DELPHIX

DXAnalyze (v7.3)

DOCUMENT CONTROL

Change Record

Date	Author	Version	Change Reference
10/10/2016	Uday Kumar	Draft	New document for DXAnalyze Version 7.0
10/11/2016	Diego Loureda	Alpha	Latest version information updated

Reviewers/Interviewed

Name	Position	Date

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SECTION I: OVERVIEW

DxAnalyze Introduction

DXAnalyze is a program created for customers to help them with capacity planning and performance troubleshooting. The output of DXAnalyze will be an auto generated PowerPoint with Graphical representation of the statistics. This tool is currently developed to work on Windows and Mac.

The Capacity Planning section of the report should help answering questions like:

What is the real utilization of my engine during one week?

What is the throughput/CPU available to add more objects (dSources/VDBs) on this engine?

Do I need to evacuate some of the objects from this Engine?

The Metrics section is intended to help when there are performance issues or when additional details are needed on how a particular job/batch on the Delphix Engine ecosystem performed.

This of metrics and stats DxAnalyze gathers are below:

- CPU Utilization
- Disk Throughput
- Disk IOPS
- Disk Latency
- Network Throughput
- NFS/iSCSI Throughput
- NFS/iSCSI Latency

Delphix Professional services team supports DxAnalyze. If you have any problem with the utility you must get in touch with the Technical Consultant assigned to your account, not with Delphix Support.

SECTION II: How to Use it

DxAnalyze code is embedded in an Excel file as a Macro. 2 files compose it:

- Dxanalyze_v7.xlsb
- Engine_analysis_Template_v7.pptm

To get the latest version of these files, please get in touch with the Technical Consultant assigned to your account.

1.0 Prerequisites

- DxToolkit needs to be downloaded and Configured
- Microsoft Excel and Powerpoint software must be installed on the machine where you want to run DxAnalyze (only available right now for Mac and Windows)
- Enable Powerpoint libraries on Excel. The steps are listed below and needs to be performed only once:
    - Open MS Excel to begin with
    - Select Tools from Menu
    - Click on Macro
    - Go to 'Visual Basic Editor' and Select
    - Again go to Tools
    - Select References
    - Select the checkbox for 'Microsoft PowerPoint 14.0 Object Library'
    - Click OK
    - You can close the excel now

2.0 DxToolkit- Run dx_get_analytics

DxToolkit is a great tool developed by Professional Services team. It has already pre-coded almost all capabilities that you can perform on the GUI and it's a great tool for automation. We use DxToolkit to extract analytics from the engine, to later analyze them with DxAnalyze.

DxToolkit has been recently opensourced and you can review/download it on https://github.com/delphix/dxtoolkit. You can also download it already compiled for specific platforms here: https://github.com/delphix/dxtoolkit/releases

We recommend engaging Professional Services Technical Consultant to do the DxToolkit first implementation on your environment if it wasn't done when the DE was deployed, but the process is anyway very simple now:

- Download the DxToolkit from the links above for your platform and put it in Mission Control machine or in any Target.

- Create a dxtools.conf file (you will find an example with the rest of the scripts) and add all your Delphix Engines
- Run dx_get_analytics to extract data from the engine stored with one minute granularity as follows:
    - dx_get_analytics -all -t all -i 60 -outdir .
- Optionally you can run this to gather 1sec granularity data, which is stored in the engine for 6hours to do deeper analysis. Currently, the process will work but the capacity graphs will be empty, because we just have one point. The metrics section will be created (More updates to come in future releases)
    - dx_get_analytics -all -t all -i 1 -outdir .
- Optionally you can run this to gather 1hour granularity data, which is stored in the engine for 30 days. This will give us 1 month of data with 1 hour granularity. DXAnalyze will create both Capacity and Metrics section. Because of the granularity, the Capacity section can be meaningful but the Metrics may not give us a real vision of what happened on the engine because we just have one data point per hour, and might not be accurate.
    - dx_get_analytics -all -t all -i 1 -outdir .
- Additional help on dx_get_analytics can be viewed as below:
    - dx_get_analytics –help
- After the analytics tool is run, it will generate raw data excel files

3.0 DXAnalyze Preparation

Copy both the dxanalyze_v7.xlsb and Engine_Analysis_Template_v7.pptm into the location where the raw data excel files are located.

4.0 DXAnalyze Execution

- Open the dxanalyze_v7.xlsb excel file and when prompted Enable Macros button is chosen
- The excel will prompt you for the engine name you want to generate the DXAnalyze report. So enter the engine name. If it does not prompt you for the engine name execute the program or select Option + K and enter the engine name.
- The program starts executing generating the data and charting graphs. Wait till it confirm that the ‘Process Completed’.
- Go to the folder and there would be few files generated, the files of interest are 2 files. One is excel file ‘<engine_name_analysis.xls’ where you have data and graphs in excel format. The other file is ‘<engine_name_analysis.pptx’ which is a power point representation of graphs and data.
- Next step would be to analyze these outputs generated by DxAnalyze to see where the issues are.

SECTION III: APPENDICES

Details