58th SMDG Meeting in London

TERMINAL PERFORMANCE REPORTING

TPFREP Message new version 4.0

Michael Schröder   19 October 2011

Information in the TPFREP

Volume per crane

Volume per Container Operators

Vessel Operator

TPFREP - EDIFACT SMDG Message

► **The TPFREP Terminal Performance Reporting message 3.0 was developed by SMDG several years ago based on D.00B directory.**

► **It is sent from the Terminal to each Container Operator after vessel departure from a port.**

► **Purpose is to transmit terminal productivity data and equipment movement summary, related to the complete vessel.**

► **The message contains following information items:**
- **Vessel timesheet**
- **Crane timesheets**
- **Delays and delay reasons**
- **Number of boxes load / discharge / restow
  broken down by Container operator, full/MT, 20'/40'**
- **Number of hatch cover moves**

► **Based on this information the gross / net productivity by vessel and by crane can be calculated.**

Benefits for the Terminal

► Provide only one standard message to all container operators, versus many individual formats as before.

► To create and send the message electronically saves time and money compared to creating individual reports manually and sending by email.

►For contract negotiations, both partners have the same data source available.

Benefits for the Shipping Line

►All TDR in a central database allows structured analyses, eg. time series, graphics

►Consistency, easy to compare different terminals.

►Easy retrieval for all parties

►Timeliness

►Accuracy

TPFREP Implementation at Hapag-Lloyd

➢ Need for standardized TPFREP increased after the Grand Alliance ceased to provide standardised reporting.

➢ TPFREP production rollout was August 2008

➢ Two reporting channels are offered to the terminals:
  ➢ Preferred option: Send EDIFACT message TPFREP.
  ➢ Alternative: Send standardized Excel template, developed by Hapag-Lloyd, with the same data content as the TPFREP.

➢ As per October 2011, there are
  57 terminals reporting the TPFREP 3.0 message, *plus*
  146 terminals reporting the Excel template - we keep pushing these towards EDI.

Issues encountered

► Hapag has been the first shipping line that implements this message world wide (before only used by Contship and P&O)

- programming effort for each terminal.
- some implementation details needed clarification (eg. restows).
- SMDG Master Liner Codes were not widely used before, needed convincing and adjustment .

► The Excel template causes more handling errors than the EDI message.

► The SMDG version 3.0 includes segment group /segments with new code/qualifiers in addition to the official UN/EDIFACT directory.

Some users were hesitating to implement version 3.0, which was not officially authorised by UN/CEFACT.

Therefore ➔

New TPFREP 4.0 version

► The SMDG meeting in Oct.2010 nominated a <u>TPFREP sub-group</u> with the task to develop a new message structure and obtain official UN/CEFACT approval.
Sub-group members are Hapag-Lloyd, ECT, HHLA, MSC Brazil and Yoshio Kito.

► **The TPFREP sub-group had submitted a proposal for the new message structure.**
  ● The TBG3 interim meeting in Paris on 23 Feb 2011 approved the proposal
  ● The European TAG (Technical Assessment Group) approved the proposal in March 2011
  ● The UN/CEFACT Global Experts Meeting in Washington approved the proposal in April 2011

► **The SMDG meeting in May 2011 requested an additional structure change on the EQD/crane part. The sub-group then developed an amended message structure.**
  ● The TBG3 meeting in Berlin approved the amended proposal in June 2011
  ● The Technical Assessment Group as a sub-group of the UN/CEFACT Forum finally approved the amended proposal in Geneva in September 2011 with a slight change.

Why this additional Change… →

Reporting requirements - Crane timesheet and volumes

Example:

	06 h	08 h	10 h	12 h	14 h	16 h	18 h	20 h	22 h
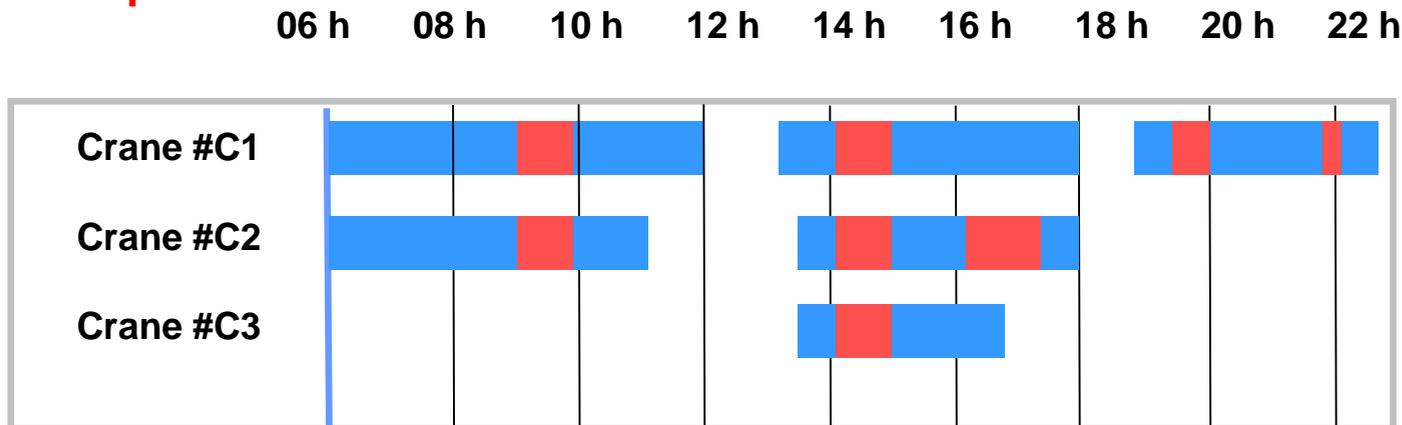
Crane #C1   *Crane #1 worked 3 shifts*

Crane #C2   *Crane #2 worked 2 shifts*

Crane #C3   *Crane #3 worked 1 shift*

Legend: = Working Shift   = Stoppage

Requirements for each crane:

• *For each working shift: start time and end time (= first and last lift). Example Crane #1 first shift from 06.00 to 12.00 and second shift from 13.00 to 18.00*

• *For each stoppage: Duration in hours+minutes and reason for the stoppage e.g. 30 minures due to bad weather or technical failure etc.*

• *Volume (=number of lifts) in each shift e.g. Crane #1 in first shift 120 lifts, Crane #1 in second shift 110 lifts etc.*

SG2 – old version before SMDG meeting May 2011

Identify new shift entry by EQD+GC record.
Multiple EQD+GC for one crane possible.
Under each EQD+GC has to be one DTM+791 and DTM+792 pair (first and last crane lift).
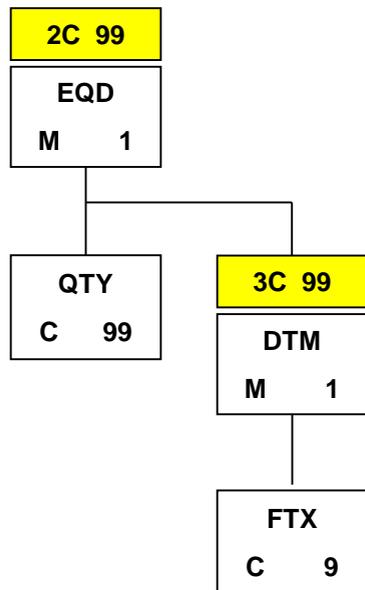
EQD+GC+C1   **Crane 1 first shift**
QTY+491:10'   **volumes**
QTY+492:15'
QTY+497:18'
DTM+791:201108250600:203   **start=first lift**
DTM+792:201108251200:203   **end = last lift**
DTM+468:0030:401'   **stoppage duration**
FTX+ACD++WEA::306+BAD WEATHER'   **stopage reason**
DTM+468:0020:401'
FTX+ACD++HLD::306+HATCH LIDS HANDLING'
EQD+GC+C1   **Crane 1 second shift**
QTY+491:20'   **volumes**
QTY+492:25'
QTY+497:28'
DTM+791:201108251300:203   **start=first lift**
DTM+792:201108251900:203   **end = last lift**
DTM+468:0035:401'   **stoppage duration**
FTX+ACD++HLD::306+HATCH LIDS HANDLING' **stopage reason**
EQD+GC+C2   **Crane 2 first shift**
QTY+491:110'
QTY+492:115'
QTY+497:118'
DTM+791:201108250600:203
DTM+792:201108251200:203
DTM+468:0030:401'
FTX+ACD++WEA::306+BAD WEATHER'
DTM+468:0025:401'
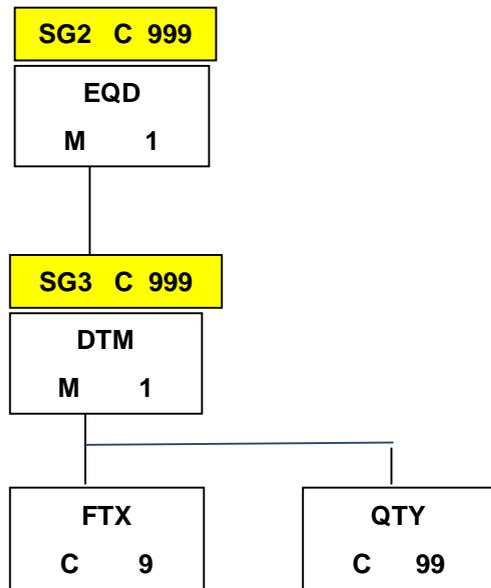FTX+ACD++HLD::306+HATCH LIDS HANDLING'

2C 99

EQD
M   1

QTY
C   99

3C 99

DTM
M   1

FTX
C   9

SG2 – new version after SMDG meeting May 2011

Only one EQD+GC per crane.
Identify new shift entry by DTM+78 record.
DTM+78 denotes the start of a new shift.
The following DTMs (e.g. DTM+468) denote stoppages within that shift.

SG2 - EQD – SG3 - QTY

| SG2 C 999 |
| EQD M 1 |

| SG3 C 999 |
| DTM M 1 |

| FTX C 9 | QTY C 99 |

EDQ+GC＋C1'	Standard gantry crane No.1
DTM+78:201105110830-201105111230:719'	Event date/time/period,actual (Crane#1 First shift)
QTY+491:45'	Number of container moves, load and discharge
QTY+492:30	Number of container moves to be shifted
QTY+497:10'	Number of container, discharge for restow
QTY+499:5'	Number of hatch cover moves
QTY+500:85'	Total number of eqpm.moves, load and discharge In first shift
DTM:468:0030:401'	Non working time 30 minutes
FTX+ACD++LOT::306+LABOR REST PERIOD'	Reason for non working time = labor other
DTM:468:0130:401'	Non working time 1 hour 30 minutes
FTX+ACD++WEA::306+BAD WEATHER'	Reason for non working time = bad weather
DTM+78:201105111300-201105111830:719'	Event date/time/period, actual (Crane#1 2nd shift)
QTY+491:60'	Number of container moves, load and discharge
QTY+492:50'	Number of container moves to be shift
QTY+497:10'	Number of container, discharge for restow
QTY+500:120'	Total number of eqpm.moves, load and discharge In second shift
EDQ+GC+C2'	Standard gantry crane No.2
DTM++78:201105110845-201105111900:719	Event date/time/period, actual (First shift)
QTY+491:100'	Number of container moves, load and discharge
QTY+492:20'	Number of container moves to be shift
QTY+497:130'	Number of container, discharge for restow
QTY+499:8'	Number of hatch cover moves
QTY+500:258'	Total number of eqpm.moves, load and discharge In first shift
DTM:468:0210:401'	Non working time 2 hours 10 minutes
FTX+ACD++WEA::306+GALE'	Reason for non working time = bad weather

Level						
0	UNH M 1	BGM M 1	DTM C 1			UNT M 1
1			FTX C 9	1M 1 / TDT M 1	SG2 C 999 / EQD M 1	4C 99 / NAD M 1
2				LOC M 1 — DTM C 9 — RFF C 9	QTY C 99 (not used) — SG3 C 999 / DTM M 1	5C 999 / EQD M 1
3					FTX C 9 — QTY C 99	6C 99 / QTY M 1
4						FTX C 9

SG1
Vessel
Timesheet

SG2
Crane Timesheet
and no. of
container moves
per crane

SG4
No . of moves
per container
operator

11

New TPFREP 4.0 version

► **Next Steps**

- Await publishing of the official UN/CEFACT codes and new message structure with the new directory D.11B end of this year.

- The TPFREP Sub-Group of the SMDG created and agreed on the new MIG (Message Implementation Guideline) showing the new structure and codes. Many thanks to Yoshi for his support !

- The TPFREP Sub-Group is now asking the SMDG for approval.

- The MIG is ready to be published on the SMDG website as a trial version after the SMDG approval.

- Then the EDI partners can start to implement the TPFREP 4.0 message.

Hapag-Lloyd

Terminal Productivity (OP0011)

Technical Name: _op0011_r_terminal_productivity

Selected Filters:
Terminal Locationcode: HKHKG, HONG KONG
Terminal Matchcode: MODERN061
Operative SSY: EUC / Europe - Asia Loop C
Sailing Date: Year Month from Jul 2011   to Sep 2011

Sorted By Column Berthed

COMPASS
Data from Oct 6, 2011 16:05 UTC

Terminal Productivity (OP0011)

Hapag-Lloyd
Created on October 7, 2011

Vessel Code	Voyage Number	Berthed	Late / Early (hrs)	Sailed	Avg Cranes per hour	Berthed Hours	Crane Gross Moves per hour	Gross Working Time	Hatch Cover Moves	Net Working Time	Restow Moves	Total Container Moves	Total Moves	Vessel Gross Moves per hour
OLB	62W25	2011-07-01 12:10	65.2	2011-07-02 00:18	3.9	12.1	27.9	36.7	40	34.8	0	984	1,024	84.4
BRX	20E22	2011-07-03 14:00	10.0	2011-07-03 23:42	3.1	9.7	25.0	24.8	20	23.7	0	599	619	63.8
OLU	07W26	2011-07-07 07:38	36.6	2011-07-07 20:14	3.9	12.6	28.5	40.6	64	37.8	18	1,093	1,157	91.8
OHB	65E23	2011-07-10 12:40	8.7	2011-07-10 22:35	2.9	9.9	29.0	26.8	40	24.9	15	736	776	78.3
BRX	20W27	2011-07-14 03:25	32.4	2011-07-14 16:06	3.8	12.7	29.9	38.4	64	35.5	10	1,084	1,148	90.5
OSN	24E24	2011-07-17 11:56	7.9	2011-07-17 22:05	2.9	10.2	28.2	25.7	32	24.1	113	693	725	71.4
OHB	65W28	2011-07-20 08:25	13.4	2011-07-20 19:36	3.6	11.2	30.6	32.4	44	30.1	0	947	991	88.6
OWA	09E25	2011-07-24 04:15	0.3	2011-07-24 12:42	2.4	8.5	8.5	75.6	44	73.5	0	595	639	75.6
OSN	24W29	2011-07-27 07:31	12.5	2011-07-27 19:07	3.8	11.6	27.5	31.1	52	28.7	0	803	855	73.7
OSL	09E26	2011-07-31 03:20	-0.7	2011-07-31 13:15	3.9	9.9	29.2	33.4	80	30.0	42	894	974	98.2
OWA	09W30	2011-08-02 18:10	-0.8	2011-08-03 07:06	3.6	12.9	26.0	41.1	60	38.4	8	1,010	1,070	82.7
ORT	60E27	2011-08-07 07:41	3.7	2011-08-07 18:36	3.3	10.9	29.7	23.5	68	20.7	0	630	698	63.9
OSL	09W31	2011-08-09 17:59	-1.0	2011-08-10 07:07	3.4	13.1	26.2	39.4	60	36.9	2	974	1,034	78.7

Graphics make the analysis very easy to pin point changes and target action.
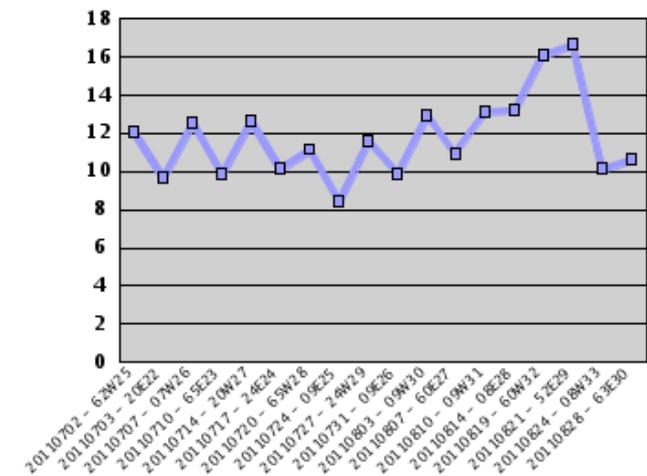**In the previous format this was not possible.**
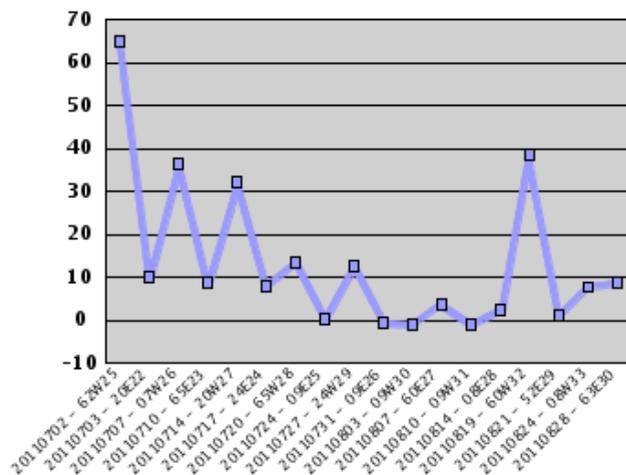

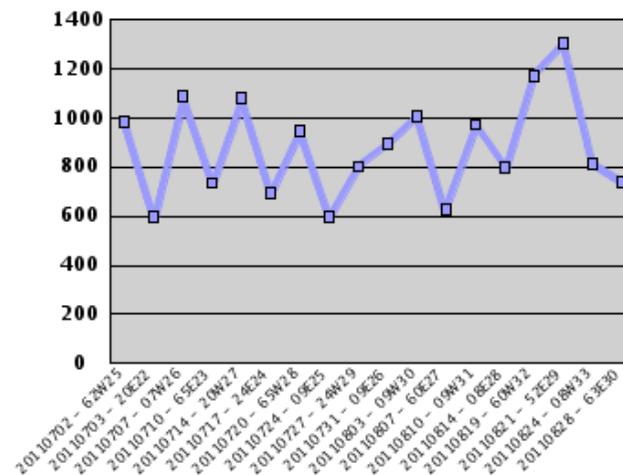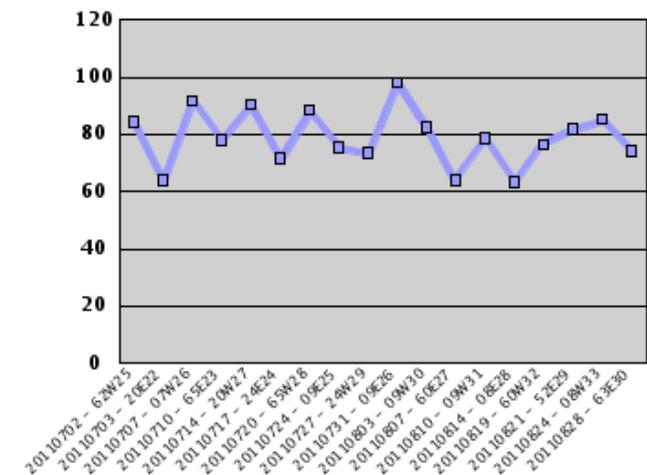Avg Cranes per hour
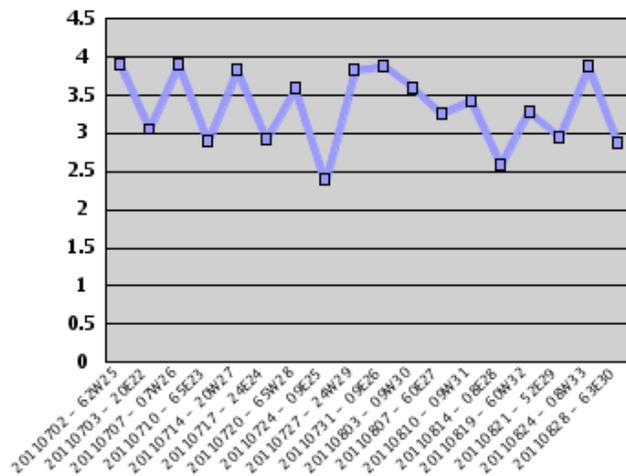
Crane Gross Moves per hour
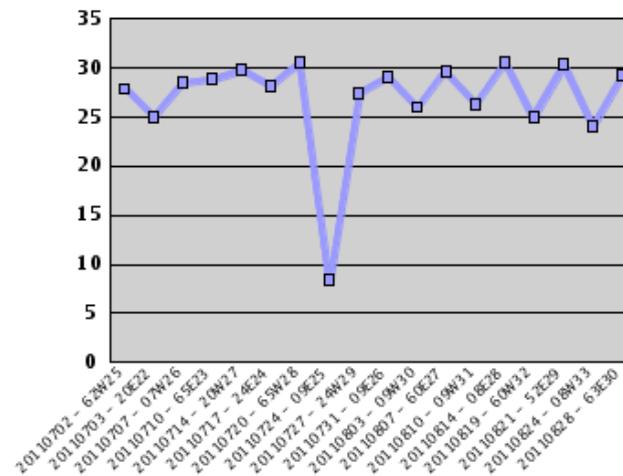
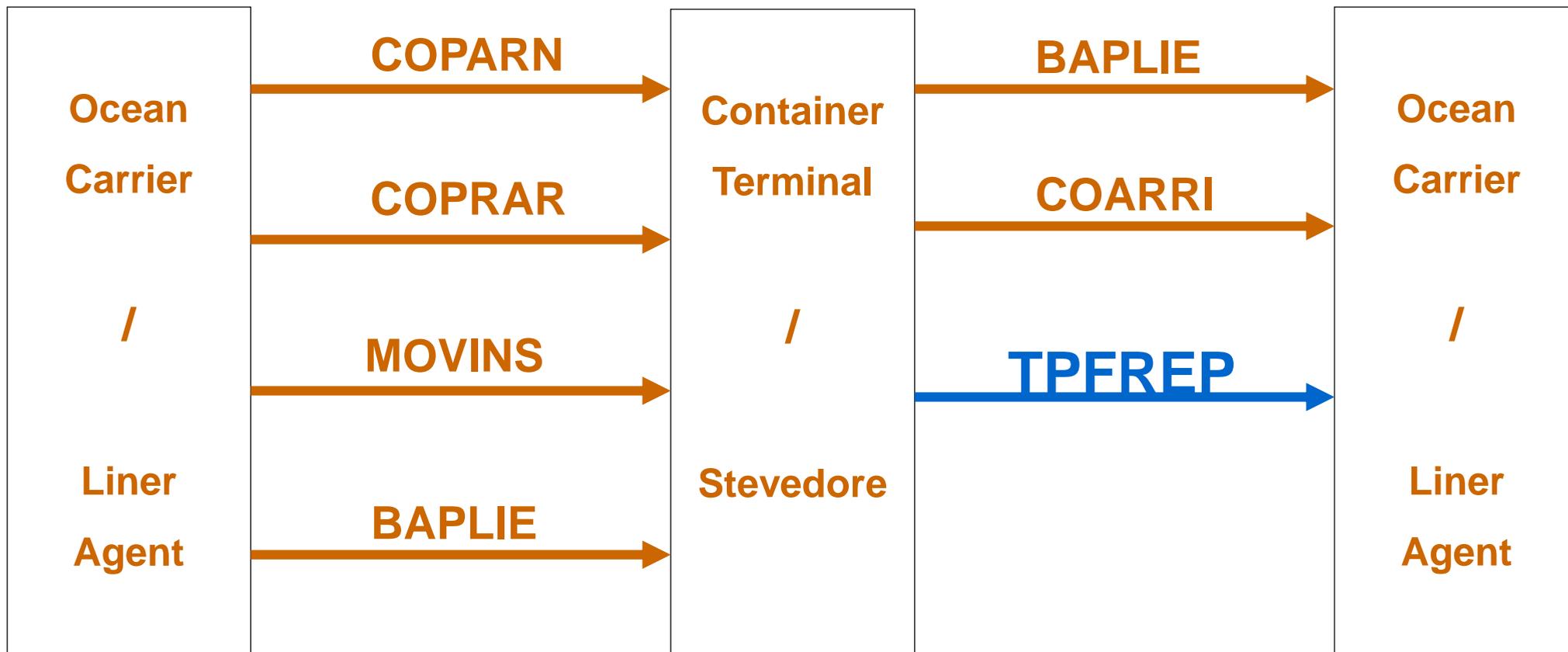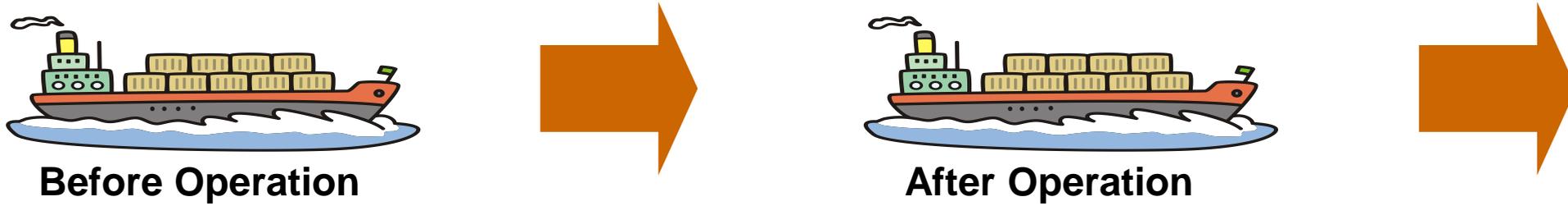Berthed Hours

Late / Early (hrs)

Total Container Moves

Vessel Gross Moves per hour

Multiple Terminals / 3 months summary

Terminal Volume Summary (OP0012)

Sailing Date: Month from Jul 2011 to Sep 2011

Terminal Subregion: AAN / OCEANIA

Terminal Area Code	Terminal Location Code	Ship System Group Code	Discharged Total	Loaded Total	Restow Discharge and Reload	Container Moves	Total TEU	Hatch Cover Moves	Total Moves
AANAU	AUADL	EOG	5.898	5.889	167	11.954	15.004	0	11.954
		IRO	3.527	3.419	54	7.000	9.316	0	7.000
		ONG	2.859	3.051	7	5.917	8.225	0	5.917
	AUBNE	IRO	16.392	20.541	492	37.425	59.430	1.060	38.485
		IRS	11.781	7.888	123	19.792	28.493	412	20.204
	AUFRE	EOG	1.286	1.134	136	2.556	3.614	71	2.627
		IRA	417	541	0	958	1.395	19	977
		IRO	2.451	2.678	61	5.190	7.936	104	5.294
	AUMEL	EOG	9.318	9.938	289	19.545	30.346	800	20.345
		IRO	43.043	40.592	421	84.067	127.443	2.268	86.335
		ONG	16.515	12.597	74	29.186	44.620	909	30.095
	AUSYD	EOG	7.186	5.994	256	13.436	18.693	408	13.844
		IRA	782	751	52	1.585	2.480	36	1.621
		IRO	33.850	34.792	692	69.340	107.916	1.689	71.029
		IRS	5.216	3.962	20	9.198	12.174	180	9.378
		ONG	14.915	13.082	504	28.501	44.236	678	29.179
AANNZ	NZAKL	IRA	1.936	3.041	4	4.981	7.229	0	4.981
		IRS	39.764	21.196	504	61.464	86.554	1.495	62.959
		ONG	15.608	18.080	249	33.937	48.702	863	34.800
	NZNPE	IRS	5.947	6.435	97	12.479	17.894	588	13.067
		ONG	2.186	2.877	51	5.114	7.542	214	5.328
	NZPOE	IRS	170	366	0	536	790	0	536
		ONG	127	197	0	324	383	0	324
	NZTRG	IRA	2.377	1.240	42	3.659	5.134	54	3.713
		IRS	8.473	20.407	75	28.955	41.450	1.018	29.973
		ONG	14.671	10.654	59	25.384	37.863	846	26.230
	NZWLG	IRS	219	179	104	502	732	224	726
AANPI	FJSUV	ONG	624	396	0	1.020	1.305	12	1.032
	PFPPT	ONG	1.006	1.315	8	2.329	3.016	56	2.385

SMDG Message Scenario

Hapag-Lloyd

Data interchange between a shipping line & container terminal for vessel operation (example)

Before Operation → **After Operation** →

Ocean Carrier / Liner Agent		Container Terminal / Stevedore		Ocean Carrier / Liner Agent
	COPARN →		BAPLIE →	
	COPRAR →		COARRI →	
	MOVINS →		TPFREP →	
	BAPLIE →			

17

Hapag-Lloyd

Please support the implementation of TPFREP to our all benefit !

Thank you very much