OMPE COMPARE TOOL

CONTENTS

GETTING STARTED

What is OMPE Compare Tool?

OMPECmp is a tool for gathering and comparing data from OMPE reports. The purpose of this tool is to save time and effort in identifying and analyzing changes in OMPE data while maintaining portability and flexibility. The program calculates the % relative change between two input data sets and highlights data greater than a specified threshold. OMPECmp offers many different ways to compare data from both CSV and text inputs. It is also capable of generating reports in CSV, HTML, and XML formats, which means less dependency on proprietary software.
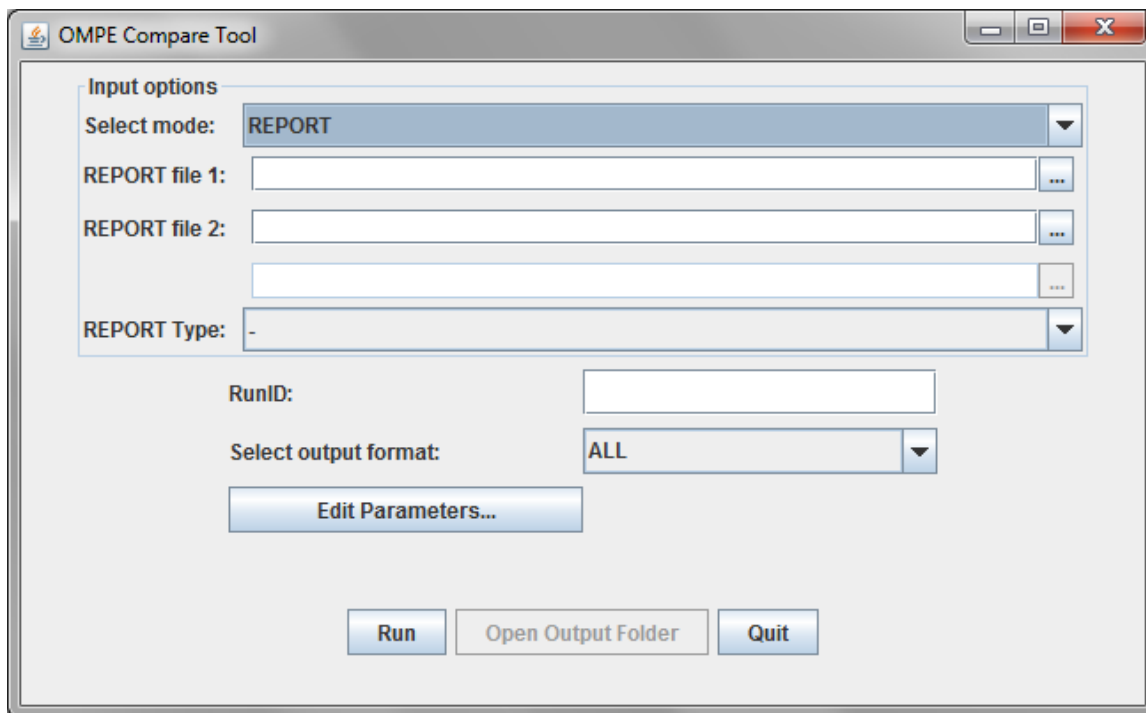
System Requirements

- Java 1.7

Setting Up OMPE Compare Tool

1. Extract the ZIP archive. It should contain ompecmp.jar, OMPECMP_env.xml, ompecmp.bat, and an Examples folder.
2. If you need to remotely access the files, ensure that you configure your firewall to allow access.
3. Run the JAR file. If the .JAR file will not itself execute, the .bat file can be used to start OMPE Compare Tool.
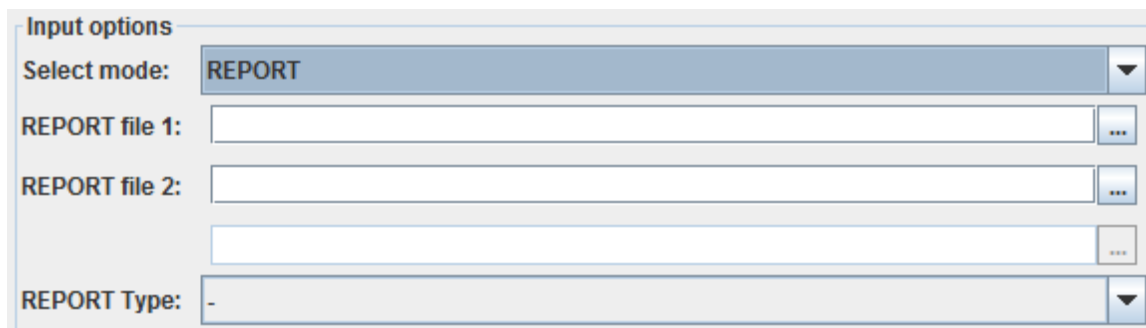
USING OMPE COMPARE TOOL

Input Options

OMPE Compare Tool runs in four different modes: REPORT, CSV REPORT, HISTORY, and CSV HISTORY, which can be selected from the first combo box. To select input files, enter the file path into the text field or browse for the file by clicking on the button immediately adjacent to the field.

REPORT MODE

REPORT mode expects two input files. Data from each file will be compared side-by-side with a delta calculated between them. The first file will be considered the base values by which the deltas are calculated. The REPORT Type combo-box does not affect report processing, but configures the Parameters Editor to show the most relevant parameters when opened.

HISTORY MODE

HISTORY mode expects at least one input TRACE file and (optionally) one TRACE history file of the type xxx_HIST.xml. Data in the input file will be added to the data in the history file. If no history file is provided, data from the TRACE file will be added to a new history file.

HISTORY MODE BATCH SUPPORT

In HISTORY mode, if multiple TRACE files are selected, OMPE Compare tool will sequentially process them and add them in turn to the history file. The resulting output file will contain TRACE data from all input TRACE files.

CSV MODES

CSV REPORT and CSV HISTORY work exactly like REPORT and HISTORY but expect CSV input files.

UTILITY STATISTICS MODE

UTILITY STATISTICS mode expects at least one input utility statistics file and optionally one utility history file of the type xxx_US.xml. Data in the input file will be added to the data in the history file. If no history file is provided, data from the input file will be added to a new history file.

UTILITY STATISTICS MODE BATCH SUPPORT

In UTILITY STATISTICS mode, if multiple input files are provided, OMPE Compare tool will sequentially process them and add them in turn to the history file. The resulting output will contain utility statistics data from all input files.

Output Options

RunID:

Select output format: ALL ▼

RunID

If provided, RunID will determine the name given to the output files. If no RunID is provided, the name "output" will be used. For example, the RunID "example" will result in output files named example_AC.xml, example_ST.csv, or example_HIST.html depending on the type of report and format requested.

OUTPUT FORMAT

There are four choices of output format: ALL, XML, CSV, HTML. ALL will result in all three choices.

PARAMETERS

OMPE Compare Tool parameters can be set by clicking the "Edit Parameters..." button.

Editing Parameters

There are seven sections to the parameters window: Input file column names, Remote download info, Generic output options, Accounting, Statistics, Buffer Pool, and Accounting Jobs. The parameters are stored in a file named OMPECMP.parameters in the same directory as OMPECMP.jar. When no parameters file exists, a new one is created with default (mostly blank) options.

REPORT COLUMN NAMES

These options set the first and second column names of the output for REPORT and CSV REPORT mode. For example, if your first input file is a report for version 10 and the second a report for version 11, you may set "V10" and "V11" for the first file and second file fields respectively, and the output report will have the proper labels.

REMOTE DOWNLOAD INFO

These options allow for the fetching of input files from a remote system such as STLMVS1.

GENERIC OUTPUT OPTIONS

"Show Delta Values" shows the delta value between inputs in addition to the percent difference. If unchecked, the output only shows the percent difference.

The combo box presents three options. If set to "Discard empty columns", output will not be shown with an empty DELTA(%) column. If set to "Discard columns below threshold", output will not be shown when the DELTA(%) column is below the threshold set in the Threshold option in this section. "Show all columns" shows all of the data regardless of the value in the DELTA(%) column.

"Timestamp Output Files" adds a timestamp to the output file name of the format "MMddHHmm".

ACCOUNTING SECTIONS

| Accounting Sections | Accounting Options | Buffer Pool | Statistics Sections |

Option	Enabled
Elapsed & CPU Time	✔
Per Commit Values	☐
Suspensions	✔
Highlights	✔
Global Contention	✔
SQL DML	✔
SQL DCL	✔
SQL DDL	✔
Locking	✔
Data Capture	✔
Data Sharing	✔

The Accounting Sections tab controls the accounting outputs.

Packages (Default Naming)	☐
Packages (ACTIVITY NAME)	☐

The last two options behave differently from the rest. If neither box is checked, no package information will be displayed. If the first box is checked, package information will be displayed with the default naming. If the second box is checked, package information will be displayed with naming given by ACTIVITY_NAME. If both boxes are checked, the second box will be ignored.

Using the Packages Parameters
In the below example, the package name would be "SYSLN200" if Default Naming is selected or if neither is selected. If ACTIVITY NAME is selected, then the package name would be the data after ACTIVITY NAME except if it is 'BLANK', in which case it will use "SYSLN200."

SYSLN200   **A_packages=y or if ACTIVITY NAME = 'BLANK'**

					AVERAGE TIME	AVG.EV	TIME/EVENT
TYPE	PACKAGE		ELAP-CL7 TIME-AVG	0.007150	LOCK/LATCH	0.000015	0.06	0.000252
			CP CPU TIME	0.000687	IRLM LOCK+LATCH	0.000015	0.01	0.001502
LOCATION	DSNDA1B		AGENT	0.000687	DB2 LATCH	0.000001	0.05	0.000018
COLLECTION ID	NULLID		PAR.TASKS	0.000000	SYNCHRONOUS I/O	0.005667	3.24	0.001750
PROGRAM NAME	SYSLN200		SE CPU TIME	0.000000	OTHER READ I/O	0.000588	0.21	0.002842
			SUSPENSION-CL8	0.006289	OTHER WRITE I/O	0.000019	0.00	0.011457
ACTIVITY TYPE	NONNESTED			0.006289	SERV.TASK SWITCH	0.000000	0.00	0.001332
ACTIVITY NAME	'BLANK'			0.000000	ARCH.LOG(QUIESCE)	0.000000	0.00	N/C
SCHEMA NAME	'BLANK'		NOT ACCOUNTED	0.000175	ARCHIVE LOG READ	0.000000	0.00	N/C
SUCC AUTH CHECK	0		AVG.DB2 ENTRY/EXIT	N/P	DRAIN LOCK	0.000000	0.00	N/C
OCCURRENCES	695780		DB2 ENTRY/EXIT	N/P	CLAIM RELEASE	0.000000	0.00	N/C
NBR OF ALLOCATIONS	3478				PAGE LATCH	0.000000	0.00	0.000100
SQL STMT - AVERAGE	N/P		CP CPU SU	39.10	NOTIFY MESSAGES	0.000000	0.00	N/C
SQL STMT - TOTAL	N/P		AGENT	39.10	GLOBAL CONTENTION	0.000000	0.00	N/C
NBR RLUP THREADS	695612		PAR.TASKS	0.00	TCP/IP LOB XML	0.000000	0.00	N/C
			SE CPU SU	0.00	TOTAL CL8 SUSPENS.	0.006289	3.51	0.001793

A_packages=a

STATISTICS SECTIONS

Accounting Sections	Accounting Options	Buffer Pool	Statistics Sections

Option	Enabled
Display Second Values	☐
SQL DML & DCL	☑
Store Procedure, Trigger, & UDF	☑
EDM Pool	☑
Dynamic SQL STMT	☑
Open/Close Activity	☑
Log Activity	☑
Plan/Package Processing	☑
RID List Processing	☑
Authorization Management	☑
Locking Activity	☑

The Statistics Sections tab controls the statistics options.

BUFFER POOL

Accounting Sections	Accounting Options	Buffer Pool	Statistics Sections

Option	Enabled
BP00 - BP09	☑
BP10 - BP19	☑
BP20 - BP29	☑
BP30 - BP39	☑
BP40 - BP49	☑
BP8K0 - BP8k9	☑
BP16K0 - BP16K9	☑
BP32K0 - BP32K9	☑
Total BPool	☑

The Buffer Pool tab controls the Buffer Pool settings.

ACCOUNTING OPTIONS

The Accounting Options tab consists of two options. The first combo box allows the selection of 10 different options, CONNTYPE, PLANNAME, AUTHID, CORRNAME, ACTNAME, PACKAGE, PROGRAM, INTERVAL, TRANSACT, and First report only. The text field allows the user to list a series of NAMES for the ORDERTYPE..

Using ORDERTYPE and NAMES parameters

These parameters should only be used when the user wishes to process the reports by CONNTYPE, PLAN-NAME, AUTHID, CORRNAME, ACTNAME, PACKAGE, PROGRAM, INTERVAL, or TRANSACT names. For instance, suppose we have an input file that has multiple CONNTYPE reports in it. Suppose the CONNTYPE for each report in the file are shown below.

```
1   LOCATION: DSNDA1B                    OMEGAMON XE FOR DB2 PERFORMANCE EXPERT
(V5R1)
        GROUP: N/P                               ACCOUNTING REPORT - LONG
       MEMBER: N/P
    SUBSYSTEM: DA1B                                    ORDER: CONNTYPE
  DB2 VERSION: V10                                     SCOPE: MEMBER


 CONNTYPE: DRDA


...............DATA HERE......................

1   LOCATION: DSNDA1B                    OMEGAMON XE FOR DB2 PERFORMANCE EXPERT
(V5R1)
        GROUP: N/P                               ACCOUNTING REPORT - LONG
       MEMBER: N/P
    SUBSYSTEM: DA1B                                    ORDER: CONNTYPE
  DB2 VERSION: V10                                     SCOPE: MEMBER


 CONNTYPE: CICS


...............DATA HERE......................
1   LOCATION: DSNDA1B                    OMEGAMON XE FOR DB2 PERFORMANCE EXPERT
(V5R1)
        GROUP: N/P                               ACCOUNTING REPORT - LONG
       MEMBER: N/P
    SUBSYSTEM: DA1B                                    ORDER: CONNTYPE
  DB2 VERSION: V10                                     SCOPE: MEMBER


 CONNTYPE: RRS


...............DATA HERE......................
```

If we suppose there is another input file with the same report headers and wish to compare the reports from different files with matching CONNTYPE, then we must set ORDERTYPE=CONNTYPE

DRDA			
Section	**V10**	**V11**	**Delta (%)**
Row Name	Data	Data	Delta
Row Name	Data	Data	Delta
Section	**V10**	**V11**	**Delta (%)**
Row Name	Data	Data	Delta
CICS			
Section	**V10**	**V11**	**Delta (%)**
Row Name	Data	Data	Delta
Row Name	Data	Data	Delta
Section	**V10**	**V11**	**Delta (%)**
Row Name	Data	Data	Delta

If you want to compare only the CNNTYPE DRDA and CICS, in the NAMES box enter:

DRDA, CICS

In this case, the CONNTYPE RRS will be excluded from the resulting report. In this way, you can selectively compare a specific list of names (planname/authid/etc.) under an ORDERTYPE.
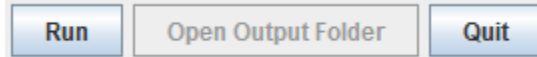
PARAMETER DESCRIPTIONS AND DEFAULT VALUES

Parameter	Description	Default Setting
Input file column names		
First file	Column name for the first input file. In TRACE mode, it is the column name for the new data specified by the input file, and all data from the history file will remain unchanged. (ignored in CSV mode)	
Second file	Column name of the second input file (ignored in TRACE and CSV mode)	
Remote download info		
zOSServer	Server name from which to download the input files	
Username	Username for authentication at server	
Password	Password for authentication at server	
Cleanup downloaded files	Delete downloaded files after we are done using them	y
Output parameters		
Threshold	Percent tolerance for marking data. Data with delta (%) > tolerance will have warning level "med" and data with delta (%) > 2*tolerance will have warning level "high". Otherwise the warning level will be "low"	10
Combo box	If set to "Discard empty columns", output will not be shown with an empty DELTA(%) column. If set to "Discard columns below threshold", output will not be shown when the DELTA(%) column is below the threshold set in the Threshold option in this section. "Show all columns" shows all of the data regardless of the value in the DELTA(%) column.	Discard empty columns
ShowDelta	Determines whether the delta value (set1-set0) will be displayed. Ignored in TRACE mode. When this equals "y" delta and delta(%) will be displayed. When this equals "n" only delta(%) will be displayed.	n
Accounting Report Parameters		
Per Commit Values	Changes all counters in the accounting report to their per commit values (not used in TRACE mode)	n
Elapsed Time		y
Suspensions		y
Highlights		y
Global Contention		y
SQL DML		y
SQL DCL		y
SQL DDL		y
Locking		y
Data capture		y
Data Sharing		y
Query Parallel		y
Store Procedure		y
UDF		y
Row ID		y

Parameter	Description	Default Setting
RID List		y
Average SU		y
Logging		y
Dynamic SQL		y
Buffer Pool		y
Group Buffer Pool		y
Triggers		y
Distributed Activity		y
Accelerator		y
Packages	See "Using the packages parameters" section	n
	Statistics Report Parameters	
Display Second Values	Display the per-second values for the rows	n
SQL DML & DCL		y
Store Procedure, Trigger, and UDF		y
EDM Pool		y
Dynamic SQL STMT		y
Open/Close Activity		y
Log Activity		y
Plan/Package Processing		y
RID List Processing		y
Authorization Management		y
Locking Activity		y
Global DDF Activity		y
CPU Times		y
Data Capture		y
IFC Record		y
Latch		y
DBM1 & MVS Storage Below 2GB		y
DBM1 & MVS Storage Above 2GB		y
DIST and MVS Storage		y
Real and Auxiliary Storage for DBM1		y
Real and Auxiliary Storage for DIST		y

Parameter	Description	Default Setting
Common Storage Below and Above 2GB		y
Work File Database		y
Buffer Pool		y
Group Buffer Pool		y
Buffer Pool Settings		
BP00 - BP09		y
BP10 - BP19		y
BP20 - BP29		y
BP30 - BP39		y
BP40 - BP49		y
BP8K0 - BP8K9		y
BP16K0 - BP16K9		y
BP32K0 - BP32K9		y
Total BPool		y
Accounting Jobs		
ORDERTYPE	If there are multiple reports in the input file we can separate them by ORDERTYPE. Valid ORDERTYPE values are CONNTYPE, PLANNAME, AUTHID, CORRNAME, ACTNAME, PACKAGE, PROGRAM, INTERVAL, and TRANSACT, and First report only.	
NAMES	This restricts the input reports (separated by commas) that will appear in the output report. If it is blank, all input reports will be displayed. For instance, if ORDERTYPE = CORRNAME and NAMES=THQ11, THQ12, THQ13 then only reports containing CORRNAME: THQ11, CORRNAME: THQ12, or CORRNAME: THQ13 will appear in the program output.	

Running OMPE Compare Tool

| Run | Open Output Folder | Quit |

When OMPE Compare Tool has been properly configured, hit the "Run" button to run the compare operation and output the results. If any errors occur, a dialog box will be displayed to show them. If the output is successfully generated, the "Open Output Folder" button will be displayed to allow easy access to the output files. The output files will be placed in the same directory as the OMPE Compare Tool .JAR file.

OMPE Compare Tool outputs certain debug and log messages to standard output, and these can be viewed if necessary by launching the .JAR file from a command line.