



JANUARY 29-30 • TAMPA FL

SHIFTING TRADE

Technology Deep Dive
Robert Inchausti



TEDIVOLLC

BAPLIE Viewer Online



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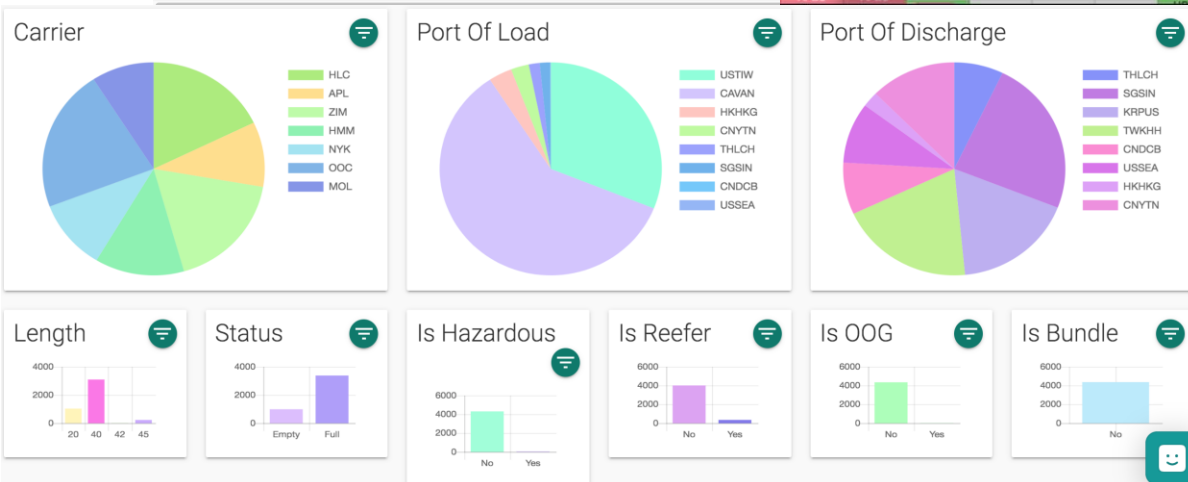
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SWISS ARMY KNIFE FOR BAPLIE FILES

- Columnar Views
- Search, filter by
- Filter by, Color By
- Summaries, counts
- Pivot Tables

Equipment Nbr	Position	Length	Height	ISO Code	Carrier	Bay
MEDU284841	0010372	20ft	8ft 6in	2210	MSC	001
MEDU1436516	0010374	20ft	8ft 6in	2210	MSC	001
MSCU3687290	0010472	20ft	8ft 6in	2210	MSC	001
MEDU2662626	0010474	20ft	8ft 6in	2210	MSC	001
CAIU8882463	0020008	40ft	9ft 6in	4510	MSC	002
INKU6597153	0020010	40ft	9ft 6in	4510	MSC	002
MEDU9842630	0020012	40ft	9ft 6in	4510	MSC	002
MSCU7759762	0020014	40ft	9ft 6in	4510	MSC	002
FCIU8474958	0020016	40ft	9ft 6in	4510	MSC	002
CICU5216895	0020072	40ft	4ft 3in	4960	MAE	002
CICU5216914	0020074	40ft	4ft 3in	4960	MAE	002
CICU5216935	0020076	40ft	4ft 3in	4960	MAE	002
CICU5216956	0020078	40ft	4ft 3in	4960	MAE	002
CICU5217973	0020080	40ft	4ft 3in	4960	MAE	002
CICU5217994	0020082	40ft	4ft 3in	4960	MAE	002
CICU5217377	0020084	40ft	4ft 3in	4960	MAE	002
CICU5217398	0020086	40ft	4ft 3in	4960	MAE	002

Status	Carrier	Port of Discharge	CNDCB	CNYTN	HKHKG	KRPUS	SGSIN	THLCH	TWKHH	USSEA	Totals
Empty	APL						8				8
	HLC		148	10							150
	HMM			111		1		55			167
	MOL						25	43	30	35	133
	NYK			98							98
	OOO			208		1			2	30	299
Full	ZIM		25	27		68				10	130
	APL					42	33	14	64	160	422
	HLC		23	1	16	166	137	69	115	1	628
	HMM			31	51	86	95	9	71	57	400
	MOL				6	82	81	26	37	31	263
	NYK			10		1	74	148	31	102	366
OOO			32			45	247	37	278	648	
ZIM			113	1	27	199	162	26	120	648	
Totals			343	545	102	763	1,038	312	855	401	4,357





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SWISS ARMY KNIFE FOR BAPLIE FILES

- Anomalies highlighted and fix format or content errors
- Compare Multiple files, merge multiple files
- Add/edit/delete boxes
- Import Excel, flat files
- APIs for integration

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Sender: TEDIVO Vessel ID: BVD12 Vessel: DEMO SHIP Voyage: BVD123W Message Function: 22

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2 Addition(s) - Containers added to 2nd file

0010482	Empty slot	ID: MYF000001	ISO: 2208	Status: Empty	Line Operator: OOL
0010484	Empty slot	ID: MYF000002	ISO: 2208	Status: Empty	Line Operator: OOL

2 Deletion(s) - Containers removed from 2nd file

ID: BVD0725960	ISO: 4500	Status: Full	Line Operator: MSC	Empty slot
ID: BVD0509190	ISO: 4500	Status: Full	Line Operator: MSC	Empty slot

1 Change(s) - Position has differences in data

ID: BVD0482343	ISO: 2205	Status: Full	Line Operator: MSC	ID: BVD0467193	ISO: 2275	Status: Full	Line Operator: OOL
Weight: 18.8 MT	VGM Weight:	POL: BSSN	POD: LIBBY	Weight: .MT	VGM Weight: 20	POL: BSLN	POD: USLAX
Equipment Status:	Is Hazardous: NO	Is Releaser: NO	Is OOG: NO	Equipment Status:	Is Hazardous: NO	Is Releaser: NO	Is OOG: NO

BAPLIE Viewer Online

DEMO SHIP Anomalies Tables

Attribute	Count	Info	Edit
Equipment ID	1		
ISO Code	9		
Weight	52		

Positions with Multiple Equipment

Bay	Row	Tier	Full Position	Equipment IDs
001	04	18	0010416	CAU2089143 BMDU2862216

Possible Floating Containers

Position	Equipment ID	Explanation	Open in 2D
0020214	DHYU233168	No Container in previous 20R bay below	View Bay
0050312	HDML6459353	No Container in previous 20R bay below	View Bay
0050514	DFEUR718029	No Container in previous 20R bay below	View Bay
0050716	PSCUR11604	No Container in previous 20R bay below	View Bay
0050818	APHU200017	No Container in previous 20R bay below	View Bay
0140808	TCLUS283017	No Container in previous 20R bay below	View Bay
0141114	ZCBL2820021	No Container in previous 20R bay below	View Bay
0141214	ZCBL2820023	No Container in previous 20R bay below	View Bay

Merge BAPLIES

Instructions for merging BAPLIE files

When you select a file from the dropdown, all container data from this file will be added into the primary file already selected. This will keep the header and footer information from the primary BAPLIE file, and just add the containers from the secondary BAPLIE file.

Replace data if container exists in current file No Yes

Move container already occupying a position to 9999999 No Yes

Select a File to Merge

Select a BAPLIE to Merge with this one...

Merge Files



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SWISS ARMY KNIFE FOR BAPLIE FILES

- Basic Operations
 - Discharge
 - Load (Full, MTY)
 - Create Cntrs
 - Generic MTYs
 - Restows
- Printing Sequence Plans

Create a new container (extended details)

Equipment ID	Position Format	Location
ISO Code	Equipment Type	Location Type
Status	Carrier	Port of Load
Empty		Port of Discharge
Weights		
Weight	VOM Weight?	Weight Unit
	NO	Kilogram
Dimensions		
Temperature	Temperature Qualifier	
Temperature For	Temperature Qualifier	
Range Minimum	Range Maximum	
References		
Reference Code	Reference Number	
Attached Equipment		
Free Text		



The World We Live In

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6145 active ships

Ship Operators

- Top 5, 65.1% of TEU Capacity
- Top 10 -> 83.2%

10,000 port calls/week

- ~ 2 calls/week/ship
- Avg Port Stay of 28 hours
- Avg Call Sizes ~2500 TEU

EDI Primary mode of communication

- Bookings, BLs, Releases, etc.
- BAPLIEs (Min of 4 per Call), plus supporting EDI
- ~ 2,000,000 – 20,000,000 BAPLIEs/ year



Sources – Alphaliner 100, World Shipping Council, JOC



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Container Supply Chain Dynamics

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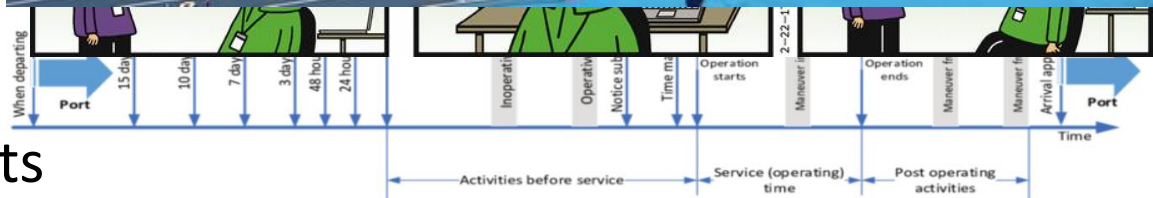
Relay Race

- Complete visibility
- Limited participants
- Highly coordinated



Container Supply Chain

- Limited visibility
- Unlimited participants
- Coordination and reach limited by legacy systems and technologies





Enabling Technologies – The Cloud

Benefits

- Availability, Visibility, Resiliency, Security
- Internal collaboration and integration
- Partner and customer integration
- Enabling Technology - Easy to adopt additional services



Challenges & Opportunities

- Transitioning to the cloud
- Participating in industry platforms
 - Who owns the data?
 - Who makes money?
 - Am I at a competitive disadvantage?



Google Cloud



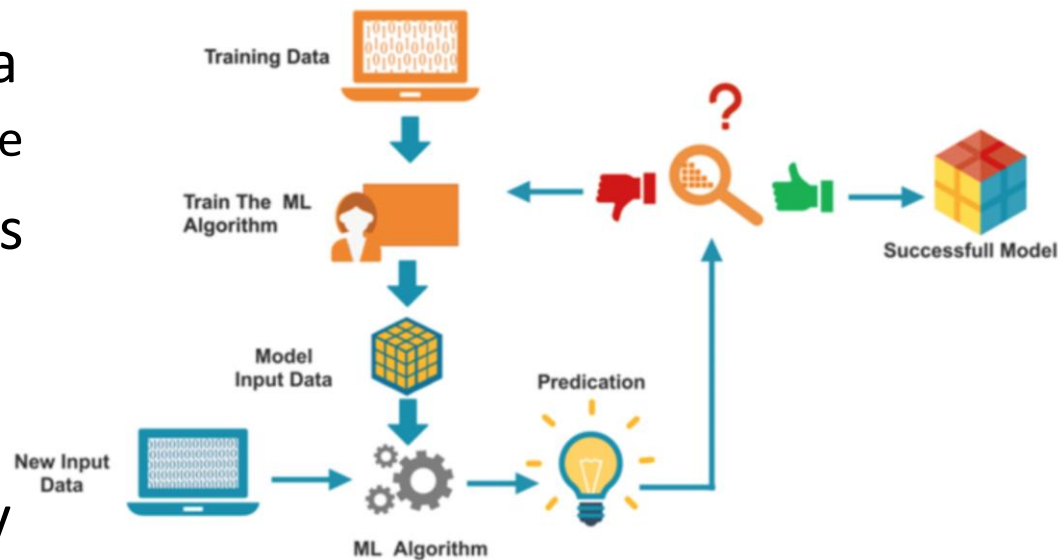
Enabling Technologies – ML/AI

Key Requirements

- Large amounts of data
 - Patterns and inference
- Model and Predictions
- Continuous Learning

Unlimited Areas of Study

- Port traffic & flow
- Yard Planning, Gate Flows and Appointments
- Optimal Berth Strategies
- Terminal and Port congestion mitigation, etc.
- Vessel network changes and deployments



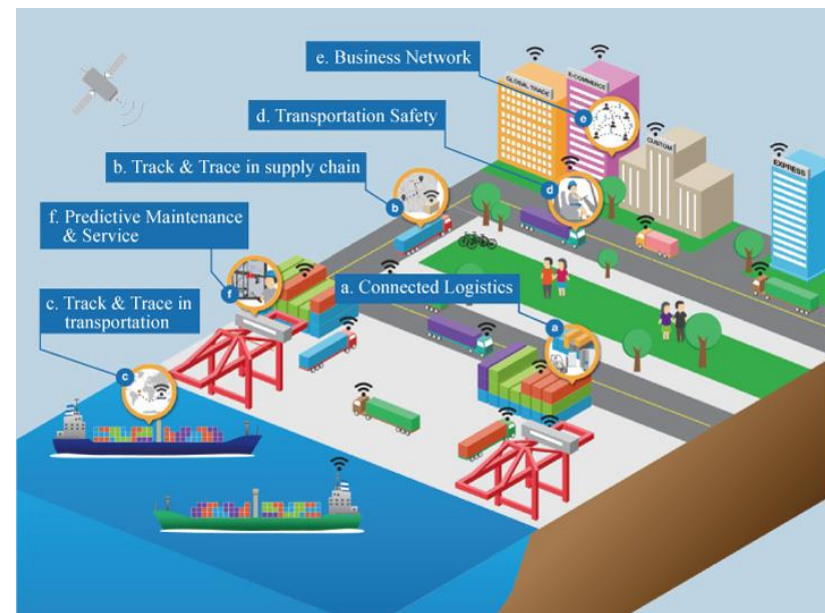
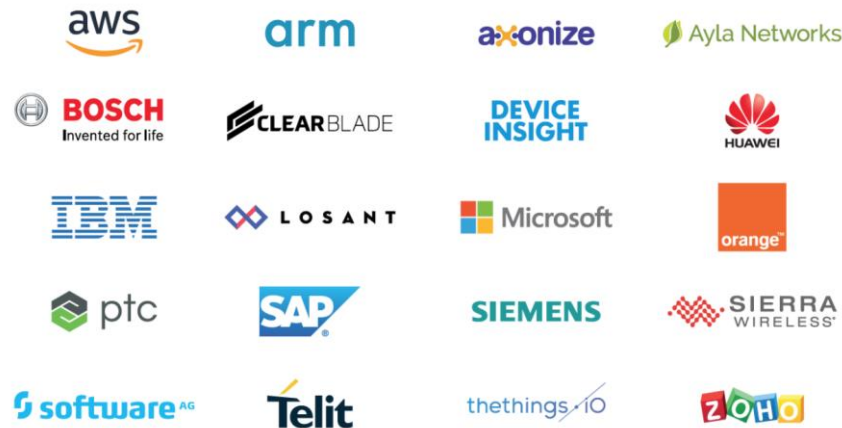


Enabling Technologies – IOT

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Ship Operators, Ports & Terminals perfect candidates for IOT Deployments

- Asset based
 - Ships
 - Cranes, RTGs, Trucks, VMTs
 - Gate Systems
 - OCR, PDS, GPS, Cameras
 - Berth based sensors
- High volume of transactions
- Limited geographic areas
- Controlled ingress/egress





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Thank You



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