

## SOS Data and Programs

SOS Data and Programs are developed to suit either one of the following three computer configurations; configuration A, configuration B, or configuration C. Configuration A is slower and may accommodate small and medium data volumes. Configuration B is networkable, faster, more reliable, and may accommodate large data volumes. Configuration C contains pieces of hardware and software other than that of configurations A and B. Details of the computer configuration A or configuration B are found in the user manuals. 'SOS Edition A' and 'SOS Edition B' identify the data and programs using configuration A and configuration B, respectively. In case networking and large data volumes are not so desired while the shipping problems at hand are large enough and need fast processing, 'SOS Edition AB' may be used. In case SOS integrates with configuration C via web API, 'SOS Edition AC', 'SOS Edition BC', and 'SOS Edition ABC', for faster processing, may be used. The folder for each of the former three editions contains the following materials:

1- One menu file with the name: shipping optimization systems.accde. This file contains a menu, which passes control to the user manuals, and the data and program files mentioned in the following two items. To read the user manuals, the PDF Acrobat reader is needed.

2- Two data files with the names: sosdata.accdb and UNCOMTRADEforecast.accde. The former is used to capture data on cargo, ship (tramp and liner), port, route, line/trade area, contract of affreightment/voyage charter party, and shipping schedule. The latter is used to capture data on bilateral trade commodity flow and country inflation rate for several years back and be able to forecast future flow for years to come.

3- Eight program files with the following names: sosvoyagerprog.accde and sosvoyagerproglah.dll (for ship tramp voyage operation), sosvoyagerprog2.accde and sosvoyagerproglah2.dll (for ship liner voyage operation), sosallocatorprog.accde and sosallocatorproglah.dll (for allocating the tramp and liner ships to cargo trade areas), sosappraiserprog.accde (for appraising the purchase, chartering, and building of new tramp and liner ships), and libiomp5md.dll (a runtime library.) To run the '.accdb' and '.accde' files, Windows 10 64-bit and MS Access 2016 64-bit (Full or Runtime version, Runtime is free) are needed. Consult the SOS provider if Access is a 32-bit version.

4- One back-end data file added for 'SOS Edition B' (for large data volumes) with the following name: sosdata.mdf and its log file sosdata\_log.ldf. To host this data file, a recent MS SQL Server (Developer or Express version, Express is free) is needed, where all front-end Access tables are linked to it via the DSN file sosdata.dsn. Edit the DSN file as appropriate and re-link tables accordingly.

5- Four exe program files for 'SOS Edition B' and 'SOS Edition AB' (for parallel processing) with the following names: sosvoyagerproglah1, sosvoyagerproglah3, sosallocatorproglah1, and smpdcall. And, two supporting folders with the following names: MSMPI and Include.

Items 1 to 3 above are found in all editions with the same names but with different capabilities to fit each edition. 'C:\Program Files (x86)\Adobe\Acrobat Reader DC\Reader\AcroRd32.exe' is the assumed path for the Acrobat reader. i5 is the assumed computer processor running 'SOS Edition B'.

The folder for 'SOS Edition AC', 'SOS Edition BC', or 'SOS Edition ABC', assumes SOS integrates with configuration C, where sea Distance of DATALOY is accessed for tramp shipping via web API. Same for Xe currency converter via web API. Consult the SOS provider for web-API access for other attributes.

Copy all the files in the folder of choice and paste them to 'c:\sos' folder and run SOS with the guidelines of 'SOS user manuals' of concern.