.

3) Click the … button to the right of Database Directory to associate the ODBC driver with the REPL database field (polite.odb) that you want to use for the CMI process.
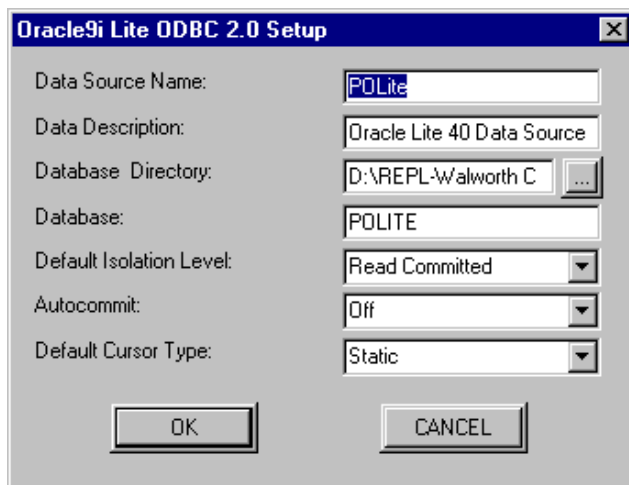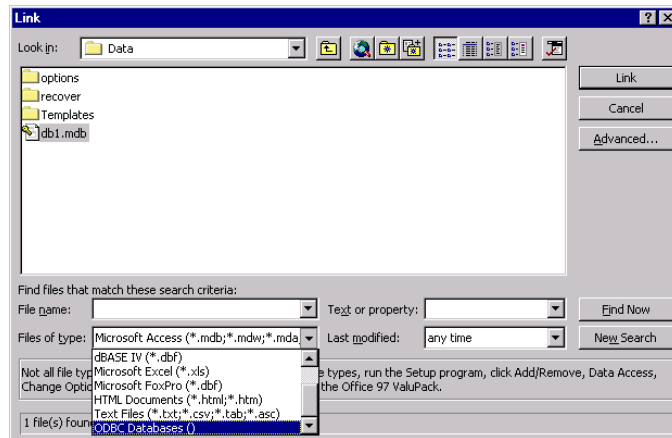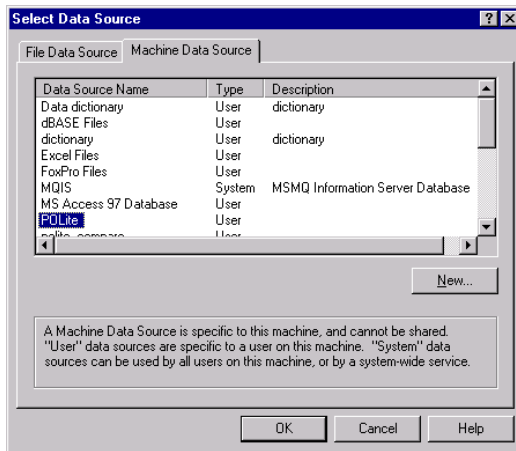

B. Setting Up REPL Tables as Linked Tables

1) Open the CMI Extractor MS Access database file.

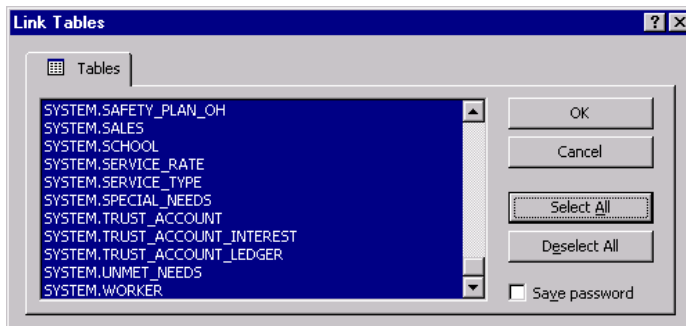2) Click the "New" button on the Tables tab; select the "Link Table" option and click OK.
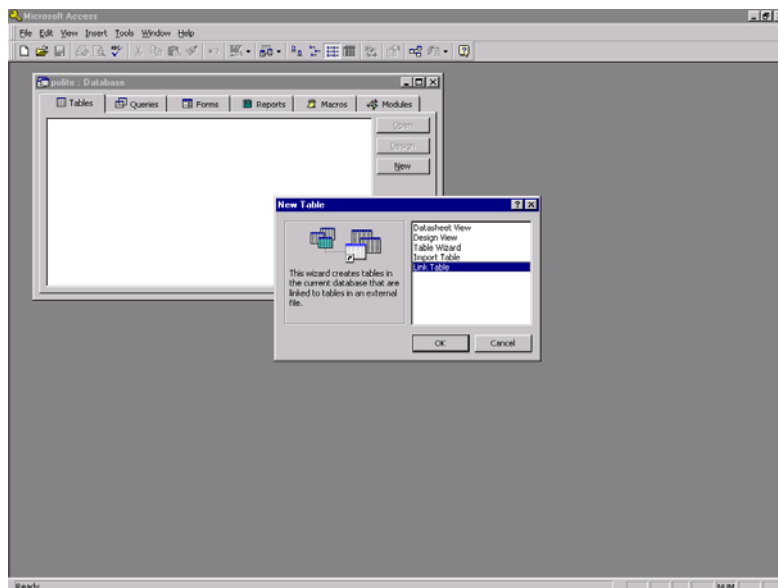
3) In the Link dialog, click the "Files of Type" drop-down list and select ODBC Databases.

4) In the "Select Data Source" dialog select the POLite datasource and click OK.

5) In the "Link Tables" dialog click "Select All" then OK. This links the REPL tables to the Access database and displays them in the MS Access Tables tab. (Some warning dialogs may be displayed during the import – these can be ignored.)

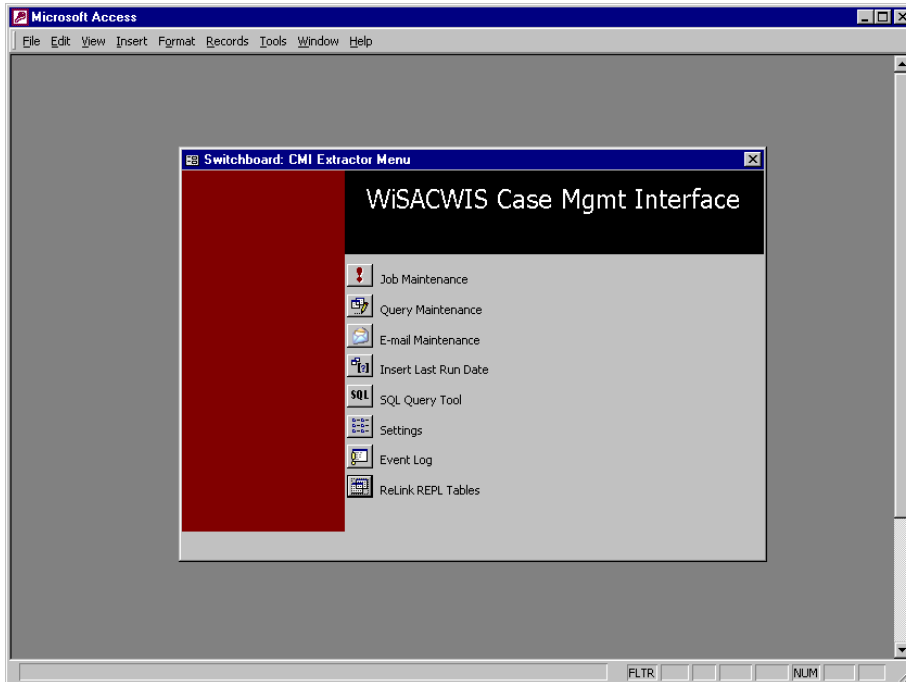6) Double click on a linked REPL table to display its data.
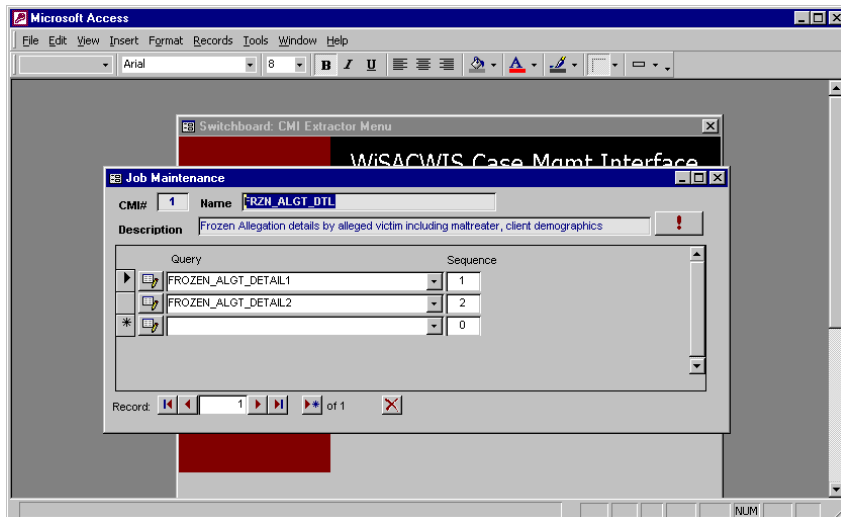
3. CMI Extractor Switchboard

The Switchboard is used to access forms used to maintain the CMI Extractor data.
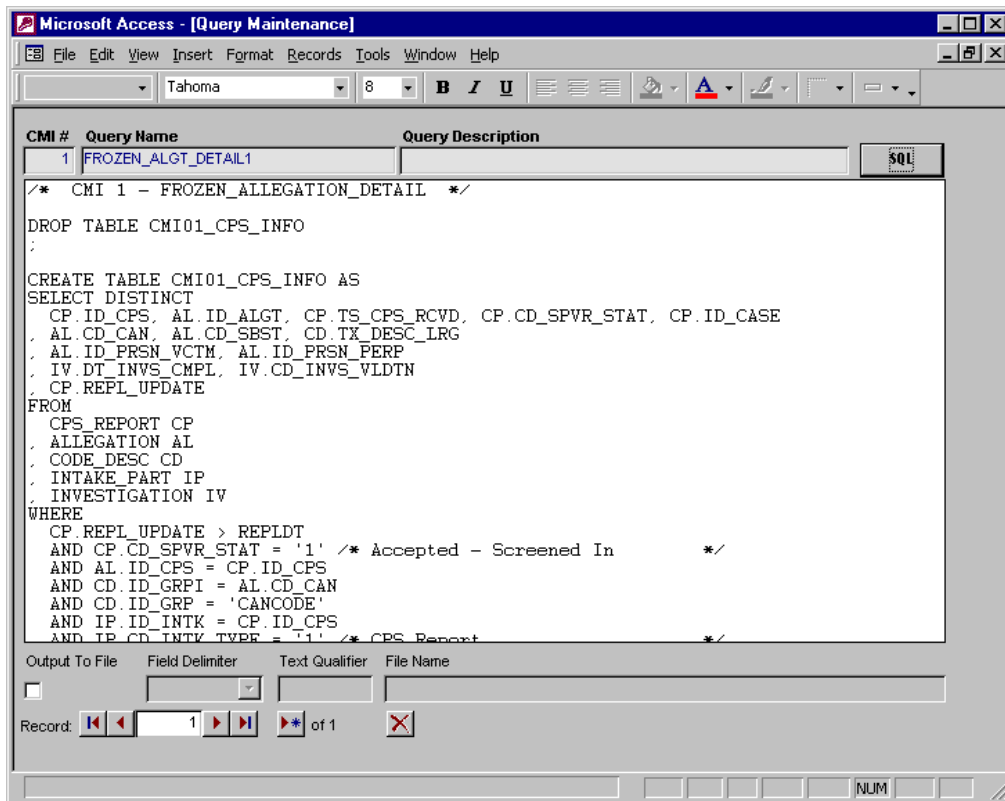

4. Job Maintenance

Jobs are set up in the CMI Extractor so that the extract portion of a county's CMI can be run in a batch mode. The Jobs set up in the Extractor are executed using a .BAT file. The Extractor is preloaded with Jobs that will

execute the standard SQL queries that are preloaded in the Extractor. A county can add Jobs and Queries to the Extractor to satisfy needs not addressed by the standard set of queries.

1) Click Job Maintenance to add or maintain Jobs and to indicate which queries are run as part of which Jobs.

2) To add a new job, click the <insert> button ▶* at the bottom of the window, enter an appropriate Job Name and Job Description. Then select the queries that are included in this job including a Sequence describing the order the queries will be run.

3) To test a Job, click the <Test Job> button ![] to the right of the Description field. A popup window will ask if you want the extract file created in Excel format. Click Yes to create an Excel file and No to create a Text file.

5. Query Maintenance

The Query Maintenance form is used to add and maintain the SQL needed to retrieve the information from the REPL database that is need for the county CMI with eWiSACWIS. The original CMI Extractor database is preloaded with SQL provided by the eWiSACWIS Team. The SQL provided is generic in order to satisfy the requirements of more than one county. Each county may need to filter the data somewhere in their CMI process so only the data they care about is processed. This can be done after the CMI Extractor creates the flat file format for processing in the county system or it can be done in the SQL statement provided by the eWiSACWIS Team. If the filtering is done using the latter approach, the county will be responsible for managing and maintaining the SQL should eWiSACWIS changes in the future warrant such maintenance. Also, one query may support more than one part of the CMI for a county. For example, a query retrieving allegation details may support both the CPS intake and perpetrator database portions of the county's CMI. If this is the case, the query

should be left generic, run once, and the output filtered in the county data update process. This will probably be more efficient than running the same query multiple times or running very similar queries that result in almost the same output.

1) Click Query Maintenance to add or maintain Queries.

2) To add a new query, click the <insert> button [▶*] at the bottom of the window, enter an appropriate Query Name and Description. Enter or paste the new or modified SQL into the SQL text box.

3) Check the Output to File checkbox if the query result set should be output to a text or Excel file. Queries that create and populate temporary tables for the final Select statement should not have the Output to File checkbox checked.

4) If the Output to File checkbox is checked, also supply a Field Delimiter (TAB for tab-delimited format and Comma for comma-separated format). The other two fields, Text Qualifier (such as a double-quote or a single-quote) and an alternate File Name, are optional. A Text Qualifier may be desired if you are creating a comma-separated file that includes narrative text that may contain commas. If an alternate File Name is not entered, the extract file will have the same name as the outputting Query minus any numerics at the end of the name. The file extension reflects the type of file created, txt for text files and xls for Excel files.

5) To test a Query, click the SQL button [SQL] to the right of the Description field. The SQL Query Tool window will open that can be used to run the query and present the result set back. When the SQL Query Tool opens, any occurrence of the REPLDT parameter that is present in the SQL will be replaced by the maximum value in the CMI_Parm_Date table. See Sections 6 and 9 for more details.

6. Insert Last Run Date

The CMI Extractor database contains a table named CMI_Parm_Date that contains the date/timestamp used to select the new activity from REPL. This table contains the date/timestamp used for every CMI update run. For the first time a county runs their CMI process, this date/timestamp needs to be "primed" so that all activity is selected for processing with the Interface. This is done by adding a row to this table with a date prior to the county eWiSACWIS go live date. After running the CMI process each time, this Parm Date needs to be set for the next time the CMI process runs. The InsertRunDate job described in Section 14 inserts a new row into this table based on the latest update date of any row on the REPL database. This prepares the Parm Date for the next execution of the CMI process. Alternatively, clicking the Insert Last Run Date button on the CMI Extractor switchboard runs the same process to add the latest update date to the CMI_Parm_Date table. The Extractor process that executes the queries will find the maximum date/timestamp value in this table and use it in all of the queries.

ParmDate
06/03/2004 7:56:02 PM
06/02/2004 6:23:22 PM
06/01/2004 8:22:44 PM

7. Set Up BAT Files

The county using the CMI Extractor will have to set up the bat files that runs the jobs that trigger the execution of the queries. The county is also responsible for creating the process to run these bat files on a schedule. The eWiSACWIS Team can provide sample bat files. However, because each county environment is different, it is up to the county to create and maintain the bat files. Here is a sample bat file:

"C:\Program Files\Microsoft Office2000\Office\msaccess.exe" "L:\Statewide_Sacwis\Conversion\County Conversion Tools\REPL\CMI Extractor.mdb" /cmd BATCH1

Inside the first set of double-quotes is the path and name of MS Access on the CMI Extractor PC. Inside the second set of double-quotes is the path and name of the CMI Extractor mdb file. After the /cmd literal is the name of the Job in the CMI Extractor database to execute. A bat file gets set up for each job. The county uses their job scheduler, Windows Task Scheduler, or the Windows NT DOS command "AT" to run the CMI Extractor process following the successful conclusion of the county replication process. **Note – The replicated database must be closed to all other users for these processes to run.** See the eWiSACWISReplicator User Guide for more information on job scheduling.

The type of extract file created is controlled by an option parameter that follows the Job Name in the bat file. The option parameter values and extract file types are:

Option Parameter	Extract File Type
No parameter	Text file
-r	Excel file
-b	Text file and Excel file

Here's another example:

"C:\Program Files\Microsoft Office2000\Office\msaccess.exe" "L:\Statewide_Sacwis\Conversion\County Conversion Tools\REPL\CMI Extractor.mdb" /cmd NEW_PLACEMENTS -b

The above bat file executes the NEW_PLACEMENTS job and creates both a text file and an Excel file as output.

8. E-Mail Maintenance
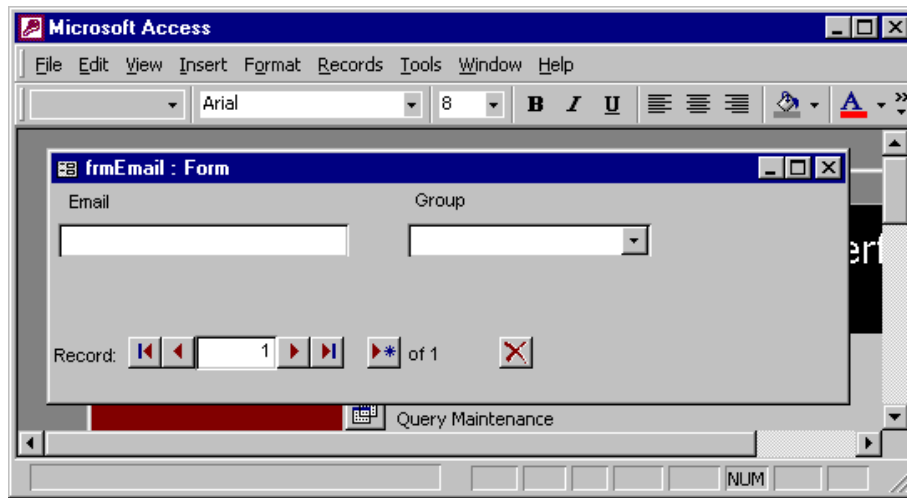
The CMI Extractor has an option for sending extract files (usually in Excel format) to an email group. Also, notification messages can be sent to the Administrator group whenever a failure occurs running a CMI query. Use of these options requires that the computer running the CMI Extractor process have Microsoft Outlook Express installed. Outlook Express is part of Internet Explorer and is available free of charge. The email client on the receiving end of these emails can be any email client program. The email option needs to be enabled in the CMI Extractor Settings window (Section 10) for any of the email features to work. Additionally, the email error reporting option needs to be enabled for the Administrator email group to automatically receive an email message if a CMI process fails.

1) To add an email address, click the <insert> button ![button] at the bottom of the window, enter the email address, and assign the address to an email group. The same email address can be entered multiple times and assigned to more than one group. The CMI Extractor is preloaded with the Administration, Fiscal_Reporting, and Other_Reporting groups. The county would maintain the Email_Group table in order to modify or add groups (note – group names should not any embedded spaces). The Administration group should not be modified since this is used for a specific purpose.

2) Reports can be emailed to an address group from a batch job by including the following additional parameter: –e <address group name>

   For example:
   "C:\Program Files\Microsoft Office2000\Office\msaccess.exe"
   "L:\Statewide_Sacwis\Conversion\County Conversion Tools\REPL\CMI Extractor.mdb" /cmd
   NEW_PLACEMENTS –r –e Fiscal_Reporting

   This bat file executes the NEW_PLACEMENTS job producing an Excel file that is automatically emailed to the Fiscal_Reporting email group.

9. SQL Query Tool
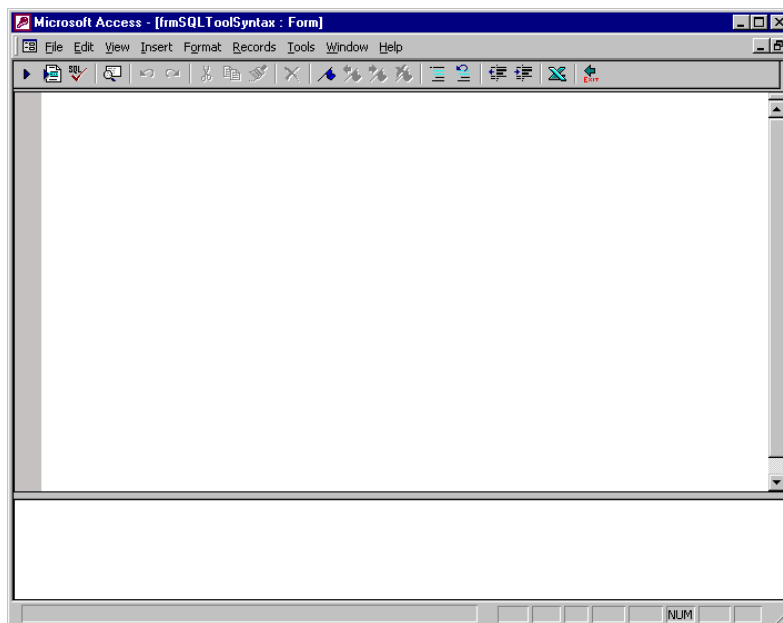
The SQL Query Tool is available to run the provided CMI queries or any Oracle Lite-compliant SQL query against the REPL Oracle Lite database.

1) Type or paste the SQL into the upper text box.

2) Click the Execute as Script button ▶ on the far left of the toolbar to run the SQL.

3) If the query returns a result set, it is displayed in the lower text box.

4) Click the Export to Excel button 🗙 to export the contents of the result set displayed in the lower text box to an Excel spreadsheet. The spreadsheet will be saved to the PC's Desktop.

5) Click the Exit button to close the window.

10. Settings
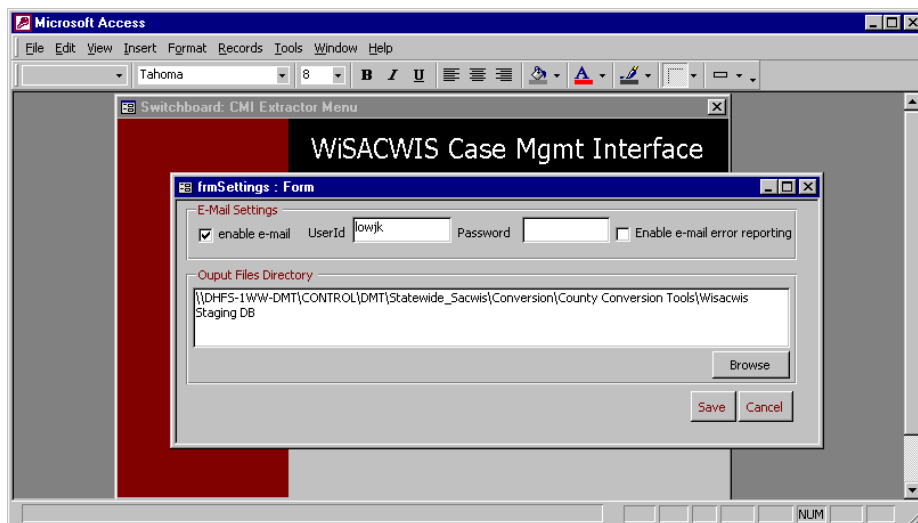
The Settings window is used to enable the CMI Extractor email features and/or to set a different default Output File Directory.

1) Check the Enable Email checkbox to enable any of the email features. The email features include the ability to email Excel (or text) extract files to an email group through a batch process, and the automated notification facility for when a CMI Extractor process fails.

2) After Outlook Express is set up on the CMI Extractor computer, enter the UserID and Password used during the set up process in the Settings window that is needed to send email.

3) Check the Enable Email Error Reporting checkbox to enable this feature. Email addresses associated to the Administrator email group will receive a notification email when a CMI Extractor process fails in batch mode.

4) Extract files created by the Extractor are automatically stored in the directory that contains the CMI Extractor database. If the county desires a different default location for the extract files, type the alternate directory in the large text box (or use the Browse button to navigate to the directory).

5) Click the Save button to save the changes and close the Settings window.

11. Event Log
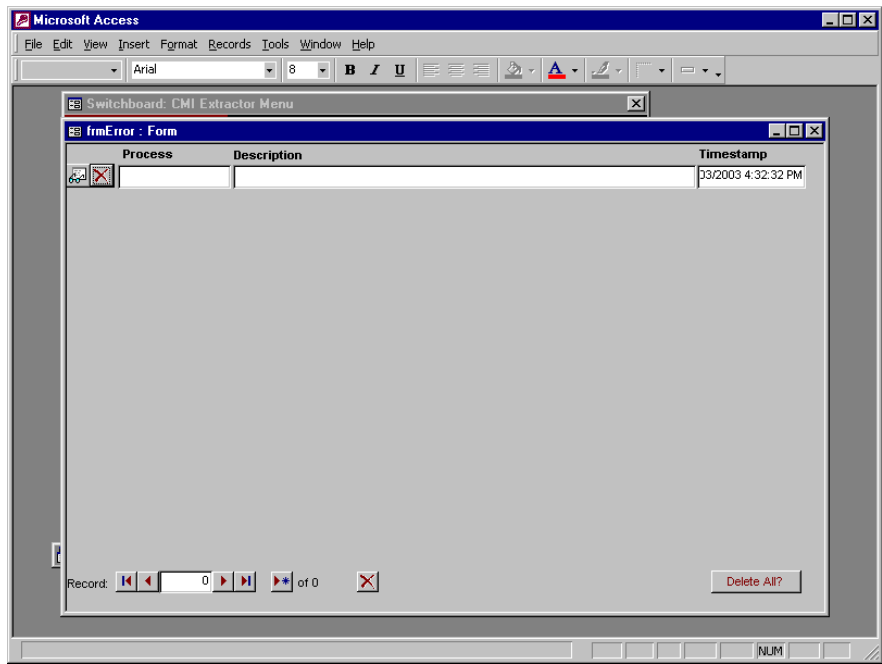
The Event Log window displays any error messages logged by the CMI Extractor. This window should be reviewed by the CMI programmer or support person whenever a CMI error occurs. This window should also be used to clean out the log after problems are resolved.

12. ReLink REPL Tables

Most counties implementing the REPL database and CMI Extractor will use Oracle Lite as the database engine for their REPL database. However, counties that have the Enterprise version of Oracle may elect to use their existing software for the REPL database instead of purchasing and installing the Oracle Lite software. The WiSACWIS replication documentation details the changes needed to implement this option for the replication process. The CMI Extractor allows for this option by providing an easy to use facility for changing the REPL connect string to point at the right database, and for relinking the REPL tables within the CMI Extractor tool. Each county is responsible for setting up the ODBC data source correctly for accessing the REPL database using Oracle Enterprise. The person serving the database administrator function in the county should be able to provide the guidance needed.
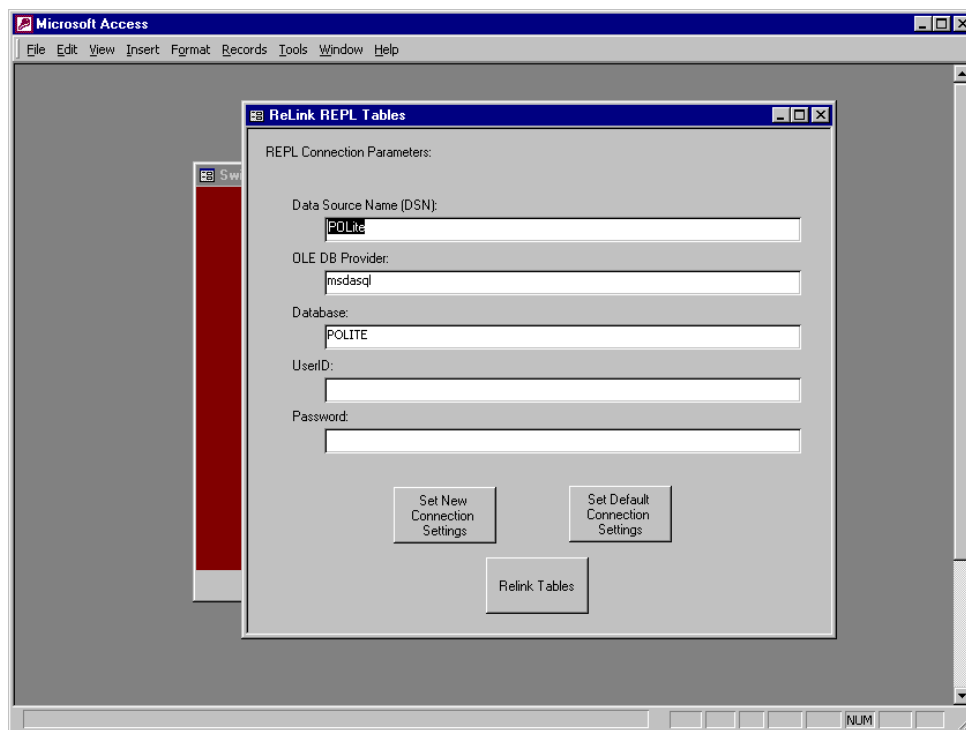
1) The ReLink REPL Tables window opens with the current REPL database connect string parameters filled in.

2) The connection string parameters can be modified to direct the CMI Extractor at the county's REPL database. The ODBC Data Source for REPL should already be set up on the PC in the ODBC Data Source Administrator.

3) After the new parameters are entered, click the <Set New Connection Settings> button to save the new parameters in the CMI Extractor. There is limited editing in this window so make sure the ODBC set up for REPL and the entered parameters match.

4) The default connect string for the Oracle Lite version of the REPL database can also be re-established in the CMI Extractor by clicking the <Set Default Connection Settings> button. The parameters do not need to be entered to reset the connect string to the defaults.

5) Once the REPL connect string has been set to the new or default settings, click the <Relink Tables> button to point the linked tables in the Microsoft Access Tables tab at the REPL tables in the database associated with the connect string.
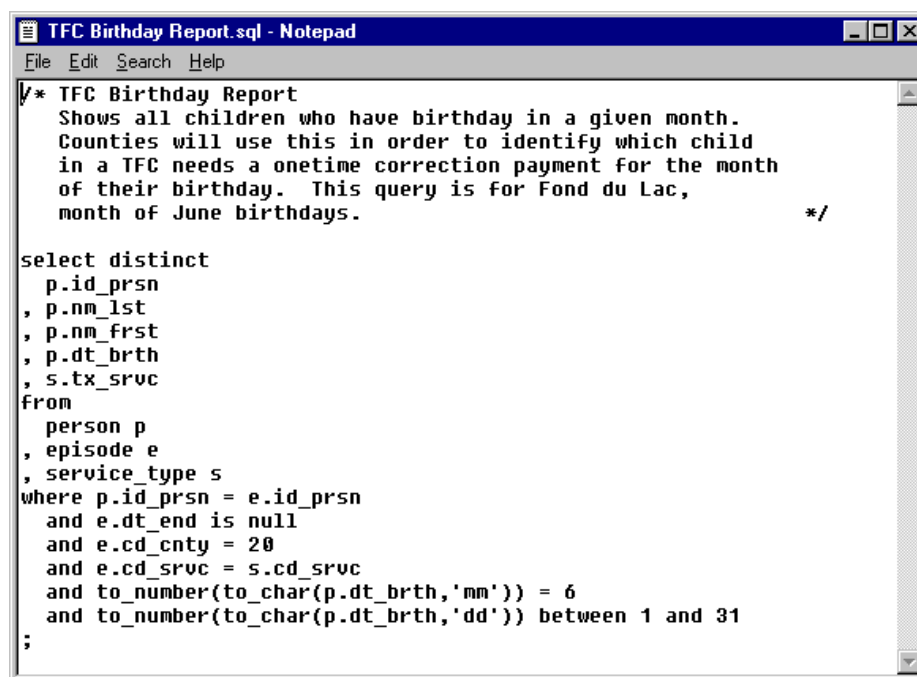
13. Adding a Custom Report to the CMI Extractor

The CMI Extractor is a tool that is provided to counties to access the data in the REPL database. This is not limited to the CMI queries developed by the WiSACWIS Team. Counties can also develop custom reports and use the CMI Extractor to run them producing Excel spreadsheet output. These reports can be run in a batch mode utilizing the batch functionality built into the CMI Extractor. Counties can request an ad hoc report from the WiSACWIS Team. When the report is delivered, it is often accompanied by the SQL used to produce this report. The county can add this SQL to the CMI Extractor so that the report can be run again in the future without going through the ad hoc report process. If a county wants the report to be formatted by Crystal Reports, MS Access, or some other report generation tool, the CMI Extractor can still be used to generate the Excel or delimited text file output that can then be used as the input source for the report writing software. There are many ways to get the data out of the REPL database. Counties are encouraged to use their imaginations and to call the WiSACWIS Team if assistance is needed.

There are a number of steps to adding a report to the CMI Extractor.

1. Develop the SQL for the report.

   The SQL query should be Oracle-compliant SQL to work properly. Counties can develop the SQL query themselves, contract out for development, request the SQL query from the WiSACWIS Team, or find a county that already has a query that produces the desired output. Since counties have similar data reporting needs, they are encouraged to share SQL queries. The WiSACWIS PAW/TAW quarterly meetings are a forum for this type of sharing. Here is a sample report query.

2. Add a new query(ies) to the CMI Extractor and paste the SQL into the query.

Refer to Section 5 for instructions on how to create a new query. Do not assign a CMI number to the new query. This will make it easier to find custom queries the county added. Be sure to check the 'Output to File' box. Two new queries may be needed if the report requires the creation of temporary tables in the database. The second query contains the final 'Select' statement and the first query contains the rest of the SQL. Use a number at the end of the query name to denote their relationship (e.g. TFC_Birthday_Report1 and TFC_Birthday_Report2). Only the second query should have the 'Output to File' checkbox checked.
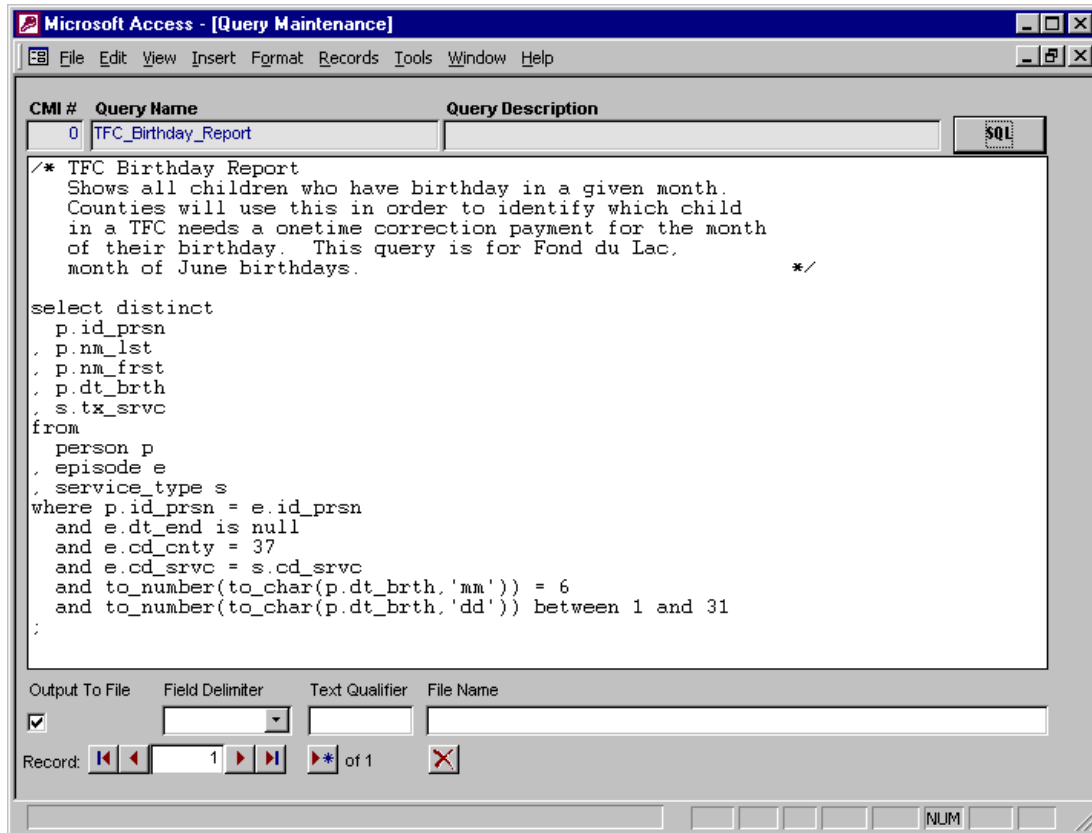
3. Add a new job to the CMI Extractor for running the report query.

   Refer to Section 4 for instructions on how to create a new job. Assign a CMI number (it's required) greater than 100 to differentiate report jobs from CMI query jobs. You can use the name given to the query for the job. Use the query dropdown to select the new report query(ies). Include the Sequence if there are 2 queries.
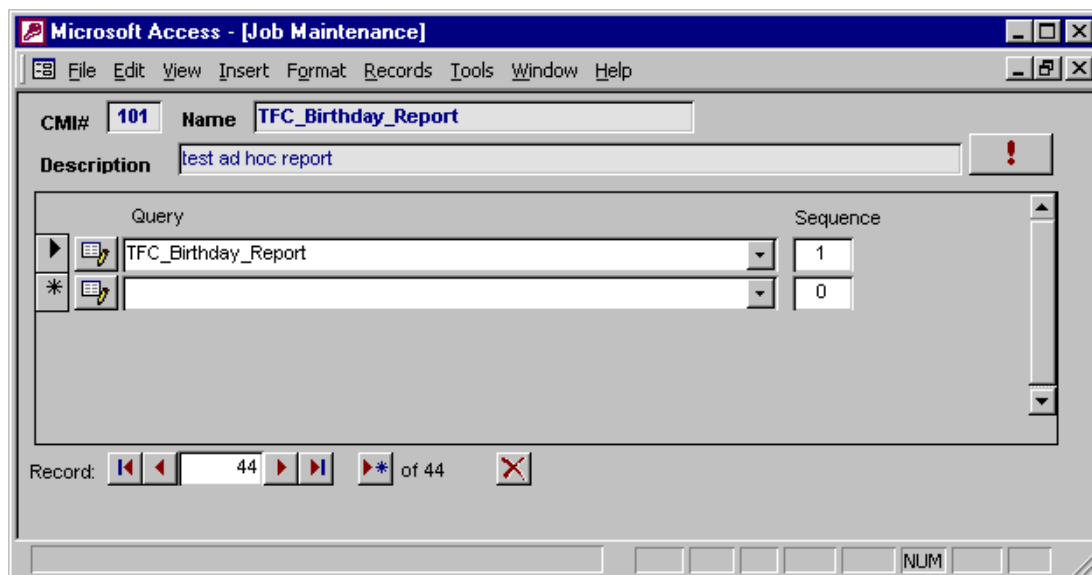
4. Develop a bat file to run the report in batch mode (optional).

   Refer to Section 7 for instructions on creating bat files. Include the '-r' parameter if you want an Excel spreadsheet as the output.
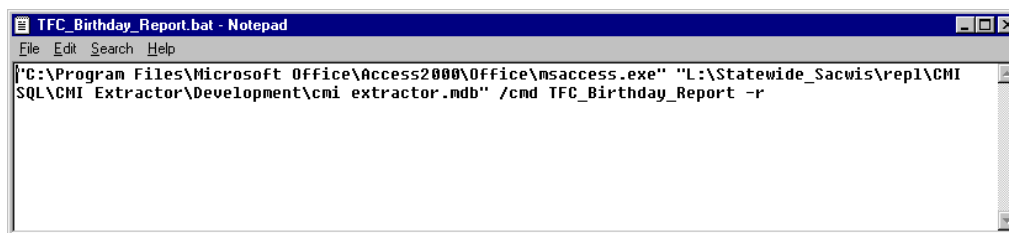
5. Run the report.

    Either run the bat file or click on the <Test Job> button ![button] to the right of the Description field on the Job Maintenance window to run the report. The Excel output will be saved in the same folder that the CMI Extractor.mdb resides in. Here is the output from the sample report.
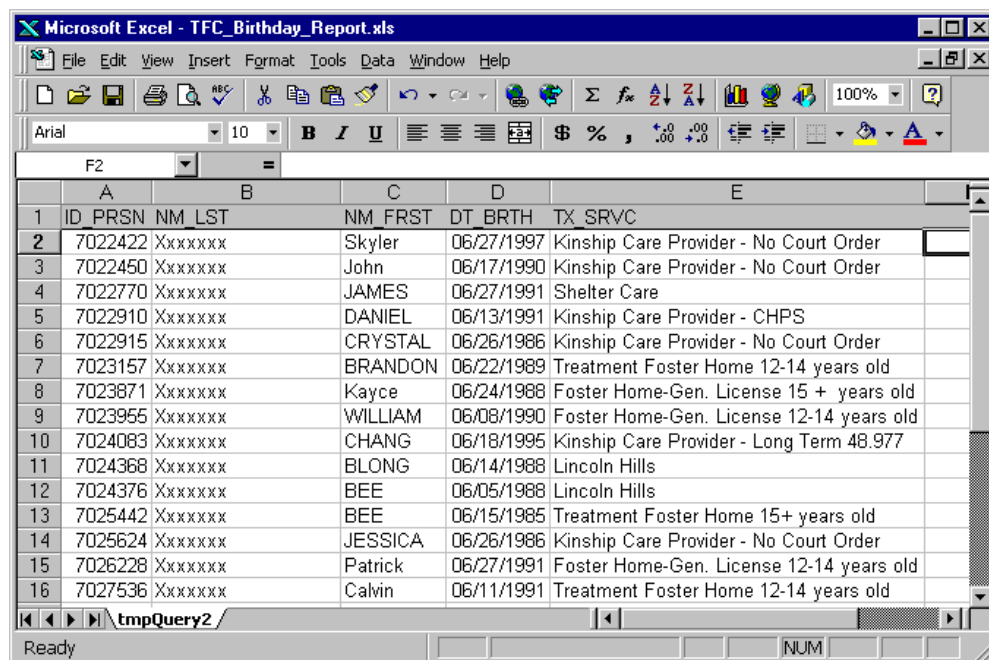

	A	B	C	D	E
1	ID_PRSN	NM_LST	NM_FRST	DT_BRTH	TX_SRVC
2	7022422	Xxxxxxx	Skyler	06/27/1997	Kinship Care Provider - No Court Order
3	7022450	Xxxxxxx	John	06/17/1990	Kinship Care Provider - No Court Order
4	7022770	Xxxxxxx	JAMES	06/27/1991	Shelter Care
5	7022910	Xxxxxxx	DANIEL	06/13/1991	Kinship Care Provider - CHPS
6	7022915	Xxxxxxx	CRYSTAL	06/26/1986	Kinship Care Provider - No Court Order
7	7023157	Xxxxxxx	BRANDON	06/22/1989	Treatment Foster Home 12-14 years old
8	7023871	Xxxxxxx	Kayce	06/24/1988	Foster Home-Gen. License 15 + years old
9	7023955	Xxxxxxx	WILLIAM	06/08/1990	Foster Home-Gen. License 12-14 years old
10	7024083	Xxxxxxx	CHANG	06/18/1995	Kinship Care Provider - Long Term 48.977
11	7024368	Xxxxxxx	BLONG	06/14/1988	Lincoln Hills
12	7024376	Xxxxxxx	BEE	06/05/1988	Lincoln Hills
13	7025442	Xxxxxxx	BEE	06/15/1985	Treatment Foster Home 15+ years old
14	7025624	Xxxxxxx	JESSICA	06/26/1986	Kinship Care Provider - No Court Order
15	7026228	Xxxxxxx	Patrick	06/27/1991	Foster Home-Gen. License 12-14 years old
16	7027536	Xxxxxxx	Calvin	06/11/1991	Treatment Foster Home 12-14 years old

6. Saving the report query and job when refreshing the CMI Extractor.

    The CMI Extractor is upgraded with new queries from time-to-time. When a county wants to take advantage of the new CMI Extractor but has also created some custom reports within the Extractor, special care must be taken to avoid losing the custom reports set up. A county should always save a copy of the older version of the CMI Extractor.mdb file to make sure that nothing is lost. The county can simply repeat the steps for setting up the query and job for the report by opening both the new and saved copy of the CMI Extractor and duplicating the set up in the new version of the Extractor. If there are a lot of reports and the county is comfortable with MS Access, records related to the report queries and jobs can be copied from the Query, Job, and Job Detail tables in the saved copy of the Extractor to the new Extractor. If there are any questions on how to do this, contact the WiSACWIS Team.

14. Implementation Notes

- A county can automate the updating of the CMI_Parm_Date table in preparation for the next execution of the CMI extract process by executing the command named INSERTRUNDATE using a Bat file such as:

  "C:\Program Files\Microsoft Office2000\Office\msaccess.exe" "L:\Statewide_Sacwis\Conversion\County Conversion Tools\REPL\CMI Extractor.mdb" /cmd INSERTRUNDATE

- All SQL queries provided by the eWiSACWIS Team are Oracle-compliant SQL and need to be executed as pass-through queries.

- Many queries create temporary Oracle Lite tables that are not deleted until the next time the query runs. The naming convention for these tables is CMIxx_meaningful_name where xx is the CMI query number as documented by the eWiSACWIS Team.

- The CMI 21 – Client_Selection query creates the CMI21_Client_List table that is used by several other queries. The running order of queries requiring this temporary table is very important. Refer to the Data Specs for CMI document for a list of the queries that use this temporary table.