

Vehicle Carriers at Port

- An Analysis

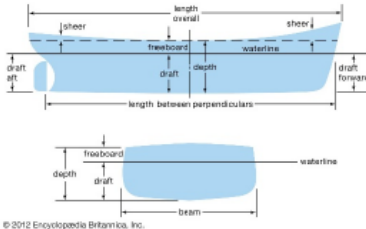


ships.csv						
Column Name	Order	Datatype	Constraints	Name	Description of Field	Is Sensitive?
[lrno]	1	INT	Primary	Lloyd's Register #	Registry # of vessel. Unique seven- digit number.	No
[vesselname]	2	VARCHAR	Foreign Key	Vessel Name	Name of registered vessel.	No
[owner]	3	INT	Candidate	Vessel Owner	Ship's registered company/owner. Legal entity responsible for the working and living conditions of the seafarers working on board the vessel.	No
[shipmanager]	4	INT	Candidate	Vessel Manager	ISM manager/Ship Management Company The vessel may be managed in-house or by a third party.	No
[operator]	5	INT	Candidate	Vessel Operator	Entity responsible vessel voyage (ie navigation, cruising speed, est. ETAs).	No
[flag]	6	INT	Candidate	Country of reg. vessel	Country of reg. vessel	No
[dwt]	7	DECIMAL	Foreign Key	Dead-weight-tonnage	Dead-weight-tonnage	No
[loa]	8	DECIMAL	Foreign Key	Length-over-all	Length-over-all	No
[breadth]	9	DECIMAL	Foreign Key	Ship's width	Ship's width	No
[depth]	10	DECIMAL	Foreign Key	Depth of vessel	Ship's measurement from the top of the keel to the top of the deck beam; from the LOA's center	No
[statdecode]	11	VARCHAR	Foreign Key	Type	Vessel type	No

callid.csv						
Column Name	Order	Datatype	Constraints	Name	Description of Field	Is Sensitive?
[callid]	1	INT	Candidate	Port-of-call	Port of Call; will commonly be referred to as "Last port of call/Next port of call"	No
[lrno]	2	INT	Primary	Lloyd's Register #	Registry # of vessel. Unique seven- digit number.	No
[arrdate]	3	DATE	Foreign	Arrival date	Arrival date to next port of call.	No
[saildate]	4	DATE	Foreign	Departure date	Departure date to next port of call.	No
[portname]	5	VARCHAR	Candidate	Port-of-call name	Port-of-call name	No
[countryname]	6	VARCHAR	Candidate	Port's country name	Port's country name	No
[priorportname]	7	VARCHAR	Candidate	Previous port name	Previous port name	No
[priorcountryname]	8	VARCHAR	Candidate	Previous port country	Previous port country	No
[movetype]	9	VARCHAR	Foreign	Port event	Vessel action at port (ie arrival, departure, removal, port-to-port)	No
[datecreated]	10	TIMESTAMP	Foreign	Logged entry	Logged entry at port of call	No

Its important to know what the data states, and what the data *is expected* to state.
A simple, aka “Dumb dictionary”, was made for ease of reference and determine if the provided datasets had sufficient and/or relevant information.

<u>“Calls.csv”</u>	<u>“Ships.csv”</u>
<p>[callid]</p> <ul style="list-style-type: none">Port of Call; will commonly be referred to as “Last port of call/Next port of call”	<p>[lrno]</p> <ul style="list-style-type: none">**More accurately its IMO #Lloyd’s Register – Classification Society – currently known as S&P Global**This # does NOT change regardless of modifications to the vessel’s name, owner, and/or flag state.
<p>[lrno]</p> <ul style="list-style-type: none">**More accurately its IMO #Lloyd’s Register – Classification Society – currently known as S&P Global**This # does NOT change regardless of modifications to the vessel’s name, owner, and/or flag state. <p><i>*IMO – International Maritime Organization</i></p>	<p>[vesselname]</p> <p>Name of registered vessel.</p>
<p>[arrdate]</p> <p>Arrival date</p>	<p>[owner]</p> <ul style="list-style-type: none">Ship’s registered company/owner.Legal entity responsible for the working and living conditions of the seafarers working on board the vessel.
<p>[saildate]</p> <p>Departure date</p>	<p>[shipmanager]</p> <ul style="list-style-type: none">ISM manager/Ship Management Company<ul style="list-style-type: none">The vessel may be managed in-house <i>or</i> by a third party3 legally involved, responsible, and audible departments:<ul style="list-style-type: none">1) Technical 2) Personnel 3) ISM (Safety, Security, and MLC Compliance) <p><i>*MLC - Maritime Labor Compliance</i> <i>*ISM – International Safety Management</i></p>
<p>[countryname]</p> <p>Country name</p>	<p>[operator]</p> <ul style="list-style-type: none">Entity responsible vessel voyage (ie navigation, cruising speed, est. ETAs)May require issuance of a <i>demurrage</i> to vessel owner.Entity may be onboard or remote.
<p>[priorportname]</p> <p>Previous port of entry</p>	<p>[flag]</p> <p>Country of registry</p>
<p>[priorcountryname]</p> <p>Country of last entry</p>	<p>[dwt]</p> <p>Dead-weight-tonnage</p>
<p>[movetype]</p> <ul style="list-style-type: none">Vessel action at port (ie arrival, departure, removal, port-to-port)Port event	<p>[loa]</p> <p>Length-over-all</p>
<p>[datecreated]</p> <p>Logged entry</p>	<p>[breadth]</p> <p>Ship’s width</p>
	<p>[depth]</p> <p>Ship’s measurement from the top of the keel to the top of the deck beam; from the LOA’s center</p>



- Car carriers:** Those which transport cars exclusively. They are also called Pure Car Carriers (PCC).
- Pure car/truck carrier (PCTC):** The ones that transport trucks as well as cars.

Trimming the fat...

Do the provided values of each variable meet parameters that would enable further analysis?

Expected parameters	Provided data values	Findings:
---------------------	----------------------	-----------

[movetype]

- Vessel action at port (ie arrival, departure, removal, port-to-port)
- Port event

[movetype]
NA
NA
NA
NA
NA
NA
NA
NA
NA

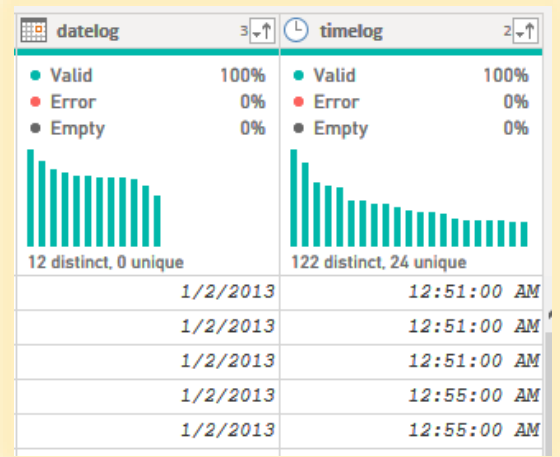
[movetype]

Lacks sufficient entries nor provides a description of vessel action at port.



[datecreated]

Logged entry



[datecreated]

Migration or query timestamp. Irrelevant data.



Trimming the fat...

(cont...)

Expected parameters	Provided data values	Findings:
---------------------	----------------------	-----------

[statdecode]
Decoded value indicates “vessel type”

[statdecode]
Vehicles Carrier
Vehicles Carrier
Vehicles Carrier
Vehicles Carrier
Vehicles Carrier

[statdecode]
Only 1 value type entered. As all ships are “vehicle carriers” this column will be omitted.



[arrdate]
Arrival date

[saildate]
Departure date

arrdate	arrtime	saildate
Thursday, January 24, 2013	9:59:00 PM	Saturday, January 26, 2013
Thursday, January 24, 2013	9:59:00 PM	Saturday, January 26, 2013
Saturday, January 26, 2013	9:59:00 PM	Sunday, January 27, 2013

[arrtime]
[Saildate] does not contain a time value.
[arrdate]’s **time value** will be omitted for *data consistency*.



Trimming the fat...

(cont...)

Expected parameters	Provided data variable(s)	Findings:
---------------------	---------------------------	-----------

[priorportname]

[priorportcountry]

G	
[priorportname]	[priorcountryname]
NA	NA
NA	NA
NA	NA
NA	NA
NA	NA
NA	NA
NA	NA
NA	NA
NA	NA
Paranagua Anchorage No	Brazil
NA	NA

[priorportname]
[priorportcountry]
Insufficient data.
No supporting
dataset.



- After determining [irno] (ship's registry number) was to be the for each table; it is necessary to ensure each ship # (and its related data) exists in *both* tables.
 - Initial tool to “probe” for variances and other inconsistencies:
 - Excel
 - Primary excel functions utilized were *conditional formatting* and *advanced filters* for dataset(s) comparison.

The following *IRNOs* (Ship #) do not exist in ‘Ships.csv’.

	A	B	C	D	E	F	G	H	I	J	K	
	[irno]	[vesselname]	[owner]	[shipmanager]	[operator]	[flag]	[dwt]	[loa]	[breadth]	[depth]	[statdecode]	
	8608080	NO DATA	NO DATA	NO DATA	NO DATA	NO DATA	NO DATA	NO DATA	NO DATA	NO DATA	NO DATA	
	8204250	NO DATA	NO DATA	NO DATA	NO DATA	NO DATA	NO DATA	NO DATA	NO DATA	NO DATA	NO DATA	
	8320767	NO DATA	NO DATA	NO DATA	NO DATA	NO DATA	NO DATA	NO DATA	NO DATA	NO DATA	NO DATA	
	8321345	NO DATA	NO DATA	NO DATA	NO DATA	NO DATA	NO DATA	NO DATA	NO DATA	NO DATA	NO DATA	
	8612316	NO DATA	NO DATA	NO DATA	NO DATA	NO DATA	NO DATA	NO DATA	NO DATA	NO DATA	NO DATA	
	8718706	NO DATA	NO DATA	NO DATA	NO DATA	NO DATA	NO DATA	NO DATA	NO DATA	NO DATA	NO DATA	
	8916267	NO DATA	NO DATA	NO DATA	NO DATA	NO DATA	NO DATA	NO DATA	NO DATA	NO DATA	NO DATA	
	9053505	NO DATA	NO DATA	NO DATA	NO DATA	NO DATA	NO DATA	NO DATA	NO DATA	NO DATA	NO DATA	
	9075711	NO DATA	NO DATA	NO DATA	NO DATA	NO DATA	NO DATA	NO DATA	NO DATA	NO DATA	NO DATA	
	9082324	NO DATA	NO DATA	NO DATA	NO DATA	NO DATA	NO DATA	NO DATA	NO DATA	NO DATA	NO DATA	
	9110107	NO DATA	NO DATA	NO DATA	NO DATA	NO DATA	NO DATA	NO DATA	NO DATA	NO DATA	NO DATA	
	9122930	NO DATA	NO DATA	NO DATA	NO DATA	NO DATA	NO DATA	NO DATA	NO DATA	NO DATA	NO DATA	
	9138513	NO DATA	NO DATA	NO DATA	NO DATA	NO DATA	NO DATA	NO DATA	NO DATA	NO DATA	NO DATA	
	9153563	NO DATA	NO DATA	NO DATA	NO DATA	NO DATA	NO DATA	NO DATA	NO DATA	NO DATA	NO DATA	
	9176216	NO DATA	NO DATA	NO DATA	NO DATA	NO DATA	NO DATA	NO DATA	NO DATA	NO DATA	NO DATA	
	9177026	NO DATA	NO DATA	NO DATA	NO DATA	NO DATA	NO DATA	NO DATA	NO DATA	NO DATA	NO DATA	
	9181560	NO DATA	NO DATA	NO DATA	NO DATA	NO DATA	NO DATA	NO DATA	NO DATA	NO DATA	NO DATA	

102 affected entries

The following *IRNOs* (Ship #) do not exist in ‘Calls.csv’.

	A	B	C	D	E	F	G	H	I	J	
	[callid]	[irno]	[arrdate]	[saildate]	[portname]	[countryne]	[priorports]	[priorcoun]	[movetype]	[datecreated]	
1	NO DATA	8905165	NO DATA	NO DATA	NO DATA	NO DATA	NO DATA	NO DATA	NO DATA	NO DATA	
2	NO DATA	8018168	NO DATA	NO DATA	NO DATA	NO DATA	NO DATA	NO DATA	NO DATA	NO DATA	
3	NO DATA	9706994	NO DATA	NO DATA	NO DATA	NO DATA	NO DATA	NO DATA	NO DATA	NO DATA	
4	NO DATA	8017671	NO DATA	NO DATA	NO DATA	NO DATA	NO DATA	NO DATA	NO DATA	NO DATA	
5	NO DATA	7917563	NO DATA	NO DATA	NO DATA	NO DATA	NO DATA	NO DATA	NO DATA	NO DATA	
6	NO DATA	9702443	NO DATA	NO DATA	NO DATA	NO DATA	NO DATA	NO DATA	NO DATA	NO DATA	
7	NO DATA	9039573	NO DATA	NO DATA	NO DATA	NO DATA	NO DATA	NO DATA	NO DATA	NO DATA	
8	NO DATA	8204951	NO DATA	NO DATA	NO DATA	NO DATA	NO DATA	NO DATA	NO DATA	NO DATA	
9	NO DATA	8505355	NO DATA	NO DATA	NO DATA	NO DATA	NO DATA	NO DATA	NO DATA	NO DATA	
10	NO DATA	8708244	NO DATA	NO DATA	NO DATA	NO DATA	NO DATA	NO DATA	NO DATA	NO DATA	
11	NO DATA	8131128	NO DATA	NO DATA	NO DATA	NO DATA	NO DATA	NO DATA	NO DATA	NO DATA	
12											
13											

11 affected entries

Cursory analysis of datasets.

Deliberating the “importance” of provided values.
What does the data say at a macroscopic level?

ships.csv			ships.csv		
★	[lrno]	Vessel primary identifier. Value will not change.	Primary Focus:	[lrno]	
★	[vesselname]	Vessel name. Value subject to change.		[vesselname]	**Used for ease of reference vs. a specified ship's 7-digit registry ###.
	[owner]	Vessel owners/operators and country of IMO reg #. All values subject to change.		[operator]	Entity responsible for ship movement and in this case, ship port movement .
	[shipmanager]			[dwt]	Ships maxium cargo capacity.
	[operator]				
	[flag]				
	[dwt]	Vessel physical characteristics. Value(s) very unlikely to change.			
	[loa]				
	[breadth]		Secondary Considerations	[owner]	[loa]
	[depth]			[shipmanager]	[breadth]
	[statdecode]			[flag]	[depth]
<hr/>					
callid.csv			callid.csv		
★	[callid]	Port primary identifier			
★	[lrno]	Vessel primary identifier.	Primary Focus:	[callid]**	Port of call number.
	[arrdate]	Historical (static) data of vessel's logged entry and depature from a specific port. Values will not change.		[lrno]	
	[saildate]			[arrdate]	
	[portname]			[saildate]	
	[countryname]			[portname]**	Port of call name.
	[priorportname]				
	[priorcountryname]				
	[movetype]		Secondary Considerations	[countryname]	
	[datecreated]				

Cleaning the Datasets

Excel

Good, Bad and Neutral

Advanced Filter

Action

☒ Filter the list, in-place

☐ Copy to another location

List range:

Criteria range:

Copy to:

☐ Unique records only

OK **Cancel**

Themed Cell Styles

20% - Accent1 20% - Accent2 20% - Accent3

40% - Accent1 40% - Accent2 40% - Accent3

60% - Accent1 60% - Accent2 60% - Accent3

Accent1 Accent2 Accent3

Number Format

Comma Comma [0] Currency Currency [0] Percent

SO MANY COLORS TO CHOOSE FROM!

Explanat

Output

Heading 3

Input

Total

Styles

Normal Bad Calculation Check Cell

Highlight Cells Rules

Top/Bottom Rules

Data Bars

Color Scales

Icon Sets

New Rule...

Clear Rules

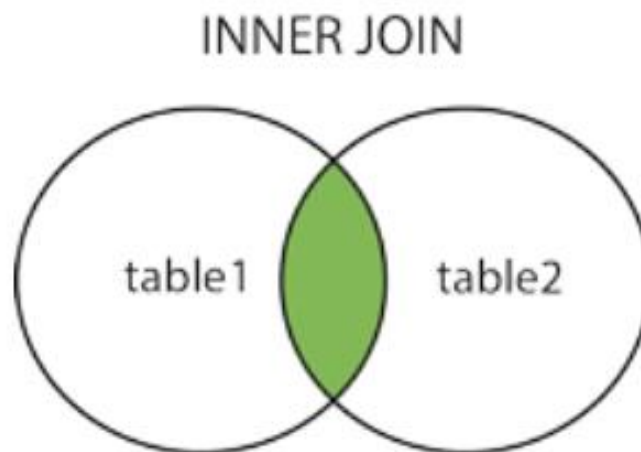
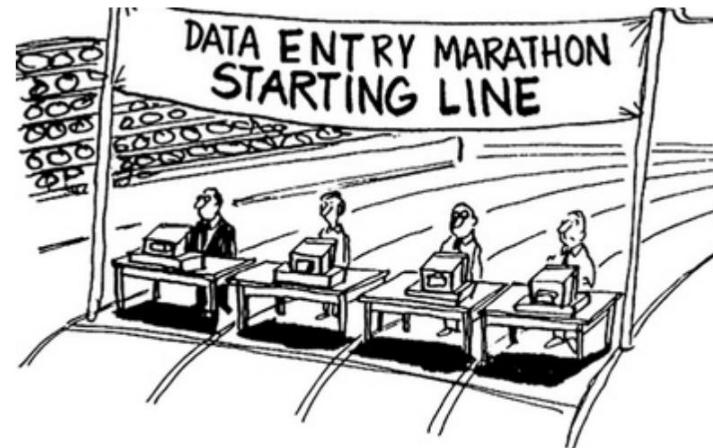
Manage Rules...

Excel

Data **Review** **View** **Help** **Acrobat**

Refresh **Queries & Connections** **Properties** **Edit Links** **Sort** **Filter** **Advanced** **Clear** **Reapply** **Text to Columns** **Flash Fill** **Remove Duplicates** **Data Validation** **Consolidate**

Queries & Connections **Sort & Filter** **Data Tools**



```

61
62 SELECT
63     Calls.lrno,
64     callid,
65     portname,
66     countryname,
67     arridate,
68     saildate
69 FROM
70     Calls
71     INNER JOIN
72     Ships
73         ON Ships.lrno = Calls.lrno
74

```

Summary of prepped datasets/sample sizes (*Unique Values*)

ships.csv

Total values removed or modified: 430

callid.csv

Total values removed or modified: 657,427

Total Vehicle Carriers: 316
Total Owners: 214
Total Management Entities: 44
Total Operators: 33
of Registered Nations: 6

Vessel Cargo Capacity (metric tons)

Smallest Vessel: 974
Largest Vessel: 44,080

Total Ports: 1,534
Total Logged Entries: 119,146
Logbook Start date: 11/22/2012
Logbook End Date: 6/28/2015

Total Time: 2 years, 7 months, 7 days

<https://www.timeanddate.com/date/duration.html>



```
13
14 ---Create new tables with inputted values using Inner Join
15 USE
16     GDTAutoMvt
17 -- Create Vessel Operator Table
18 CREATE TABLE
19     #VesselOperators(vessel_# INT, ship_name varchar(250), ship_owner varchar(250), ship_manager varchar(250), reg_nation varchar(250))
20 -- Create Vessel Dimension Table
21 CREATE TABLE
22     #VesselMeasure(vessel_# INT, capacity decimal, loa decimal, breadth decimal, depth decimal)
23 -- Create Vessel Transit Table
24 CREATE TABLE
25     #Transit(vessel_# INT, port_# INT, port_name geography, port_country geography, entry_date date, depart_date date)
26
```

**Not successful inputting values from INNER JOIN queries into new tables (3).
But used the above as a template for PowerBI.

3 New Tables Created

VesselOperators	1 ² ₃ Vessel_#	A ^B _C Vessel_Name	A ^B _C Owner	A ^B _C Manager	A ^B _C Operator	A ^B _C Reg_Nation
VesselMeasures	Valid 100%	Valid 100%	Valid 100%	Valid 100%	Valid 100%	Valid 100%
Transit	Error 0%	Error 0%	Error 0%	Error 0%	Error 0%	Error 0%
	Empty 0%	Empty 0%	Empty 0%	Empty 0%	Empty 0%	Empty 0%

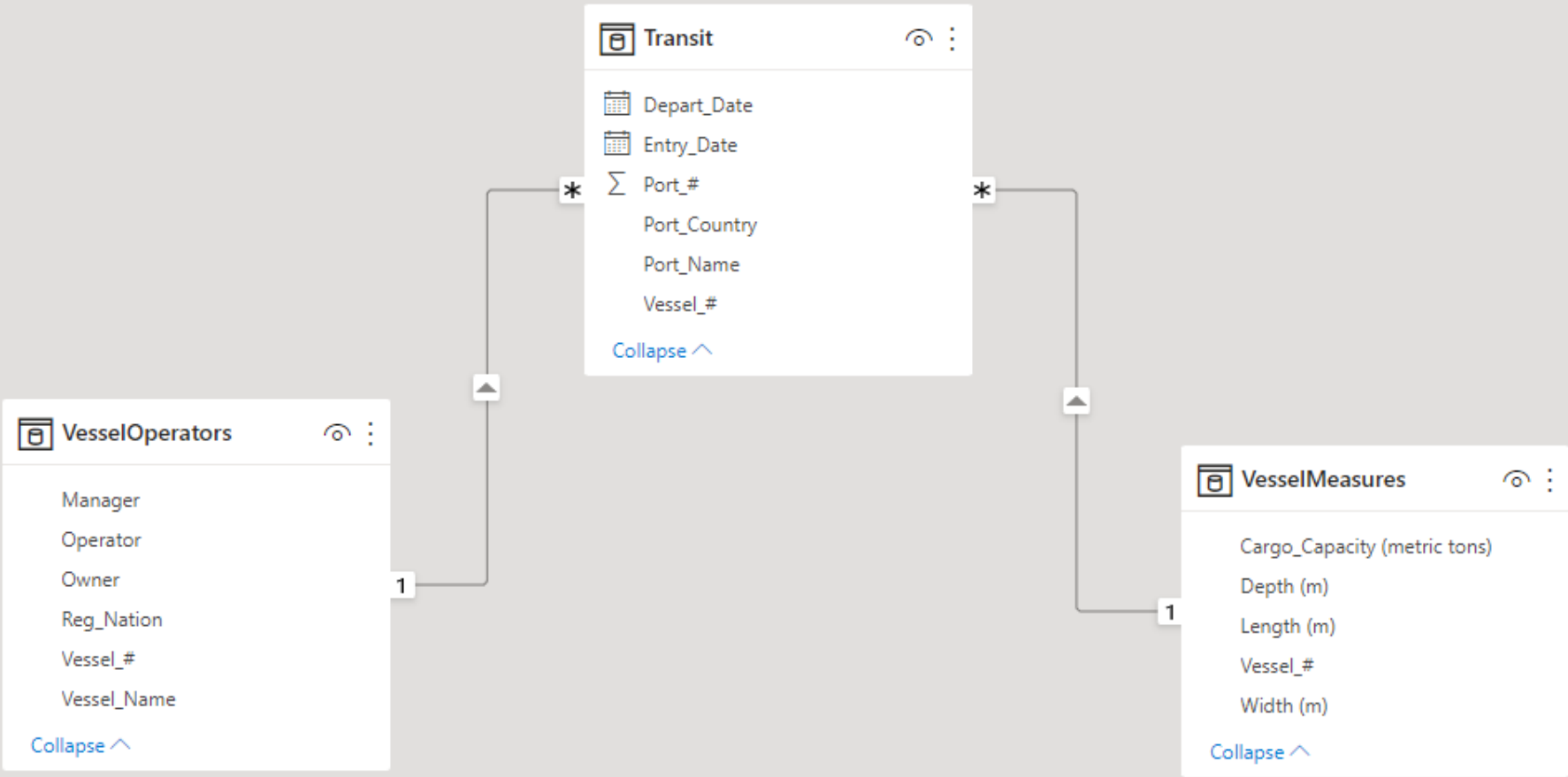
VesselOperators	1 ² ₃ Vessel_#	1 ² ₃ Cargo_Capacity (metric tons)	1.2 Length (m)	1.2 Width (m)	1.2 Depth (m)
VesselMeasures	Valid 100%	Valid 100%	Valid 100%	Valid 100%	Valid 100%
Transit	Error 0%	Error 0%	Error 0%	Error 0%	Error 0%
	Empty 0%	Empty 0%	Empty 0%	Empty 0%	Empty 0%

VesselOperators	1 ² ₃ Vessel_#	1 ² ₃ Port_#	A ^B _C Port_Name	A ^B _C Port_Country	Entry_Date	Depart_Date
VesselMeasures	Valid 100%	Valid 100%	Valid 100%	Valid 100%	Valid 100%	Valid 100%
Transit	Error 0%	Error 0%	Error 0%	Error 0%	Error 0%	Error 0%
	Empty 0%	Empty 0%	Empty 0%	Empty 0%	Empty 0%	Empty 0%

Manage relationships

Active	From: Table (Column)	To: Table (Column)
<input checked="" type="checkbox"/>	Transit (Vessel_#)	VesselMeasures (Vessel_#)
<input checked="" type="checkbox"/>	Transit (Vessel_#)	VesselOperators (Vessel_#)

Many-to-one relationship



Analytic Focus – A Vessel's Dwell Time

Vessel dwell time is a function of:

- The number of containers or tonnage to be loaded and unloaded
- Terminal resources available (e.g. cranes per berth and vessel)
- The efficiency with which those resources are employed

[Vessel Dwell Time | Bureau of Transportation Statistics \(dot.gov\)](#)



Cargo Capacity

While not indicative of the ship's cargo manifest at port; it does reflect vessel size and potential cargo to offload at its port of call.

Operator

This entity is responsible for the vessel logistics (including cargo) and transit operations.

```
1 Dwell_Time = DATEDIFF(Transit[Entry_Date],Transit[Depart_Date],DAY)
```

With this analytic focus we need to ensure that we have measurable values:

Logged vessel activity will require a value ABOVE (0) Days of a Vessel's Dwell Time at its port of call.

These results, for example, will be omitted.

Vessel_#	Port_#	Port_Name	Port_Country	Entry_Date	Depart_Date	Dwell_Time
9325439	35277942	NA	NA	Tuesday, January 1, 2013	Tuesday, January 1, 2013	0
8708907	35280050	NA	NA	Tuesday, January 1, 2013	Tuesday, January 1, 2013	0
9338694	35277934	NA	NA	Tuesday, January 1, 2013	Tuesday, January 1, 2013	0
9432907	35290862	NA	NA	Tuesday, January 1, 2013	Tuesday, January 1, 2013	0
8709121	35281988	NA	NA	Tuesday, January 1, 2013	Tuesday, January 1, 2013	0
9531739	35290900	NA	NA	Tuesday, January 1, 2013	Tuesday, January 1, 2013	0
9318462	35283882	NA	NA	Tuesday, January 1, 2013	Tuesday, January 1, 2013	0
8517279	35306086	NA	NA	Wednesday, January 2, 2013	Wednesday, January 2, 2013	0
9114177	35304453	NA	NA	Wednesday, January 2, 2013	Wednesday, January 2, 2013	0
8313324	35297562	NA	NA	Wednesday, January 2, 2013	Wednesday, January 2, 2013	0
9391593	35301140	NA	NA	Wednesday, January 2, 2013	Wednesday, January 2, 2013	0
9272888	35302897	NA	NA	Wednesday, January 2, 2013	Wednesday, January 2, 2013	0
9367607	35302912	NA	NA	Wednesday, January 2, 2013	Wednesday, January 2, 2013	0

Using Advanced Filtering when visuals are applied.

Dwell_Time

is greater than or equ...

Filter type ⓘ

Advanced filtering

Show items when the value

is greater than or equal to

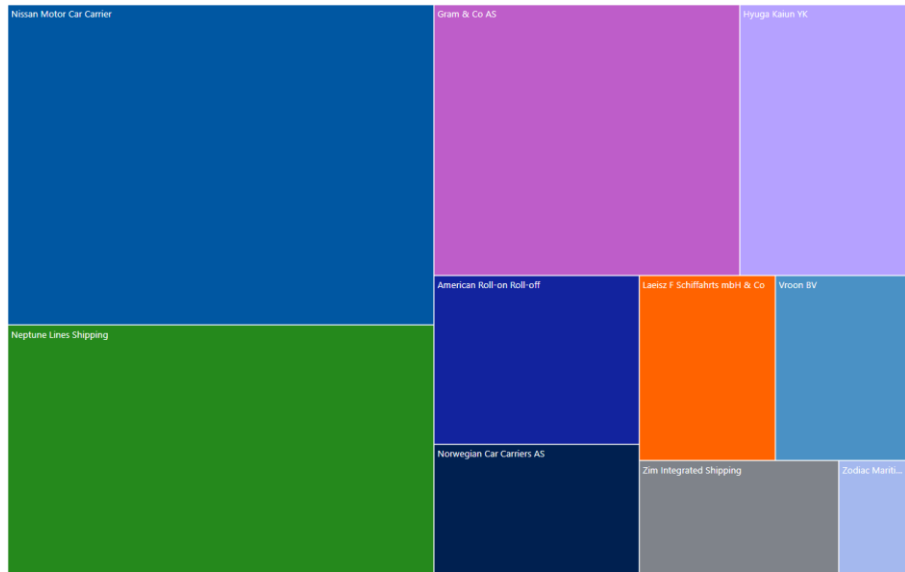
1

☒ And ☐ Or

Apply filter

Vessel Operator

DWELL_TIME BY OPERATOR



TOP PERFORMERS

Operator	Dwell_Time
Zodiac Maritime Ltd	53
Zim Integrated Shipping	149
Vroon BV	162
Laeisz F Schiffahrts mbH & Co	164
Norwegian Car Carriers AS	175
American Roll-on Roll-off	226
Hyuga Kaiun YK	300
Gram & Co AS	540
Neptune Lines Shipping	695
Nissan Motor Car Carrier	890

Filters

Search

Filters on this visual

Dwell_Time
is greater than or equ...
Show items when the value
is greater than or equal to
1
☒ And ☐ Or
Apply filter

Operator
bottom 10 by Averag...
Filter type ⓘ
Top N
Show items
Bottom 10
By value
Average of Dwell_Time
Apply filter

...and just in case those Top Performing Operators only completed a handful of port transits.

```
Count of Port_Name total for Operator =  
CALCULATE(  
    COUNTA('Transit'[Port_Name]),  
    ALLSELECTED('VesselOperators'[Operator]))
```

Operator	Zodiac Maritime
Port_Name	9701140 Total
▲	
Bristol	1
Brunswick	4
Busan New Port	1
Colombo	1
Colombo Inner Anchorage	1
Colombo Outer Anchorage	2
Colombo Southern Anchorage	2
Daesan Anchorage No 2	2
Dagukou North Anchorage	1
Dagukou Quarantine Anchorage	1
Dagukou South Anchorage	1
Dammam	1

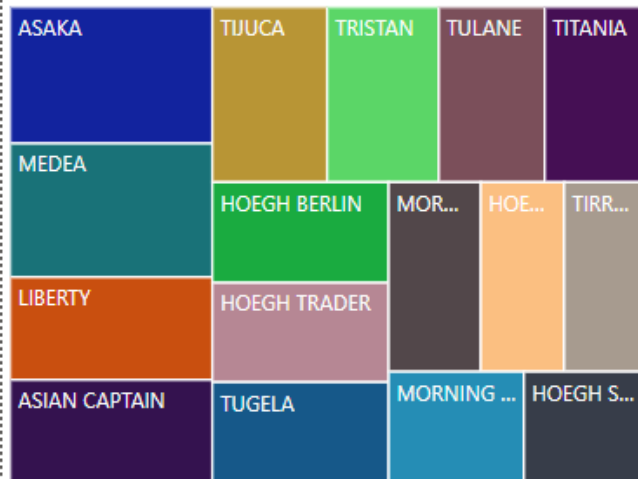
“#1 Ranked” Zodiac Maritime operated just a *single* vessel during this recorded timeframe.

While Nissan Motor Car Carrier operated 5 vessels.

Operator Port_Name ▼	Nissan Motor Car Carrier				
	9185047	9372315	9505900	9509401	9554200
Zeebrugge			1		1
Yura		1			
Yokosuka Anchorage	1	4		4	1
Yokosuka	3	5		7	3
Yokohama Anchorage	11	14	1	19	6
Yokohama	16	18	1	21	5
Yokkaichi Anchorage	1				
Yokkaichi	2				
Yalova Anchorage			2		
Xiuyu Anchorage No 2			1		
Xiamen No 1 Anchorage			1		2
Xiamen			1		1

Vessel Cargo Capacity

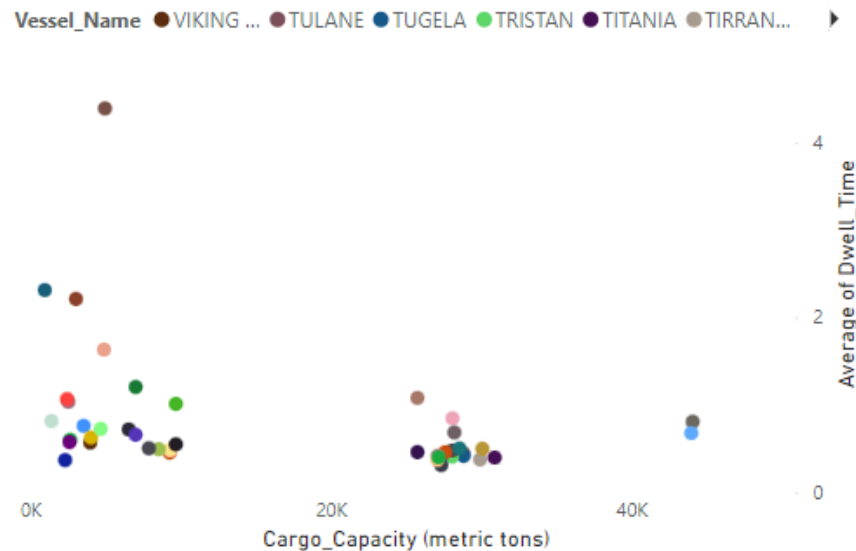
Dwell_Time by Vessel_Name




Vessel_Name	Cargo_Capacity (metric tons)
TITANIA	30907
TIJUCA	30089
TIRRANNA	29936
TUGELA	28837
TULANE	28818
MEDEA	28566
MORNING LYNN	28092
TRISTAN	28070
LIBERTY	27609
HOEGH ST. PETERSBURG	27352
MORNING LADY	27343
HOEGH BERLIN	27176
HOEGH DETROIT	27100
HOEGH TRADER	27100
ASIAN CAPTAIN	25765

Vessel_Name	Dwell_Time
ASAKA	300
2325	300
TRISTAN	213
28070	213
TITANIA	196
30907	196
HOEGH BERLIN	193
27176	193
HOEGH TRADER	191
27100	191
TUGELA	191
28837	191
HOEGH DETROIT	172
27100	172
TIRRANNA	172
29936	172

Average of Dwell_Time by Cargo_Capacity (metric tons) and Vessel_Name



Filters  

 Search

Filters on this visual ...

Cargo_Capacity (met...
is greater than 25000 ...

Filter type ⓘ

Advanced filtering ▾

Show items when the value

is greater than ▾

25000

☐ And ☒ Or

is less than ▾

10000

Apply filter

Dwell_Time
is greater than or equ...

Show items when the value

is greater than or equal to ▾

1

☒ And ☐ Or

Vessel_Name
bottom 10 by Averag...

Filter type ⓘ

Top N ▾

Show items

Bottom ▾ 10

By value

Average of Dwell_Time ▾ ×

Apply filter

There appears to be no correlation between a vessel's cargo capacity and its dwell time at port.

**Further data is needed – specifically each vessel's itemized cargo manifest.