REFINITIV®
POINT CONNECT

REFINITIV® POINT CONNECT – TRADE FLOWS

Trade Flows content

Data description

Refinitiv Trade Flows are daily, vessel-level assessments of global imports and exports covering the major fleets:

- Dirty tankers – carrying crude oil and fuel oil
- Clean tankers – carrying refined products
- LNG tankers
- LPG tankers
- Large dry bulk vessels – carrying iron ore, coal and bauxite
- Smaller dry bulk vessels – with a focus on those carrying agricultural products

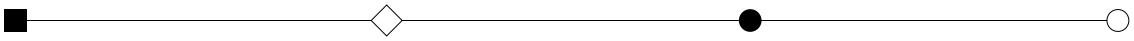
The product features model-based assimilation of data on vessel locations and cargoes, combined with systematic analyst review of model outputs.

The assessments thus benefit from algorithms that maximize the value of available information, and from the expert judgment of a specialist team.

Model assumptions and processes

The general principles of the flows and how they work are as follows:

1. A flow is defined as the movement of a cargo on vessel from a load port to a discharge port. Each flow is assigned a unique flow ID.
2. The flow is updated through its life cycle, which starts when the vessel is on subs or ballasting to a load port, and ends when the vessel has finally discharged its cargo. When the vessel is ballasting to a new port to load, a new flow is created.
3. An algorithm runs multiple times per day, making updates to the flows which are reviewed by our expert analysts.



Step 1:
Collect data

- Vessel characteristics
- Historical and current positions
- Fixtures
- Port calls
- Port authorities/agency
- Port inspections
- Customs data

Step 2:
Add missing port calls

- Get best view of current and historical track
- Route profiling

Step 3:
Make assessments

- Underway or discharged
- Single or multiple load/ discharge ports
- Cargo and volume

Step 4:
Analyst review

- Fill in the gaps
- Update unknowns using market

The algorithm works as follows:

1. For each vessel within a fleet, we collect all the information that we have for that vessel. This includes vessel characteristics, vessel positions and port calls.
2. We then add customs data, fixtures, port lineups, port authority information, inspection data and our proprietary ship-to-ship data (where available).
3. The algorithm identifies missing port calls due to gaps in the vessel position data (AIS data).
4. Make an assessment of what the vessel is currently doing.
5. Analyst review.

The assessment is based on the economic fundamentals of shipping, the physical characteristics of the vessels, and the configuration and capabilities of the ports and berths that they visit. For example, the model assumes that an LNG vessel will load LNG when she visits Ras Laffan port in Qatar. The model then uses available information from AIS, port schedules and historical route profiles in an attempt to determine destination ports and arrival dates. When possible, the model also uses available tenders, loading schedules and vessel fixtures to project future loadings and exports.

Special notes

- We also track ship-to-ship transfers, which we include in the dirty and LPG flows models
- Cargo information for agricultural products is sourced from port agents
- The model works at the berth level, which allows us to make better assessments of the cargo
- Further confirmation of the cargo comes from other sources
- We generally do not track coastal journeys where the load and discharge country are the same. However, in the dirty flows model we track coastal flows for Saudi Arabia, Angola, the North Sea and the United States

Further information

Refinitiv analysts and product managers are especially interested in feedback on Trade Flows' usability and content. They are also willing to assist with the application of the data to specific operational and research problems.

Please note that Refinitiv makes every effort to ensure the accuracy and timeliness of the Trade Flows product. Consequently, product data is subject to revision. Refinitiv assumes no obligation to inform users of changes to the data set and bears no responsibility for the financial impact of decisions based upon the data.

Trade Flows in Point Connect

Product description

Trade Flows content is now available through the Point Connect feed product. It leverages the existing product, which is used by customers to retrieve commodities fundamentals data in the form of time series and forecast curves. However, it uses a separate distribution mechanism called Flat File, highlighting the different nature of those files compared with standard Point Connect feed files. As for all data sets in Point Connect, FTP is used as a delivery mechanism where CSV files are served for end users to pull, process and ingest into their respective databases of record. The Flat File type differs from the standard curves type because all the details describing the data are served in the same CSV file in the form of a tab-delimited table. A separate metadata API is neither available nor needed for Flat Files, as all metadata details are served alongside dynamic data for flows records. Also, the width of Flat Files is significantly larger, as there are many more columns provided that describe the data. In the case of Trade Flows, those are all columns describing details of specific flow instance. Further explanation of those columns is provided in Appendix 1.

Point Connect Flat File FTP

Due to the different nature of feed files served for the Flat File type, a separate FTP host is provided that gives access to Flat File instances of Point Connect. Point Connect users will use the same usernames and passwords to access any Point Connect service. The address of the dedicated FTP where Flat Files are served is: pointconnect-ff.commodities.refinitiv.com

The "FF" code is used in a few more places (in addition to the FTP address itself) to indicate a Flat File instance of Point Connect. The Flat File FTP structure is also different than the one for standard Point Connect files. A full list of folders in the FTP tree is provided in Appendix 2, and the following section of this document gives a full explanation of the differences between the Live, History Last and History Full types of files.

Trade Flows Point Connect file types

There are three Point Connect Trade Flows file types:

- Live
- History Last
- History Full

All of the files have a different object ID, and part of the file name indicates the type of Trade Flows file. The core part of the file name, however, is the same as the content served in each of those files and belongs to the same set of data. For example, a file which is defined as "**Flows Clean Oil WOR Kt FF**" is served as:

- 5102051_**Flows_Clean_Oil_WOR_Kt_FF**_2018-10-04.CSV
- 5102053_**HIST_LAST_Flows_Clean_Oil_WOR_Kt_**FF_2018-Q4.CSV
- 5102052_**HIST_FULL_Flows_Clean_Oil_WOR_Kt_**FF_2018-Q4.CSV

The table below illustrates the differences and similarities between the three types of flows files.

Feature	Live	History Last	History Full
Update time(s)	06:00 a.m. UTC 12:00 p.m. UTC 06:00 p.m. UTC 12:00 a.m. UTC	12:00 a.m. UTC	12:00 a.m. UTC
Number of files served	Two daily (today + yesterday)	20 quarterly	20 quarterly
Rule to include flows in file	Update date of flow details same as file name date	"Effective from" date belongs to quarter in file name	"Effective from" date belongs to quarter in file name
Flow details included in file	One row per flow ID, only with most recent details	One row per flow ID, only with most recent details	Many rows per flow ID showing how details for given flow were collected and updated over time
Syntax of file name	FileID_'Flows'_Set_Geography_Unit_'FF'_YYYY-MM-DD'.CSV'	FileID_'HIST_LAST_Flows'_Set_Geography_Unit_'FF'_YYYY-QQ'.CSV'	FileID_'HIST_FULL_Flows'_Set_Geography_Unit_'FF'_YYYY-QQ'.CSV'
Example file name	5102059_Flows_Crude_Oil_WOR_Kt_FF_2018-09-18.CSV	5102061_HIST_LAST_Flows_Crude_Oil_WOR_Kt_FF_2016-Q1.CSV	5102060_HIST_FULL_Flows_Crude_Oil_WOR_Kt_FF_2016-Q1.CSV
Location on FTP	...\Flows\Live\...	...\Flows\History_Last\...	...\Flows\History_Full\...

Subscriptions to flows feed files and feed consumption

Different than standard Point Connect files, there is no need to search for and subscribe to files using our Data Guide platform. Flows files are automatically added to the subscription when a given user signs up for a specific flows package. In most cases, there is a single file (in three variants) served for a given package, covering the respective type of flows.

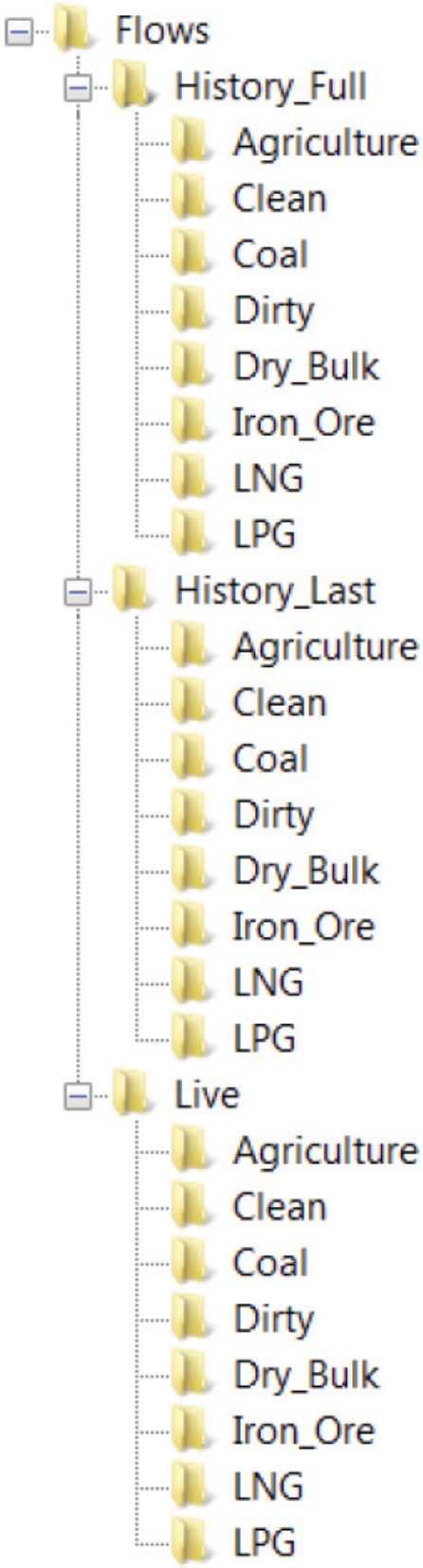
Typical consumption workflow depends on the specific use case, but generally, flows data users should start by pulling and processing history files for all quarters served and then move to live daily files according to date sequence. Going forward, users should download and process updates for the current day's live file, as any updates produced on a given day would be served in such a file regardless of the period in which the actual flow took place.

Appendix 1. Point Connect flows file columns explained

Column header	Sample value	Description
Flow ID	3398882	Unique flow identifier
Flow Admin Status	Published	Values are Published or Obsolete. Flows are not deleted but are set to Obsolete
Vessel	NORDIC AURORA	The name of the vessel
Vessel IMO	9159672	Vessel IMO
Vessel RIC	C}KS7309477110	Vessel RIC
Vessel PERM_ID	77309477110	PERM_ID unique to the vessel
Vessel Type	Suezmax	Type of vessel
Load Zone	Russia, FSU	Zone that the vessel loaded in or is due to load in
Load Country	Russian Federation	Country that the vessel loaded in or is due to load in
Load Country/Sub-Country	Murmansk	Sub-country that the vessel loaded in or is due to load in
Load Region	Europe, Middle East, Africa	Region that the vessel loaded in or is due to load in
Load State	Northwestern Federal District	State that the vessel loaded in or is due to load in
Load Port	Murmansk	Port that the vessel loaded in or is due to load in
Load Port RIC	C}TS7309533641	RIC for the load port
Load Port PERM_ID	77309533641	PERM_ID unique to the load port
Load Berth	Zirku Island – Crude Oil Terminal SPM B	Berth that the vessel loaded in, where available
Load Berth RIC	C}TS7309557151	RIC for the load berth
Load Berth PERM_ID	77309557151	PERM_ID unique to the load berth
Departure Date	29.08.2018 00:00:00	Date that the vessel left the load port (UTC)
Discharge Zone	North Asia	Zone that the vessel discharged in or is due to discharge in
Discharge Country	China	Country that the vessel discharged in or is due to discharge in
Discharge Country/ Sub-Country	Shandong	Sub-country that the vessel discharged in or is due to discharge in
Discharge Region	Asia	Region that the vessel discharged in or is due to discharge in
Discharge State	East China	State that the vessel discharged in or is due to discharge in
Discharge Port	Lanshan	Port that the vessel discharged in or is due to discharge in
Discharge Port RIC	C}TS7309533891	RIC for the discharge port
Discharge Port PERM_ID	77309533891	PERM_ID for the discharge port
Discharge Berth	Thai Oil SBM (Si Racha)	Berth that the vessel discharged in (for vessels that are underway, we do not usually know the discharge berth)
Discharge Berth RIC	C}TS7309771018	RIC for the discharge berth
Discharge Berth PERM_ID	77309771018	PERM_ID for the discharge berth
Arrival Date	16.09.2018 02:59:05	Date that the vessel arrived or is due to arrive for discharge (UTC)
Product	Crude Oil	Commodity loaded
Grade	Murban	Grade of the product loaded (if known)

Column header	Sample value	Description
Volume	200	Volume loaded
Unit	KILOTONNES (KT)	Volume unit
Barrels	1528991	Volume in barrels (only applies to crude, fuel oil and refined product flows)
Load Date From	26.08.2018 00:00:00	Date that the vessel entered the load port or is due to arrive at the load port (UTC)
Arrival Date To	18.09.2018 00:50:42	Date that the vessel left the discharge port. If underway, this is the same as the arrival time (UTC)
Buyer/Receiver		Entity buying or receiving cargo
Issuer		Entity inviting bids or offers for contract
Sender		Entity selling or receiving cargo. The field is called Seller/Sender in the Eikon daily flows extract
Awardee		Entity awarded contract
Consignee		Entity financially responsible for receipt of shipment
Charterer	Hellenic Petroleum	Charterer (usually sourced from a fixture, where known)
Buy/Sell		Issuer is Buy or Sell
Price		Price range of the tender
Price Basis		Basis on which the cargo is priced (i.e., “BL Basis” or “Month Average”)
Freight	112.5	Freight rate (usually sourced from a fixture, where known)
Freight Unit	w	Freight unit (w – Worldscale or $ lump sum)
Benchmark		Benchmark for trade
Closing Date		Issued tender closing date (UTC)
Validity Date		Last day that the tender is valid (UTC)
Contract Basis		Basis of the contract: “OTC” (over the counter), “Term Tender”, “Spot Tender”
Terms		T&Cs for transaction (i.e., “FOB”: free-on-board, “C&F”: coast-and-freight, “DDP”: delivered-duty-paid
Import/Export		Only used for U.S. Customs data
Status	Vessel Awaiting Discharge	**Subs** – Flow to be sourced from a fixture in the future **Vessel Ballasting** – Vessel is currently en route to a load port **Vessel Awaiting Load** – Vessel is within the port limits* of a load port with a speed of less than five knots, but has not loaded yet **Vessel Loading** – Vessel is within the port or berth **Vessel Underway** – Vessel has left the load port and is underway **Vessel Awaiting Discharge** – Vessel is within the port limits* of the discharge port with a speed of less than five knots, but has not discharged yet **Vessel Discharging** – Vessel is within the discharge port or berth **Vessel Discharged** – Vessel has discharged ** We have defined the “port limits” as within 100km of the ports (500km for iron ore coal ports, as some of the anchorage regions are larger)*
Source Grade		The original source grade information. Only used for U.S. Customs data
Country of Origin	United Arab Emirates	Origin country of the cargo. Only used for U.S. Customs data
Last Updated	18.09.2018 01:31:37	Date that the flow was last modified (UTC)

Appendix 2. Point Connect flows FTP tree structure



Appendix 3. Screenshot of sample Point Connect flows file opened in Microsoft Excel®

Please note that only the first nine columns are displayed below.

	A	B	C	D	E	F	G	H	I
1	Flow ID	Flow Admin Status	Vessel	Vessel IMO	Vessel Ric	Vessel PERM_ID	Vessel Type	Load Zone	Load Country
2	3447523	Published	JO PINARI	9592680	C}KP7309486536	77309486536	Panamax	Middle East	United Arab Emirates
3	3447523	Published	JO PINARI	9592680	C}KP7309486536	77309486536	Panamax	Middle East	United Arab Emirates
4	3447459	Published	MT PORT MOODY	9246449	C}KM7309483507	77309483507	Medium	South Asia	India
5	3447459	Published	MT PORT MOODY	9246449	C}KM7309483507	77309483507	Medium	South Asia	India
6	3451430	Published	GLENDA MELISSA	9494682	C}KM7309504175	77309504175	Medium	Middle East	Oman
7	3451430	Published	GLENDA MELISSA	9494682	C}KM7309504175	77309504175	Medium	Middle East	Oman
8	3438254	Published	TORM AGNES	9465992	C}KM7309501840	77309501840	Medium	South Asia	India
9	3438255	Published	TORM AGNES	9465992	C}KM7309501840	77309501840	Medium	South Asia	India
10	3433189	Published	MARILEE	9326861	C}KP7309490022	77309490022	Panamax	Mediterranean, North Africa	Turkey
11	3444865	Published	GULF COBALT	9389849	C}KP7309495338	77309495338	Panamax	Middle East	Saudi Arabia
12	3445509	Published	SAN FERNANDO	9322384	C}KI7309489623	77309489623	Medium	Middle East	Saudi Arabia
13	3448612	Obsolete	RHONESTERN	9183831	C}KH7309478895	77309478895	Handy	Mediterranean, North Africa	Spain
14	3450604	Obsolete	BALTIC SOUL	9228813	C}KM7309482166	77309482166	Medium	Mediterranean, North Africa	Turkey
15	3451405	Obsolete	BALTIC WIND	9261401	C}KM7309484719	77309484719	Medium	North West Europe	Sweden
16	3445495	Obsolete	TORM HORIZON	9283710	C}KM7309486324	77309486324	Medium	Middle East	United Arab Emirates
17	3448622	Published	DONG TING HU	9284386	C}KP7309486379	77309486379	Panamax	South Asia	India
18	3451412	Obsolete	GULF COAST	9298674	C}KP7309487569	77309487569	Panamax	Middle East	United Arab Emirates
19	3451414	Obsolete	MAERSK PRINCESS	9308948	C}KA7309488457	77309488457	Aframax / LRII		
20	3448630	Published	ROSE M	9311000	C}KM7309488627	77309488627	Medium	Middle East	United Arab Emirates
21	3437331	Obsolete	LORELEI	9314179	C}KP7309488883	77309488883	Panamax	South Asia	India
22	3451416	Obsolete	JAG PUSHPA	9315733	C}KM7309489025	77309489025	Medium	Middle East	Saudi Arabia
23	3451417	Obsolete	GOLDEN SHINER	9321562	C}KP7309489544	77309489544	Panamax	North West Europe	Netherlands
24	3446265	Obsolete	BUTTERFLY	9324459	C}KM7309489815	77309489815	Medium	North America	United States
25	3439554	Obsolete	BALTIC FREEDOM	9327396	C}KM7309490073	77309490073	Medium	Mediterranean, North Africa	Greece
26	3433190	Obsolete	AMALIA	9330355	C}KP7309490310	77309490310	Panamax	Russia, FSU	Russian Federation
27	3448402	Obsolete	ATLANTIC GRACE	9337511	C}KM7309490924	77309490924	Medium		
28	3442799	Published	TVERSKOY BRIDGE	9344033	C}KM7309491461	77309491461	Medium	Middle East	United Arab Emirates
29	3419803	Published	GRAND ACE2	9346079	C}KM7309491632	77309491632	Medium	North Asia	China

Appendix 4. Point Connect flows file column types

Column header	Sample value	Description
Flow ID	NUMBER	22
Flow Admin Status	VARCHAR2	120
Vessel	VARCHAR2	300
Vessel IMO	VARCHAR2	8
Vessel RIC	VARCHAR2	30
Vessel PERM_ID	NUMBER	22
Vessel Type	VARCHAR2	240
Load Zone	VARCHAR2	4000
Load Country	VARCHAR2	240
Load Country/Sub-Country	VARCHAR2	240
Load Region	VARCHAR2	4000
Load State	VARCHAR2	4000
Load Port	VARCHAR2	4000
Load Port RIC	VARCHAR2	30
Load Port PERM_ID	NUMBER	22
Load Berth	VARCHAR2	4000
Load Berth RIC	VARCHAR2	4000
Load Berth PERM_ID	NUMBER	22
Departure Date	DATE	21
Discharge Zone	VARCHAR2	4000
Discharge Country	VARCHAR2	240
Discharge Country/Sub-Country	VARCHAR2	240
Discharge Region	VARCHAR2	4000
Discharge State	VARCHAR2	4000
Discharge Port	VARCHAR2	4000
Discharge Port RIC	VARCHAR2	30
Discharge Port PERM_ID	NUMBER	22
Discharge Berth	VARCHAR2	4000
Discharge Berth RIC	VARCHAR2	4000
Discharge Berth PERM_ID	VARCHAR2	4000
Arrival Date	DATE	21
Product	VARCHAR2	60
Grade	VARCHAR2	100
Volume	NUMBER	22
Unit	VARCHAR2	300

Column header	Sample value	Description
Barrels	NUMBER	22
Load Date From	DATE	21
Arrival Date To	DATE	21
Buyer/Receiver	VARCHAR2	1000
Issuer	VARCHAR2	1000
Sender	VARCHAR2	4000
Awardee	VARCHAR2	1000
Consignee	VARCHAR2	4000
Charterer	VARCHAR2	1000
Buy/Sell	VARCHAR2	1
Price	VARCHAR2	128
Price Basis	VARCHAR2	10
Freight	NUMBER	22
Freight Unit	VARCHAR2	300
Benchmark	VARCHAR2	30
Closing Date	DATE	21
Validity Date	DATE	21
Contract Basis	VARCHAR2	4000
Terms	VARCHAR2	4000
Import/Export	VARCHAR2	4000
Status	VARCHAR2	4000
Source Grade	VARCHAR2	4000
Country of Origin	VARCHAR2	240
Last Updated	DATE	21