Capacity Optimization Methods Data Generator

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Outline

- Acknowledgements
- Reminder of the Capacity Optimization Methods test by SNIA Emerald™
- The need of a Data Set Generator
- How to get the Capacity Optimization Method Test Data Set Generator software
- Running the data generator
Acknowledgements

- Mr. Don Capps
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Reminder of the Capacity Optimization Methods (COMs) test by SNIA Emerald™

- Thin Provisioning
- Read-only Delta Snapshots
- Writeable Delta Snapshots
- Data Deduplication
- Compression

Note: RAID is not required for SNIA Emerald™ V 3.0
The need of a Data Set Generator

- Maintains **neutrality**.
  - Do not forget data storage is constantly evolving, same goes for the COMs.
  - What today works efficiently, tomorrow may not be considered efficient.

- Developed by SNIA members for SNIA Emerald™ Program and the industry

- Must be used with SNIA Emerald™ to claim COMs proper functionality and presence
How to get the COM Test Data Set Generator software

- Go the web page for the materials for testing with SNIA Emerald™ Specification Version 3.0 (shown below)
  - [https://www.snia.org/emerald/download/Spec_v3.0](https://www.snia.org/emerald/download/Spec_v3.0)
- Scroll Down to the subtitle “COM Test Data Set Generator”
  - Click on the link by the same name. You should see a download window like the one shown:

**Note:** Shown is the Linux version. For Windows the process is very similar.
How to get the COM Test Data Set Generator software

- After clicking OK you should see the next screen
  - Click on Extract

- Select the destination directory (folder).
  - Click on Extract
How to get the COM Test Data Set Generator software

- After clicking extract you should see the next screen
  - To visually verify that all files are there click on “Show the files”
How to get the COM Test Data Set Generator software

- The extracted directory will show in a window similar to this.

![Image of directory structure showing 'comgen_v1_17']
How to get the COM Test Data Set Generator software

- On a Linux terminal window the files should show something like this
Running the data generator

- After extracting the files the COM data generator needs to be built.
  
  - Following the instructions included with the file a simple make command will trigger the build.
  
  - For Windows please follow EXACTLY the steps indicated on the README file.
Running the data generator

After extracting the files the COM data generator needs to be built.

- Following the instructions included with the file a simple make command will trigger the build.
- For Windows please follow EXACTLY the steps indicated on the README file.
- Additionally there is a guide included in a word file under the docs directory.
Running the data generator

- After the build (make using Linux) you should see a new file as shown below:

```
carlos@caminante:~/SNIATools/comgen_v1_17/comgen_kit

   total 120
  drwxrwxr-x 6 carlos carlos 4096 Mar 19 16:36 .
  drwxrwxr-x 3 carlos carlos 4096 Apr 20  2016 ..
  drwxrwxr-x 3 carlos carlos 4096 Apr 20  2016 binaries/
-rw-rw-r-- 1 carlos carlos 23056 Mar 19 16:36 comgen.c
-rw-rw-r-- 1 carlos carlos 26831 Apr 13  2016 comgen.c
-rw-rw-r-- 1 carlos carlos  23688 Mar 19 16:36 comgen_linux.o
  drwxrwxr-x 2 carlos carlos 4096 Apr 20  2016 comgen_proj/
-rw-rw-r-- 1 carlos carlos 10519 Apr 13  2016 comgen.sln
  drwxrwxr-x 2 carlos carlos 4096 Apr 20  2016 docs/
-rw-rw-r-- 1 carlos carlos  1649 Apr 13  2016 makefile
-rw-rw-r-- 1 carlos carlos   1452 Apr 13  2016 README
  drwxrwxr-x 2 carlos carlos 4096 Apr 20  2016 win32lib/
```

comgen is the program that generates the data.
Running the data generator

When run without parameters the options for generating data will appear.

It is recommended to read the guide included with the kit to fully understand what each option does.
Running the data generator

△ Want to see a running example?
Q&A

Thank You for Your Attention

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