



**Statistics for
OS MasterMap National Load**

GO Loader v1.5

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GO Loader Statistics for OS MasterMap National

1.1 Coverage

The document specifies the load and sizing statistics for loading National Coverage OS MasterMapTopo layer into Oracle Spatial using GO Loader Enterprise Edition v1.5

1.2 GO Loader Project

GO Loader Model: OS MasterMap Typical

A denormalised model for loading all features and most attributes of OS MasterMap. The following attributes are omitted:

- featureCode,
- changeHistory,
- referenceToFeature,
- heightAboveDatum,
- heightAboveGroundLevel

1.3 Sizings

This section details the sizing of the Oracle database in terms of disk partition sizes. Irrelevant of hardware architecture these sizing are the identical when the load is performed on the same operating system with the same GO Loader project

1.3.1 Data Partition Sizes after Initial Load

Data	File Size
DATAP0.DBF	0.48 GB
DATAP1.DBF	14.04 GB
DATAP2.DBF	14.70 GB
DATAP3.DBF	16.35 GB
DATAP4.DBF	16.39 GB
DATAP5.DBF	13.39 GB
DATAP6.DBF	12.43 GB
DATAP7.DBF	12.07 GB
DATAP8.DBF	11.35 GB
DATAP9.DBF	13.12 GB
DATAP10.DBF	10.33 GB
DATAP11.DBF	11.29 GB
DATAP12.DBF	11.37 GB
DATAP13.DBF	11.86 GB
DATAP14.DBF	9.52 GB
DATAP15.DBF	6.91 GB
DATAP16.DBF	8.00 GB
Total Disk Size (after initial load)	193.60 GB

1.3.2 Contents after Initial Load

Table	Partitioned	Rows
ADDRESSPOINT	Yes	0
BOUNDARYLINE	Yes	585,527
BOUNDARYTEXT	Yes	834,743
CARTOGRAPHICSYMBOL	Yes	3,621,702
CARTOGRAPHICTEXTMAIN	Yes	21,404,485
LANDFORMAREA	Yes	1,334,137
LANDFORMLINE	Yes	2,907,375
OVERHEADAREA	Yes	82,778
TOPOGRAPHICAREAMAIN	Yes	105,896,350
TOPOGRAPHICLINEMAIN	Yes	290,613,086
TOPOGRAPHICPOINT	Yes	4,421,970
TOTAL		431,702,153

1.3.3 Contents after Duplicate Removal

Table	Partitioned	Rows
ADDRESSPOINT	Yes	0
BOUNDARYLINE	Yes	553,175
BOUNDARYTEXT	Yes	834,743
CARTOGRAPHICSYMBOL	Yes	3,261,683
CARTOGRAPHICTEXTMAIN	Yes	21,404,481
LANDFORMAREA	Yes	1,297,561
LANDFORMLINE	Yes	2,831,607
OVERHEADAREA	Yes	82,478
TOPOGRAPHICAREAMAIN	Yes	104,351,614
TOPOGRAPHICLINEMAIN	Yes	288,888,825
TOPOGRAPHICPOINT	Yes	4,421,953
TOTAL		427,928,120

1.3.4 Index Partition Sizes

Data	File Size
INDX_FD.DBF	16.76 GB
INDX_FK.DBF	0.01 GB
INDX_PK.DBF	0.01 GB
INDX_RF.DBF	0.01 GB
INDXP0.DBF	0.03 GB
INDXP1.DBF	3.44 GB
INDXP2.DBF	3.81 GB
INDXP3.DBF	4.72 GB
INDXP4.DBF	4.68 GB
INDXP5.DBF	3.20 GB
INDXP6.DBF	3.46 GB
INDXP7.DBF	3.23 GB
INDXP8.DBF	2.91 GB
INDXP9.DBF	3.65 GB
INDXP10.DBF	2.77 GB
INDXP11.DBF	2.85 GB
INDXP12.DBF	3.13 GB
INDXP13.DBF	3.27 GB
INDXP14.DBF	2.25 GB
INDXP15.DBF	1.72 GB
INDXP16.DBF	1.50 GB
Total Index Size (after duplicate removal)	67.41 GB

2 Performance Statistics

This section details performance statistics for the GO Loader project as detailed above.

2.1 Two Agent One Machine Architecture

By no means is it recommended production hardware and should only be used within a development or test environment. On this architecture both Oracle and GO Loader Agent are running on the same machine. This is not ideal as both GO Loader and Oracle compete against each other for processor time and as a result initial load times are slowed by 10%-20%

2.1.1 Hardware Specification

Machine: DELL Precision T3400

Processor(s): Intel(R) Core(TM)2 Quad CPU Q6600 @ 2.40 GHz 2.39 GHz Desktop PC

Installed Memory: 2 GB RAM

Operating System: Microsoft Vista Service Pack 1 (32-bit operating system)

2.1.2 Database Version

Oracle 10g Release 2 Enterprise Edition version 10.2.0.3.0

2.2 Initial Data Load

Number of files: 10585

Total Features parsed in all file(s): 431,369,099

Elapsed time: 52 hrs 41 mins 40 secs

Source size: 38,961,449 Kb

Rate processed: 216 Kb/s, 2354 f/s

2.2.1 Creating FID Indices

Finished ADDRPNT_IFD, elapsed time = 01 sec

Finished BDYLINE_IFD, elapsed time = 14 secs

Finished BDYTXT_IFD, elapsed time = 13 secs

Finished CARTOSYM_IFD, elapsed time = 1 min

Finished CARTOTXTMAIN_IFD, elapsed time = 4 mins 28 secs

Finished LANDFORMAREA_IFD, elapsed time = 35 secs

Finished LANDFORMLINE_IFD, elapsed time = 1 min 02 secs

Finished OVERHEADAREA_IFD, elapsed time = 01 sec

Finished TOPOAREAMAIN_IFD, elapsed time = 25 mins 02 secs

Finished TOPOLINEMAIN_IFD, elapsed time = 59 mins 36 secs

Finished TOPOPNT_IFD, elapsed time = 1 mins 19 secs

All commands elapsed time = 1 hr 33 mins 31 secs

2.2.2 Removing Duplicate Features

Finished ADDRESSPOINT, elapsed time = 01 sec
Finished BOUNDARYLINE, elapsed time = 1 min 03 secs
Finished BOUNDARYTEXT, elapsed time = 12 secs
Finished CARTOGRAPHICSYMBOL, elapsed time = 1 mins 01 sec
Finished CARTOGRAPHICTEXTMAIN, elapsed time = 4 mins 45 secs
Finished LANDFORMAREA, elapsed time = 2 mins 55 secs
Finished LANDFORMLINE, elapsed time = 5 mins 01 sec
Finished OVERHEADAREA, elapsed time = 04 secs
Finished TOPOGRAPHICAREAMAIN, elapsed time = 2 hrs 00 mins 55 secs
Finished TOPOGRAPHICLINEMAIN, elapsed time = 3 hrs 18 mins 58 secs
Finished TOPOGRAPHICPOINT, elapsed time = 1 mins 37 secs
All commands elapsed time = 5 hrs 36 mins 32 secs

2.2.3 Building Spatial Indices

Finished ADDRPOIN1_IXS, elapsed time = 16 secs
Finished BDYLINE_IXS, elapsed time = 1 min 39 secs
Finished BDYTEX1_IXS, elapsed time = 1 min 28 secs
Finished CARTOSYM1_IXS, elapsed time = 5 mins 59 secs
Finished CARTOTXTMAI1_IXS, elapsed time = 37 mins 10 secs
Finished LANDFORMAREA_IXS, elapsed time = 3 mins 56 secs
Finished LANDFORMLINE_IXS, elapsed time = 5 mins 54 secs
Finished OVERHEADAREA_IXS, elapsed time = 22 secs
Finished TOPOAREAMAIN_IXS, elapsed time = 4 hrs 25 mins 12 secs
Finished TOPOLINEMAIN_IXS, elapsed time = 11 hrs 50 mins 31 secs
Finished TOPOPNT1_IXS, elapsed time = 7 mins 59 secs
All commands elapsed time = 17 hrs 20 mins 26 secs

2.3 Performance Summary

Number of features: 431,369,099
Source size: 38,961,449 Kb
Rate processed: 216 Kb/s, 2354 f/s
Initial Load: 52 hrs 41 mins 40 secs
Fid Index Build: 1 hrs 33 mins 31 secs
Duplicate Removal: 5 hrs 36 mins 32 secs
Spatial Index Build: 17 hrs 20 mins 26 secs
Total Time: 77 hrs 12 mins 09 secs
Total Time: 3 days 5 hrs 12 mins 09 secs

2.4 COU Data Load

Number of files: 8016
Total Features parsed in all file(s): 2,516,120
Elapsed time: 4 hrs 04 mins 45 secs,
Source size: 537,842 Kb,
Rate processed: 36 Kb/s, 171 f/s

2.4.1 Drop Spatial Indices

Finished ADDRPOIN1_IXS, elapsed time = 4 secs
Finished BDYLINE_IXS, elapsed time = 2 secs
Finished BDYTEX1_IXS, elapsed time = 2 secs
Finished CARTOSYM1_IXS, elapsed time = 2 secs
Finished CARTOTXTMAI1_IXS, elapsed time = 3 secs
Finished LANDFORMAREA_IXS, elapsed time = 3 secs
Finished LANDFORMLINE_IXS, elapsed time = 4 secs
Finished OVERHEADAREA_IXS, elapsed time = 3 secs
Finished TOPOAREAMAIN_IXS, elapsed time = 3 secs
Finished TOPOLINEMAIN_IXS, elapsed time = 4 secs
Finished TOPOPNT1_IXS, elapsed time = 3 secs

All commands elapsed time = 33 secs

2.4.2 Building Spatial Indices

Finished ADDRPOIN1_IXS, elapsed time = 20 secs
Finished BDYLINE_IXS, elapsed time = 1 min 52 secs
Finished BDYTEX1_IXS, elapsed time = 1 min 23 secs
Finished CARTOSYM1_IXS, elapsed time = 5 mins 57 secs
Finished CARTOTXTMAI1_IXS, elapsed time = 36 mins 29 secs
Finished LANDFORMAREA_IXS, elapsed time = 3 mins 59 secs
Finished LANDFORMLINE_IXS, elapsed time = 5 mins 54 secs
Finished OVERHEADAREA_IXS, elapsed time = 23 secs
Finished TOPOAREAMAIN_IXS, elapsed time = 4 hrs 22 mins 29 secs
Finished TOPOLINEMAIN_IXS, elapsed time = 11 hrs 35 mins 47 secs
Finished TOPOPNT1_IXS, elapsed time = 7 mins 53 secs

All commands elapsed time = 17 hrs 02 mins 26 secs

2.5 COU Summary

Number of features: 2,516,120
Source size: 537,842 Kb
Rate processed: 36 Kb/s, 171 f/s
COU Load: 4 hrs 04 mins 45 secs
Drop Spatial Index: 33 secs
Spatial Index Build: 17 hrs 02 mins 26 secs
Total Time: 21 hrs 07 mins 44 secs

3 Further Contact

For further details regarding these statistics or for more information on GO Loader please visit the

GO Loader homepage:

<http://www.snowflakesoftware.com/products/goloader/index.htm>

Or alternatively email: support@snowflakesoftware.com