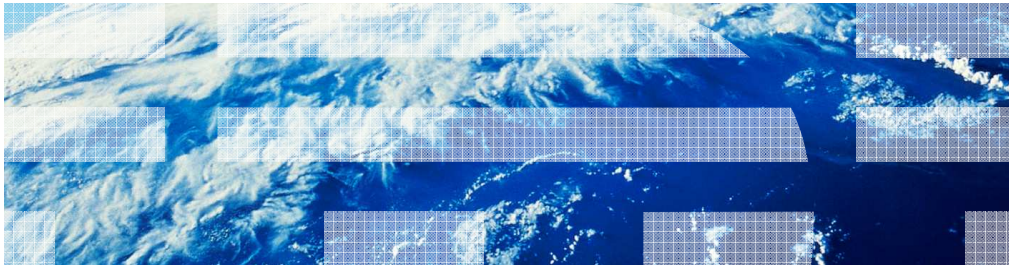


## Tivoli Common Reporting V2.1

Three methods to trace SQL statements to Tivoli Data Warehouse from Tivoli Common Reporting and Cognos for report debugging



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This lesson contains information about tracing SQL statements to IBM Tivoli® Data Warehouse (TDW) when running Cognos®-based reports in Tivoli Common Reporting (TCR). This tracing can be particularly useful when troubleshooting problems based on report content or the lack thereof.

## Objectives

When you complete this module, you can trace SQL statements to Tivoli Data Warehouse from Tivoli Common Reporting and Cognos for report debugging by using one of these methods:

- Perform a UDA trace by using system environment variables
- Perform a Cognos server trace with UDA by using configuration files
- Perform a TCP buffer trace by using a configuration file

When you complete this module, you can trace SQL statements to Tivoli Data Warehouse from Tivoli Common Reporting and Cognos for report debugging by using a UDA trace, a Cognos server trace, or TCP buffer trace.

## Path assumptions

- Windows®  
    <TCR\_component\_dir> defaults to C:\IBM\tivoli\tipv2Components\TCRComponent
- Linux® or UNIX®  
    <TCR\_component\_dir> defaults to /opt/IBM/tivoli/tipv2Components/TCRComponent

To simplify a common directory structure used throughout this module, these are the path assumptions for the various operating systems. Note that the paths are the default locations and can be different depending on what options were used during the installation of Tivoli Common Reporting.

## Method 1: UDA trace by using system environment variables

- Windows
  - <TCR\_component\_dir>\bin\stopTCRserver.bat
  - My Computer > Properties
  - Advanced > Environment Variables
  - System variables > New
    - TRACE\_FILE=<TCR\_component\_dir>\cognos\uda.log
    - TRACE\_LAYER\_DMD\_SQLAPIRW=0x002
  - <TCR\_component\_dir>\bin\startTCRserver.bat
- Linux or UNIX
  - <TCR\_component\_dir>/bin/stopTCRserver.sh
  - export TRACE\_FILE=<TCR\_component\_dir>/cognos/uda.log  
TRACE\_LAYER\_DMD\_SQLAPIRW=0x002;
  - <TCR\_component\_dir>/bin/startTCRserver.sh

The first method to trace SQL statements involves setting system environment variables on the system where Tivoli Common Reporting is installed. For a Windows system, first stop Tivoli Common Reporting by using the **stopTCRserver.bat** script. Next, open the **Properties** tab of My Computer by right-clicking **My Computer**. Select the **Advanced** tab and choose the **Environment Variables** option. Under the System variables section, select **New**. For the **Variable** name, enter **TRACE\_FILE** or **TRACE\_LAYER\_DMD\_SQLAPIRW** and for the **Variable** value, enter the path where you want the **uda.log** file to be created or the value of **0x002**. Start the Tivoli Common Reporting server with the **startTCRserver.bat** command and run the report. The SQL statement tracing is located in the **uda.log** file.

For a Linux or UNIX system, first stop the Tivoli Common Reporting server with the **stopTCRserver.sh** script. Next, set the two environment variables in a command shell by using the **export** command. Restart the Tivoli Common Reporting server with the **startTCRserver.sh** script and run the report. Note that the trace settings are valid until the Tivoli Common Reporting server is stopped.

## Method 2: Cognos server trace with UDA by using configuration files

- Windows
  - Back up <TCR\_component\_dir>\cognos\configuration\ipfUDAclientconfig.xml.sample
  - Rename it to ipfclientconfig.xml
  - Wait 30 seconds
  - Run the report
  - Rename ipfclientconfig.xml to ipfUDAclientconfig.xml.sample
- Linux or UNIX
  - Back up <TCR\_component\_dir>/cognos/configuration/ipfUDAclientconfig.xml.sample
  - Rename it to ipfclientconfig.xml
  - Wait 30 seconds
  - Run the report
  - Rename ipfclientconfig.xml to ipfUDAclientconfig.xml.sample
- Logs are found in <TCR\_component\_dir>\cognos\logs or <TCR\_component\_dir>/cognos/logs
  - UDA\_Perf.log
  - UDA\_RTUsage.log
  - UDA\_Trace.log

The second method to trace SQL statements involves renaming a file and waiting for Tivoli Common Reporting to recognize that the file name has changed. The file name and procedure are the same for both Windows and Linux or UNIX platforms and separate instructions have been given due to path differences. First back up the **ipfUDAclientconfig.xml.sample** file. Next, rename the file to **ipfclientconfig.xml**. Wait at least thirty seconds for Tivoli Common Reporting to recognize the name change and run the report. To disable the tracing, rename the **ipfclientconfig.xml** file to **ipfUDAclientconfig.xml.sample**. After the report has been run, you can view the tracing in the **UDA\_Perf.log**, **UDA\_RTUsage.log**, and **UDA\_Trace.log** files in the directory specified.

### Method 3: TCP buffer trace by using a configuration file

- Windows
  - Open the <TCR\_component\_dir>\cognos\bin\cogdmd2.ini file
  - Uncomment these lines
    - ;[TRACE]
    - ;output=<my trace file name>
    - ;Data=yes
  - Replace <my trace file name> with <TCR\_component\_dir>\cognos\logs\buffer.trace
  - <TCR\_component\_dir>\bin\stopTCRserver.bat
  - <TCR\_component\_dir>\bin\startTCRserver.bat
  - Run the report
- Linux or UNIX
  - Open the <TCR\_component\_dir>/cognos/bin/cogdmd2.ini file
  - Uncomment these lines
    - ;[TRACE]
    - ;output=<my trace file name>
    - ;Data=yes
  - Replace <my trace file name> with <TCR\_component\_dir>/cognos/logs/buffer.trace
  - <TCR\_component\_dir>/bin/stopTCRserver.bat
  - <TCR\_component\_dir>/bin/startTCRserver.bat
  - Run the report

The third and final method to trace SQL statements in a Cognos-based report in Tivoli Common Reporting involves editing a file and restarting the Tivoli Common Reporting server. Again, the steps are the same on Windows and Linux or UNIX platforms and only involve the differences in path and commands to stop and start the Tivoli Common Reporting server.

There are several files in the directory specified that can be modified based on the back-end database the report uses. This example employs the use of a DB2® database. Open the **cogdmd2.ini** file and uncomment the three lines noted by removing the semicolon character. For the second line beginning with output, replace the characters following the equal sign with a valid path name that includes a file name, such as **buffer.trace** where the tracing information is written. Stop and restart the Tivoli Common Reporting server for the changes to take effect and run the report. To disable the tracing, open the **cogdmd2.ini** file and comment the three changed lines. A restart of Tivoli Common Reporting is required as well.

### Method 3: TCP buffer trace by using a configuration file (other files)

- cogdmod.ini - generic ODBC
- cogdmif.ini - Informix®
- cogdmms.ini - MS SQL Server
- cogdmor.ini - Oracle
- cogdmsy.ini - Sybase

These are some other examples of the related configuration files to change for the third method based on database type. These are the most common databases, and the other configuration files exist in the same directory. Comments in the files direct you as to the changes required for the trace to be enabled.

## Summary

Now that you completed this module, you can perform these tasks:

- Perform a UDA trace by using system environment variables
- Perform a Cognos server trace with UDA by using configuration files
- Perform a TCP buffer trace by using a configuration file

Now that you have completed this module, you can perform traces by using system variables or two types of traces by using configuration files.



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