

# Test of TDMS write performance

All test are executed with the LV2016 project "TDMS-Perf-Test" from the GitLab repo <https://gitlab.com/hampel-soft/hse-labs/proofs-of-concepts>.

## Windows

Tested in a Win 7 VM (2 cores, 6GB RAM, SSD) on a Dell XPS13 notebook.

**Conditions:** TDMS Write data layout: decimated, TDMS Flush after every write. Runtime 2 minutes.

| Block size | Block rate (ms) | # Channels | kBytes per block | Ø Write time (s) | Ø Write rate (kB/s) | File size (kB) | Index size (kB) |
|------------|-----------------|------------|------------------|------------------|---------------------|----------------|-----------------|
| 100        | 100             | 16         | 12,50            | 0,043            | 109                 | 7.491          | 4               |
| 250        | 250             | 16         | 31,25            | 0,047            | 740                 | 7.488          | 4               |
| 500        | 500             | 16         | 62,50            | 0,046            | 1.534               | 7.504          | 4               |
| 1000       | 1000            | 16         | 125,0            | 0,053            | 2.636               | 7.504          | 4               |

## Linux RT

Tested with a cRIO 9030 (firmware version 4.0).

**Conditions:** TDMS Write data layout: decimated. Runtime 2 minutes.

| Block size | Block rate (ms) | # Channels | kBytes per block | Ø Write time (s) | Ø Write rate (kB/s) | File size (kB) | Index size (kB) |
|------------|-----------------|------------|------------------|------------------|---------------------|----------------|-----------------|
| 100        | 100             | 16         | 12,50            | 0,002            | 6.059               | 7.404          | 4               |
| 250        | 250             | 16         | 31,25            | 0,002            | 14.314              | 7.457          | 4               |
| 500        | 500             | 16         | 62,50            | 0,002            | 26.886              | 7.473          | 4               |
| 1000       | 1000            | 16         | 125,0            | 0,003            | 49.591              | 7.504          | 4               |

**Conditions:** TDMS Write data layout: decimated, TDMS Flush after every write. Runtime 2 minutes.

| Block size | Block rate (ms) | # Channels | kBytes per block | Ø Write time (s) | Ø Write rate (kB/s) | File size (kB) | Index size (kB) |
|------------|-----------------|------------|------------------|------------------|---------------------|----------------|-----------------|
| 100        | 100             | 16         | 12,50            | 0,015            | 946                 | 7.404          | 4               |
| 250        | 250             | 16         | 31,25            | 0,018            | 2.179               | 7.457          | 4               |
| 500        | 500             | 16         | 62,50            | 0,017            | 4.143               | 7.473          | 4               |
| 1000       | 1000            | 16         | 125,0            | 0,019            | 7.614               | 7.566          | 4               |

**Conditions:** TDMS Write data layout: decimated. Runtime 2 minutes.

| Block size | Block rate (ms) | # Channels | kBytes per block | Ø Write time (s) | Ø Write rate (kB/s) | File size (kB) | Index size (kB) |
|------------|-----------------|------------|------------------|------------------|---------------------|----------------|-----------------|
| 100        | 25              | 24         | 18,75            | 0,003            | 6.523               | 41.556         | 6               |

| <b>Block size</b> | <b>Block rate (ms)</b> | <b># Channels</b> | <b>kBytes per block</b> | <b>Ø Write time (s)</b> | <b>Ø Write rate (kB/s)</b> | <b>File size (kB)</b> | <b>Index size (kB)</b> |
|-------------------|------------------------|-------------------|-------------------------|-------------------------|----------------------------|-----------------------|------------------------|
| 250               | 25                     | 24                | 46,875                  | 0,003                   | 15.927                     | 103.646               | 6                      |
| 500               | 25                     | 24                | 93,75                   | 0,003                   | 30.003                     | 206.393               | 4                      |
| 1000              | 25                     | 24                | 187,5                   | 0,005                   | 55.502                     | 407.912               | 4                      |

From:  
<https://dokuwiki.hampel-soft.com/> - **HAMPEL SOFTWARE ENGINEERING**

Permanent link:  
<https://dokuwiki.hampel-soft.com/kb/common/tdms/write-performance?rev=1551219832>

Last update: **2019/02/26 22:23**

