

SAP® MaxDB™ Database Analyzer Charts

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Public



Agenda

A Quick Tour - Step by step guides

Working with Database Analyzer Charts

Combining two or more Metrics in one Chart

Working with Metric Templates

Display/Compare/Concatenate via Metric Template

Working with the Navigator

Working with Database Analyzer Projects

A Quick Tour

Step by step guide

[→ Back to Agenda](#)

- [First steps while having access to the database](#)
- [First steps with no access to the database](#)
- **Further steps**
 - [Select columns for charting](#)
 - [Choose a time span](#)
 - [Compare with data from another csv file](#)
 - [Merge two csv files in one chart](#)
 - [Export charts to image files](#)
 - [Further chart functionality](#)

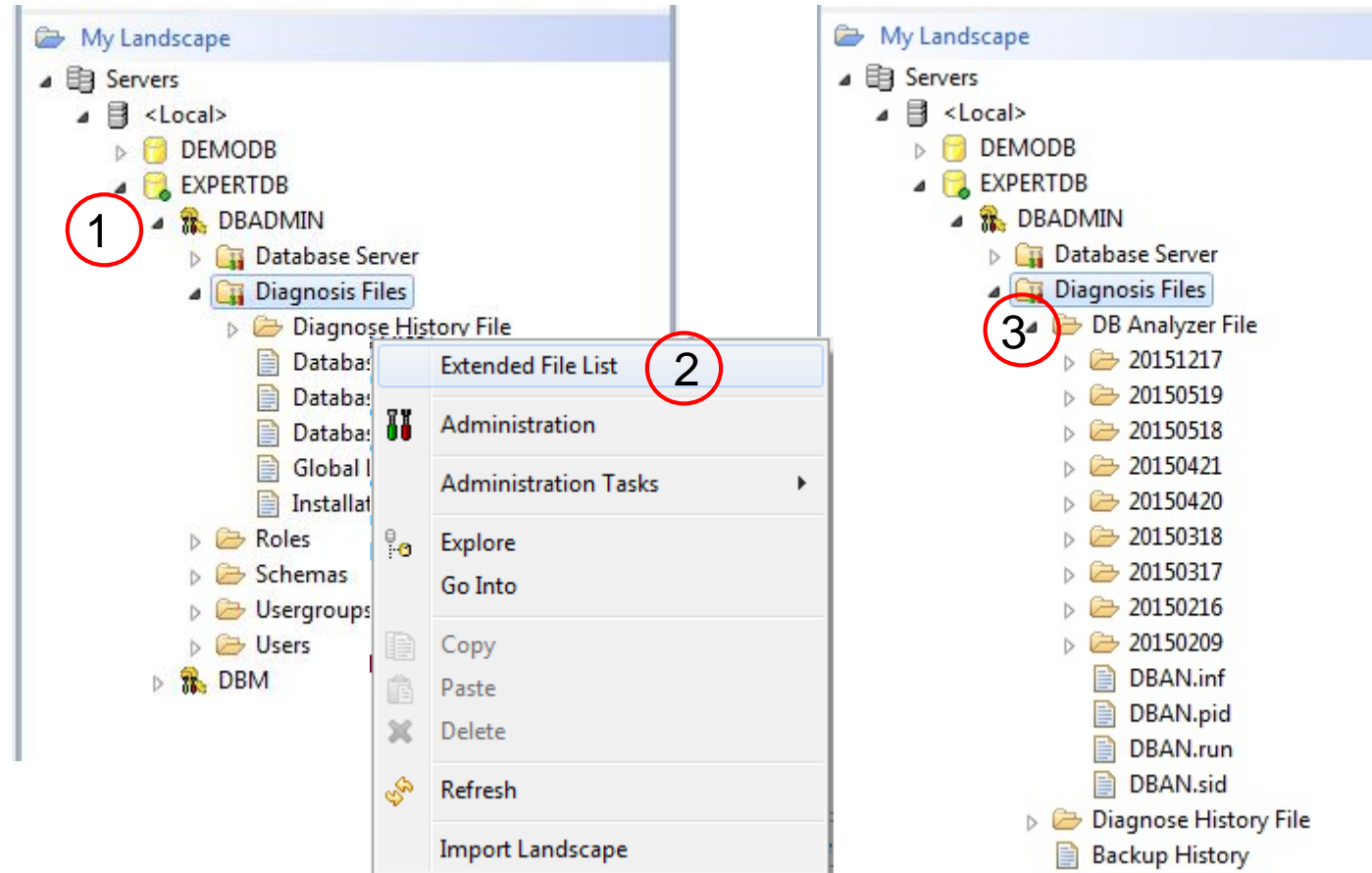
A Quick Tour – While Being Online

Start Database Studio – open Database Analyzer File folder

[→ Back to Quick Tour](#)

Start Database Studio and Login to the database as administrator

1. Open the list of folders belonging to the administrator
2. On **Diagnosis Files** folder apply the context menu function “Extended File list”
3. The **Database Analyzer File** folder becomes visible.
Now open it.



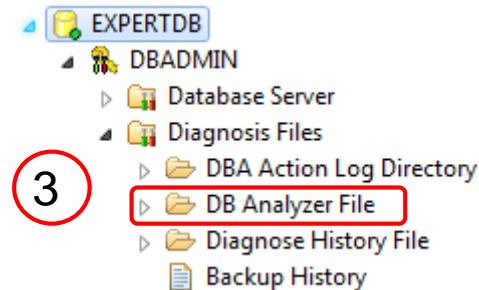
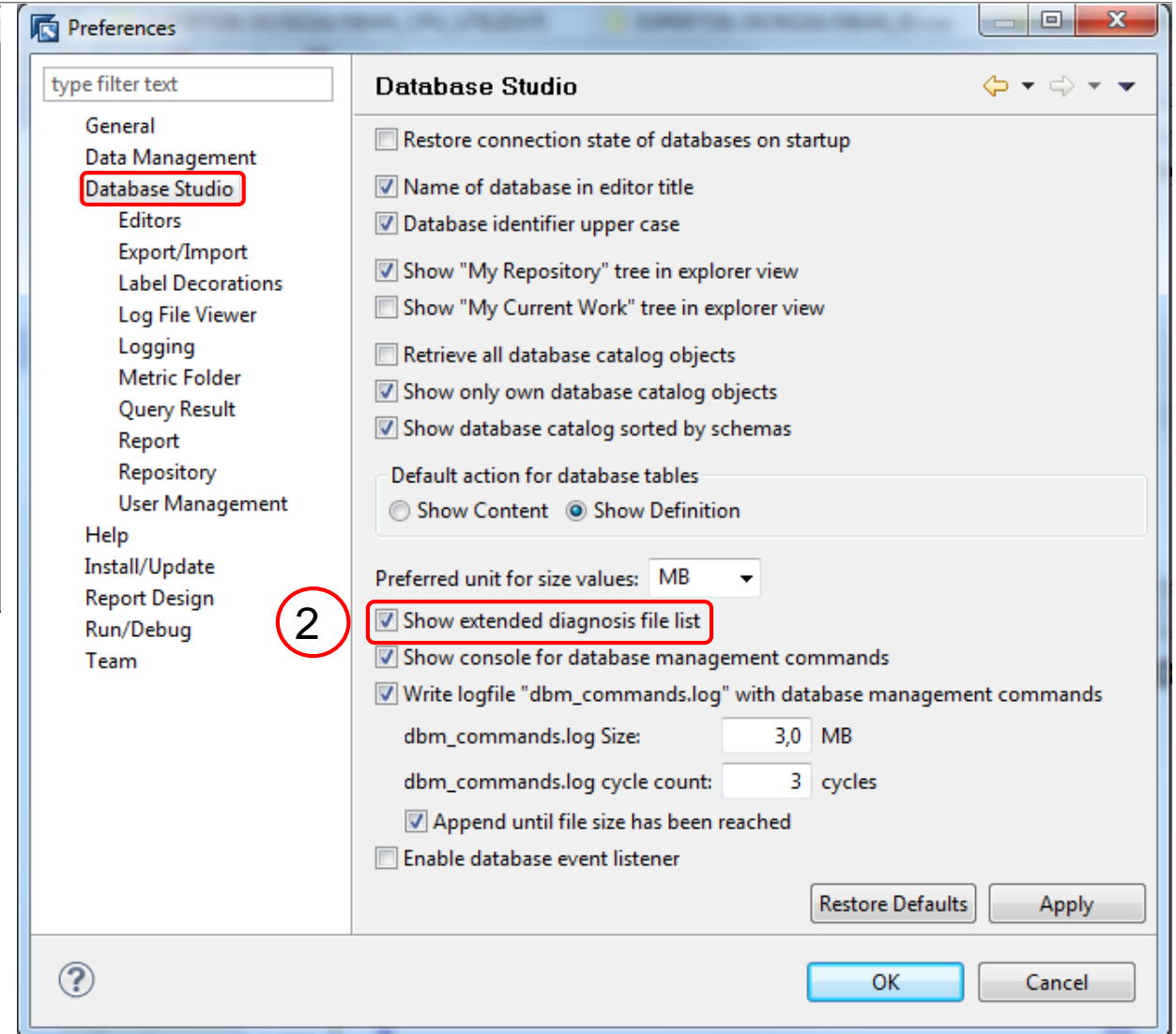
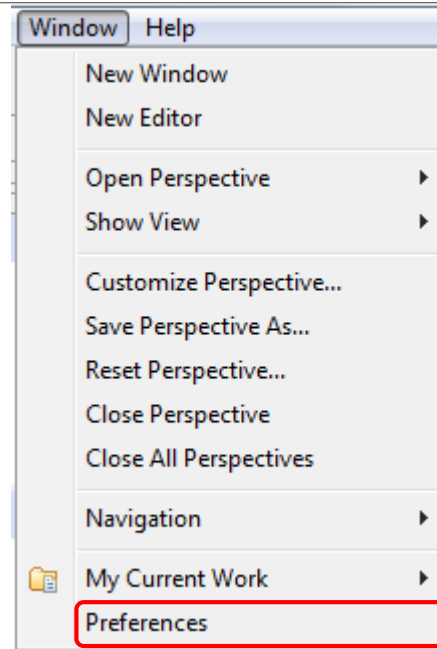
A Quick Tour – While Being Online

Set the Preference Show extended diagnosis file list

[→ Back to Quick Tour](#)

The **DB Analyzer File** folder will always appear right away if the according preference is set.

1. Choose the **Preferences** function under the **Window** menu.
2. On the **Database Studio** Preferences page check the **Show extended diagnosis file list** option.
3. The **Database Analyzer File** folder will always be visible.



A Quick Tour – Online or Offline

Select CSV file of interest

[→ Back to Quick Tour](#)

Navigate to the Database Analyzer data of interest

1. Open the date folder of interest, here e.g. May 19th 2015?
2. Double click on the csv file of interest e.g.: DBAN_IO or DBAN_OVERVIEW
3. If you see now some charts then this means, that Database Studio delivers a **Default Metric Template** for this csv file.

The screenshot shows the SAP Database Studio interface. The Explorer pane on the left displays a tree structure under 'World' > 'Local' > 'My Landscape' > 'Servers' > '<Local>' > 'EXPERTDB' > 'DBADMIN' > 'Database Server' > 'Diagnosis Files' > 'DB Analyzer File' > '20151217' > '20150519'. A red circle labeled '1' highlights the '20150519' folder. Below it, a list of CSV files is shown, with 'DBAN_IO.csv' highlighted by a red circle labeled '2'. The main window displays a table with columns: COUNT, DATE, TIME, DURATION, DELTA, VReads, VWrites, PReads, PWrites, Perm_VReads, Perm_VWrites. The table contains 15 rows of data for the date 19.05.2015. On the right, a 'Diagnosis Chart' is visible, titled 'DBAN_IO (19.05.2015) EXPERTDB'. The chart shows a line graph with a y-axis ranging from -2 to 2 and an x-axis showing time intervals from 0:03 to 21:48:44. A legend on the left of the chart shows 'Acronyms' with a checked box.

COUNT	DATE	TIME	DURATION	DELTA	VReads	VWrites	PReads	PWrites	Perm_VReads	Perm_VWrites
51210	19.05.2015	00:03:11	184	1,083	642,4...	129,5...	697,2...	160,548	525,127,230	13,245,695
51300	19.05.2015	00:21:15	4	903	484,3...	26,63...	719,6...	68,558	460,002,911	3,928,401
51390	19.05.2015	00:36:26	3	902	429,9...	28,42...	1,995...	113,581	406,938,171	5,199,597
51480	19.05.2015	00:51:29	3	902	469,8...	17,63...	3,320...	45,568	458,396,413	6,333,029
51570	19.05.2015	01:06:33	2	902	682,3...	227,4...	1,169...	136,870	467,732,263	7,254,813
51660	19.05.2015	01:21:37	3	902	515,5...	42,68...	1,339...	61,933	483,670,476	9,118,471
51750	19.05.2015	01:36:41	2	902	569,0...	77,32...	1,223...	147,938	501,696,461	7,565,443
51840	19.05.2015	01:51:45	2	901	271,8...	25,69...	1,035...	46,370	251,186,286	4,978,801
51930	19.05.2015	02:06:48	3	902	659,5...	60,68...	1,393...	105,392	620,900,917	18,615,718
52020	19.05.2015	02:21:51	3	903	515,4...	43,47...	926,1...	61,140	487,951,218	14,083,096
52110	19.05.2015	02:36:56	3	902	473,5...	45,08...	1,002...	291,329	444,556,015	14,306,632
52200	19.05.2015	02:51:58	2	902	349,8...	21,84...	778,1...	37,303	328,715,829	3,837,995
52290	19.05.2015	03:07:01	2	902	357,9...	41,28...	1,206...	93,995	321,138,804	4,444,092
52380	19.05.2015	03:22:04	3	902	347,0...	22,40...	899,2...	48,745	329,199,823	4,560,365
52470	19.05.2015	03:37:08	3	902	679,8...	74,74...	629,3...	120,535	634,094,630	24,454,430
52560	19.05.2015	03:52:11	3	902	375,3...	66,25...	490,2...	115,997	323,006,850	12,223,753
52650	19.05.2015	04:07:15	2	902	434,1...	57,19...	559,4...	138,638	393,808,144	14,269,220
52740	19.05.2015	04:22:20	2	902	566,9...	65,87...	211,4...	125,931	522,973,070	20,768,000

A Quick Tour – Online or Offline

Select columns for charting

[→ Back to Quick Tour](#)

In this example the first column with data is “Virtual reads”

1. Double click on a column on the right side of the table
2. The column values are displayed as graph. (Double click again and the chart disappears.)
3. If you move the mouse over the column title you will see the long name of the column on the right side

The screenshot displays the SAP ExpertDB interface. The top window shows a table of database IO statistics for 'EXPERTDB/20150519/DBAN_IO.csv'. The table has columns: COUNT, DATE, TIME, DURATION, DELTA, VReads, VWrites, PReads, PWrites, Perm_VReads, Perm_VWrites, and Perm_PReads. The 'VReads' column is highlighted with a red box and labeled 'Virtual reads'. A red circle '3' is around the 'Perm_VReads' column header. A red arrow points from the 'Virtual reads' label to the 'Virtual reads' column title in the right-hand column list, which is also circled with a red '1'. The bottom window shows a 'Diagnosis Chart' titled 'DBAN_IO (19.05.2015) EXPERTDB'. The chart displays a line graph for 'Virtual reads' over time, with a red circle '2' around the chart area. The chart's y-axis ranges from 0 to 1,000,000,000 and the x-axis shows time intervals from 0:03 to 0:03.

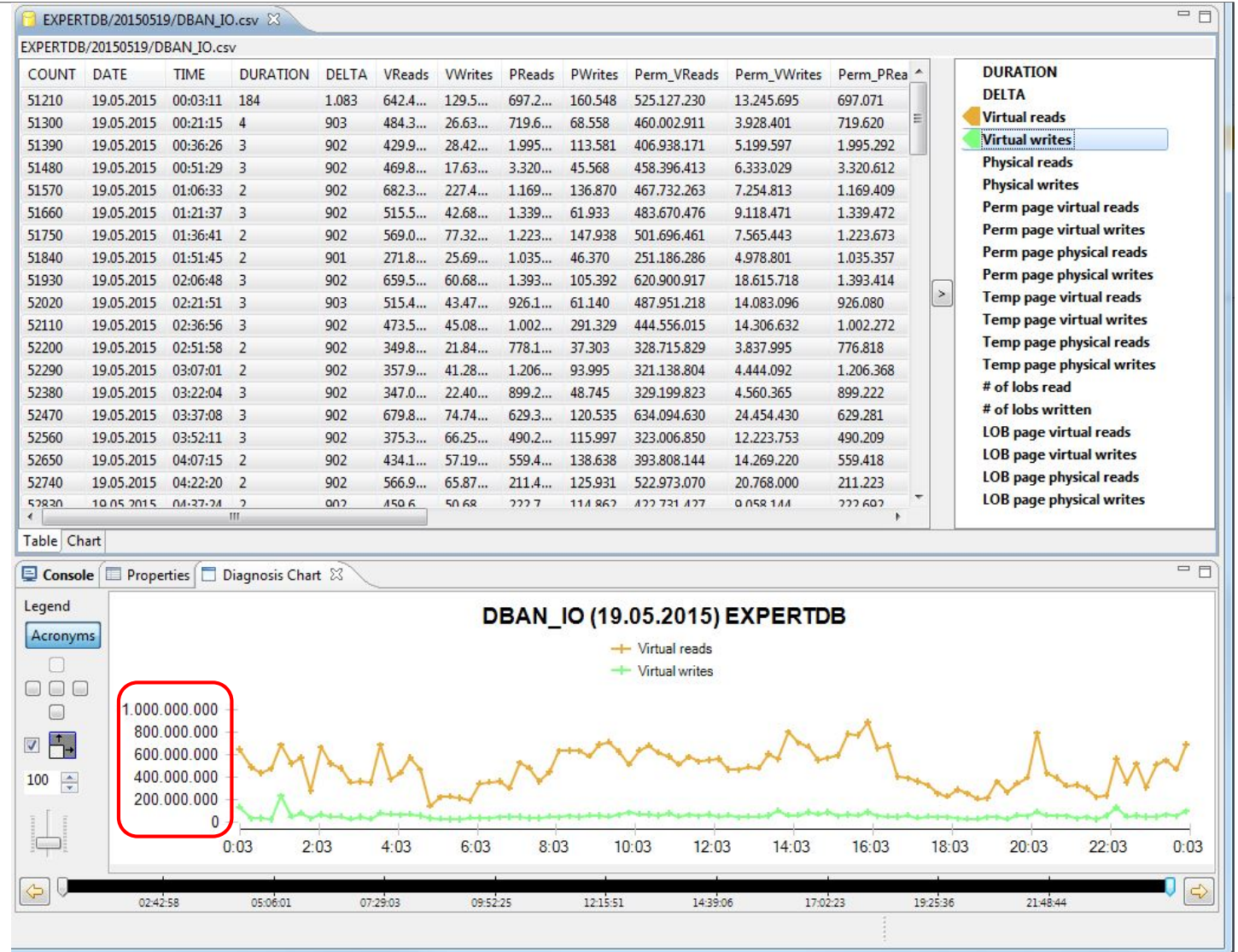
COUNT	DATE	TIME	DURATION	DELTA	VReads	VWrites	PReads	PWrites	Perm_VReads	Perm_VWrites	Perm_PReads
51210	19.05.2015	00:03:11	184	1.083	642.4	97.2...	160.548	525.127.230	13.245.695	697.071	
51300	19.05.2015	00:21:15	4	903	484.3	19.6...	68.558	460.002.911	3.928.401	719.620	
51390	19.05.2015	00:36:26	3	902	429.9...	28.42...	1.995...	113.581	406.938.171	5.199.597	1.995.292
51480	19.05.2015	00:51:29	3	902	469.8...	17.63...	3.320...	45.568	458.396.413	6.333.029	3.320.612
51570	19.05.2015	01:06:33	2	902	682.3...	227.4...	1.169...	136.870	467.732.263	7.254.813	1.169.409
51660	19.05.2015	01:21:37	3	902	515.5...	42.68...	1.339...	61.933	483.670.476	9.118.471	1.339.472
51750	19.05.2015	01:36:41	2	902	569.0...	77.32...	1.223...	147.938	501.696.461	7.565.443	1.223.673
51840	19.05.2015	01:51:45	2	901	271.8...	25.69...	1.035...	46.370	251.186.286	4.978.801	1.035.357
51930	19.05.2015	02:06:48	3	902	659.5...	60.68...	1.393...	105.392	620.900.917	18.615.718	1.393.414
52020	19.05.2015	02:21:51	3	903	515.4...	43.47...	926.1...	61.140	487.951.218	14.083.096	926.080
52110	19.05.2015	02:36:56	3	902	473.5...	45.08...	1.002...	291.329	444.556.015	14.306.632	1.002.272
52200	19.05.2015	02:51:58	2	902	349.8...	21.84...	778.1...	37.303	328.715.829	3.837.995	778.818
52290	19.05.2015	03:07:01	2	902	357.9...	41.28...	1.206...	93.995	321.138.804	4.444.092	1.206.368
52380	19.05.2015	03:22:04	3	902	347.0...	22.40...	899.2...	48.745	329.199.823	4.560.365	899.222
52470	19.05.2015	03:37:08	3	902	679.8...	74.74...	629.3...	120.535	634.094.630	24.454.430	629.281
52560	19.05.2015	03:52:11	3	902	375.3...	66.25...	490.2...	115.997	323.006.850	12.223.753	490.209
52650	19.05.2015	04:07:15	2	902	434.1...	57.19...	559.4...	138.638	393.808.144	14.269.220	559.418
52740	19.05.2015	04:22:20	2	902	566.9...	65.87...	211.4...	125.931	522.973.070	20.768.000	211.223
52830	19.05.2015	04:37:24	2	902	459.6	50.68	777.7	114.862	477.731.477	0.058.144	777.602

A Quick Tour – Online or Offline

Select columns for charting

[→ Back to Quick Tour](#)

1. Double click on the second column on the right side of the table
2. The column values are displayed as graph with the left scale

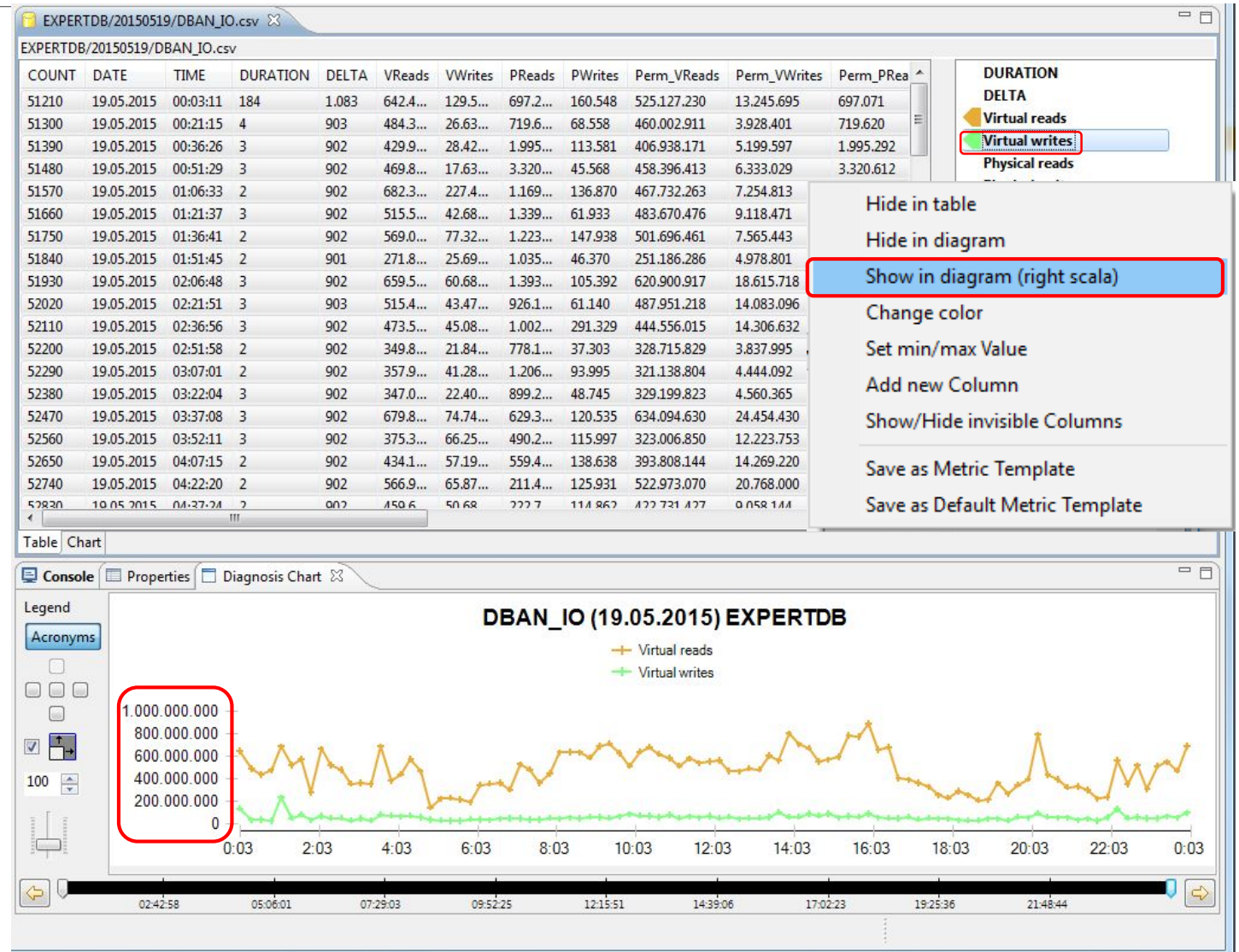


A Quick Tour – Online or Offline

Select columns for charting

[→ Back to Quick Tour](#)

1. Double click on the second column on the right side of the table
2. The column values are displayed as graph with the left scale
3. From the context menu choose **Show in diagram (right scale)** to display the graph with a separate scale on the right.

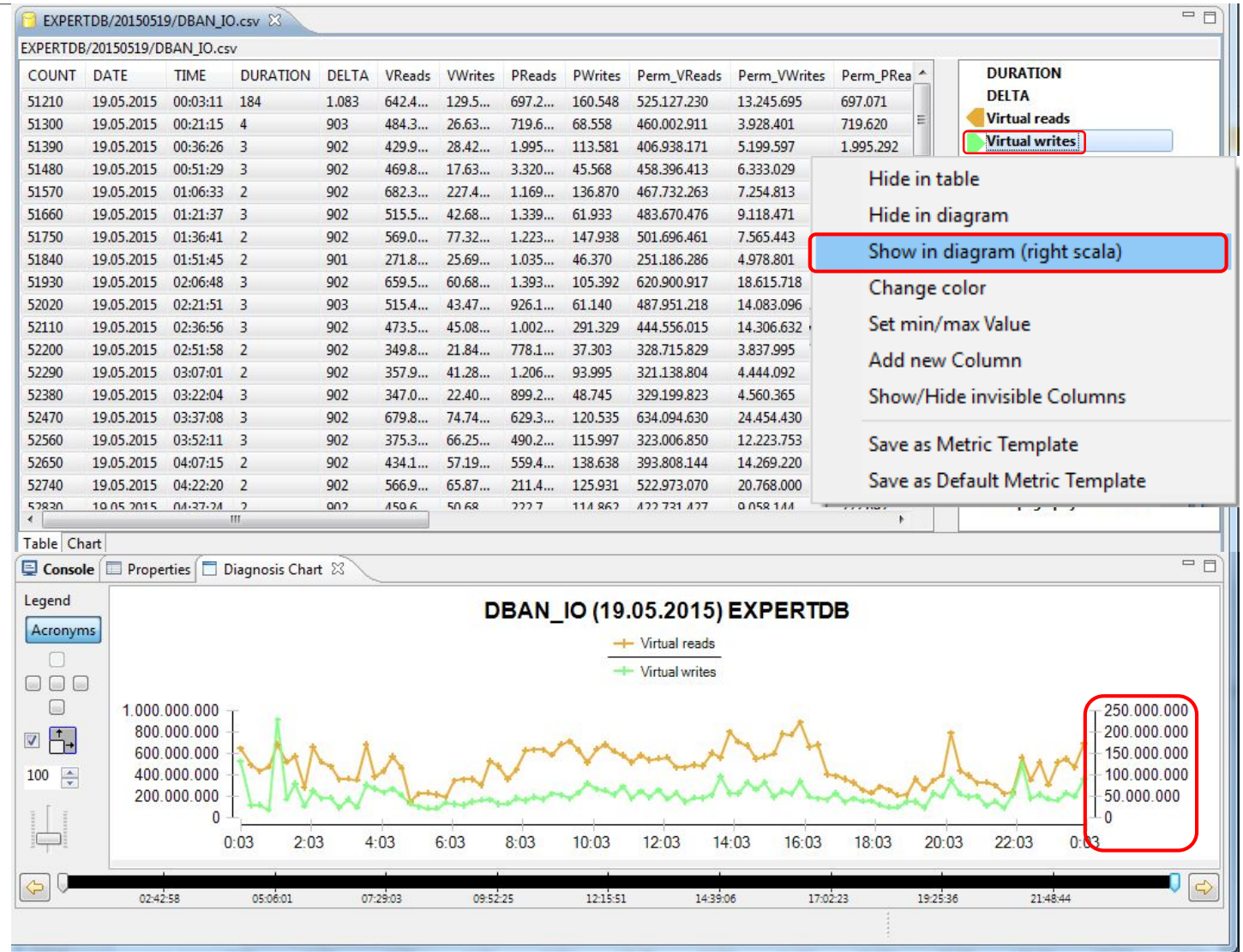


A Quick Tour – Online or Offline

Select columns for charting

[→ Back to Quick Tour](#)

1. Double click on the second column on the right side of the table
2. The column values are displayed as graph with the left scale
3. From the context menu choose **Show in diagram (right scale)** to display the graph with a separate scale on the right.
4. See the second scale on the right side and the changed graph progression.



A Quick Tour – Online or Offline

Open another csv file in the same date folder

[→ Back to Quick Tour](#)

1. Open in the same date folder another csv file e.g.: `DBAN_IOTHEADS.csv`
2. You can see `DBAN_IOTHEADS.csv` as specified in its **Default Metric Template** which has been installed together with the Database Studio software.

The screenshot displays the SAP MaxDB Database Studio interface. On the left, the 'My Repository' tree shows the file `DBAN_IOTHEADS.csv` selected under the '20150519' folder, marked with a red circle and the number '1'. The main window shows a table of performance metrics for `DBAN_IOTHEADS.csv` with columns: COUNT, DATE, TIME, DURATION, DELTA, Reads, PagesRead, ReadTime, Writes, PagesWritten, WriteTime, PendingRequests, TenantReads, and TenantWrites. Below the table, a 'Diagnosis Chart' titled 'DBAN_IOTHEADS (19.05.2015) EXPERTDB' is shown. The chart plots two metrics: 'avg read time (ms) via iotreads' (green line) and '# of pending I/O requests' (red line) over time. The chart is marked with a red circle and the number '2'. The right-hand side of the interface contains a 'DURATION DELTA' legend with various performance indicators.

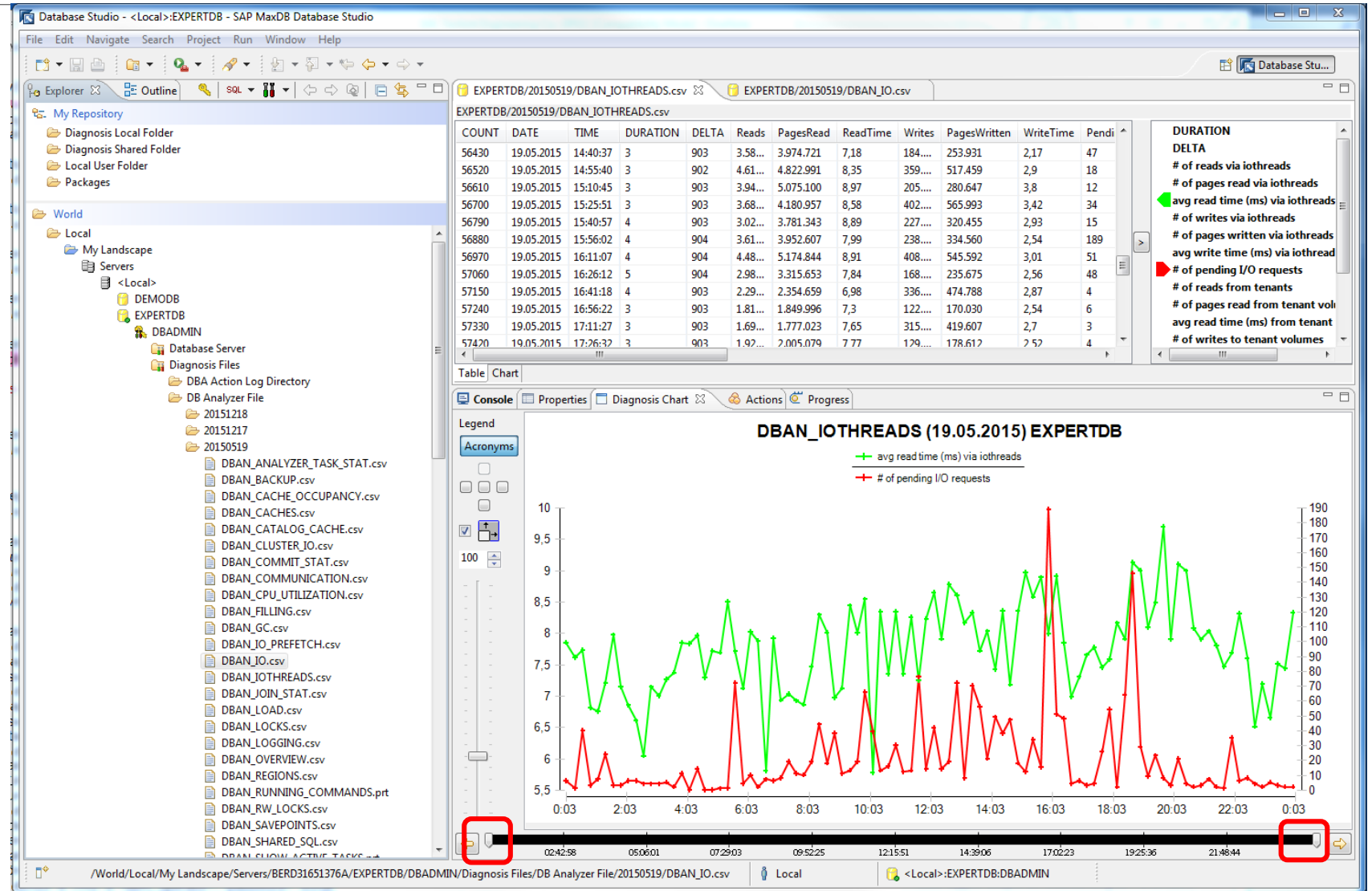
COUNT	DATE	TIME	DURATION	DELTA	Reads	PagesRead	ReadTime	Writes	PagesWritten	WriteTime	PendingRequests	TenantReads	TenantWrites
51210	19.05.2015	00:03:11	184	1.083	644....	702.857	7,85	158....	250.183	5,81	6	0	0
51300	19.05.2015	00:21:15	4	903	671....	713.801	7,61	73.761	108.294	7,94	1	0	0
51390	19.05.2015	00:36:26	3	902	1.86....	2.001.335	7,73	146....	196.025	4,27	40	0	0
51480	19.05.2015	00:51:29	3	902	2.63....	3.316.484	6,81	100....	120.786	8,23	3	0	0
51570	19.05.2015	01:06:33	2	902	1.05....	1.170.943	6,75	179....	244.950	10,28	7	0	0
51660	19.05.2015	01:21:37	3	902	1.21....	1.339.644	7,2	73.371	105.024	4,37	24	0	0
51750	19.05.2015	01:36:41	2	902	1.16....	1.224.261	7,97	139....	224.899	13,63	3	0	0
51840	19.05.2015	01:51:45	2	901	1.01....	1.035.453	7,14	43.813	70.669	14,68	3	0	0
51930	19.05.2015	02:06:48	3	902	1.33....	1.394.579	6,85	136....	185.878	5,45	6	0	0
52020	19.05.2015	02:21:51	3	903	887....	926.555	6,6	75.388	102.929	9,47	6	0	0
52110	19.05.2015	02:36:56	3	902	963....	1.002.347	6,04	204....	407.144	8,97	4	0	0
52200	19.05.2015	02:51:58	2	902	735....	777.585	7,14	56.759	70.745	3,4	4	0	0
52290	19.05.2015	03:07:01	2	902	1.14....	1.207.723	7	124....	165.044	2,36	4	0	0
52380	19.05.2015	03:22:04	3	902	875....	898.545	7,26	56.918	79.739	2,65	5	0	0
52470	19.05.2015	03:37:08	3	902	582....	630.743	7,37	120....	191.795	2,79	2	0	0
52560	19.05.2015	03:52:11	3	902	436....	491.026	7,85	97.468	168.373	3,05	11	0	0
52650	19.05.2015	04:07:15	2	902	509....	558.946	7,83	141....	219.764	3,59	0	0	0
52740	19.05.2015	04:22:20	2	902	182....	211.515	7,96	87.784	174.848	3,64	14	0	0

A Quick Tour – Select columns for charting

Choose a time span

[→ Back to Quick Tour](#)

1. Drag the left and right slider on the time scale to narrow down the time span.

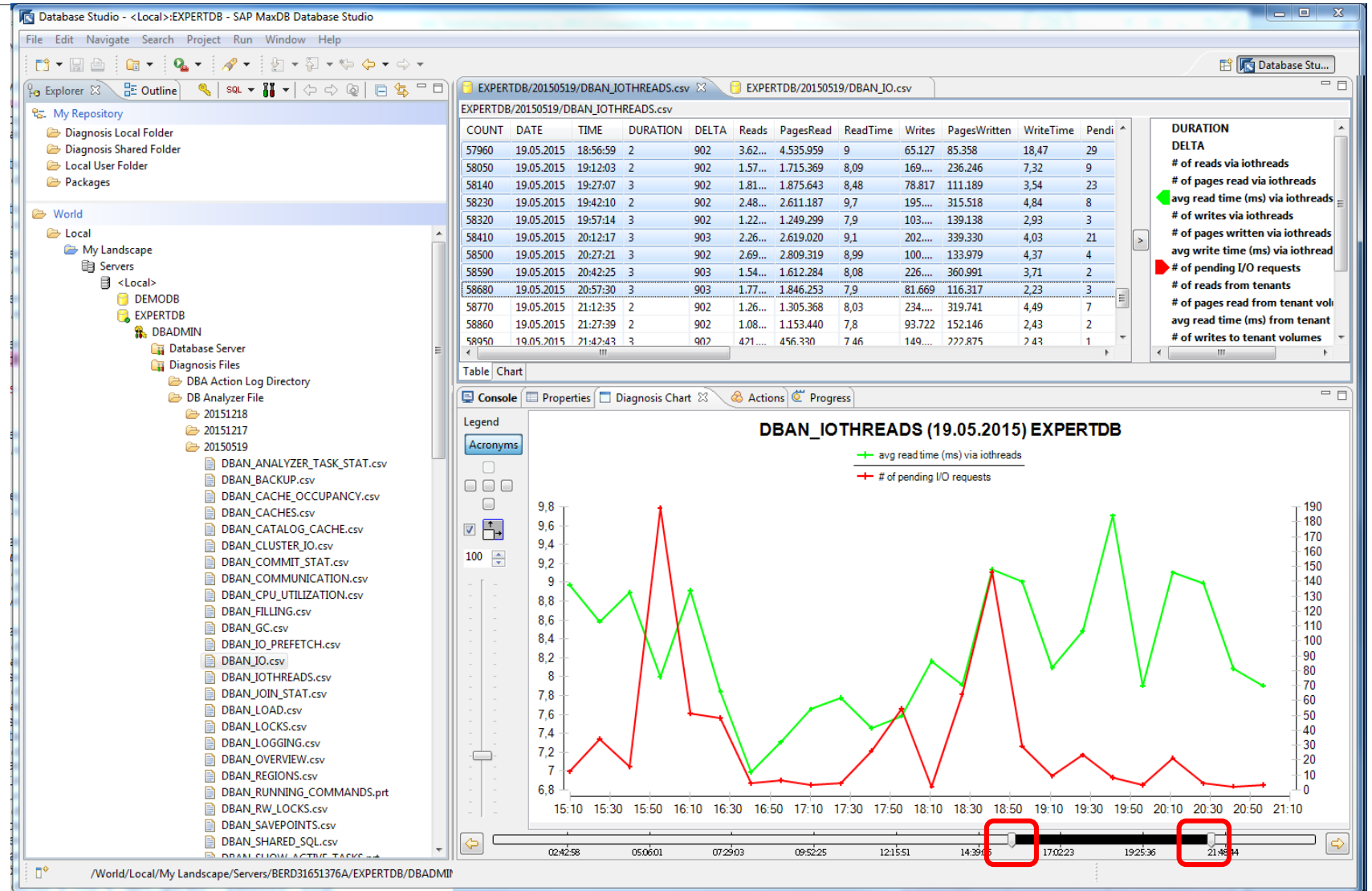


A Quick Tour – Select columns for charting

Choose a time span

[→ Back to Quick Tour](#)

1. Drag the left and right slider on the time scale to narrow down the time span.
2. As result you will see the time interval chosen and zoomed automatically regarding the chart view size.

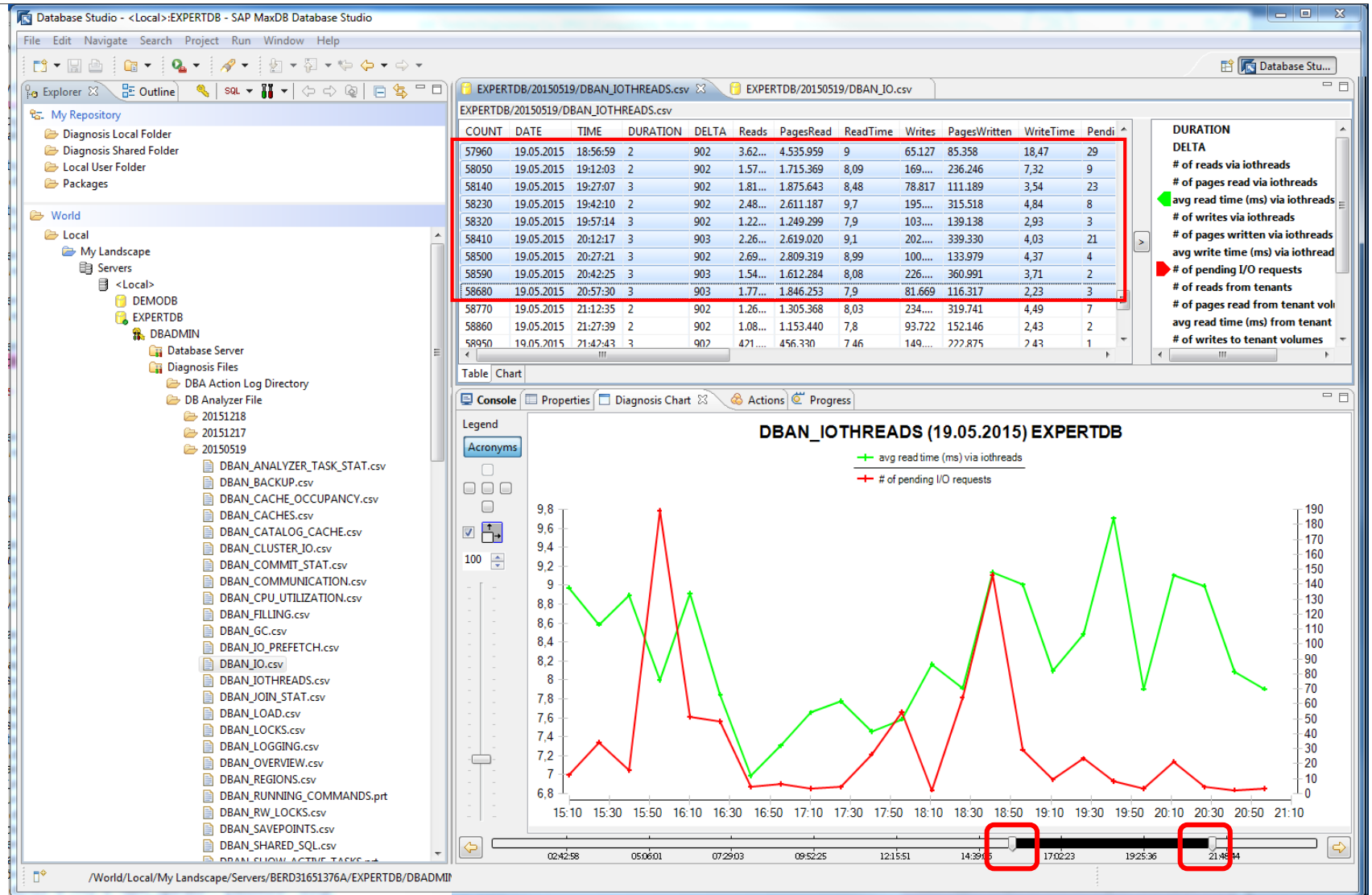


A Quick Tour – Select columns for charting

Choose a time span

[→ Back to Quick Tour](#)

1. Drag the left and right slider on the time scale to narrow down the time span.
2. As result you will see the time interval chosen and zoomed automatically regarding the chart view size.
3. Now in the table part you see the lines marked corresponding to the chosen time interval.

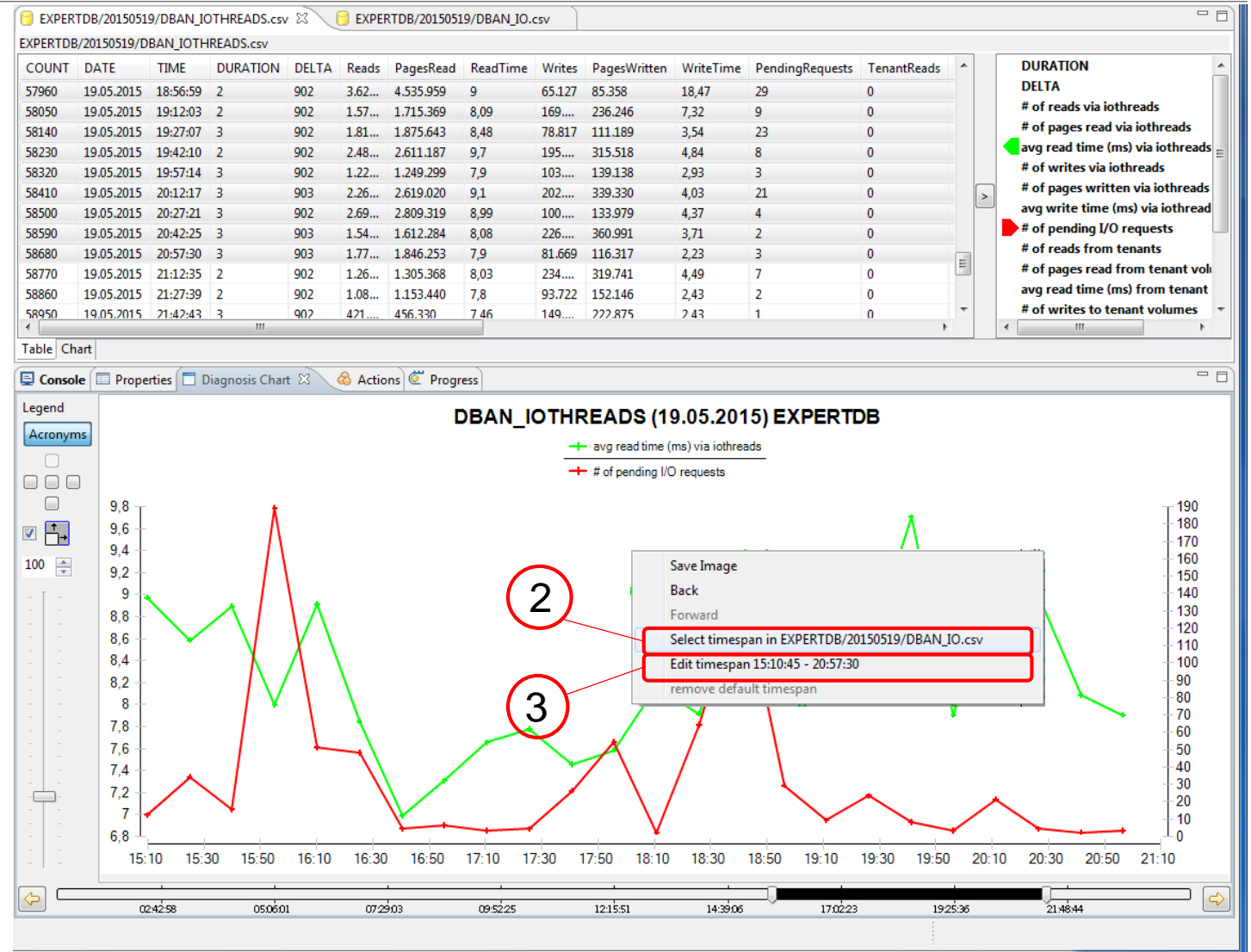


A Quick Tour – Select columns for charting

Compare with data from another csv file

[→ Back to Quick Tour](#)

1. After you have narrowed down the time interval of interest
2. With context menu function **Select timespan in** you can display the same time interval in the other csv file actually displayed.
3. With context menu function **Set timespan or Edit timespan <from> - <to>** you can set the timespan as a default setting which effects ...

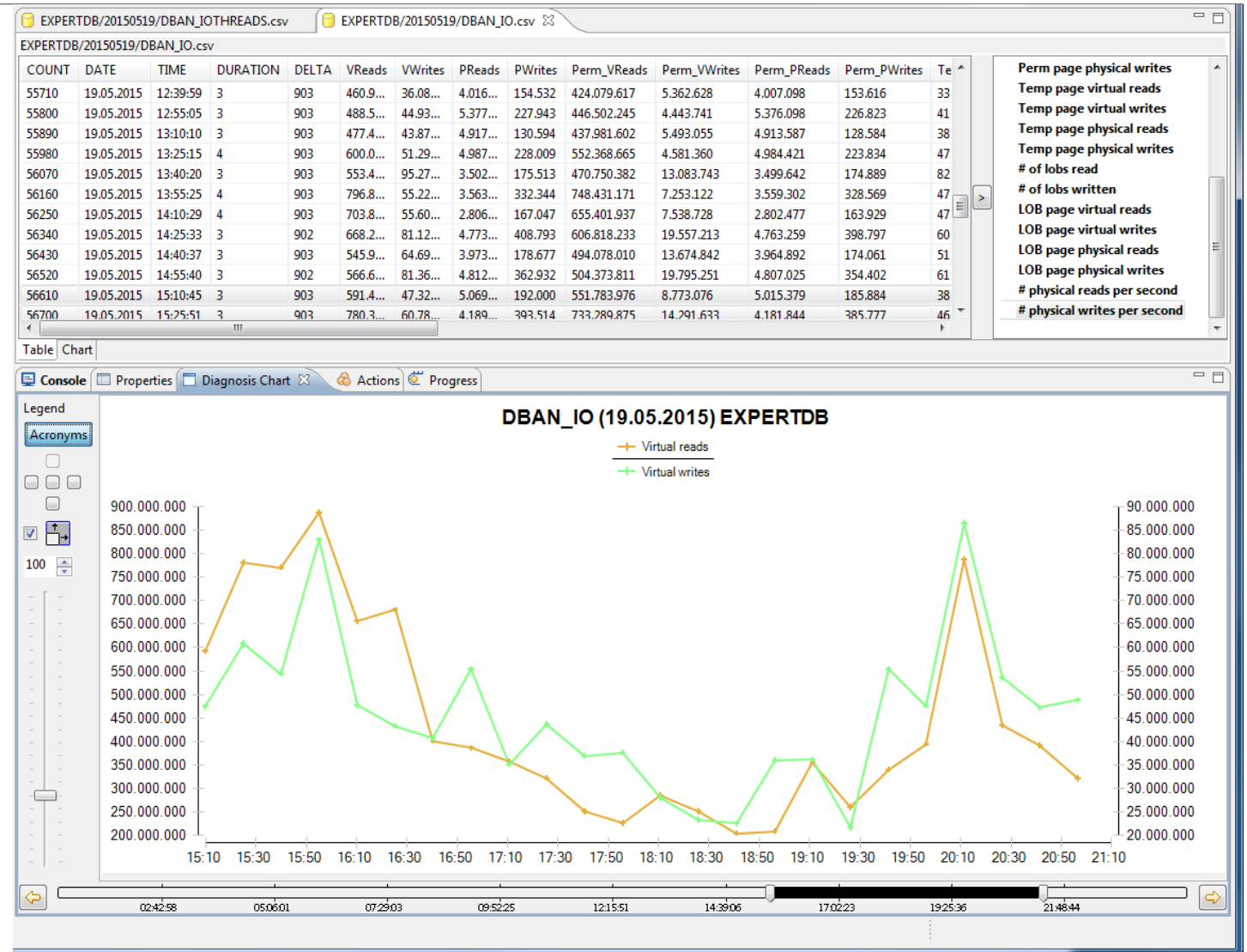


A Quick Tour – Select columns for charting

Compare with data from another csv file

[→ Back to Quick Tour](#)

1. After you have narrowed down the time interval of interest
2. With context menu function **Select timespan in** you can display the same time interval in the other csv file actually displayed.
3. Now you can easily see the charts of the chosen csv file regarding the same time interval

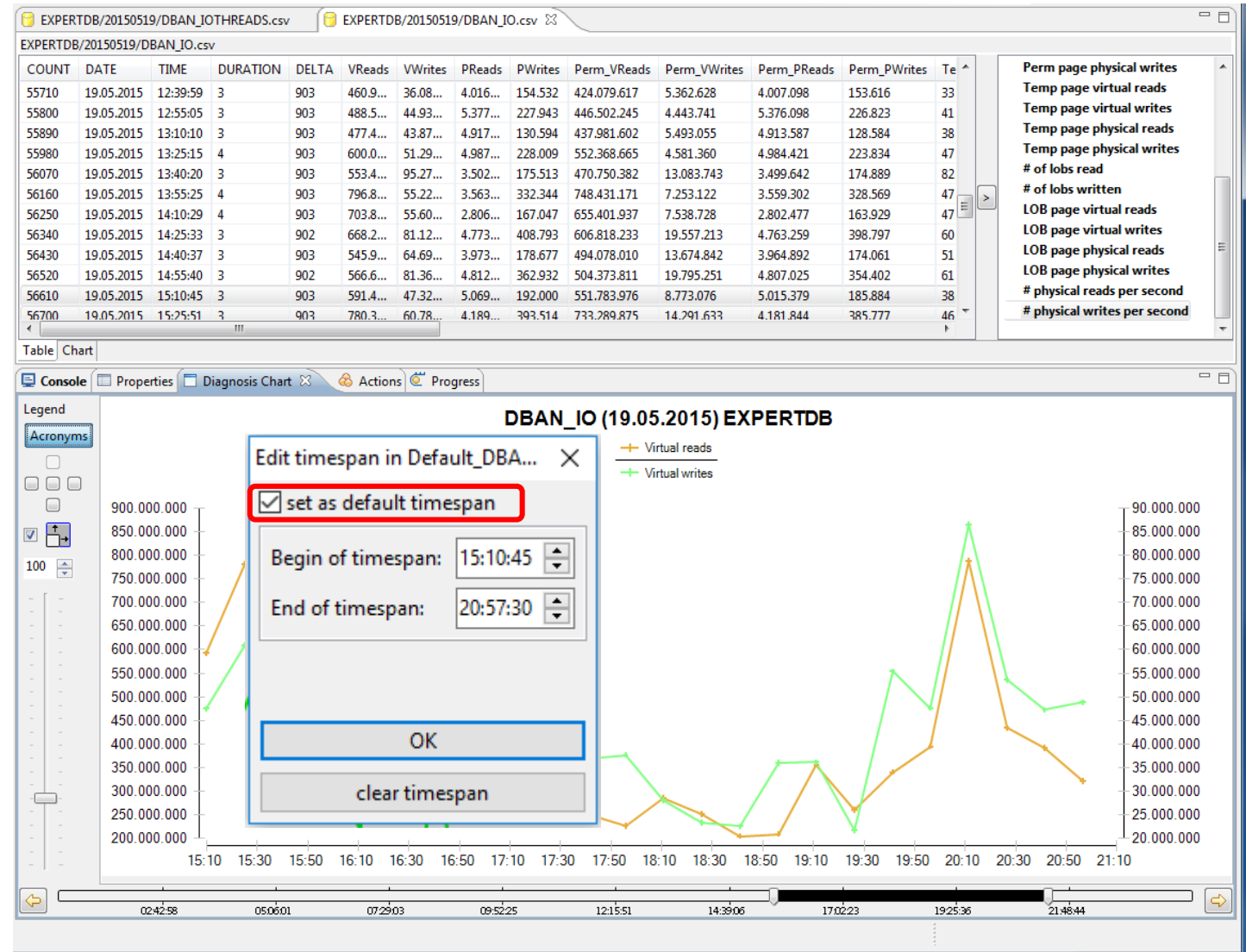


A Quick Tour – Select columns for charting

Compare with data from another csv file

[→ Back to Quick Tour](#)

1. After you have narrowed down the time interval of interest
2. With context menu function **Set timespan** or **Edith timespan <from> - <to>** you can choose **set as default timespan** which effects ...
3. ... all the charts displayed there after. They will be restricted to that **default timespan** until you press the **clear timespan** button.

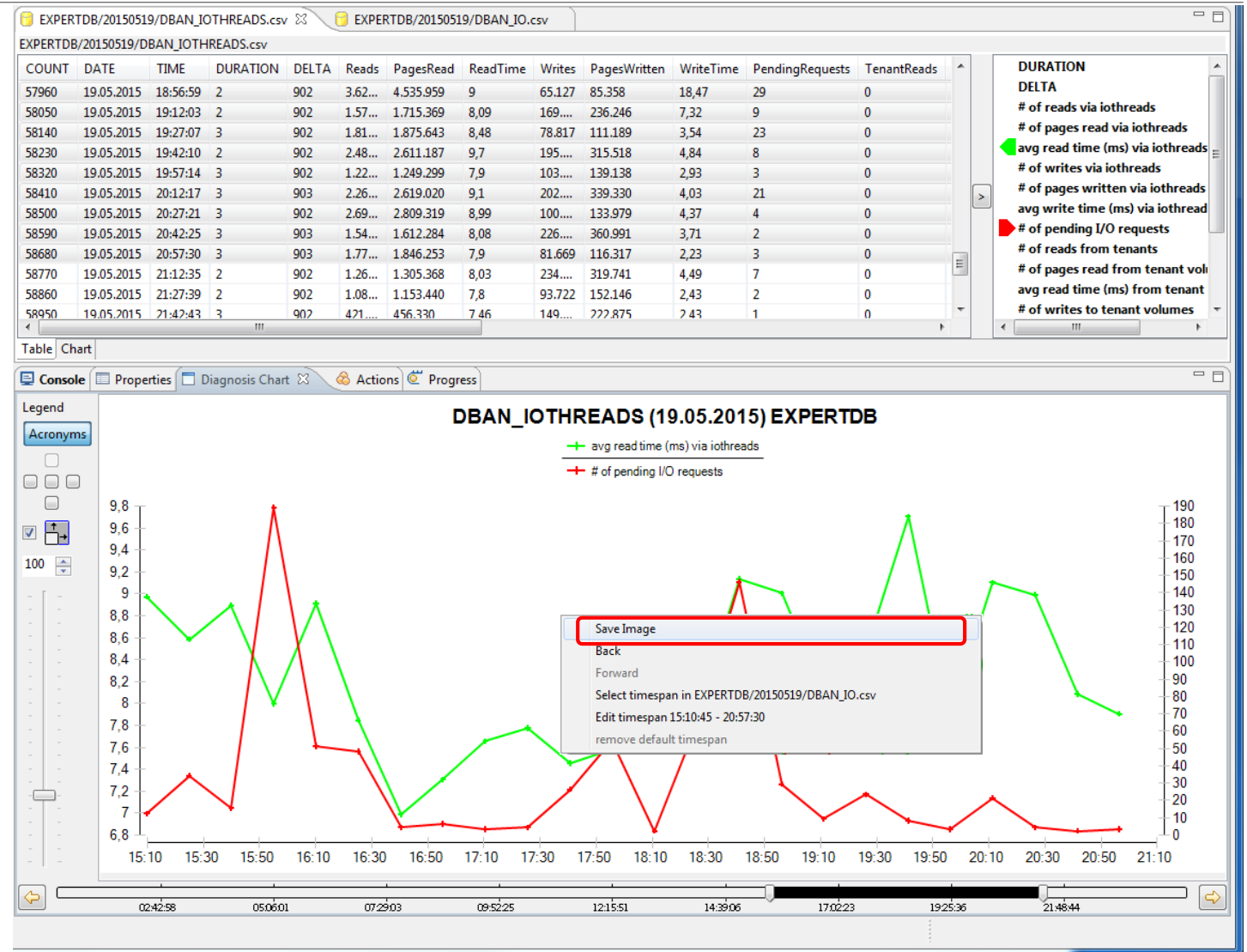


A Quick Tour – Select columns for charting

Export charts to image file

[→ Back to Quick Tour](#)

1. Save the chart as image file with the context menu function **Save Image**



A Quick Tour – Select columns for charting

Export charts to image file

[→ Back to Quick Tour](#)

1. Save the chart as image file with the context menu function **Save Image**
2. There are several image formats supported.

The screenshot displays the SAP ExpertDB interface. At the top, a table titled 'EXPERTDB/20150519/DBAN_IOTHREADS.csv' is visible. The table has columns: COUNT, DATE, TIME, DURATION, DELTA, Reads, PagesRead, ReadTime, Writes, PagesWritten, WriteTime, PendingRequests, and TenantReads. Below the table, a 'Legend' section is active, showing a line chart with two data series: a green line for 'avg read time (ms) via iotreads' and a red line for '# of pending I/O requests'. The chart's x-axis represents time from 15:10 to 16:10, and the y-axis represents values from 6.8 to 9.8. A 'Save As' dialog box is open over the chart, showing the file name 'DBAN_IO-ForExpertDB.jpg' and a list of supported image formats: JPEG Image Files (*.jpg), Scalable Vector Graphic (*.svg), Portable Document Format (*.pdf), Bitmap (*.bmp), and Portable Network Graphics (*.png). The 'Save' button is highlighted.

COUNT	DATE	TIME	DURATION	DELTA	Reads	PagesRead	ReadTime	Writes	PagesWritten	WriteTime	PendingRequests	TenantReads
57960	19.05.2015	18:56:59	2	902	3.62...	4.535.959	9	65.127	85.358	18,47	29	0
58050	19.05.2015	19:12:03	2	902	1.57...	1.715.369	8,09	169....	236.246	7,32	9	0
58140	19.05.2015	19:27:07	3	902	1.81...	1.875.643	8,48	78.817	111.189	3,54	23	0
58230	19.05.2015	19:42:10	2	902	2.48...	2.611.187	9,7	195....	315.518	4,84	8	0
58320	19.05.2015	19:57:14	3	902	1.22...	1.249.299	7,9	103....	139.138	2,93	3	0
58410	19.05.2015	20:12:17	3	903	2.26...	2.619.020	9,1	202....	339.330	4,03	21	0
58500	19.05.2015	20:27:21	3	902	2.69...	2.809.319	8,99	100....	133.979	4,37	4	0
58590	19.05.2015	20:42:25	3	903	1.54...	1.612.284	8,08	226....	360.991	3,71	2	0
58680	19.05.2015	20:57:30	3	903	1.77...	1.846.253	7,9	81.669	116.317	2,23	3	0
58770	19.05.2015	21:12:35	2	902	1.26...	1.305.368	8,03	234....	319.741	4,49	7	0
58860	19.05.2015	21:27:39	2	902	1.08...	1.153.440	7,8	93.722	152.146	2,43	2	0
58950	19.05.2015	21:42:43	3	902	4.71....	456.330	7,46	149....	222.875	2,43	1	0

A Quick Tour – Select columns for charting

Export charts to image file

[→ Back to Quick Tour](#)

1. Save the chart as image file with the context menu function **Save Image**
2. There are several image formats supported.

Continue with:

- [Further Chart Functionality](#)

Next button continues with:

- [Quick Tour - Analyzing Performance Offline](#)

The screenshot displays the SAP Performance Analyzer interface. At the top, a table titled 'EXPERTDB/20150519/DBAN_IOTHEADS.csv' shows performance metrics. Below the table, a 'Legend' section is visible, and a line chart plots 'DURATION' and 'DELTA' over time. A 'Save As' dialog box is open, showing the file 'DBAN_IO-ForExpertDB.jpg' being saved in the 'imageFolder' directory. The dialog lists supported file formats: JPEG Image Files (*.jpg), Scalable Vector Graphic (*.svg), Portable Document Format (*.pdf), Bitmap (*.bmp), and Portable Network Graphics (*.png).

COUNT	DATE	TIME	DURATION	DELTA	Reads	PagesRead	ReadTime	Writes	PagesWritten	WriteTime	PendingRequests	TenantReads
57960	19.05.2015	18:56:59	2	902	3.62...	4.535.959	9	65.127	85.358	18,47	29	0
58050	19.05.2015	19:12:03	2	902	1.57...	1.715.369	8,09	169....	236.246	7,32	9	0
58140	19.05.2015	19:27:07	3	902	1.81...	1.875.643	8,48	78.817	111.189	3,54	23	0
58230	19.05.2015	19:42:10	2	902	2.48...	2.611.187	9,7	195....	315.518	4,84	8	0
58320	19.05.2015	19:57:14	3	902	1.22...	1.249.299	7,9	103....	139.138	2,93	3	0
58410	19.05.2015	20:12:17	3	903	2.26...	2.619.020	9,1	202....	339.330	4,03	21	0
58500	19.05.2015	20:27:21	3	902	2.69...	2.809.319	8,99	100....	133.979	4,37	4	0
58590	19.05.2015	20:42:25	3	903	1.54...	1.612.284	8,08	226....	360.991	3,71	2	0
58680	19.05.2015	20:57:30	3	903	1.77...	1.846.253	7,9	81.669	116.317	2,23	3	0
58770	19.05.2015	21:12:35	2	902	1.26...	1.305.368	8,03	234....	319.741	4,49	7	0
58860	19.05.2015	21:27:39	2	902	1.08...	1.153.440	7,8	93.722	152.146	2,43	2	0
58950	19.05.2015	21:42:43	3	902	4.21...	456.330	7,46	149....	227.875	2,43	1	0

A Quick Tour - Analyzing Performance Offline

Step by step guide – First steps with no access to the database

[→ Back to Quick Tour](#)

Preliminary steps for downloading and analyzing Database Analyzer data

- Define the preferences **Diagnosis Local Folder** and **Diagnosis Shared Folder**
- Define the associated editor for *.csv endings
- Define **Remote Metric** folder path
- Restart Database Studio and download Database Analyzer data
 - Download via Database Studio
 - Download via DBACockpit

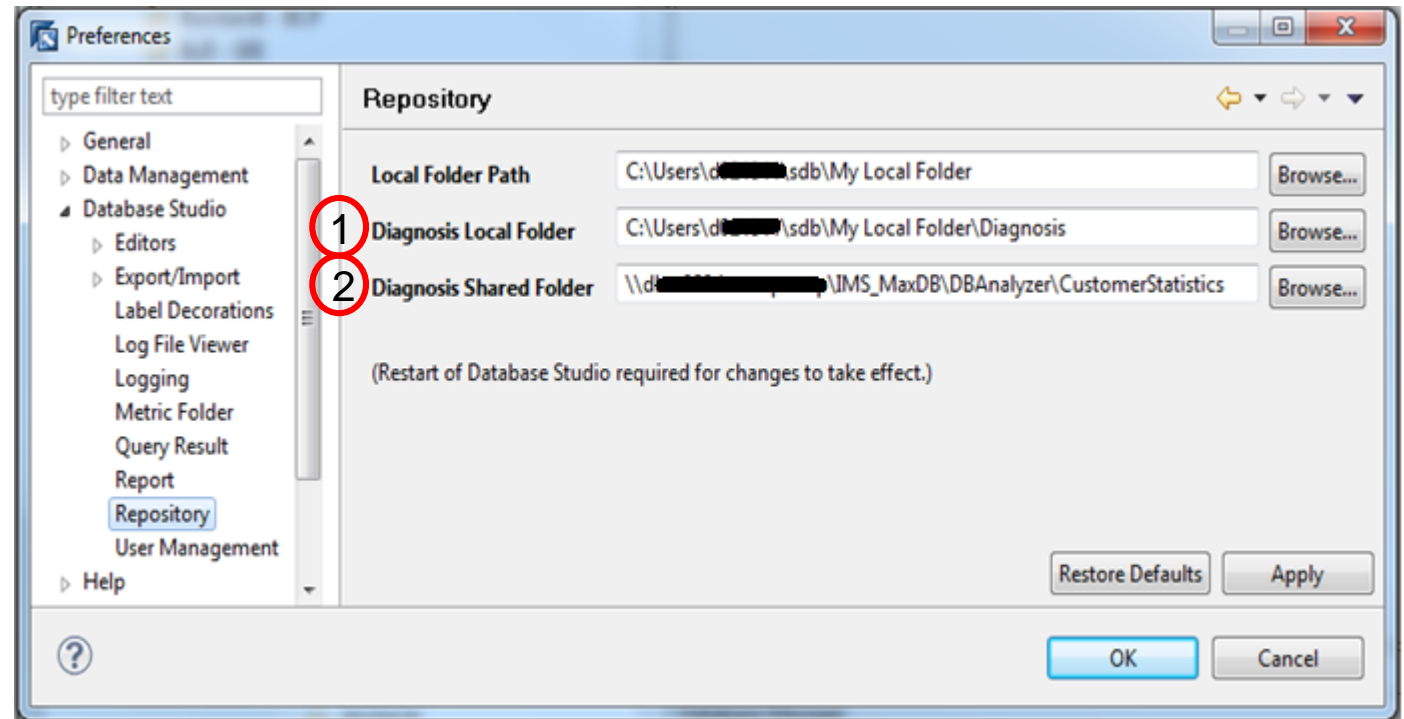
A Quick Tour Analyzing Performance Offline

Define preferences Repository (1 of 6)

[-> Back](#)

Repository Paths

1. Set Diagnosis Local Folder as the local location for Database Analyzer data
2. Set Diagnosis Shared Folder as the shared location in the network for Database Analyzer data



A Quick Tour Analyzing Performance Offline

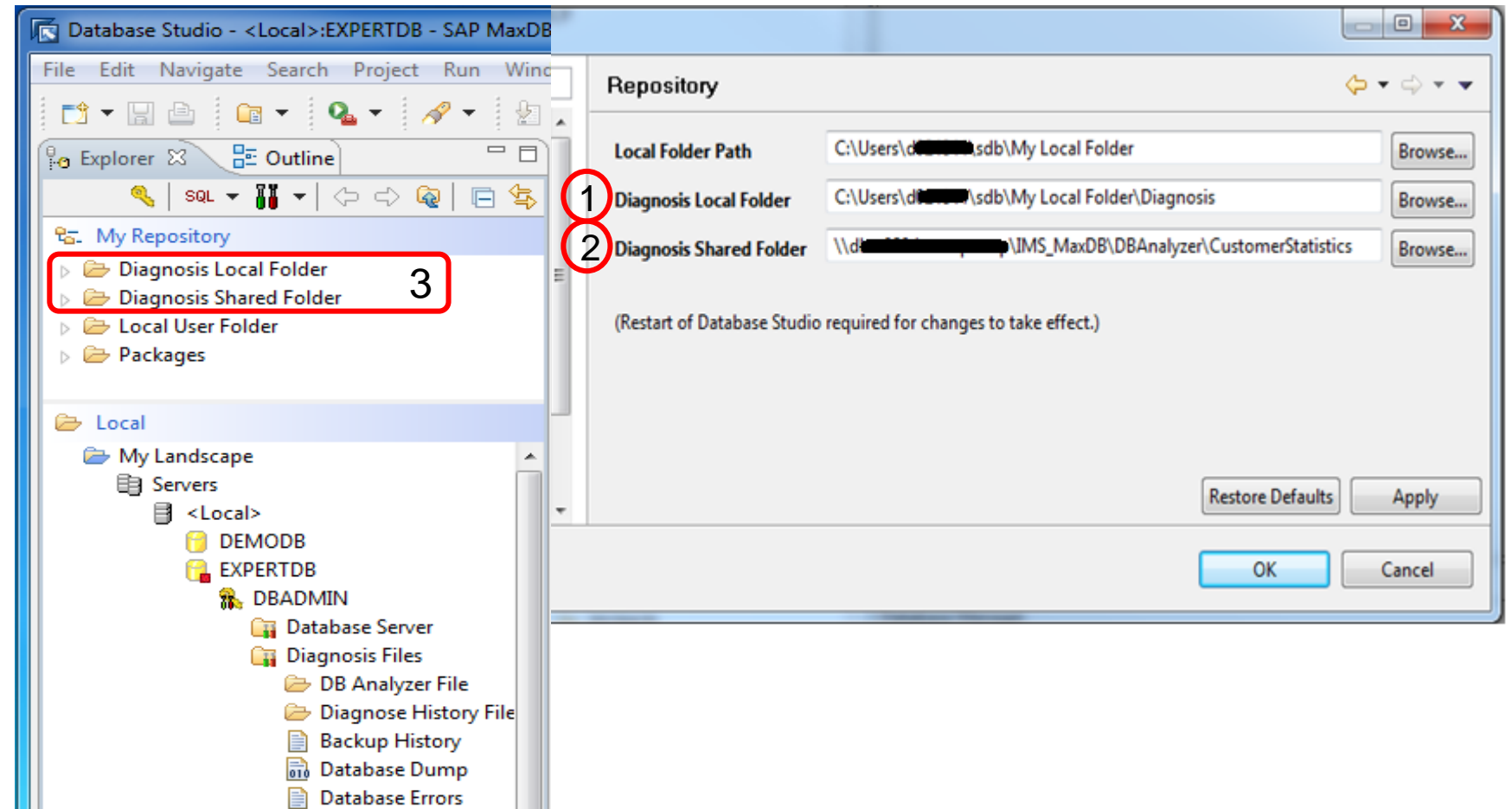
Define preferences Repository

(2 of 6)

[-> Back](#)

Repository Paths

1. Set Diagnosis Local Folder as the local location for Database Analyzer data
2. Set Diagnosis Shared Folder as the shared location in the network for Database Analyzer data
3. After restarting Database Studio you will see these folders in the upper left section of the explorer



A Quick Tour Analyzing Performance Offline

Prerequisites – Define new File Association 1

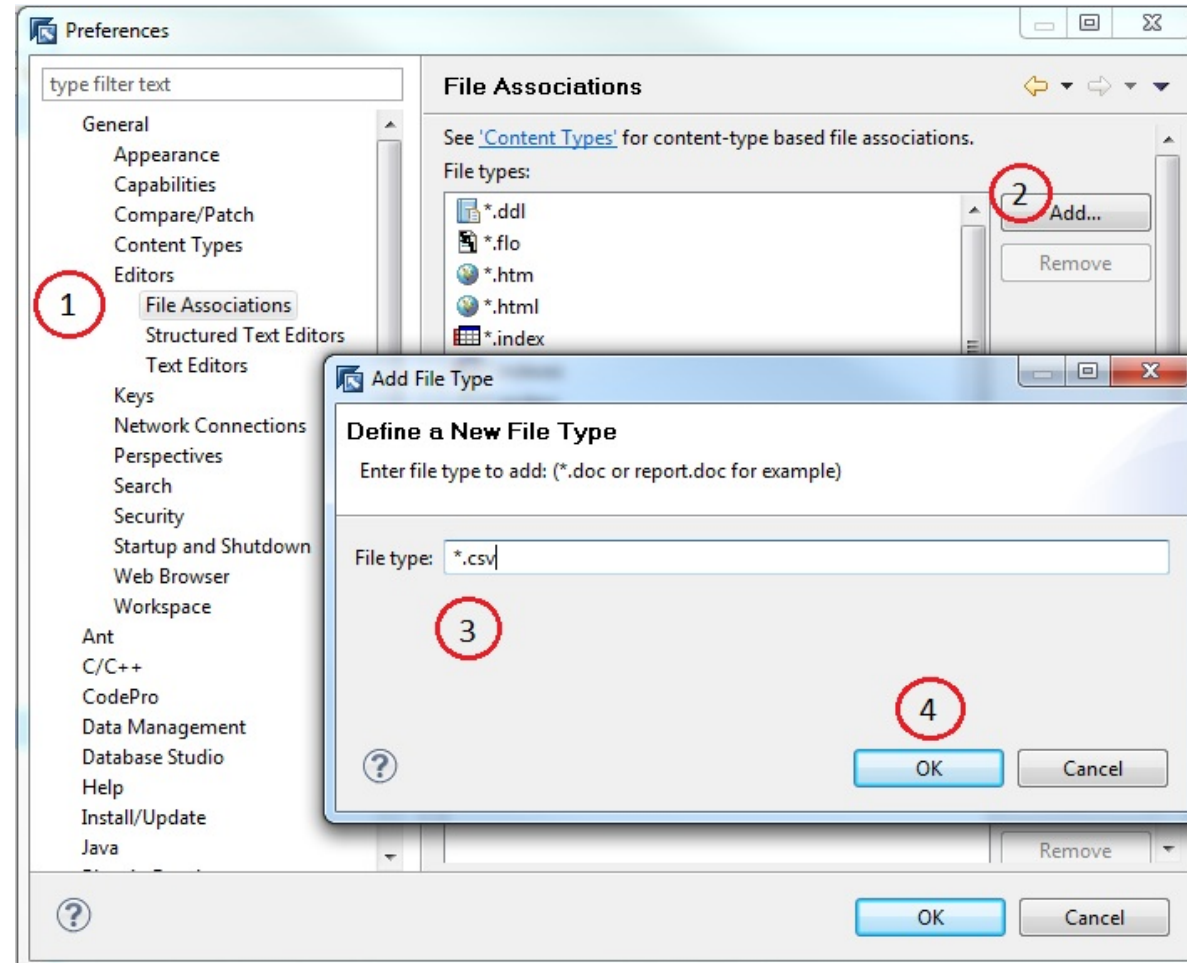
(3 of 6)

[Back](#)

Define Preferences File Associations

- Select General - Editors
 1. File Associations
 2. Click Add
 3. Enter *.csv
 4. Click Ok

Continue with next
slide



A Quick Tour Analyzing Performance Offline

Prerequisites – Define new File Association 2

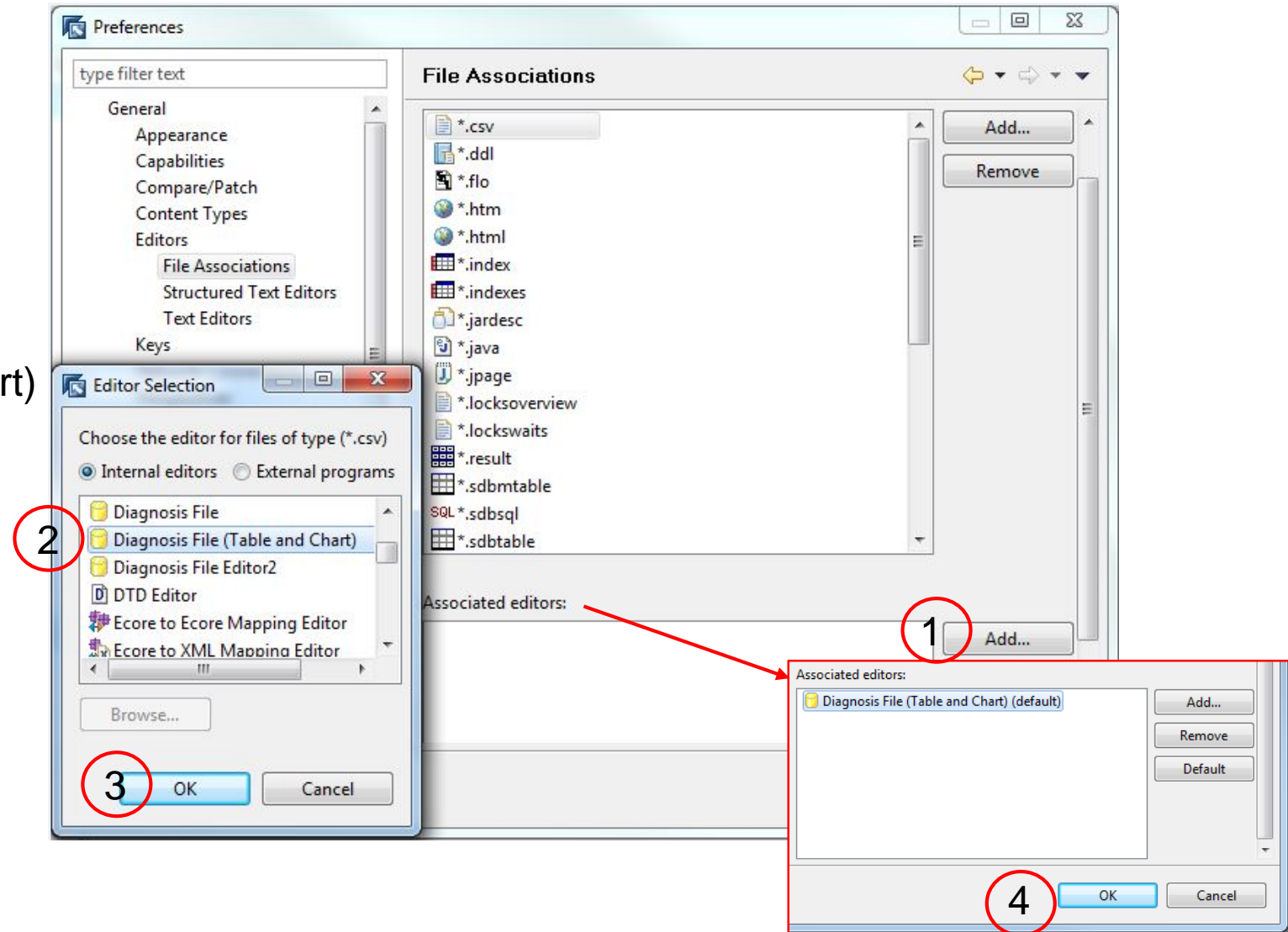
(4 of 6)

[Back](#)

New File Association .. Continuation

1. Associated editors: Click Add
2. Choose
Diagnosis File (Table and Chart)
3. Click Ok
4. Click Ok

5. Restart Database Studio



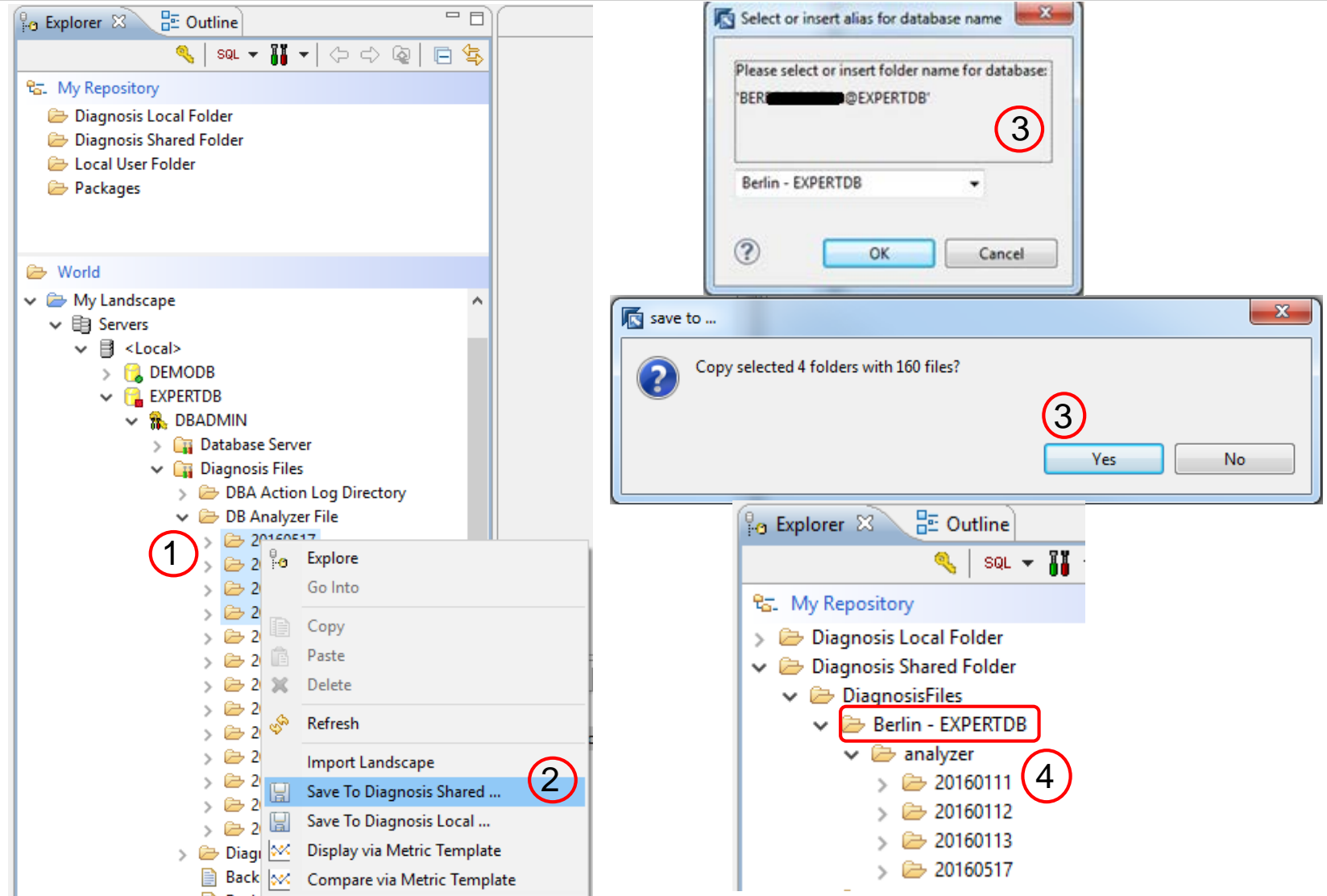
A Quick Tour Analyzing Performance Offline

Download Database Analyzer Data via Database Studio (5 of 6)

[-> Back](#)

Download Database Analyzer Data via Database Studio

1. Login to the database of interest and navigate to the Database Analyzer File folder.
2. Select the date folders and choose context function "Save To Diagnosis..."
3. Choose a name for the Database Analyzer folder and press OK & Yes
4. See the data now in the resp. Repository folder



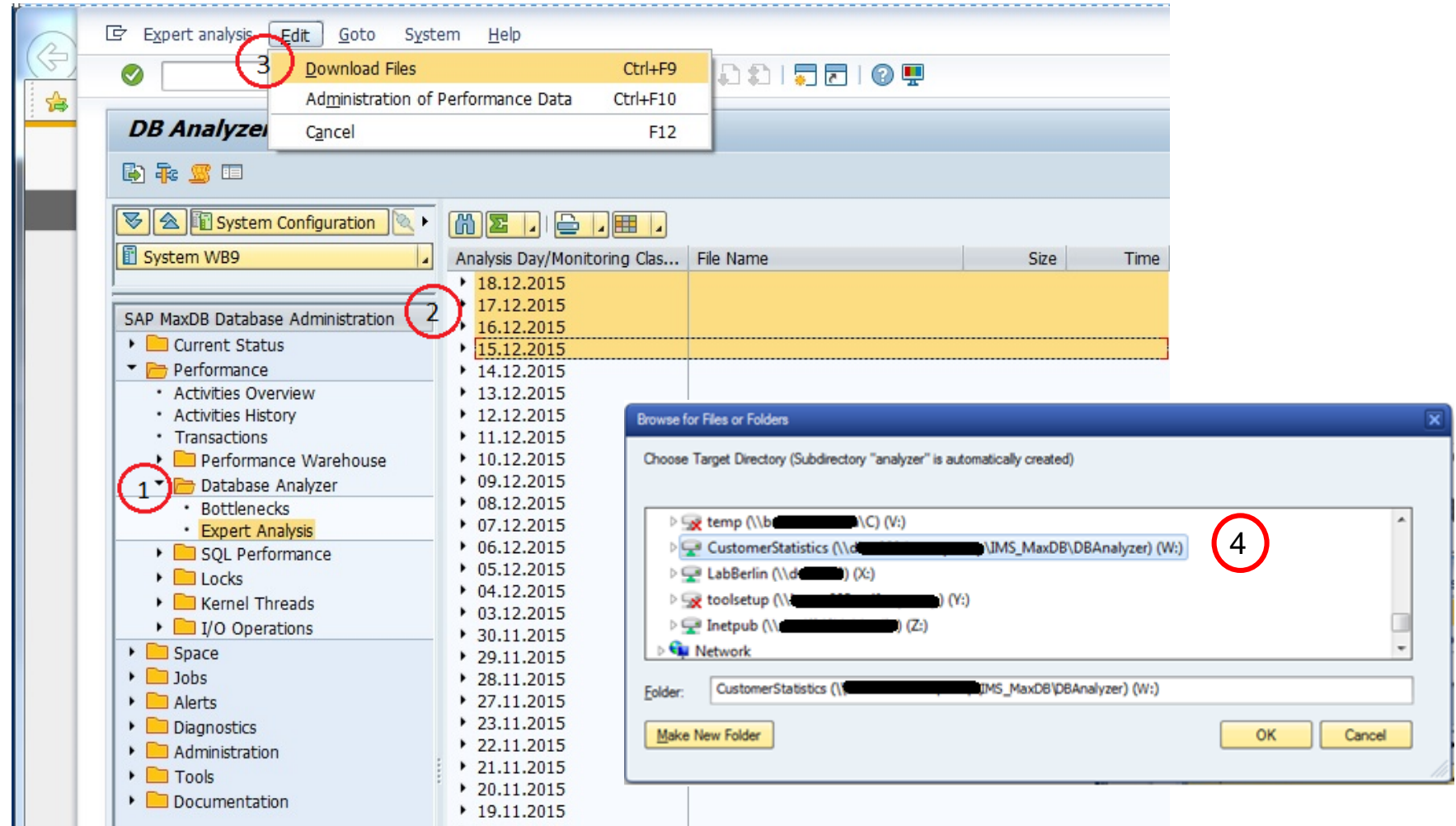
A Quick Tour Analyzing Performance Offline

Download Database Analyzer Data via DBACOCKPIT (6 of 6)

[-> Back](#)

Provide Database Analyzer Data via transaction DBACOCKPIT

- Login to the database of interest
- Download Database Analyzer data of interest
 1. Goto Expert Analysis
 2. Select the date folders of interest
 3. Choose "Download Files" function
 4. Choose a path, that is defined in Database Studio preferences and press OK



A Quick Tour Analyzing Performance

Prerequisites – Define location for remote metric templates

[Back](#)

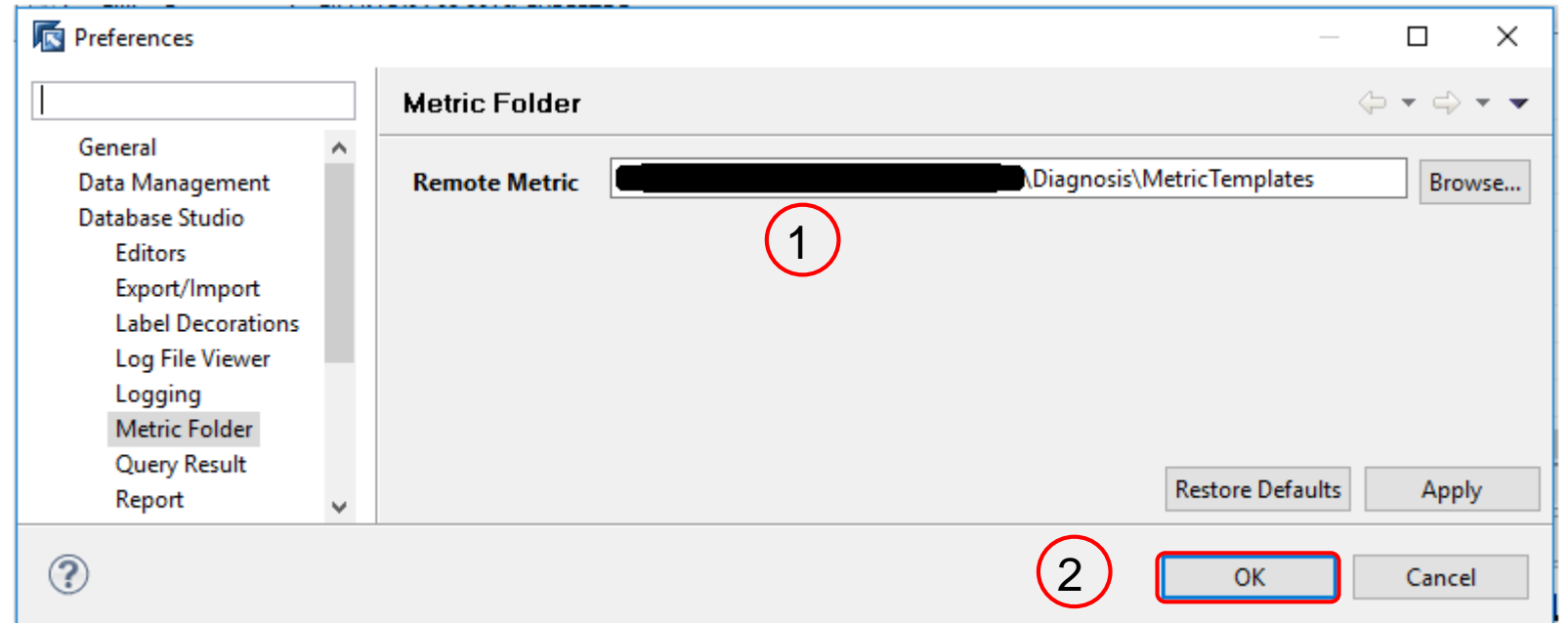
Remote Metric Path

Optional settings for a location in order to share metric templates

1. Enter a path as a location to be shared among a team

2. Press ok

The folder contents will be explained on another slide



Database Analyzer Charts

Further Chart Functionality

[→ Back to Agenda](#)

1. [Displaying/Hiding a Column in the Chart](#)
2. [Change the Color of a Graph](#)
3. [Hiding/showing Columns in the Table](#)
4. [Issuing and Removing Warnings for Values](#)
5. [Adding/changing/deleting Virtual Columns](#)

Database Analyzer Charts

Displaying/Hiding Columns as Graphs

[→ Back](#)

1. On the column list double click the column which interests you.
F.e.:
physical reads for user tasks

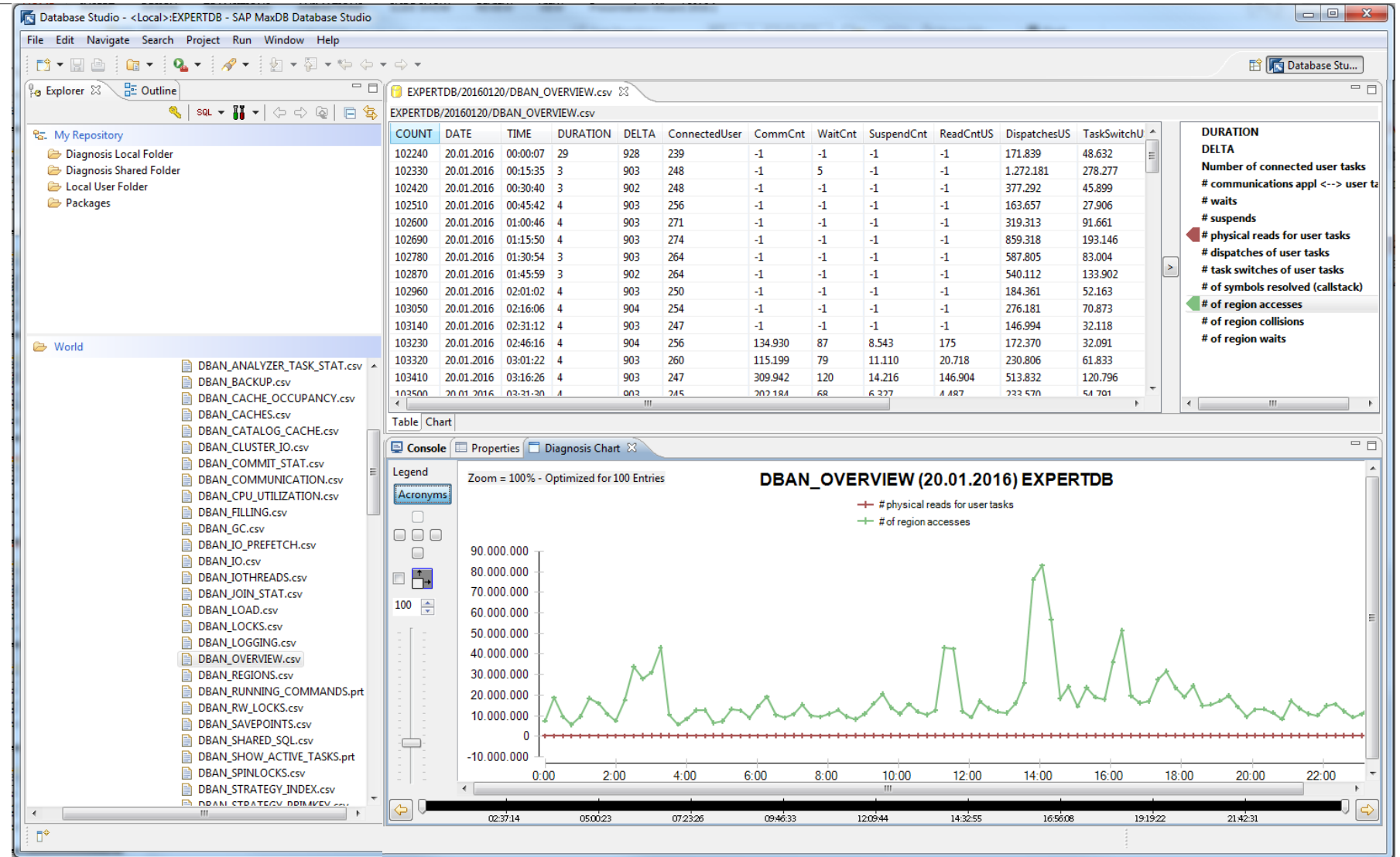
The screenshot displays the SAP Database Studio interface. The main window shows a table titled 'EXPERTDB/20160120/DBAN_OVERVIEW.csv' with columns: COUNT, DATE, TIME, DURATION, DELTA, ConnectedUser, CommCnt, WaitCnt, SuspendCnt, ReadCntUS, DispatchesUS, and TaskSwitchU. The 'ReadCntUS' column is highlighted in the table. On the right, a list of columns is shown, with '# physical reads for user tasks' (corresponding to ReadCntUS) selected and highlighted with a red box. Below the table, a 'Diagnosis Chart' is displayed, titled 'DBAN_OVERVIEW (20.01.2016) EXPERTDB'. The chart shows a line graph of '# physical reads for user tasks' over a 24-hour period. The y-axis ranges from -20,000 to 160,000, and the x-axis shows time from 0:00 to 23:00. The chart shows several peaks, with the highest peak reaching approximately 150,000 around 17:00. The legend indicates that the red line represents '# physical reads for user tasks'.

Database Analyzer Charts

Displaying/Hiding Columns as Graphs

[→ Back](#)

1. On the column list double click the column which interests you.
F.e.:
physical reads for user tasks
2. Double click on a second column and see how the scale has changed.

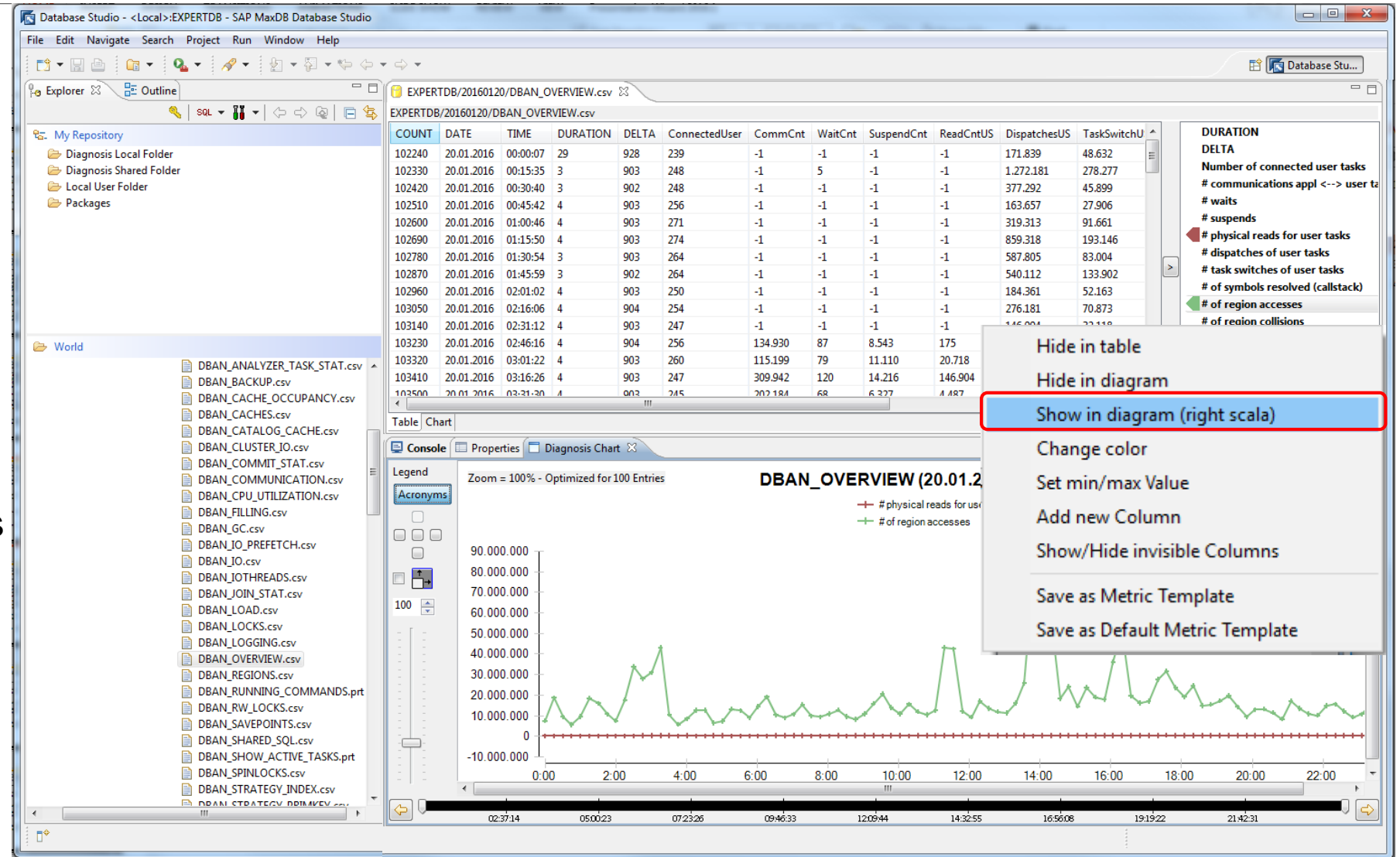


Database Analyzer Charts

Displaying/Hiding Columns as Graphs

[→ Back](#)

1. On the column list double click the column which interests you.
F.e.:
physical reads for user tasks
2. Double click on a second column and see how the scale has changed.
3. Assign one of the columns to the right scale

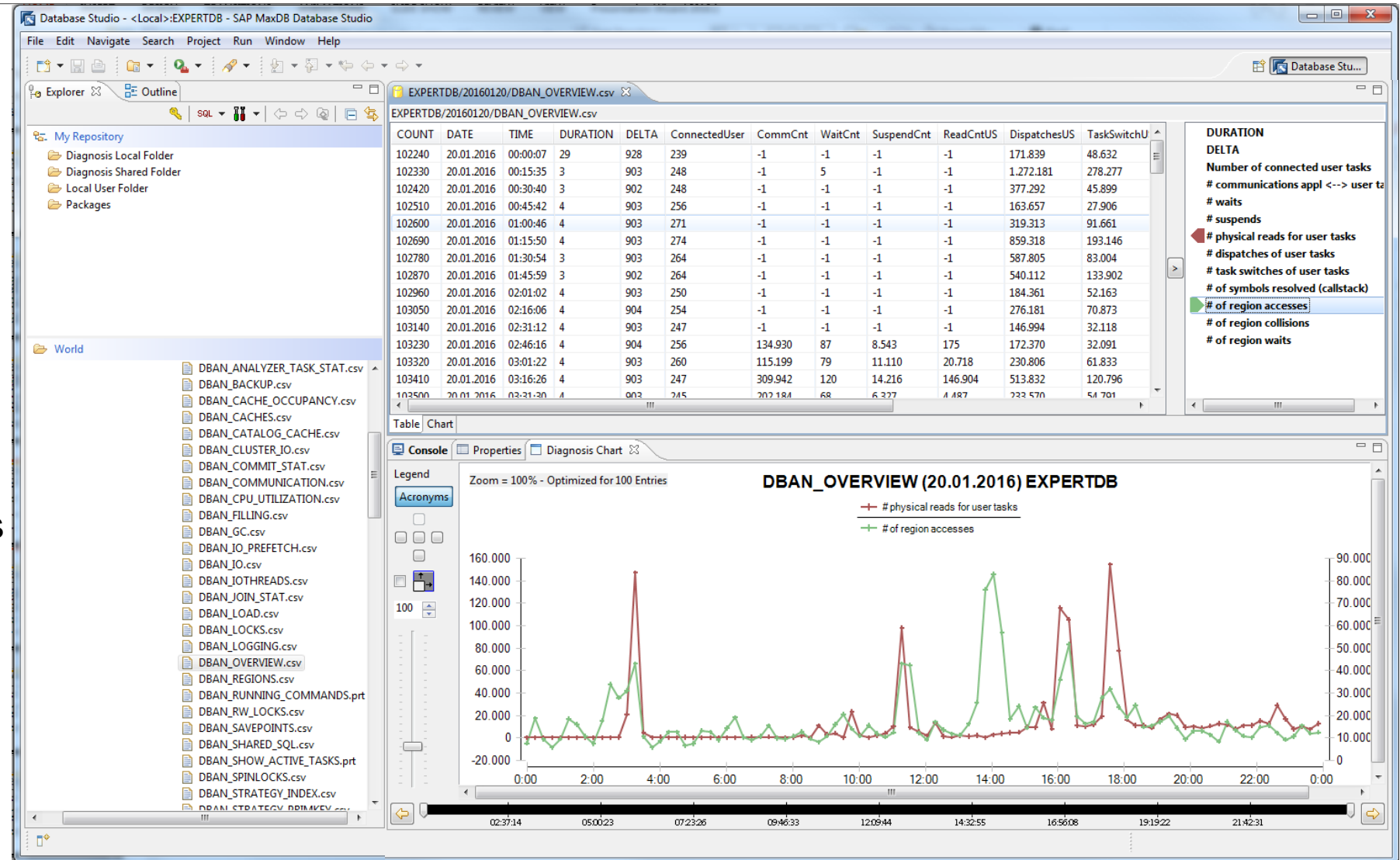


Database Analyzer Charts

Displaying/Hiding Columns as Graphs

[→ Back](#)

1. On the column list double click the column which interests you.
F.e.:
physical reads for user tasks
2. Double click on a second column and see how the scale has changed.
3. Assign one of the columns to the right scale
4. See both graphs now with their own scale



Database Analyzer Charts

Change the Color of the Graph

[→ Back](#)

1. On the respective column choose the context function
Change color

The screenshot displays the SAP MaxDB Database Studio interface. The main window shows a table titled 'EXPERTDB/20160120/DBAN_OVERVIEW.csv' with columns: COUNT, DATE, TIME, DURATION, DELTA, ConnectedUser, CommCnt, WaitCnt, SuspendCnt, ReadCntUS, DispatchesUS, TaskSwitchUS, and Syr. Below the table, a 'Diagnosis Chart' is visible, titled 'DBAN_OVERVIEW (20.01.2016)'. The chart plots two metrics: '# physical reads for user tasks' (red line) and '# of region accesses' (green line) over a 24-hour period. A context menu is open over the chart, listing various actions. The 'Change color' option is highlighted with a red border.

COUNT	DATE	TIME	DURATION	DELTA	ConnectedUser	CommCnt	WaitCnt	SuspendCnt	ReadCntUS	DispatchesUS	TaskSwitchUS	Syr
102240	20.01.2016	00:00:07	29	928	239	-1	-1	-1	-1	171.839	48.632	0
102330	20.01.2016	00:15:35	3	903	248	-1	5	-1	-1	1.272.181	278.277	0
102420	20.01.2016	00:30:40	3	902	248	-1	-1	-1	-1	377.292	45.899	0
102510	20.01.2016	00:45:42	4	903	256	-1	-1	-1	-1	163.657	27.906	0
102600	20.01.2016	01:00:46	4	903	271	-1	-1	-1	-1	319.313	91.661	0
102690	20.01.2016	01:15:50	4	903	274	-1	-1	-1	-1	859.318	193.146	0
102780	20.01.2016	01:30:54	3	903	264	-1	-1	-1	-1	587.805	83.004	0
102870	20.01.2016	01:45:59	3	902	264	-1	-1	-1	-1	540.112	133.902	0
102960	20.01.2016	02:01:02	4	903	250	-1	-1	-1	-1	184.361	52.163	0
103050	20.01.2016	02:16:06	4	904	254	-1	-1	-1	-1	276.181	70.873	0
103140	20.01.2016	02:31:12	4	903	247	-1	-1	-1	-1	146.994	32.118	0
103230	20.01.2016	02:46:16	4	904	256	134.930	87	8.543	175	184.361	32.091	0
103320	20.01.2016	03:01:22	4	903	260	115.199	79	11.110	20.718	23.118	0	0
103410	20.01.2016	03:16:26	4	903	247	309.942	120	14.216	146.904	51.118	0	0
103500	20.01.2016	03:31:30	4	903	245	202.184	68	6.327	4.487	23.118	0	0
103590	20.01.2016	03:46:35	3	902	251	-1	20	-1	-1	25.118	0	0
103680	20.01.2016	04:01:37	4	903	260	376.765	43	5.413	277	39.118	0	0
103770	20.01.2016	04:16:41	4	903	270	150.629	-1	-1	-1	1.118	0	0
103860	20.01.2016	04:31:45	3	903	279	-1	-1	-1	-1	1.118	0	0

Context Menu Options:

- Hide in table
- Hide in diagram
- Show in diagram (left scala)
- Change color**
- Set min/max Value
- Add new Column
- Show/Hide invisible Columns
- Save as Metric Template
- Save as Default Metric Template

Database Analyzer Charts

Change the Color of the Graph

[→ Back](#)

1. On the respective column choose the context function
Change color
2. Choose a color from the color menu

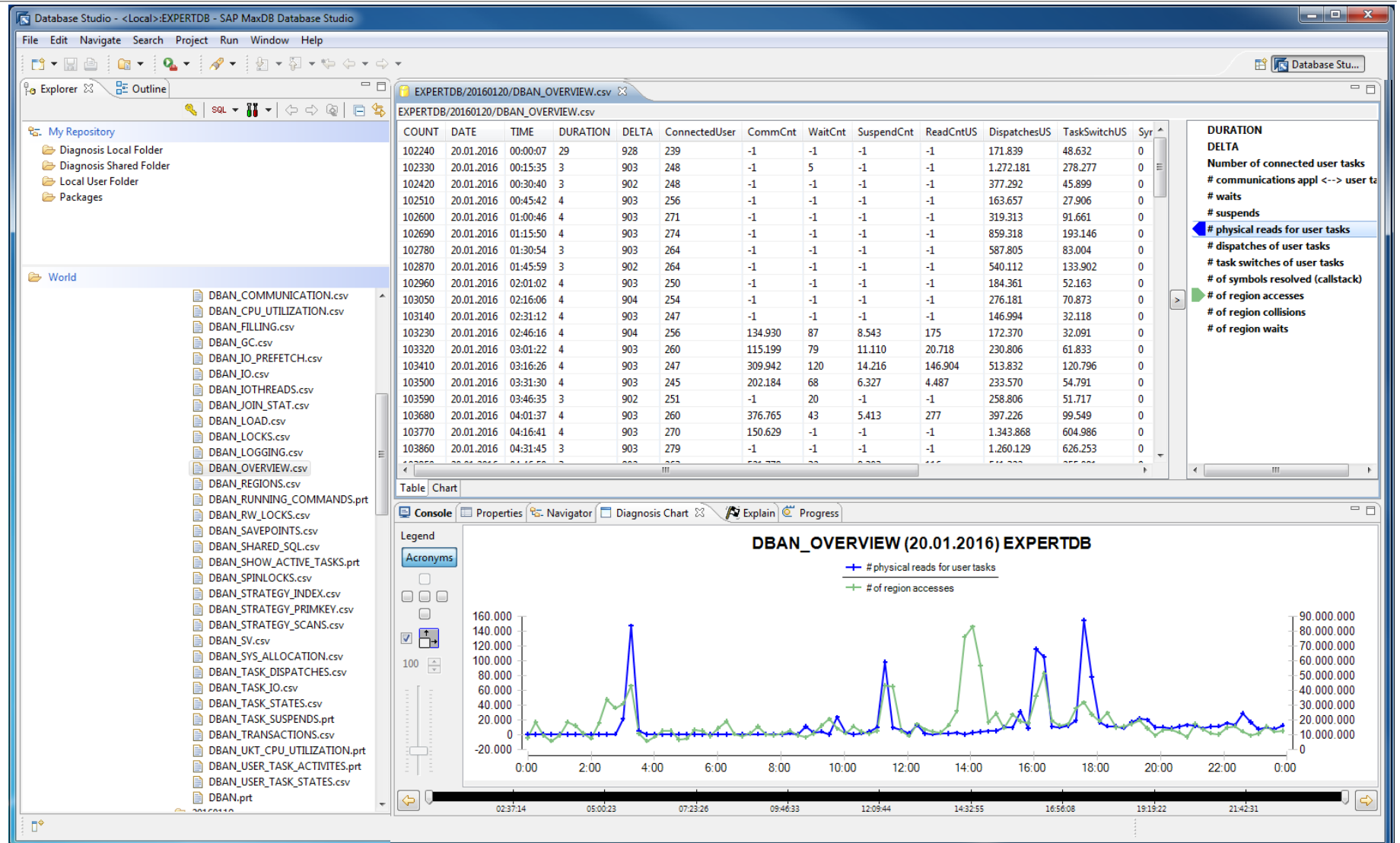
The screenshot shows the SAP MaxDB Database Studio interface. The main window displays a table with columns: COUNT, DATE, TIME, DURATION, DELTA, ConnectedUser, CommCnt, WaitCnt, SuspendCnt, ReadCntUS, DispatchesUS, TaskSwitchUS, and Syr. Below the table, a 'Diagnosis Chart' is visible, showing a line graph with two data series: '# physical read' (red line) and '# of region acc' (green line). The chart title is 'DBAN_OVERVIEW (20)'. A dialog box titled 'Select your favorite color' is overlaid on the chart. It contains two sections: 'Basic colors' and 'Custom colors'. The 'Basic colors' section has a grid of 48 color swatches, with a blue swatch selected and highlighted by a red circle. The 'Custom colors' section has a grid of 12 black swatches and a 'Define Custom Colors >>' button. The 'OK' button is also highlighted with a red circle.

Database Analyzer Charts

Change the Color of the Graph

[→ Back](#)

1. On the respective column choose the context function
Change color
2. Choose a color from the color menu
3. The graph is now displayed with the chosen color

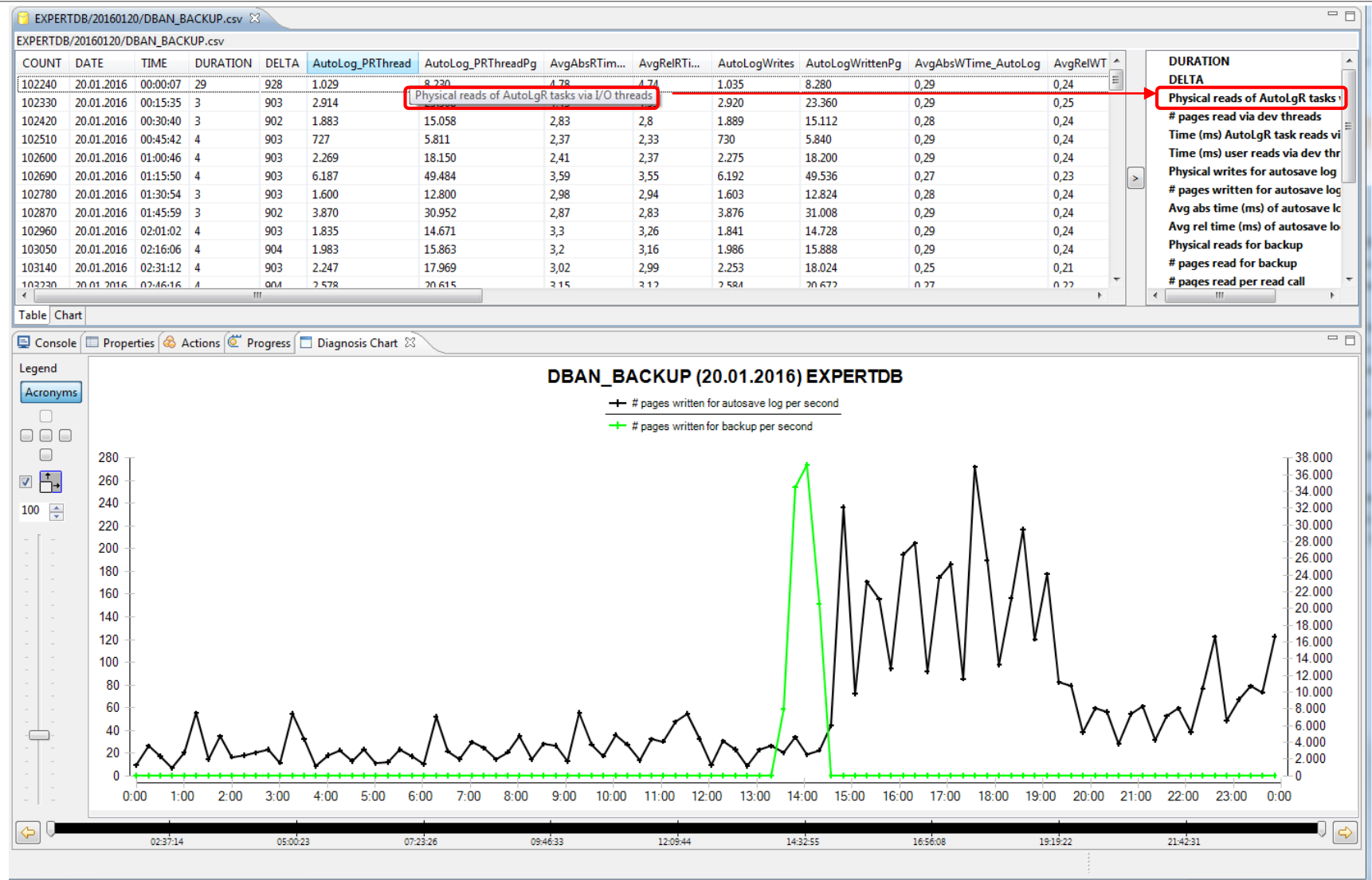


Database Analyzer Charts

Hiding/showing a Column in the Table

[→ Back](#)

1. Which table column is this? Move the mouse over the column. See beneath the header the long name of the column in the tool tip.

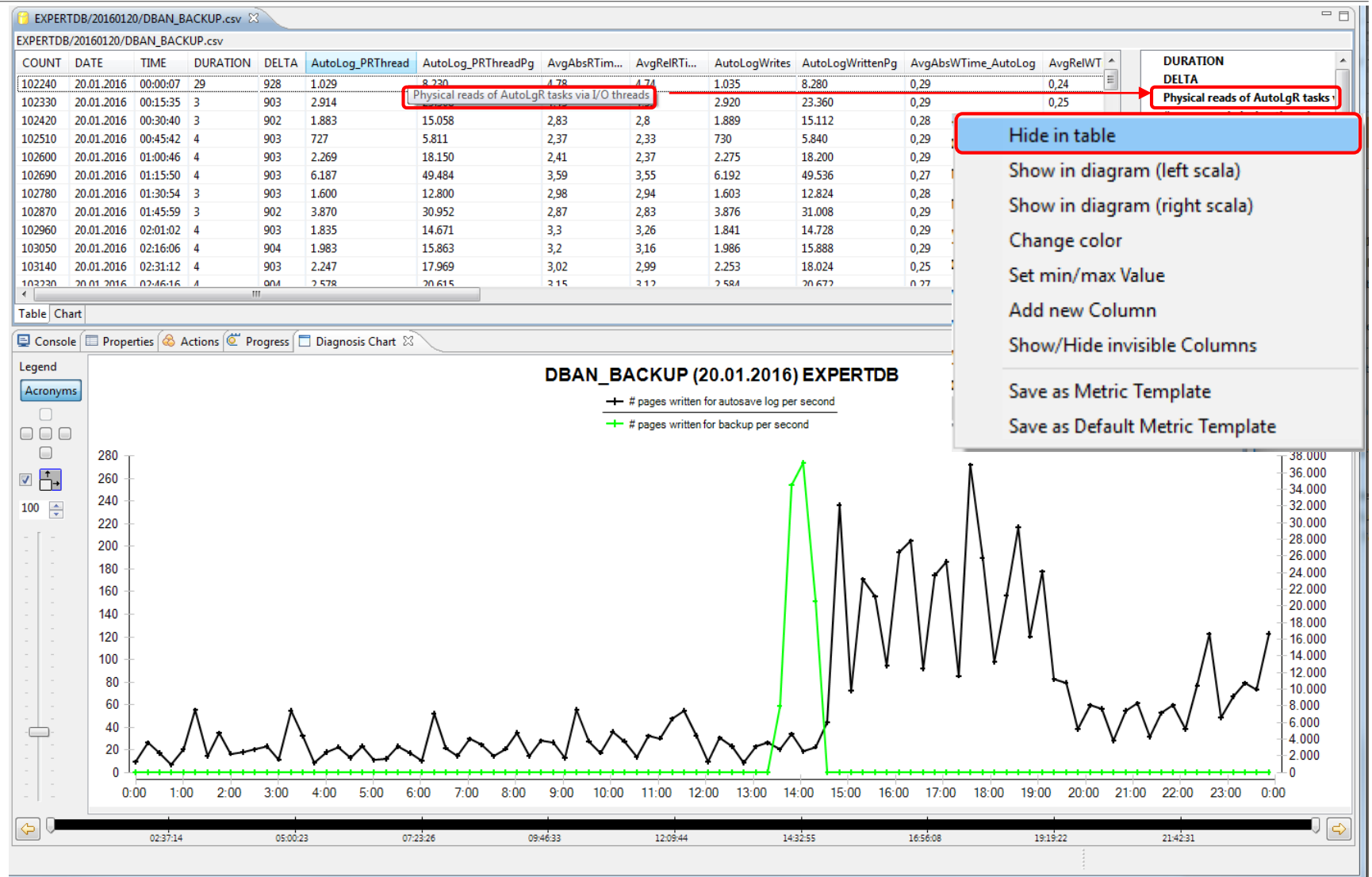


Database Analyzer Charts

Hiding/showing a Column in the Table

[→ Back](#)

1. Which table column is this? Move the mouse over the column. See beneath the header the long name of the column in the tool tip.
2. Exclude first column from the table via context menu function "Hide in table"

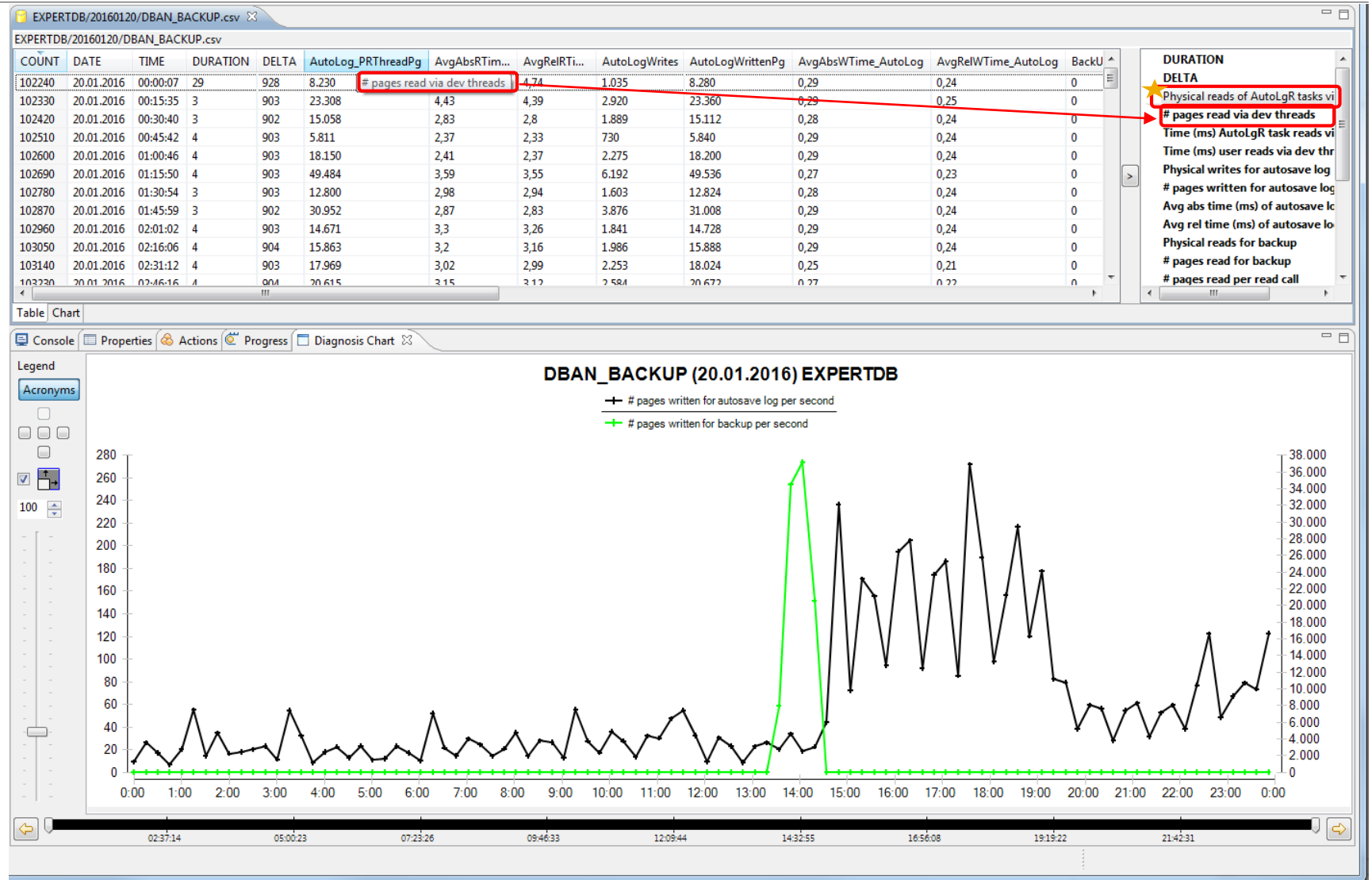


Database Analyzer Charts

Hiding/showing a Column in the Table

[→ Back](#)

1. Which table column is this? Move the mouse over the column. See beneath the header the long name of the column in the tool tip.
2. Exclude first column from the table via context menu function "Hide in table"
3. Now you see in the table the former second column as first column

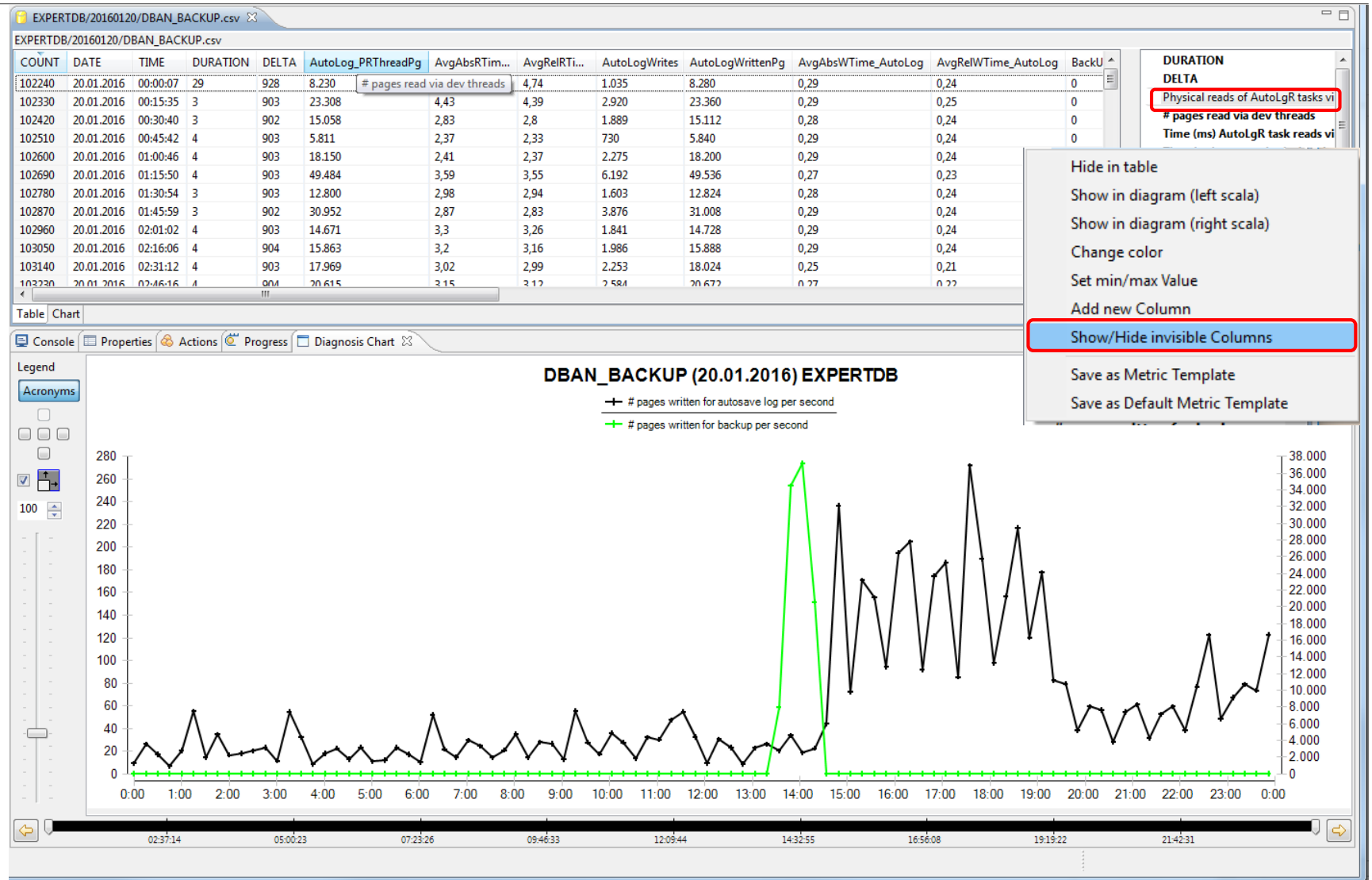


Database Analyzer Charts

Hiding/showing a Column in the Table

[→ Back](#)

1. Which table column is this? Move the mouse over the column. See beneath the header the long name of the column in the tool tip.
2. Exclude first column from the table via context menu function "Hide in table"
3. Now you see in the table the former second column as first column
4. You can now exclude the not visible table column from the column list

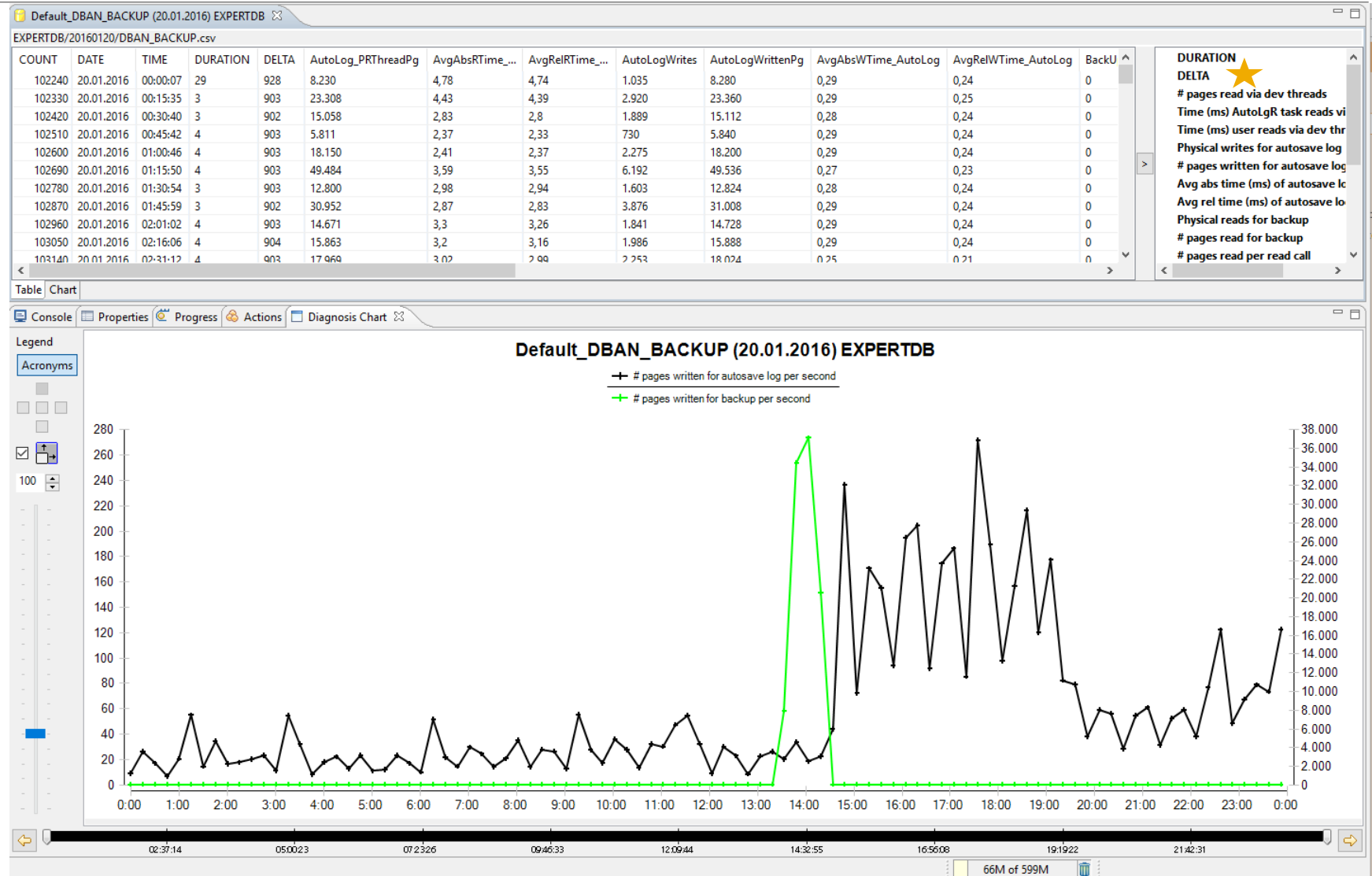


Database Analyzer Charts

Hiding/showing a Column in the Table

[→ Back](#)

5. The column list does not show the excluded column any more. See ★

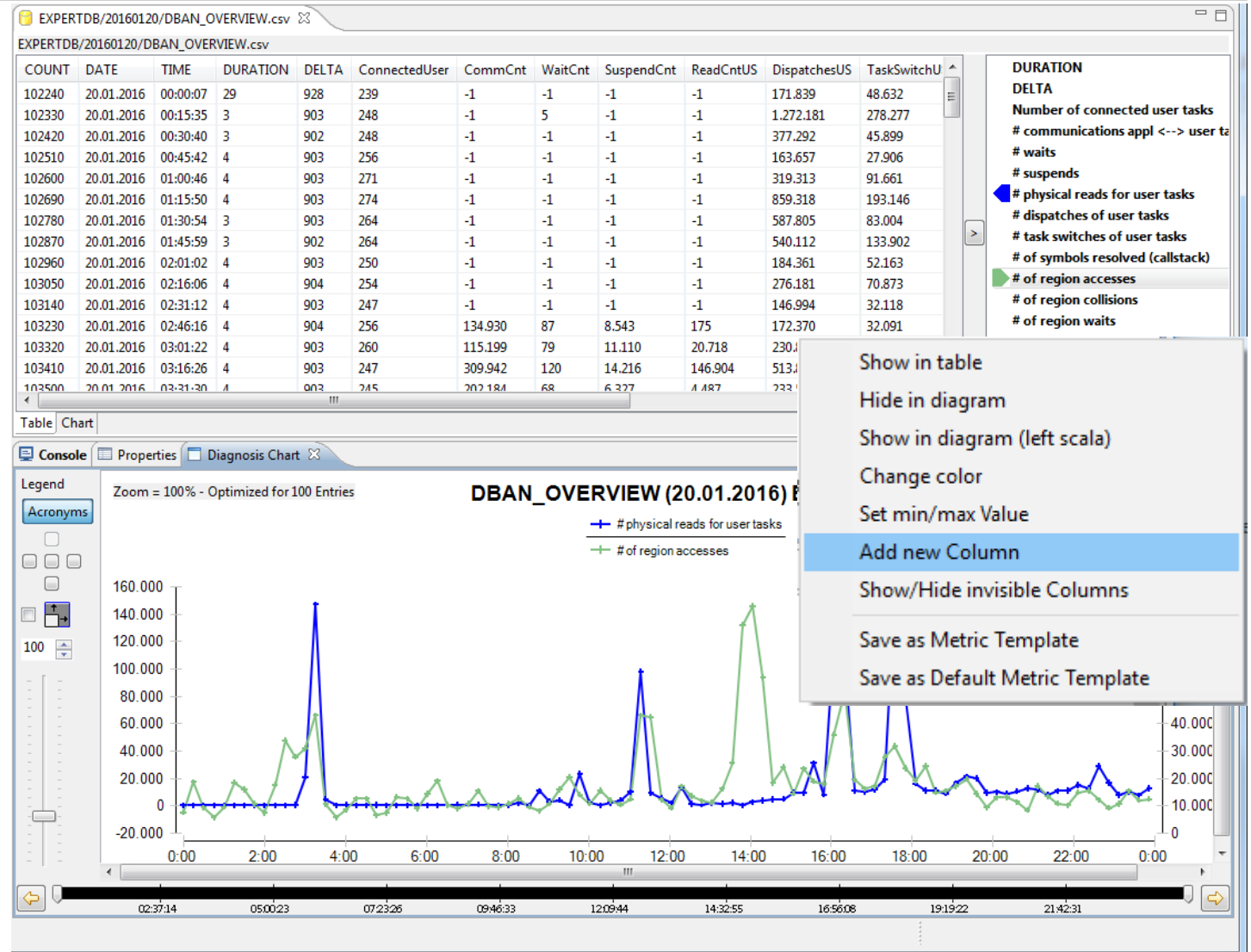


Database Analyzer Charts

Adding, changing and deleting virtual columns

[→ Back](#)

1. You want to know the number of region accesses per second? Therefore you need a computed column.
2. From the context menu choose:
Add new Column



Database Analyzer Charts

Adding, changing and deleting virtual columns

[→ Back](#)

1. You want to know the number of region accesses per second? Therefore you need a computed column.
2. From the context menu choose: **Add new Column**
3. Enter a name and acronym for the new column. Specify a formula - use Ctrl/space. Division by DELTA means: per second.

The screenshot displays the SAP Database Analyzer interface. At the top, a table titled 'EXPERTDB/20160120/DBAN_OVERVIEW.csv' is visible with columns: COUNT, DATE, TIME, DURATION, DELTA, and ConnectedUser. Below the table, a 'Diagnosis Chart' is shown with a legend for 'Acronyms' and a line graph plotting data over time. The chart shows a significant spike in values around 03:00. Overlaid on the chart is the 'Add Column' dialog box. The dialog prompts the user to 'Please define name, acronym and a formula'. The 'Name' field contains 'regionAccessPerSec', the 'Acronym' field contains 'regAccPerSec', and the 'Formula' field contains 'c_RegionAccesses/'. A list of available columns is shown in a dropdown menu, with 'c_DELTA' selected. The 'Finish' button is highlighted with a red box.

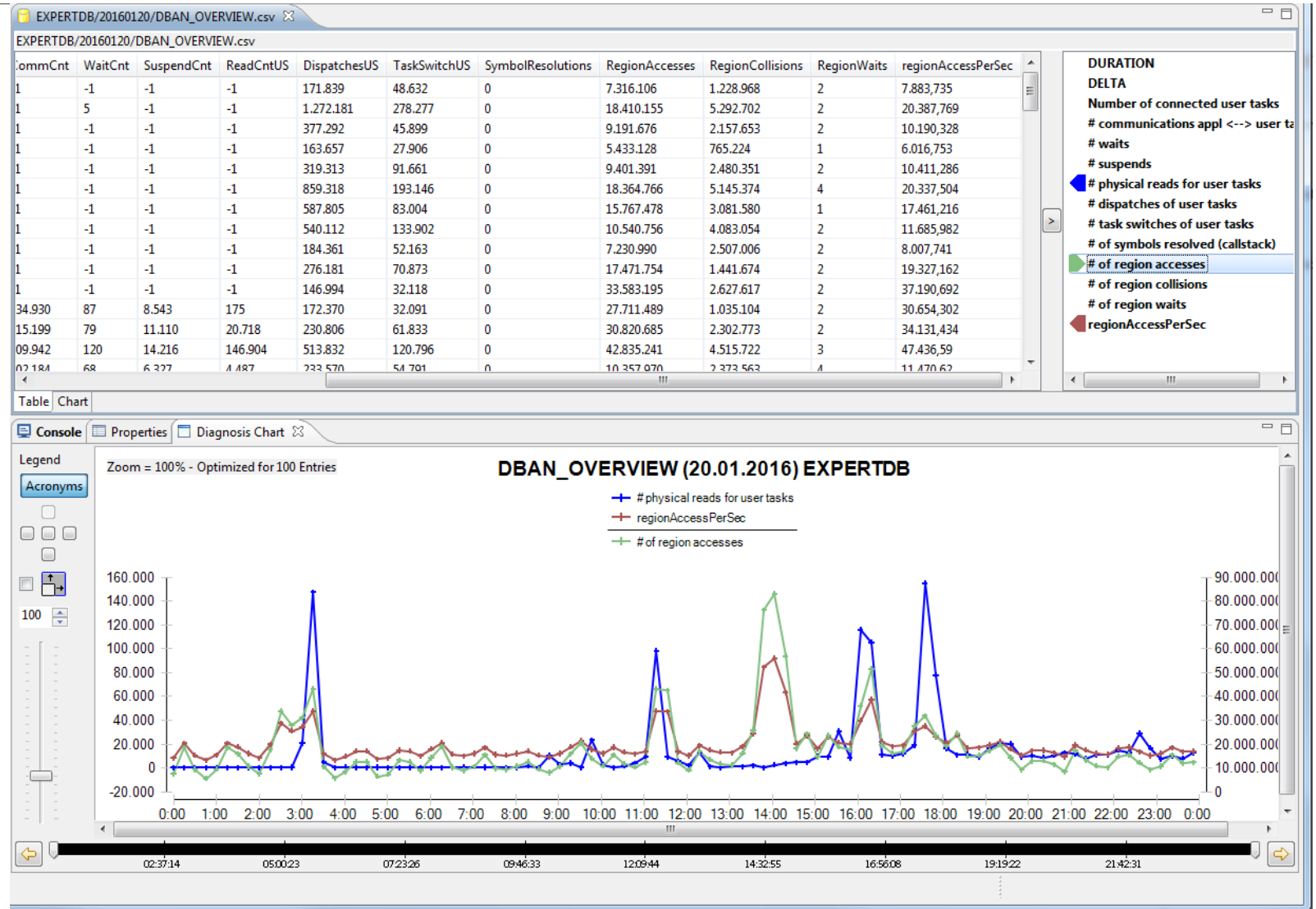
COUNT	DATE	TIME	DURATION	DELTA	ConnectedUser
102240	20.01.2016	00:00:07	29	928	239
102330	20.01.2016	00:15:35	3	903	248
102420	20.01.2016	00:30:40	3	902	248
102510	20.01.2016	00:45:42	4	903	256
102600	20.01.2016	01:00:46	4	903	271
102690	20.01.2016	01:15:50	4	903	274
102780	20.01.2016	01:30:54	3	903	264
102870	20.01.2016	01:45:59	3	902	264
102960	20.01.2016	02:01:02	4	903	250
103050	20.01.2016	02:16:06	4	904	254
103140	20.01.2016	02:31:12	4	903	247
103230	20.01.2016	02:46:16	4	904	256
103320	20.01.2016	03:01:22	4	903	260
103410	20.01.2016	03:16:26	4	903	247
103500	20.01.2016	03:31:30	4	903	245

Database Analyzer Charts

Adding, changing and deleting virtual columns

[→ Back](#)

1. You want to know the number of region accesses per second? Therefore you need a computed column.
2. From the context menu choose: **Add new Column**
3. Enter a name and acronym for the new column. Specify a formula - use Ctrl/space. Division by DELTA means: per second.
4. Choose **Edit Column** or **Delete Column** if you want to change or delete the definition of the column.



Database Analyzer Charts

Issuing and Removing Warnings for Values

[→ Back](#)

1. You want to see warnings if values are beneath or above a threshold.
2. From the context menu choose: **Set min/max Value** to specify a min or max threshold value for the chosen column

The screenshot displays the SAP Database Analyzer interface. At the top, a table titled 'Default_DBAN_FILLING(21.11.2013) EXPERTDB' shows various performance metrics. Below the table, a 'Diagnosis Chart' is visible, plotting '% Log filling' over time. A context menu is open over the chart, with the option 'Set min/max Value' highlighted in blue. The chart shows a red line representing the percentage of log filling, which fluctuates between 0 and 100% over the period shown.

COUNT	DATE	TIME	DURATION	DELTA	SysHeap	DB_Size	DB_UsedSize	DB_VolUsedSize	PermUsed	TempUsed	HistoryUsed	SnapshotU
1872	21....	00:...	158	217	105.327	597.7...	551.986.281	551.986.281	551.539....	102.505	4.636	0
1878	21....	00:...	5	63	105.331	597.7...	551.986.281	551.986.281	551.539....	102.525	4.826	0
1884	21....	00:...	13	72	105.339	597.7...	552.043.549	552.043.549	551.541....	1.068	6.842	0
1890	21....	00:...	5	63	105.339	597.7...	552.098.153	552.098.153	551.538....	1.087	2.045	0
1896	21....	00:...	4	63	105.339	597.7...	552.098.153	552.098.153	551.538....	1.205	168	0
1902	21....	00:...	4	63	105.339	597.7...	552.098.153	552.098.153	551.541....	1.313	2.579	0
1908	21....	00:...	8	67	105.343	597.7...	552.098.153	552.098.153	551.543....	1.083	2.863	0
1914	21....	00:...	5	63	105.347	597.7...	552.098.153	552.098.153	551.545....	1.082	3.702	0
1920	21....	00:...	5	64	105.347	597.7...	552.098.153	552.098.153	551.545....	1.083	238	0
1926	21....	00:...	4	63	105.347	597.7...	552.098.153	552.098.153	551.549....	1.087	2.406	0

Database Analyzer Charts

Issuing and Removing Warnings for Values

[→ Back](#)

1. You want to see warnings if values are beneath or above a threshold.
2. From the context menu choose: **Set min/max Value** to specify a min or max threshold value for the chosen column
3. Here only a maximum value is specified. The minimum value stays undefined (**NaN** value means “not a number”).
4. Save the metric template under a specific name (“LogFilling-WithThreshold”). After applying it to this date folder, the resp. values will be emphasized.

The screenshot displays the SAP Database Analyzer interface. At the top, a table lists various metrics for 'Default_DBAN_FILLING(21.11.2013) EXPERTDB'. The columns include COUNT, DATE, TIME, DURATION, DELTA, SysHeap, DB_Size, DB_UsedSize, DB_VolUsedSize, PermUsed, TempUsed, HistoryUsed, and SnapshotU. Below the table, a 'Console' tab is active, showing a 'Diagnosis Chart' for the same metric. The chart plots '% Log filling' over time, with a red line showing values that rise and then drop. A dialog box titled 'Set min/max values for column: Log_Filling' is overlaid on the chart, prompting the user to enter a valid number. The 'Minimum' field contains 'NaN' and the 'Maximum' field contains '60'. The dialog box has 'OK' and 'Cancel' buttons.

COUNT	DATE	TIME	DURATION	DELTA	SysHeap	DB_Size	DB_UsedSize	DB_VolUsedSize	PermUsed	TempUsed	HistoryUsed	SnapshotU
1872	21....	00:...	158	217	105.327	597.7...	551.986.281	551.986.281	551.539....	102.505	4.636	0
1878	21....	00:...	5	63	105.331	597.7...	551.986.281	551.986.281	551.539....	102.525	4.826	0
1884	21....	00:...	13	72	105.339	597.7...	552.043.549	552.043.549	551.541....	1.068	6.842	0
1890	21....	00:...	5	63	105.339	597.7...	552.098.153	552.098.153	551.538....	1.087	2.045	0
1896	21....	00:...	4	63	105.339	597.7...	552.098.153	552.098.153	551.538....	1.205	168	0
1902	21....	00:...	4	63	105.339	597.7...	552.098.153	552.098.153	551.541....	1.313	2.579	0
1908	21....	00:...	8	67	105.343	597.7...	552.098.153	552.098.153	551.543....	1.083	2.863	0
1914	21....	00:...	5	63	105.347	597.7...	552.098.153	552.098.153	551.545....	1.082	3.702	0
1920	21....	00:...	5	64	105.347	597.7...	552.098.153	552.098.153	551.545....	1.083	238	0
1926	21....	00:...	4	63	105.347	597.7...	552.098.153	552.098.153	551.549....	1.087	2.406	0

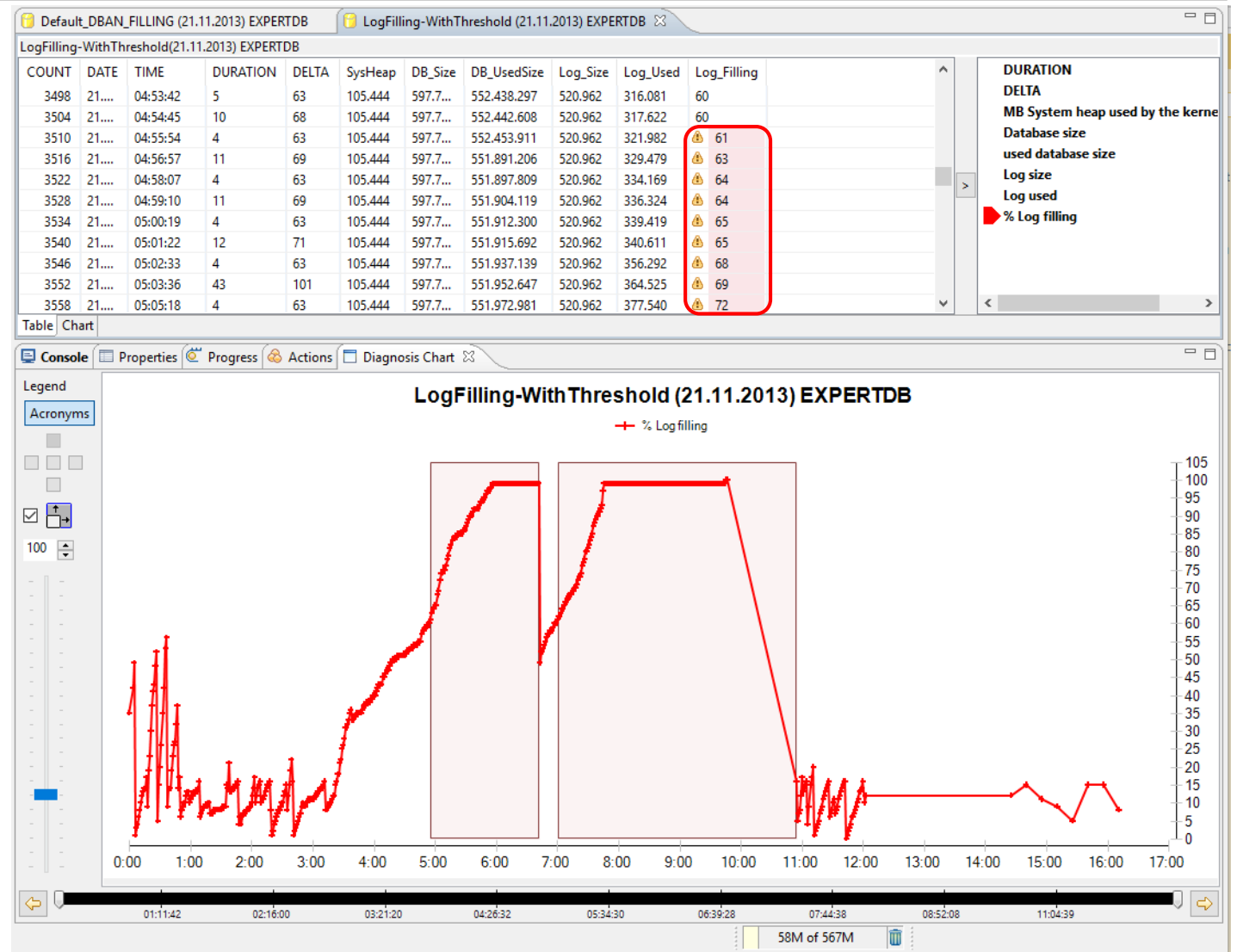
Database Analyzer Charts

Issuing and Removing Warnings for Values

[→ Back](#)

Having saved the metric template under a specific name (f.e.:“LogFilling-WithThreshold”):

After applying **LogFilling-WithThreshold** again to this date folder, the respective values will be marked in the chart and in the table.



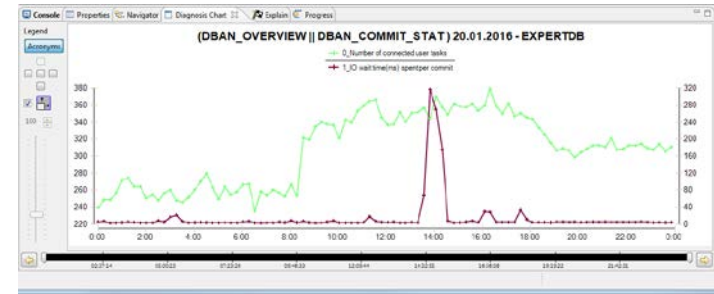
Database Analyzer Charts

Two or More Metrics in one Chart

[→ Back to Agenda](#)

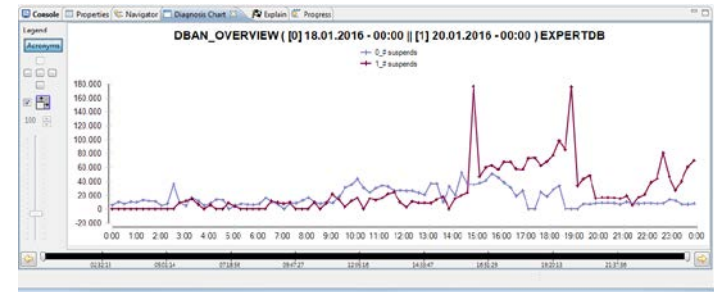
1. What do different metrics of the same date have in common?

Merge different csv files in one chart



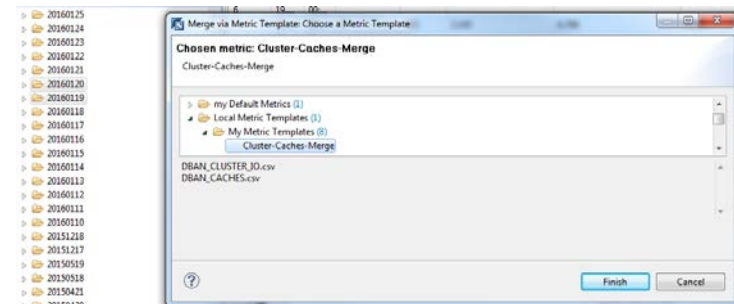
2. How the metric changes from one date to the other?

Compare the metrics of two different dates in one chart



3. How to display a metric over more the one day?
Concatenate a succeeding or preceding day with the same metric

Concatenate charts over more then one day



Merging Two or More Metrics in one Chart

Merge two different csv files in one chart

[→ Back](#)

1. To combine graphs of two different charts in one single chart, open the two different csv files.
2. Via context function **Merge with** choose the 2nd chart you want to merge with.

The screenshot displays the SAP MaxDB Database Studio interface. The main window shows a table of database metrics for 'Default_DBAN_IOTHEADS (19.05.2015) EXPERTDB'. The table has columns for COUNT, DATE, TIME, DURATION, DELTA, VReads, VWrites, PReads, PWrites, Perm_VReads, Perm_VWrites, and Perm_Pf. A context menu is open over the table, with the 'Merge with' option highlighted. The menu options are: Merge with 'Default_DBAN_IOTHEADS (19.05.2015) EXPERTDB', Save as Metric Template, Save as Default Metric Template, and Refresh. Below the table, a 'Diagnosis Chart' is visible, titled 'Default_DBAN_IO (19.05.2015) EXPERTDB'. The chart shows two data series: 'Virtual reads' (orange line) and 'Virtual writes' (green line). The x-axis represents time from 8:23 to 21:23, and the y-axis represents the number of reads/writes, ranging from 200,000,000 to 900,000,000. The chart shows a significant peak in both metrics around 14:30.

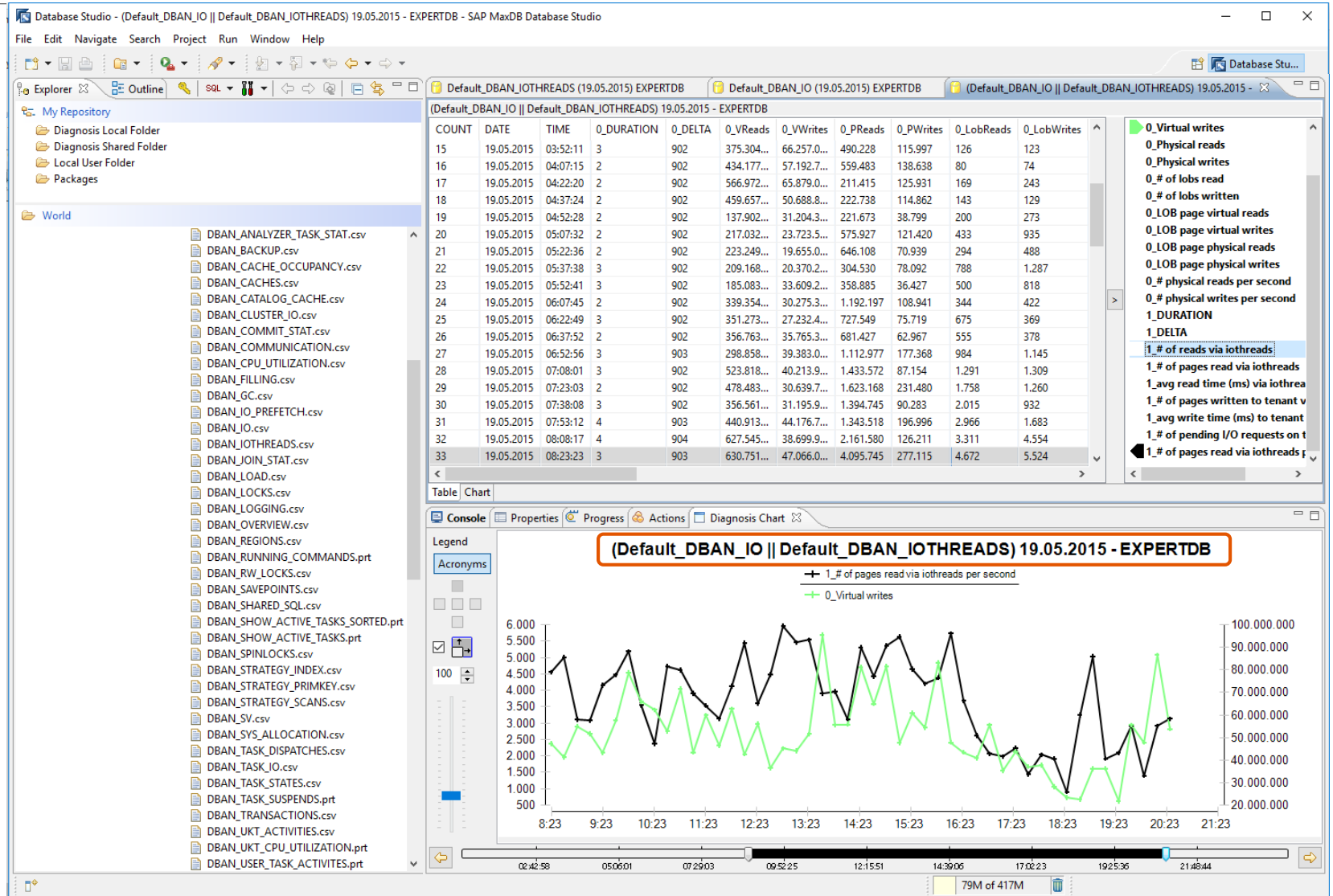
COUNT	DATE	TIME	DURATION	DELTA	VReads	VWrites	PReads	PWrites	Perm_VReads	Perm_VWrites	Perm_Pf
54180	19.05.2015	08:23:23	3	903	630.7...	47.06...	4.095...	277.115	590.892.529	8.491.446	4.087.80
54270	19.05.2015	08:38:29	3	903	629.2...	41.03...	4.512...	120.369	594.757.919	7.019.780	4.500.50
54360	19.05.2015	08:53:35	4	903	581.6...	54.71...	2.802...	327.863	534.920.897	9.568.715	2.795.79
54450	19.05.2015	09:08:40	4	903	683.3...	51.39...	2.761...	137.909	642.205.356	10.288.818	2.756.53
54540	19.05.2015	09:23:46	3	903	709.4...	42.91...	3.732...	359.756	676.511.186	10.285.681	3.726.53
54630	19.05.2015	09:38:51	3	903	622.9...	57.47...	4.018...	188.482	580.779.642	14.884.539	3.968.54
54720	19.05.2015	09:53:56	7	906	509.3...	78.63...	4.673...	339.351	445.642.834	13.949.913	4.667.77
54810	19.05.2015	10:09:04	7	906	637.1	65.73	3.208	162.142	500.837.444	10.041.021	3.106.10
54900											
54990											
55080	1										
55170	1										
55260	1										
55350	1										
55440	1										
55530	1										
55620	19.05.2015	12:24:54	3	903	464.0...	55.97...	3.234...	281.351	412.991.732	5.547.917	3.216.51
55710	19.05.2015	12:39:59	3	903	460.9...	36.08...	4.016...	154.532	424.079.617	5.362.628	4.007.09
55800	19.05.2015	12:55:05	3	903	488.5...	44.93...	5.377...	227.943	446.502.245	4.443.741	5.376.09

Merging Two or More Metrics in one Chart

Merge two different csv files in one chart

[→ Back](#)

1. To combine graphs of two different charts in one single chart, open the two different csv files.
2. Via context function **Merge with** choose the 2nd chart you want to merge with.
3. Now you can see all chosen graphs in one merged chart. Switch off the ones which are not of interest.



Compare Two Dates in One Chart

Compare Metrics of Different Dates or Databases

[-> Back](#)

1. To compare metrics of different dates: open the two csv files.
2. In the table choose context function **Compare with** and select the 2nd chart you want to compare with

The screenshot displays the SAP MaxDB Database Studio interface. The main window shows a table with columns: COUNT, DATE, TIME, DURATION, DELTA, ConnectedUser, CommCnt, WaitCnt, SuspendCnt, ReadCntUS, DispatchesUS, and TaskSwi. A context menu is open over the table, with the option 'Compare with 'DBAN_OVERVIEW (10.01.2016) EXPERTDB' ...' highlighted. The console window at the bottom shows a line chart titled 'DBAN_OVERVIEW (13.01.2016) EXPERTDB' with a legend for '# suspends'. The chart shows a fluctuating line representing the number of suspends over time, with a peak around 10:04. The x-axis represents time from 0:04 to 22:04, and the y-axis represents the count from -10,000 to 80,000.

COUNT	DATE	TIME	DURATION	DELTA	ConnectedUser	CommCnt	WaitCnt	SuspendCnt	ReadCntUS	DispatchesUS	TaskSwi
42120	13.01.2016	00:04:57	28	928	322	514.123	29	7.623	1.088	548.228	199.656
42210	13.01.2016	00:20:27	3	903	348	-1	35	-1	-1	855.344	227.312
42300	13.01.2016	00:35:32	4	903	337	271.075	32	4.852	87	293.609	41.884
42390	13.01.2016	00:50:37	4	903	339	228.257	41	6.293	123	252.850	55.446
42480	13.01.2016	01:05:41	4	904	361	527.851	65	12.995	3.595	580.617	140.305
42570	13.01.2016	01:20:46	4	904	359	486.872	44	6.862	163	517.761	121.510
42660	13.01.2016	01:35:57	4	903	341	172.851	28	6.020	047	106.228	48.775
42750	13.01.2016	01:50:55	4	903	341	172.851	28	6.020	047	106.228	48.775
42840	13.01.2016	02:06:00	4	903	341	172.851	28	6.020	047	106.228	48.775
42930	13.01.2016	02:21:00	4	903	341	172.851	28	6.020	047	106.228	48.775
43020	13.01.2016	02:36:00	4	903	341	172.851	28	6.020	047	106.228	48.775
43110	13.01.2016	02:51:00	4	903	341	172.851	28	6.020	047	106.228	48.775
43200	13.01.2016	03:06:02	4	903	341	172.851	28	6.020	047	106.228	48.775
43290	13.01.2016	03:21:02	4	903	341	172.851	28	6.020	047	106.228	48.775
43380	13.01.2016	03:36:34	6	905	334	220.205	33	3.184	319	268.762	35.363
43470	13.01.2016	03:51:40	5	904	340	187.700	44	7.402	70	220.544	40.004

Compare Two Dates in One Chart

Compare Metrics of Different Dates or Databases

[-> Back](#)

1. To compare metrics of different dates: open the two csv files.
2. In the table choose context function **Compare with** and select the 2nd chart you want to compare with
3. Click ok, if you wish to compare the graphs starting at the same point in time
4. Enter different starting point if you want to compare different time intervals

The screenshot shows the SAP MaxDB Database Studio interface. The main window displays a table of metrics for two different dates: 10.01.2016 and 13.01.2016. The table columns include COUNT, DATE, TIME, DURATION, DELTA, ConnectedUser, CommCnt, WaitCnt, SuspendCnt, ReadCntUS, DispatchesUS, and TaskSwi. A dialog box is open over the table, titled 'Merge Timestamps', with the following content:

Merge Timestamps

Please define merge startpoint of:
DBAN_OVERVIEW (10.01.2016) EXPERTDB
00:00:12

Please define merge startpoint of:
DBAN_OVERVIEW (13.01.2016) EXPERTDB
00:04:57

Name of new Combination
DBAN_OVERVIEW ([0] 10.01.2016 || [1] 13.01.2016) EXPERTDB

OK

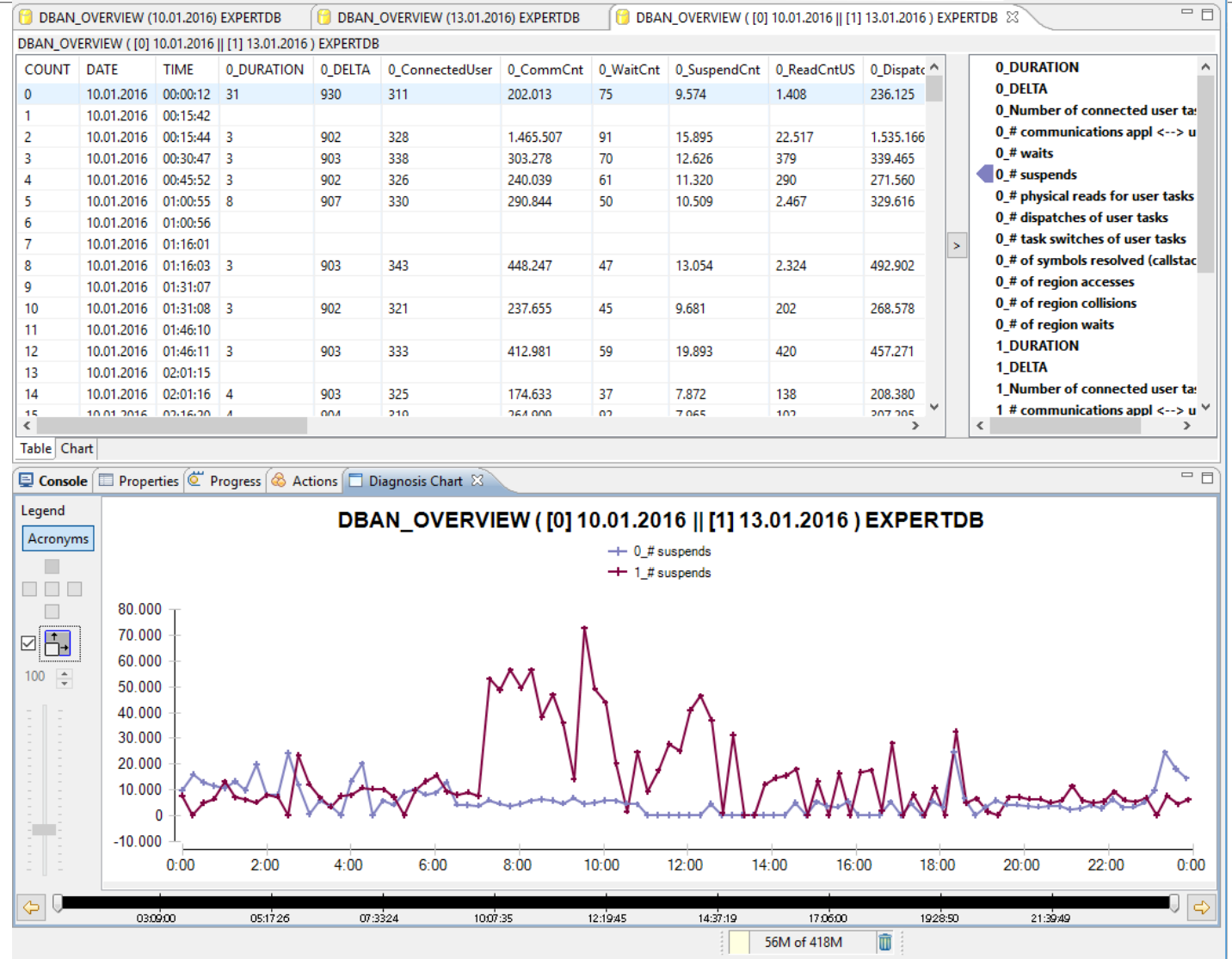
The background chart shows a line graph with a y-axis ranging from -10,000 to 80,000 and an x-axis showing time intervals from 0:04 to 22:04. The chart is titled 'DBAN_OVERVIEW' and shows a fluctuating line representing the comparison of metrics over time.

Compare Two Dates in One Chart

Compare Metrics of Different Dates or Databases

[-> Back](#)

- Now you can see all chosen graphs in one chart.

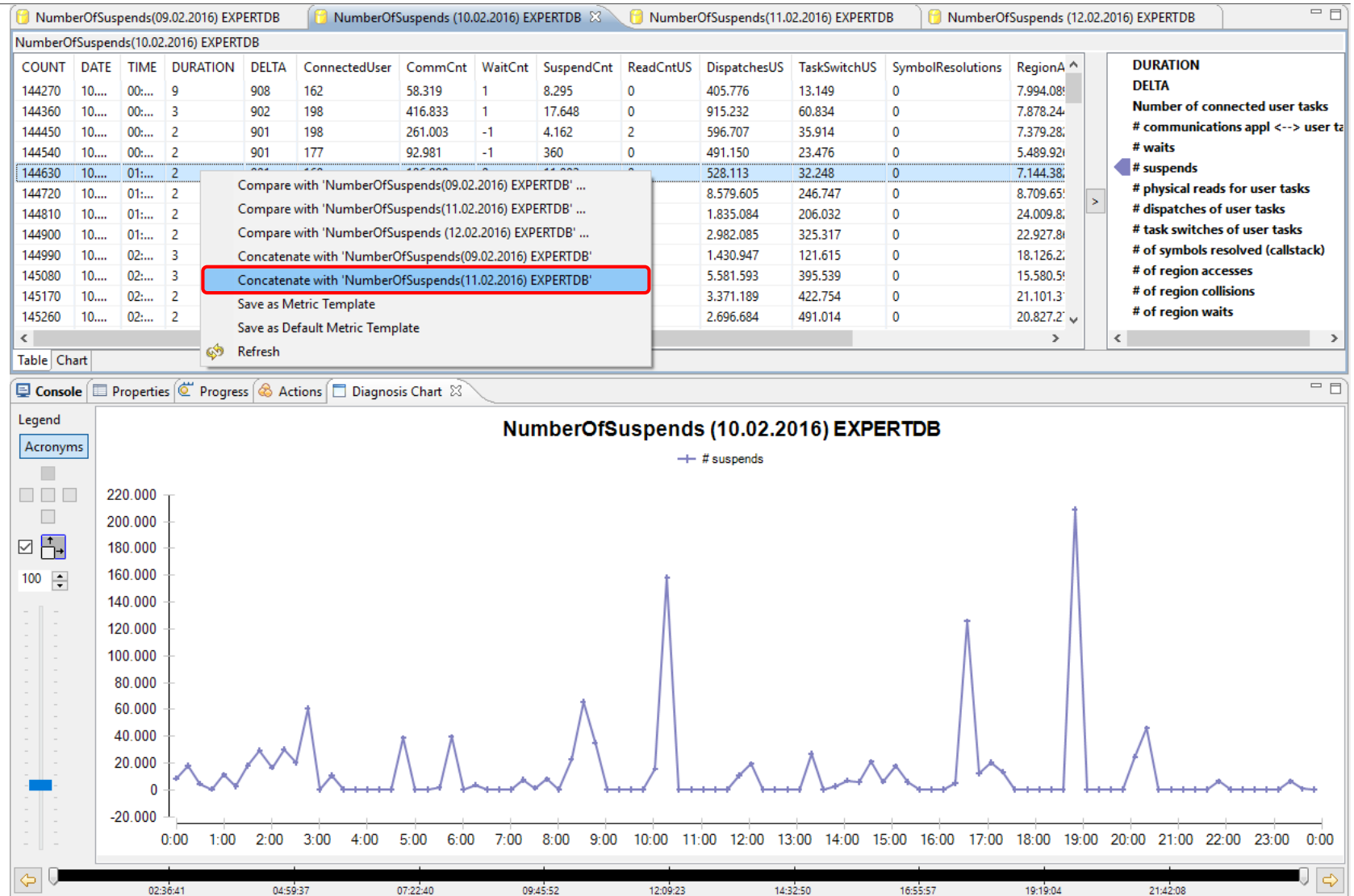


Concatenate several Dates in One Chart

Concatenate same Metrics over several succeeding Dates

[-> Back](#)

1. To concatenate metrics of succeeding dates: open the same metric in up to four succeeding date folder.
2. The context menu offers according to the displayed charts the potentially possible operations.
3. After concatenation of the date 10.02.2016 and 11.02.2016 it is possible to continue the concatenation until four dates are concatenated.



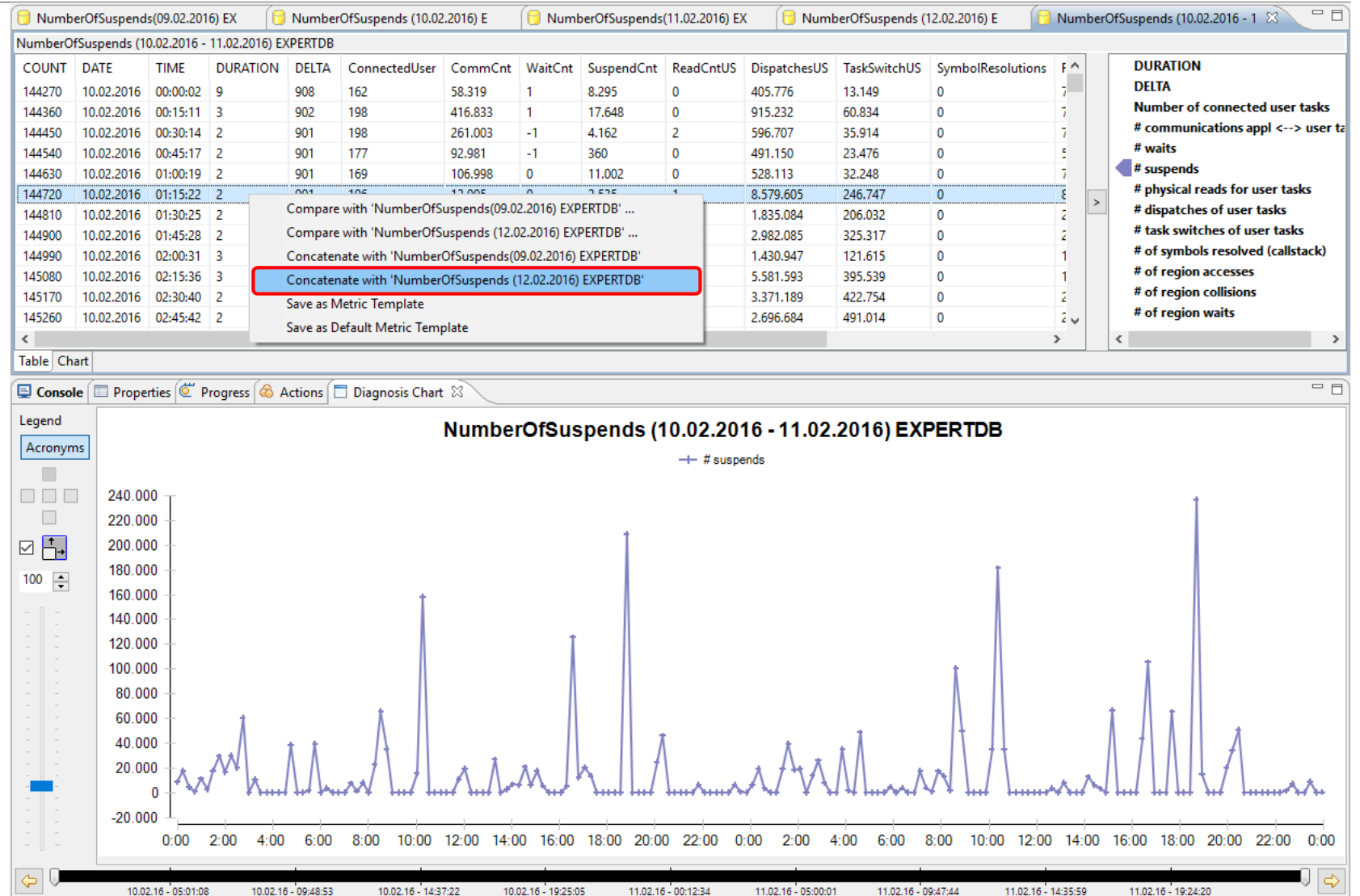
Concatenate several Dates in One Chart

Concatenate same Metrics over several succeeding Dates

[-> Back](#)

4. See here the second concatenation step

and on the next slide the result of three stepwise concatenations.



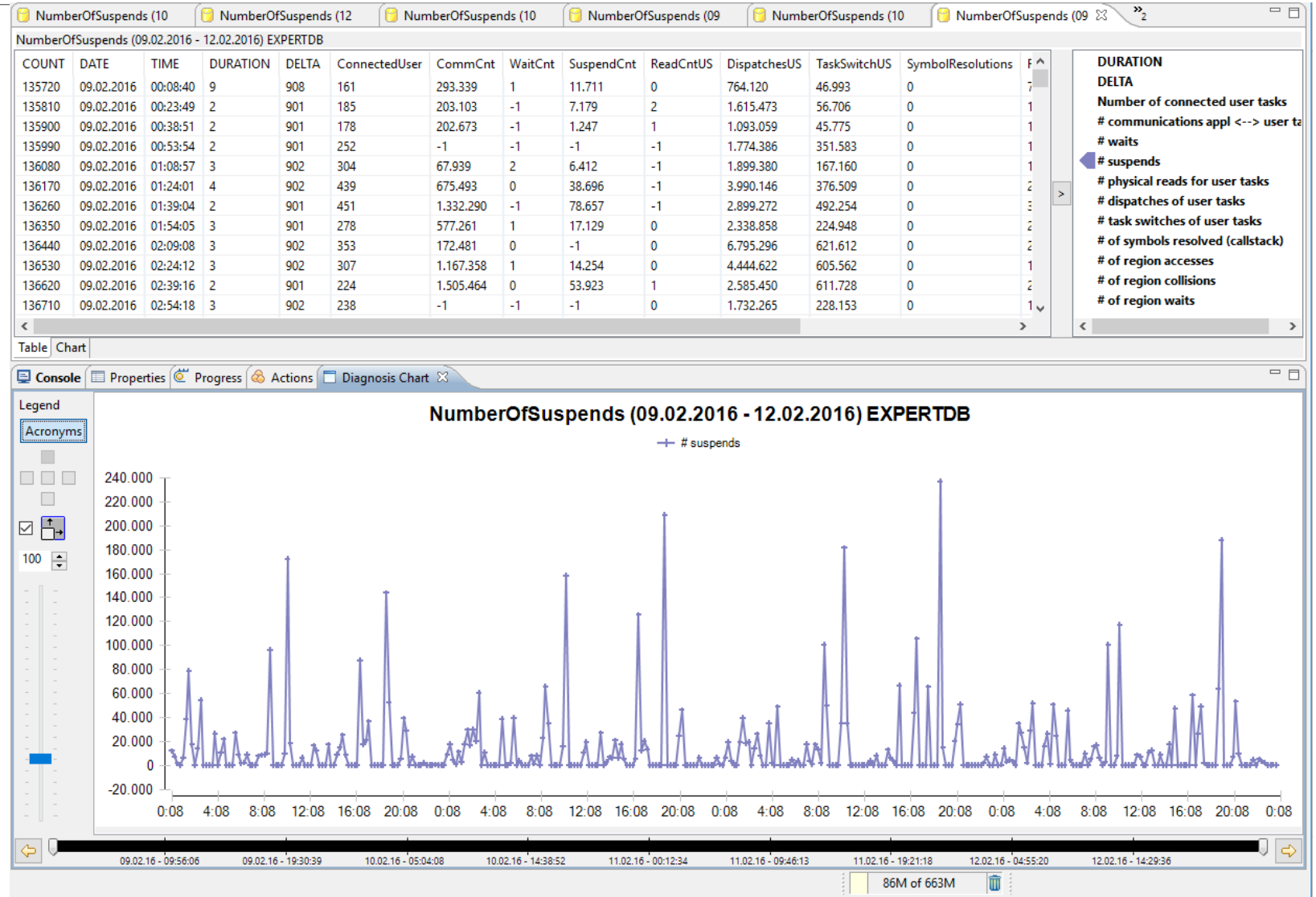
Concatenate several Dates in One Chart

Concatenate same Metrics over several succeeding Dates

[-> Back](#)

- This is the result of the stepwise concatenation

09.02.2016 until 2.02.2016



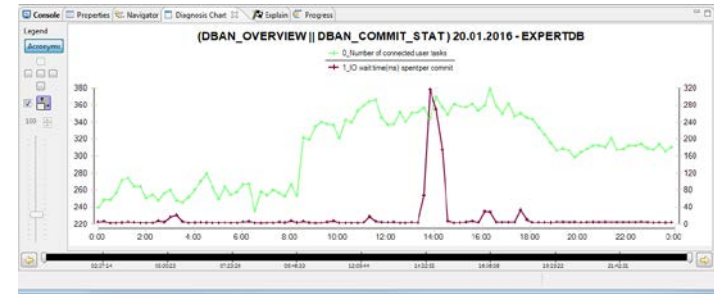
Database Analyzer Charts

Display/Compare/Concatenate via Metric Template

[→ Back to Agenda](#)

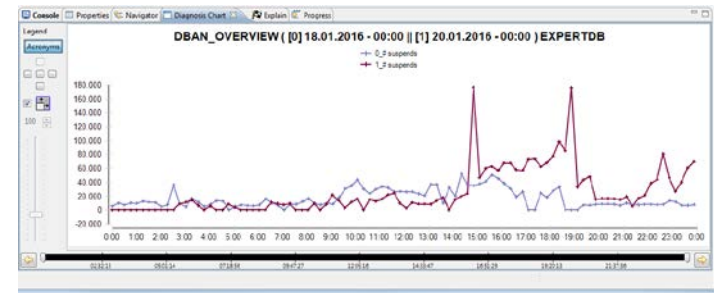
1. How to select and display different dates with a specific Metric Template?

Display via Metric Template



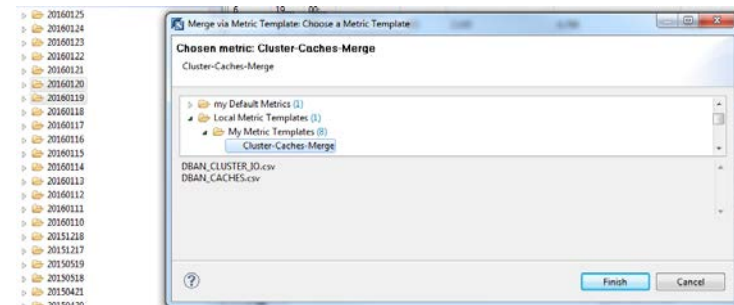
2. How to select and **compare** different dates in one chart directly from the explorer?

Compare via Metric Template



3. How to select and concatenate different dates in one chart directly from the explorer?

Concatenate via Metric Template



Displaying via Metric Template One or More Dates at once

Display directly via Metric Template

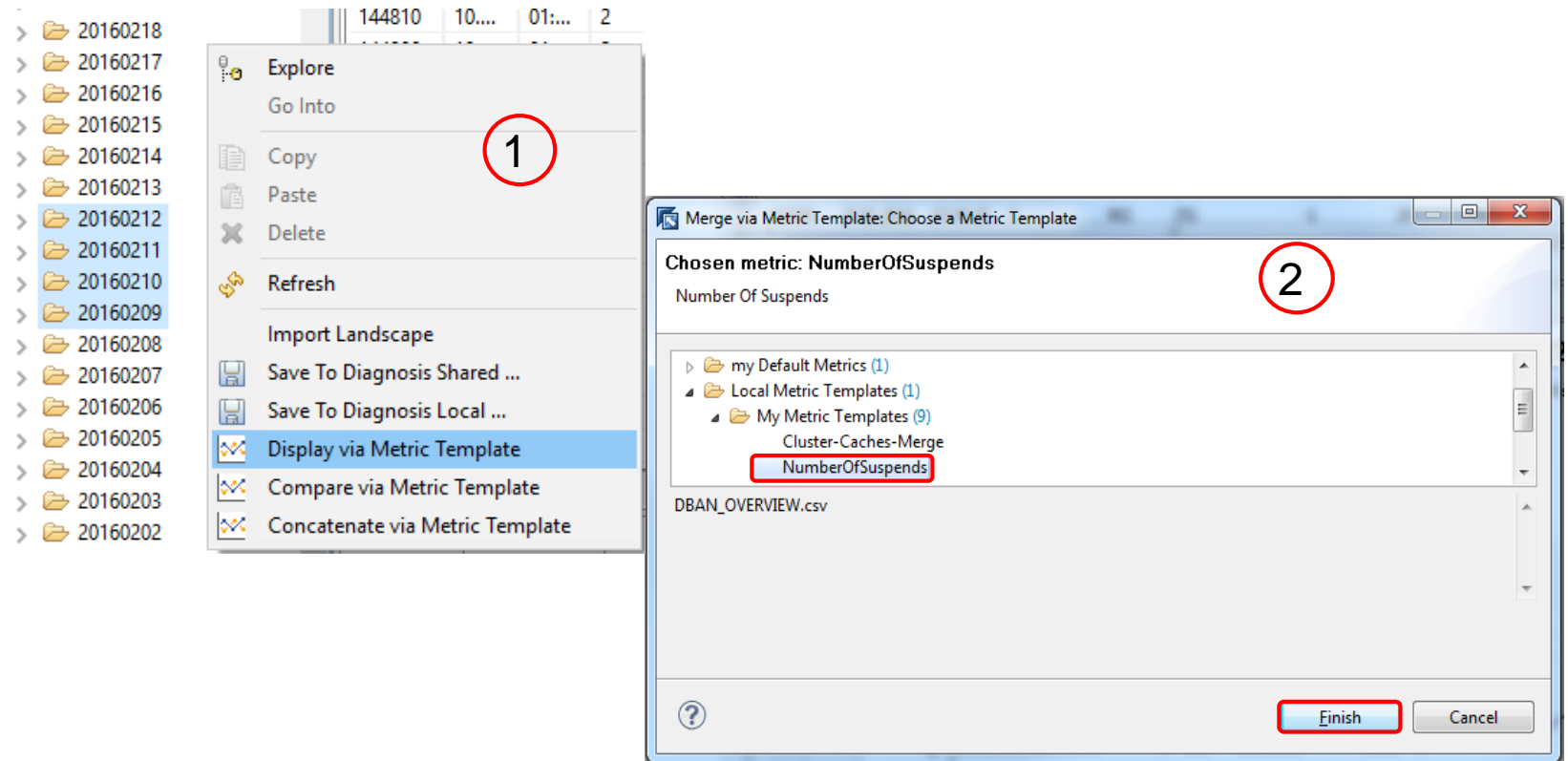
[-> Back](#)

1. To display metrics of different dates directly from the explorer:

select two or more date folders and choose the context function **Display via Metric Template**

2. Then select the Metric Template of interest.

3. As result for every chosen date the metric will be displayed



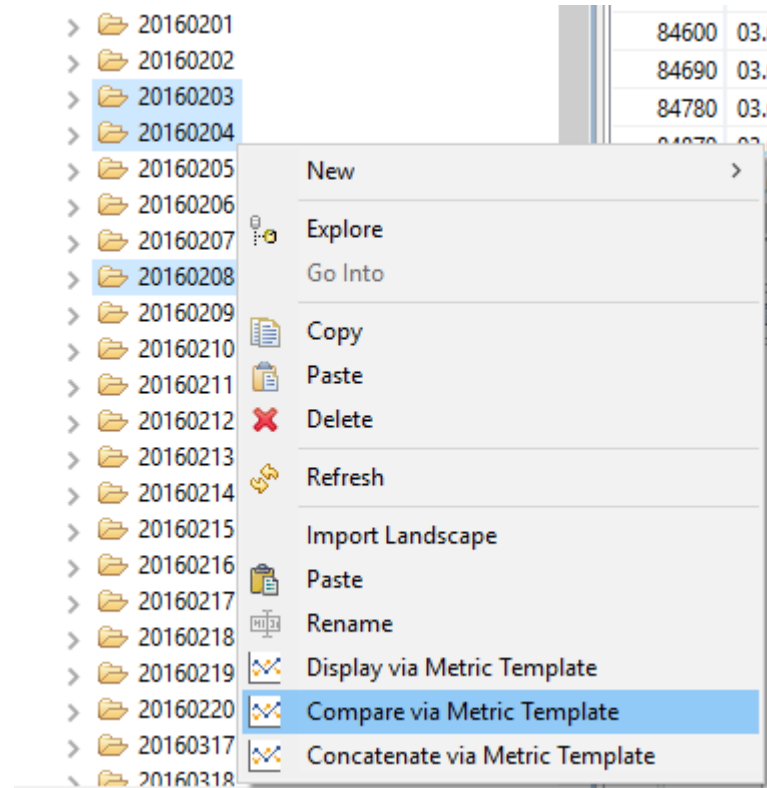
Comparing Two or more Dates in one Chart

Compare directly via Metric Template

[-> Back](#)

1. To compare metrics of different dates directly from the explorer:

select two or more date folders and choose the context function
Compare via Metric Template

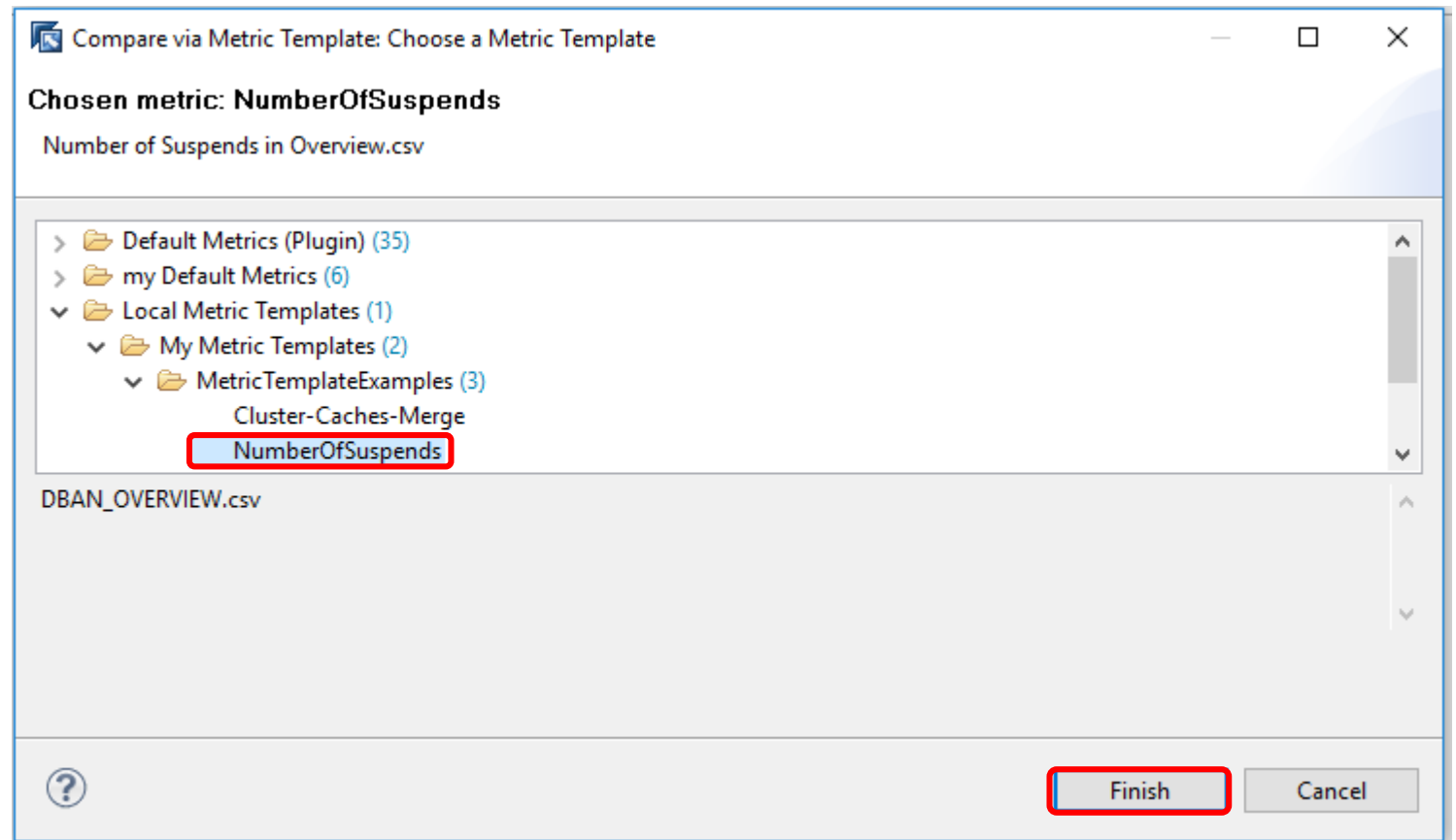


Comparing Two or more Dates in one Chart

Compare via Metric Template

[-> Back](#)

1. To compare metrics of different dates directly from the explorer: select two or more date folders and choose the context function **Compare via Metric Template**
2. In the dialog box select the metric you are interested in.
F.e. NumberOfSuspends is the name of a Metric Template dealing with DBAN_OVERVIEW.csv
3. Click finish to get the graphs according to the chosen Metric Template displayed in one chart for comparison. In this example the chosen Metric Template deals with DBAN_OVERVIEW.csv.



Comparing Two or more Dates in one Chart

Compare via Metric Template

[-> Back](#)

1. To compare metrics of different dates:

select two or more date folders and choose the context function

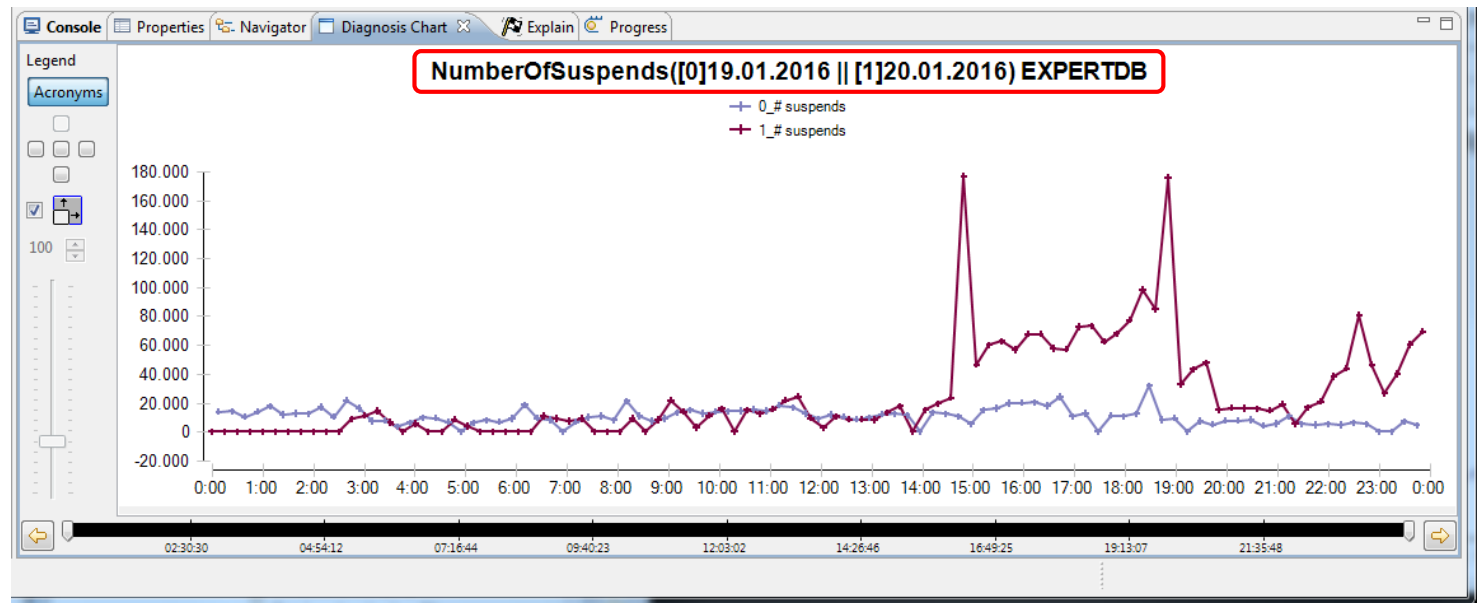
Compare via Metric Template

2. In the dialog box select the metric you are interested in.

F.e. NumberOfSuspends is the name of a Metric Template dealing with DBAN_OVERVIEW.csv

3. Click finish to combine the DBAN_OVERVIEW.csv files from the two date folders according to the Metric Template

4. As result you can see the two graphs in one chart.



Concatenating via Metric Template up to Four Dates at once

Concatenate via Metric Template

[-> Back](#)

1. To concatenate metrics of different dates directly from the explorer:

select two or more date folders (up to four) and choose the context function

Concatenate via Metric Template

2. Then select the Metric Template of interest.

3. As result all the metric will be displayed for the whole timespan determined by the chosen date folders.

The screenshot illustrates the process of concatenating metrics via a metric template in SAP Explorer. It is divided into three main parts:

- Part 1 (Top Left):** A file explorer showing a list of date folders. A red circle '1' highlights the 'Explore' context menu option, which is used to select the 'Concatenate via Metric Template' action.
- Part 2 (Top Right):** A dialog box titled 'Concatenate via Metric Template: Choose a ...'. It shows the chosen metric 'NumberOfSuspend' and a list of metric templates. A red circle '2' highlights the 'NumberOfSuspend' template under 'MetricTemplateExamples (3)'. The 'Finish' button is visible at the bottom.
- Part 3 (Bottom):** A line chart titled 'NumberOfSuspend(20.05.2016 - 23.05.2016) EXPERTDB'. The chart displays the number of suspends over time, with a red circle '3' highlighting the chart area. The x-axis shows dates from 21.05.16 to 23.05.16, and the y-axis shows the number of suspends from -50,000 to 200,000.

Database Analyzer Charts

Defining/Changing and Applying Metric Templates

[-> Back](#)

1. Define/Change Default Metric Template
 - Predefined Default Metric Templates
 - Personal Default Metric Templates
 - Reset Default Metric Templates

2. Define/Change Named Metric Template
 - Local Metric Templates
 - Remote Metric Templates

3. Display/Compare/Concatenate via Metric Template

Database Analyzer Charts

Save as Default Metric Template

→ [Back](#)

- You have changed the presentation of the chart and want to keep your settings for DBAN_OVERVIEW.csv. Choose **Save as Default Metric Template**

The screenshot displays the SAP Database Analyzer interface. At the top, a table titled 'EXPERTDB/20160120/DBAN_OVERVIEW.csv' shows various performance metrics. Below the table, a 'Diagnosis Chart' is visible, showing a line graph for 'DBAN_OVERVIEW (20.01.2016) EXPER'. The chart has a legend with three series: '# physical reads for user tasks' (blue line), 'regionAccessPerSec' (red line), and '# of region accesses' (green line). A context menu is open over the chart, listing several options, with 'Save as Default Metric Template' highlighted in blue. The menu also includes options like 'Hide in table', 'Show in diagram (right scala)', and 'Change color'.

commCnt	WaitCnt	SuspendCnt	ReadCntUS	DispatchesUS	TaskSwitchUS	SymbolResolutions	RegionAccesses	RegionCollisions	RegionWaits	regionAccessPerSec
1	-1	-1	-1	171.839	48.632	0	7.316.106	1.228.968	2	7.883,735
1	5	-1	-1	1.272.181	278.277	0	18.410.155	5.292.702	2	20.387,769
1	-1	-1	-1	377.292	45.899	0	9.191.676	2.157.653	2	10.190,328
1	-1	-1	-1	163.657	27.906	0	5.433.128	765.224	1	6.016,753
1	-1	-1	-1	319.313	91.661	0	9.401.391	2.480.351	2	10.411,286
1	-1	-1	-1	859.318	193.146	0	18.364.766	5.145.374	4	20.337,504
1	-1	-1	-1	587.805	83.004	0	15.767.478	3.081.580	1	17.461,216
1	-1	-1	-1	540.112	133.902	0	10.540.756	4.083.054	2	11.685,982
1	-1	-1	-1	184.361	52.163	0	7.230.990	2.507.006	2	8.007,741
1	-1	-1	-1	276.181	70.873	0	17.471.754	1.441.674	2	19.327,162
1	-1	-1	-1	146.994	32.118	0	33.583.195	2.627.617	2	37.190,692
34.930	87	8.543	175	172.370	32.091	0	27.711.489	1.035.104	2	30.654,302
15.199	79	11.110	20.718	230.806	61.833	0	30.820.685	2.302.773	2	34.131,434
09.942	120	14.216	146.904	513.832	120.796	0	42.835.241	4.515.722	3	
07.184	68	6.377	4.487	223.570	54.701	0	10.257.070	2.373.563	4	

Database Analyzer Charts

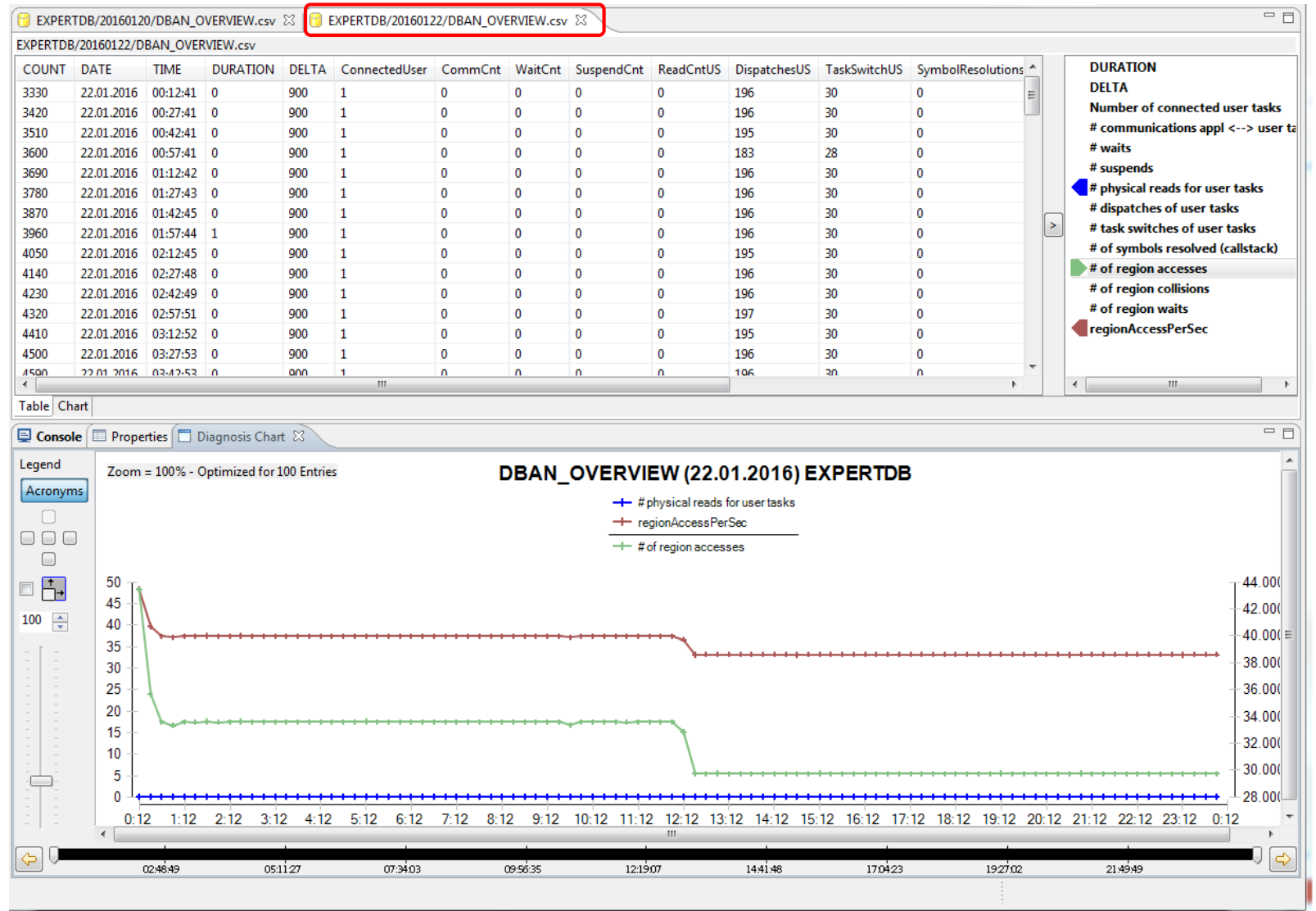
Save as Default Metric Template

[→ Back](#)

1. You have changed the presentation of the chart and want to keep your settings for DBAN_OVERVIEW.csv. Choose **Save as Default Metric Template**

2. If you now open the same csv file in another date folder by double clicking then your personal changes will be visible.

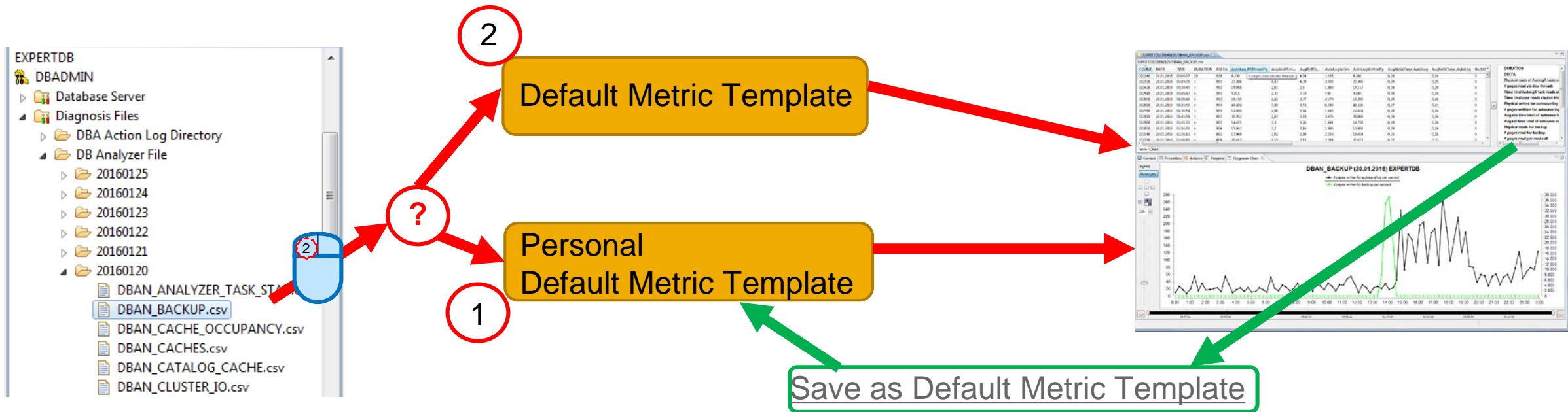
E.g.: 20160122



Database Analyzer Charts

Default Metric Templates

[-> Back](#)



Database Analyzer Charts

Save as Metric Template

[→ Back](#)

1. You can save your settings as named Metric Template under a specific name. Choose: **Save as Metric Template**
2. Specify a meaningful name and a description. Choose the folder where to store the this Metric Template and click the **Create Metric** button.

The screenshot shows the SAP Database Analyzer interface. A 'Save as Metric Template' dialog box is open in the center. The 'Metricname' field contains 'OVERVIEWperSecond'. The 'Description' field contains 'Overview with regionAccessPerSec Column'. The 'Metric Folder' field shows a tree view with 'My Metric Templates' selected. At the bottom of the dialog, the 'Create Metric' button is highlighted with a red box. To the right, a context menu is open over the chart area, with 'Save as Metric Template' highlighted. A red circle highlights the number '1' in the context menu. In the background, a table shows various metrics, and a chart displays a line graph of 'regionAccessPerSec' over time. A red circle highlights the number '2' in the description field of the dialog box.

Database Analyzer Charts

Save as Metric Template

[→ Back](#)

1. You can save your settings as a named Metric Template under a specific name. Choose: **Save as Metric Template**
2. Specify a meaningful name and a description. Choose the folder where to store this Metric Template and click the **Create Metric** button.
3. Now you can apply this **Metric Template** to any other date folder via context function **Display via Metric Template**.

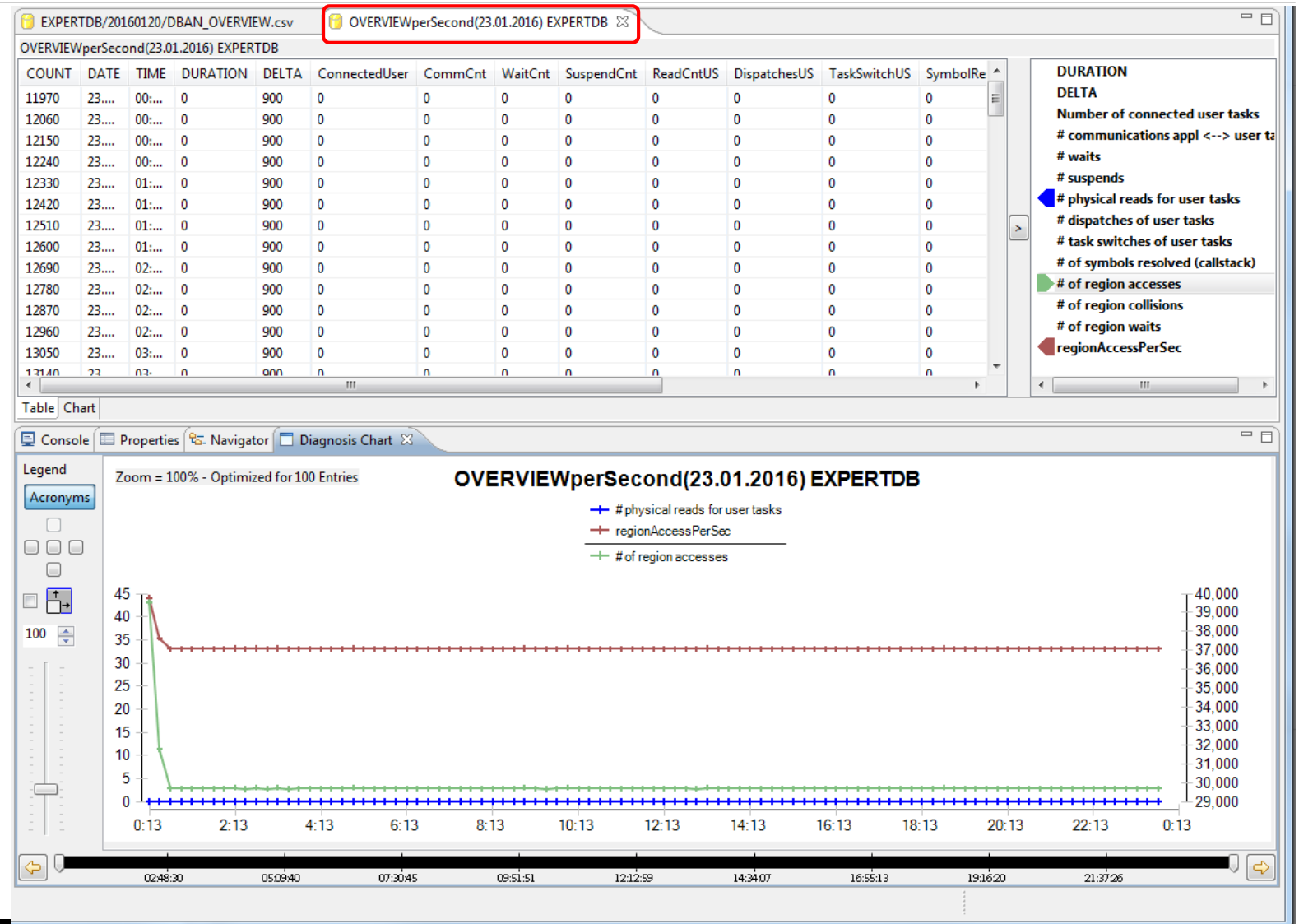
The screenshot shows the SAP Database Analyzer interface. On the left, the Explorer pane displays a tree structure with folders like 'My Repository' and 'World'. A context menu is open over the '20160120' folder, with the 'Display via Metric Template' option highlighted in red. In the center, a dialog box titled 'Display via Metric Template: Choose a Metric Template' is displayed. The dialog shows the chosen metric as 'OVERVIEWperSecond' with the description 'Overview with regionAccessPerSec Column'. Below this, a tree view shows the folder structure for saving the template, with 'OVERVIEWperSecond' selected under 'My Metric Templates (1)'. At the bottom of the dialog are 'Finish' and 'Cancel' buttons. In the background, a data table is visible with columns 'COUNT' and 'DATE', and a chart on the right side of the interface.

Database Analyzer Charts

Save as Metric Template

[→ Back](#)

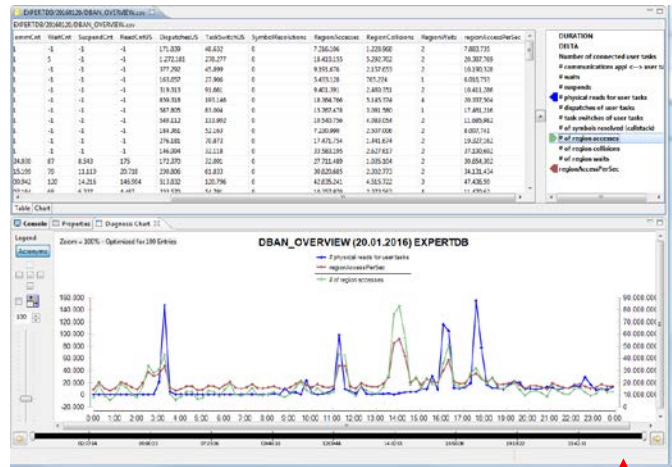
1. You can save your settings as named Metric Template under a specific name. Choose: **Save as Metric Template**
2. Specify a meaningful name and a description. Choose the folder where to store the this Metric Template and click the **Create Metric** button.
3. Now you can apply this **Metric Template** to any other date folder via context function **Display via Metric Template**.
4. As result you can see your **Metric Template** applied onto the other date folder.



Database Analyzer Charts

Named Metric Templates

-> [Back](#)



1

Save as Metric Template:
OVERVIEWPerSecond

The screenshot shows a file explorer window for 'EXPERTDB'. The directory structure includes 'Database Server', 'Diagnosis Files', 'DBA Action Log Directory', and 'DB Analyzer File'. Under 'DB Analyzer File', there are subfolders for dates from 20160120 to 20160125. The '20160121' folder is selected, and a context menu is open over it. The menu items include 'Administration', 'Administration Tasks', 'Explore', 'Go Into', 'Copy', 'Paste', 'Delete', 'Refresh', 'Import Landscape', 'Save To Diagnosis Shared ...', 'Save To Diagnosis Local ...', and 'Display via Metric Template'. The 'Display via Metric Template' option is highlighted.

2

The screenshot shows a dialog box titled 'Display via Metric Template: Choose a Metric Tem...'. The 'Chosen metric' is 'OVERVIEWPerSecond'. Below this, it says 'Overview with regionAccessPerSec Column'. There is a tree view of metric templates. Under 'My Metric Templates (1)', the 'OVERVIEWPerSecond' metric is selected. At the bottom, there are 'Finish' and 'Cancel' buttons.

3

Database Analyzer Charts

Applying Metric Templates

[-> Back](#)

1 **2**

Default Metrics
delivered with the software

my Default Metrics
personal Default Metrics
overruling the **Default Metrics**

Local Metric Templates
name Metric Templates stored
in the Database Studio
workspace

Metrics
Remote Metric Folder
as specified in the preferences

Chosen metric: **OVERVIEWperSecond**
Overview with regionAccessPerSec Column

Default Metrics (Plugin) (38)
my Default Metrics (2)
Local Metric Templates (1)
My Metric Templates (1)
OVERVIEWperSecond
Metrics

DBAN_OVERVIEW.csv

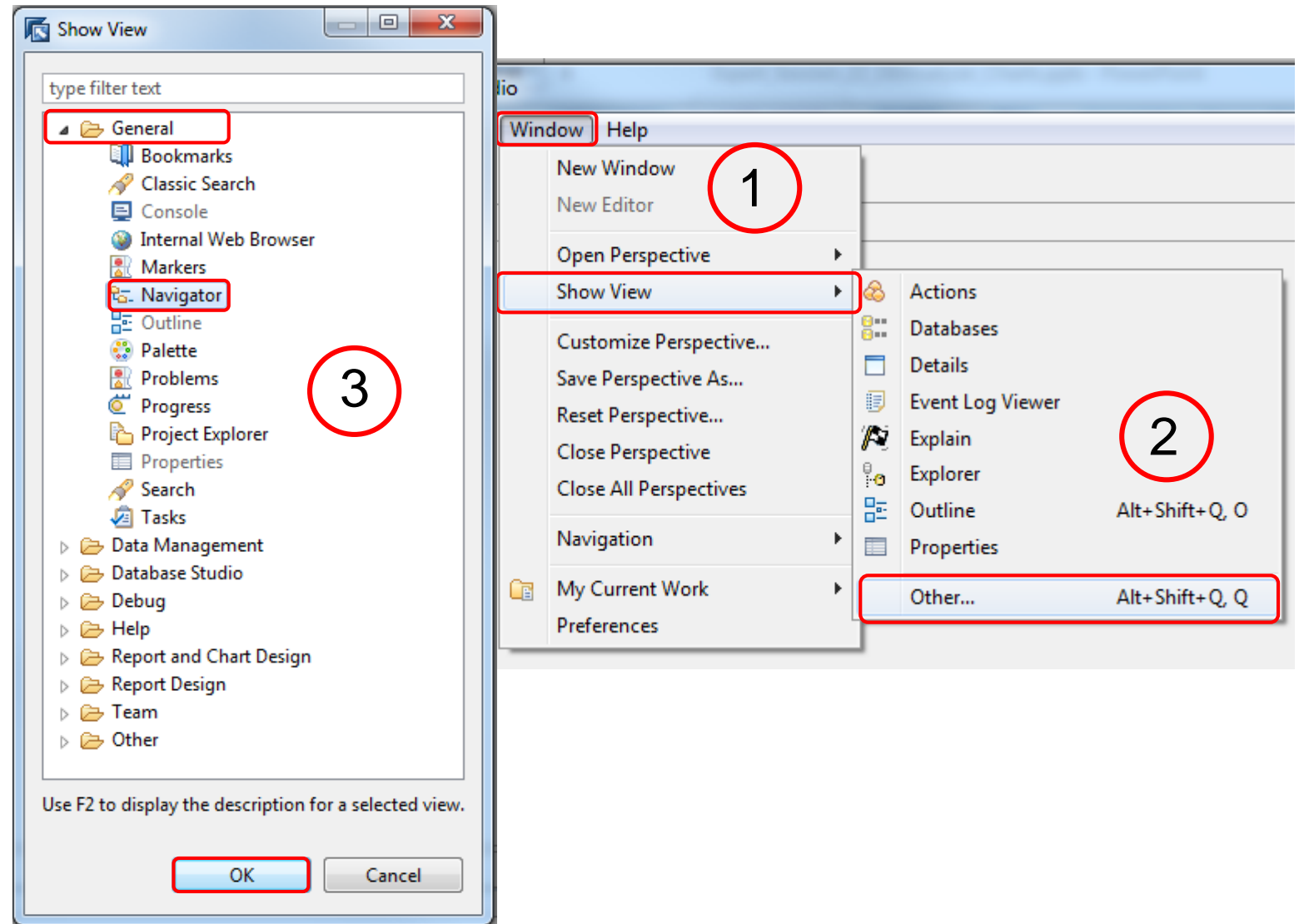
Finish Cancel

Working with the Navigator

How to reset to the predefined Metric Templates

[-> Back](#)

1. Open a navigator view:
Window -> Show View ->
Other -> General ->
Navigator and press Ok

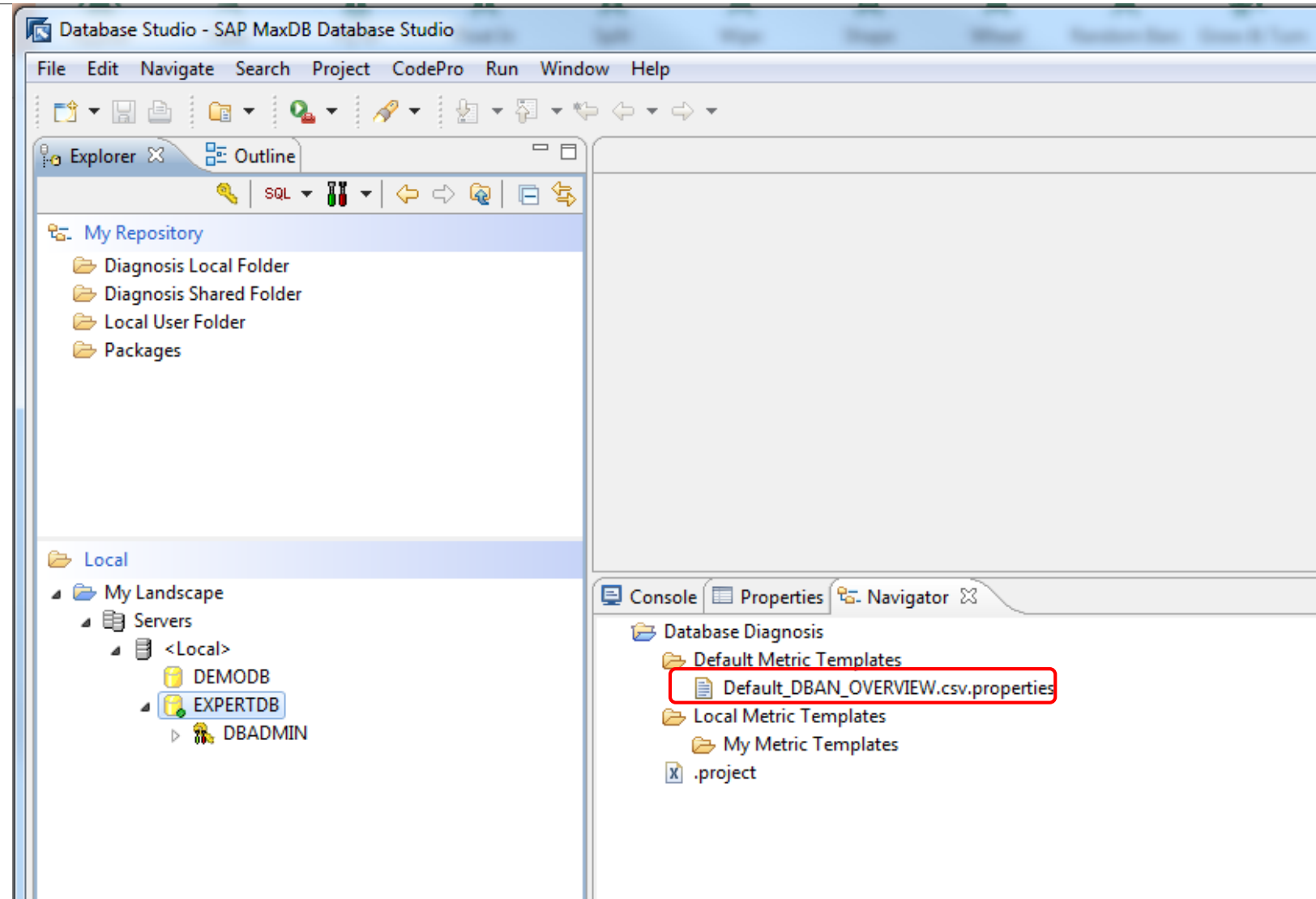


Working with the Navigator

How to reset to the predefined Metric Templates

[-> Back](#)

1. Open a navigator view:
Window -> Show View ->
Other -> General ->
Navigator and press Ok
2. Per default you see your
personal Default Metric
Templates and the Local
Metric Templates you have
defined so far.

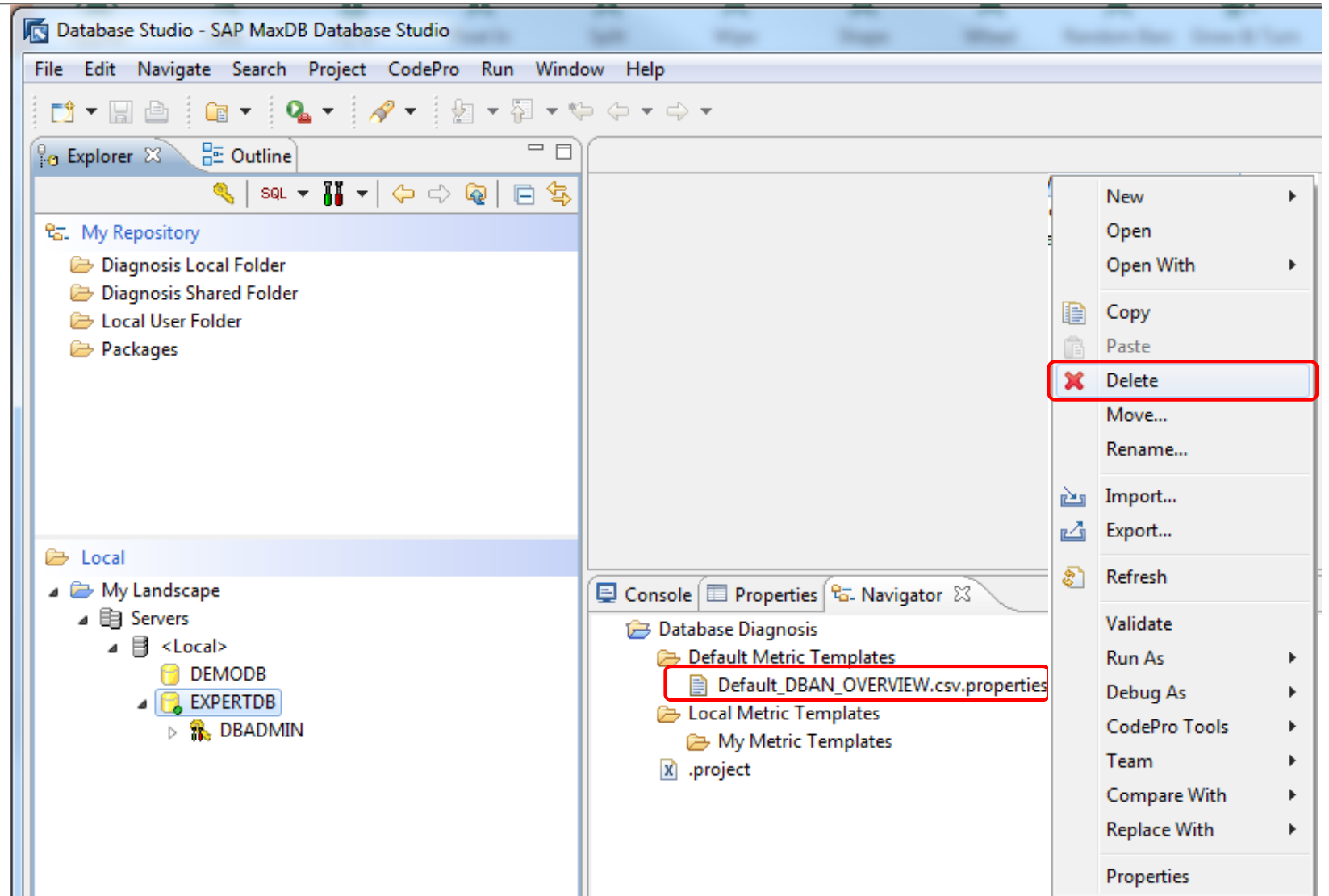


Working with the Navigator

How to reset to the predefined Metric Templates

[-> Back](#)

1. Open a navigator view:
Window -> Show View ->
Other -> General ->
Navigator and press Ok
2. Per default you see your
personal Default Metric
Templates and the Local
Metric Templates you have
defined so far.
3. To reset to the predefined
Default Metric Templates:
delete in the folder Default
Metric Templates your
personal Default Metric
Template

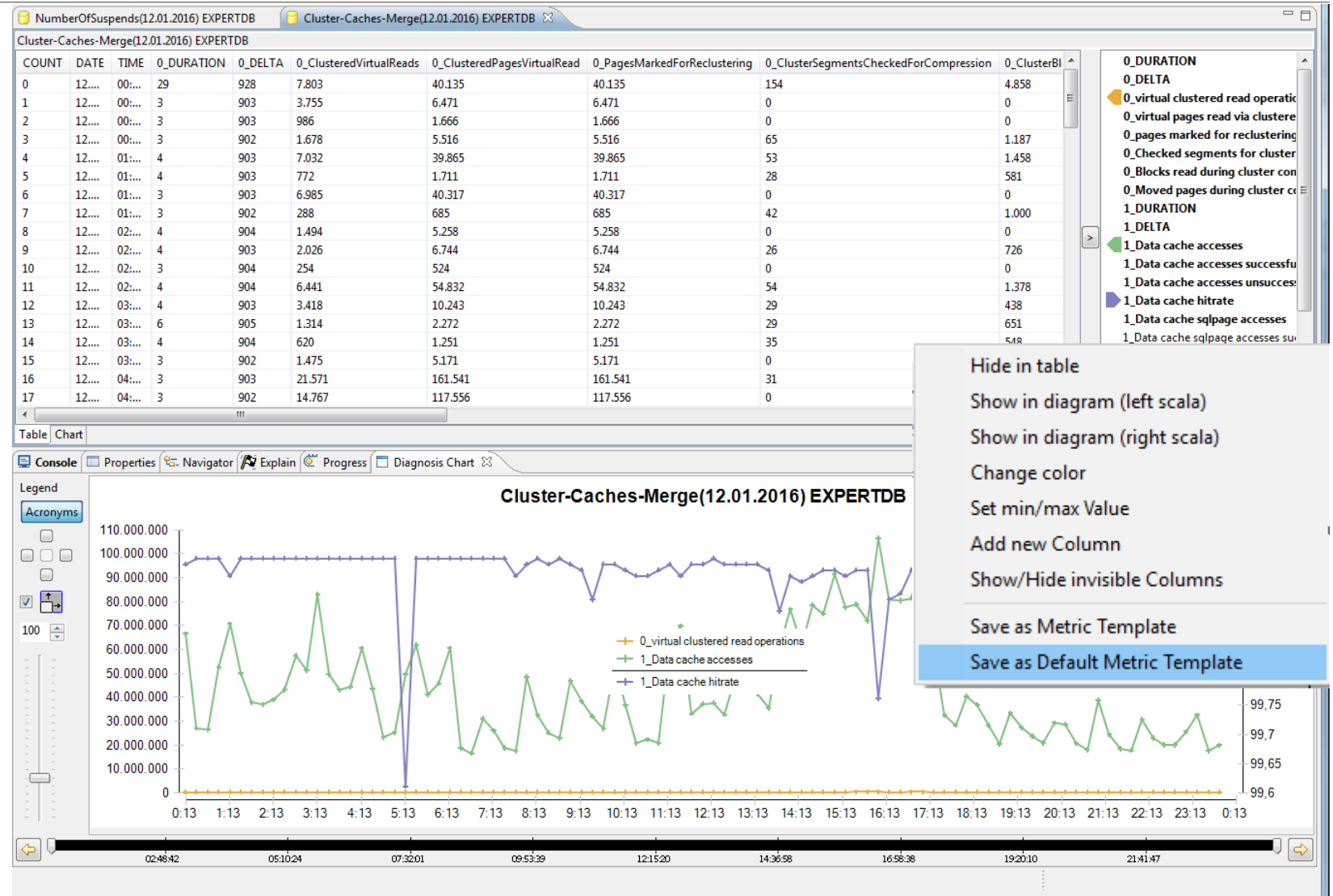


Working with Database Analyzer Projects

Store your Results of Analysis in a Separate Metric Template Folder

[-> Back](#)

1. Save the analysis results as Metric Templates into a folder of Metric Templates.



Working with Database Analyzer Projects

Store your Results of Analysis in a Separate Metric Template Folder

[-> Back](#)

1. Save the analysis results as Metric Templates into a folder of Metric Templates.
2. Via context menu
 - make a new folder
 - rename the folder and
 - create the Metric Templates

The screenshot displays the SAP Database Analyzer interface. At the top, there are two tabs: 'NumberOfSuspend(12.01.2016) EXPERTDB' and 'Cluster-Caches-Merge(12.01.2016) EXPERTDB'. The main window shows a table with columns: COUNT, DATE, TIME, 0_DURATION, 0_DELTA, 0_ClusteredVirtualReads, 0_ClusteredPagesVirtualRead, 0_PagesMarkedForReclustering, 0_ClusterSegmentsCheckedForCompression, and 0_ClusterBl. Below the table, there is a 'Save as Metric Template' dialog box. The dialog box has the following fields: Metricname: Cluster-Caches-Merge, Description: Cluster-Caches-Merge, and Metric Folder: Local Metric Templates (1). A 'New folder' button is highlighted in red. At the bottom of the dialog box, there are 'Create Metric' and 'Cancel' buttons. In the background, a line chart is visible with a legend showing '1_Data cache accesses' (green line) and '1_Data cache hitrate' (blue line).

Working with Database Analyzer Projects

Store your Results of Analysis in a Separate Metric Template Folder

[-> Back](#)

1. Save the analysis results as Metric Templates into a folder of Metric Templates.
2. Via context menu
 - make a new folder
 - rename the folder and ...

The screenshot displays the SAP Database Analyzer interface. At the top, there are two tabs: 'NumberOfSuspend(12.01.2016) EXPERTDB' and 'Cluster-Caches-Merge(12.01.2016) EXPERTDB'. The main window shows a table with columns: COUNT, DATE, TIME, O_DURATION, O_DELTA, O_ClusteredVirtualReads, O_ClusteredPagesVirtualRead, O_PagesMarkedForReclustering, O_ClusterSegmentsCheckedForCompression, and O_ClusterBl. Below the table, there is a 'Table | Chart' toggle and a 'Console | Properties | Navigator' section. A legend is visible on the left, and a chart is shown at the bottom. A 'Save as Metric Template' dialog box is open in the center, with the following fields: 'Metricname: Cluster-Caches-Merge', 'Description: Cluster-Caches-Merge', and 'Metric Folder:'. The 'Metric Folder' field shows a tree view with 'New metric folder' selected. A context menu is open over 'New metric folder', showing 'Rename', 'New folder', and 'Delete folder' options. The 'Create Metric' button is highlighted.

Working with Database Analyzer Projects

Store your Results of Analysis in a Separate Metric Template Folder

[-> Back](#)

1. Save the analysis results as Metric Templates into a folder of Metric Templates.

2. Via context menu
- make a new folder
- rename the folder and ...

3. ... for every metric template you want to keep as result:

create a Metric Template in that project folder.

The screenshot displays the SAP Database Analyzer interface. At the top, there are two tabs: 'NumberOfSuspend(12.01.2016) EXPERTDB' and 'Cluster-Caches-Merge(12.01.2016) EXPERTDB'. The main window shows a table with columns: COUNT, DATE, TIME, 0_DURATION, 0_DELTA, 0_ClusteredVirtualReads, 0_ClusteredPagesVirtualRead, 0_PagesMarkedForReclustering, 0_ClusterSegmentsCheckedForCompression, 0_ClusterBl, and 1_DURATION. Below the table, there is a 'Table Chart' section with a legend and a line chart showing data over time. A 'Save as Metric Template' dialog box is open in the foreground, with the following fields: Metricname: Cluster-Caches-Merge, Description: Cluster-Caches-Merge, and Metric Folder: My Metric Templates (2) / First AnalysisProject. The 'Create Metric' button is highlighted with a red box.

COUNT	DATE	TIME	0_DURATION	0_DELTA	0_ClusteredVirtualReads	0_ClusteredPagesVirtualRead	0_PagesMarkedForReclustering	0_ClusterSegmentsCheckedForCompression	0_ClusterBl	1_DURATION
0	12....	00:...	29	928	7.803	40.135	40.135	154	4.858	
1	12....	00:...	3	903	3.755	6.471	6.471	0	0	
2	12....	00:...	3	903	986	1.666	1.666	0	0	
3	12....	00:...	3	902	1.678	5.516	5.516	65	1.187	
4	12....	01:...	4	903	7.032	39.865	39.865	53	1.458	
5	12....	01:...	4	903	772	1.711	1.711	28	581	
6	12....	01:...	3	903	6.985	40.317	40.317	0	0	
7	12....	01:...	3	902	288	685	685	42	1.000	
8	12....	02:...	4	904	1.494	5.258	5.258	0	0	
9	12....	02:...	4	903	2.026	6.744	6.744	26	726	
10	12....	02:...	3	904	254	524	524	5	5	
11	12....	02:...	4	904	6.441	54.832	54.832	10	10	
12	12....	03:...	4	903	3.418	10.243	10.243	2	2	
13	12....	03:...	6	905	1.314	2.272	2.272	1	1	
14	12....	03:...	4	904	620	1.251	1.251	5	5	
15	12....	03:...	3	902	1.475	5.171	5.171	1	1	
16	12....	04:...	3	903	21.571	161.541	161.541	14	14	
17	12....	04:...	3	902	14.767	117.556	117.556	11	11	

Working with Database Analyzer Projects

Using Folders of Metric Templates to Profit from your Findings

[-> Back](#)

1. Use the analysis project to apply it on another date folder of the same or another database.
2. Right click on the date folder and choose
 - Display via Metric Templates
 - choose the project folder to be applied.

The screenshot displays the SAP MaxDB Database Studio interface. The main window shows a table with performance metrics for the 'NumberOfSuspends(12.01.2016) EXPERTDB' project. The table has columns for COUNT, DATE, TIME, DURATION, DELTA, ConnectedUser, CommCnt, WaitCnt, SuspendCnt, ReadCntUS, and DispatchCnt. The data shows various performance metrics over time.

The Explorer pane on the left shows the project structure, including 'My Repository', 'World', 'Local', 'My Landscape', 'Servers', 'DBADMIN', 'Database Server', 'Diagnosis Files', 'DBA Action Log Directory', and 'DB Analyzer File'. The 'DB Analyzer File' folder is expanded, showing a list of date folders from 20160125 to 20160118. The folder '20160117' is selected, and a context menu is open over it. The menu options include Administration, Administration Tasks, Explore, Go Into, Copy, Paste, Delete, Refresh, Import Landscape, Save To Diagnosis Shared..., Save To Diagnosis Local..., and 'Display via Metric Template' (highlighted with a red box).

The Navigator pane on the right shows the 'Database Diagnosis' folder, which contains 'Default Metric Templates', 'Local Metric Templates', 'First AnalysisProject', 'Cluster-Caches-Merge.properties', 'NumberOfSuspends.properties', and 'My Metric Templates'. The 'My Metric Templates' folder is expanded, showing a list of metric templates.

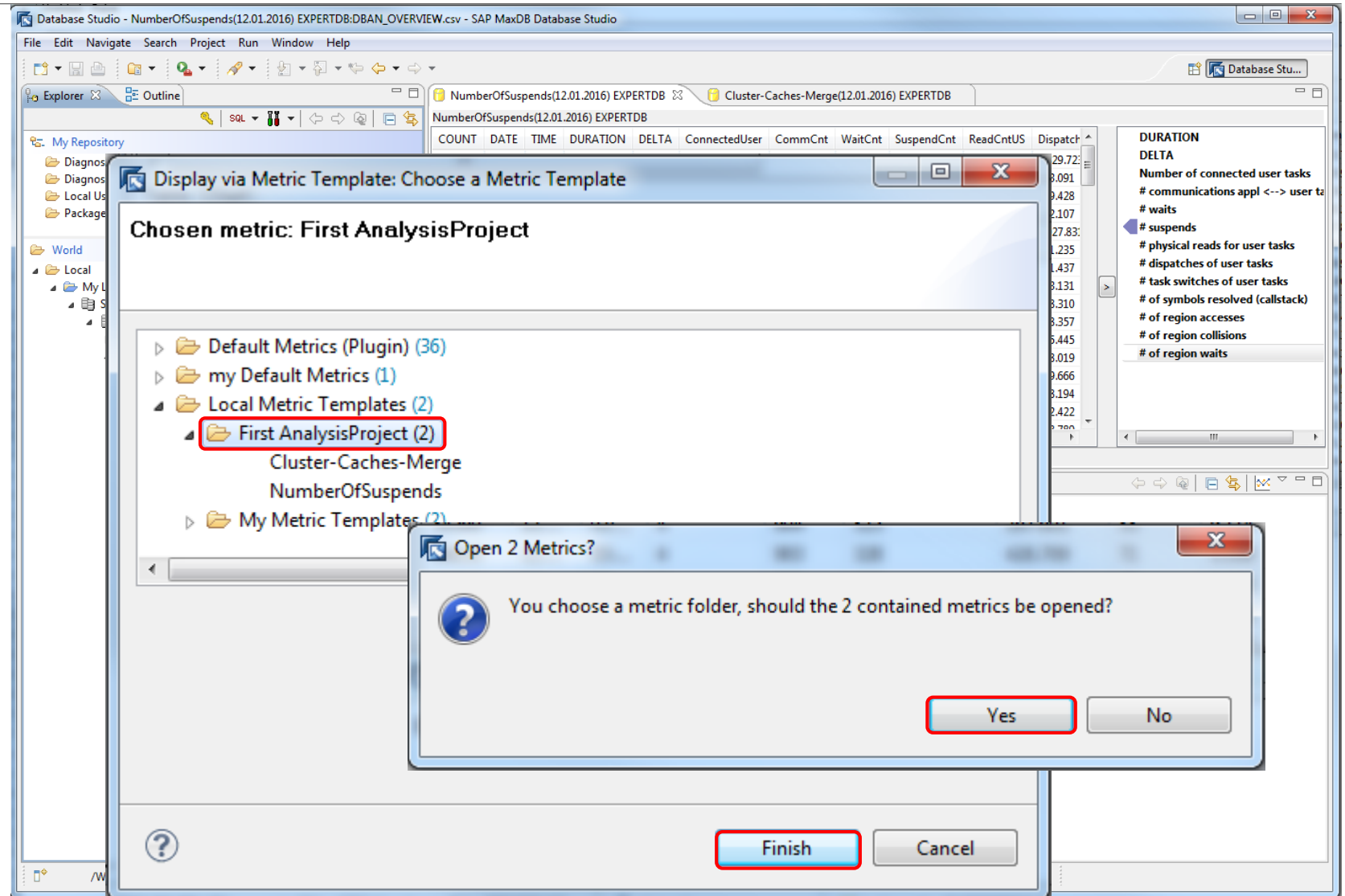
Working with Database Analyzer Projects

Using Folders of Metric Templates to Profit from your Findings

[-> Back](#)

1. Use the analysis project to apply it on another date folder of the same or another database.
2. Right click on the date folder and choose
 - Display via Metric Templates
 - choose the project folder to be applied.

Click **Finish** and then **Yes**.

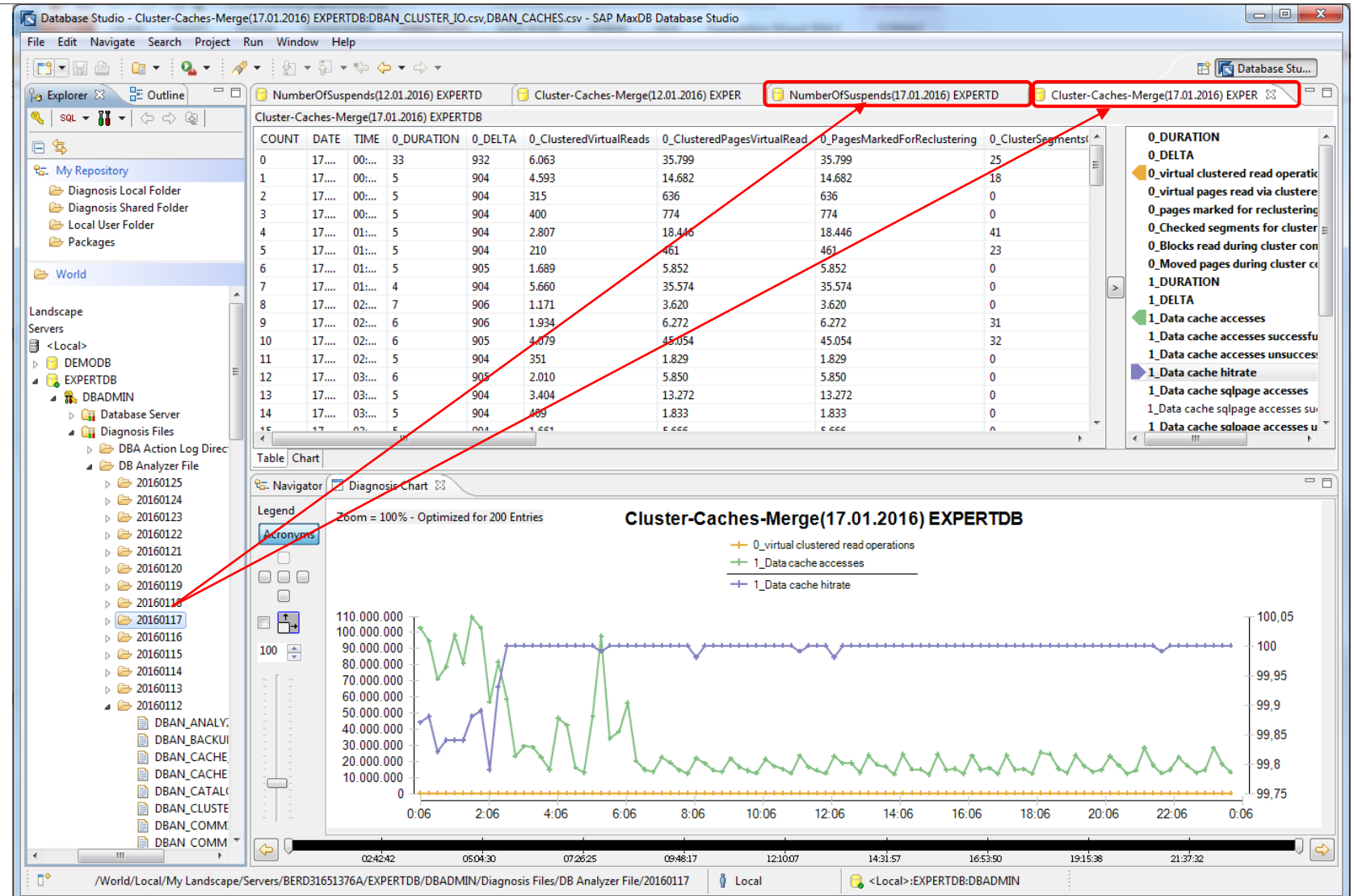


Working with Database Analyzer Projects

Using Folders of Metric Templates to Profit from your Findings

[-> Back](#)

1. Use the analysis project to apply it on another date folder of the same or another database.
2. Right click on the date folder and choose
 - Display via Metric Templates
 - choose the project folder to be applied.
3. Click **Finish** and then **Yes**.
4. As result you can see the same charts according to another date folder.





Thank you

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