

# NaSS



## Data Analyzer- Preprocessor

Inland Navigation CoP Workshop

September 19 & 20

Louisville, Ky

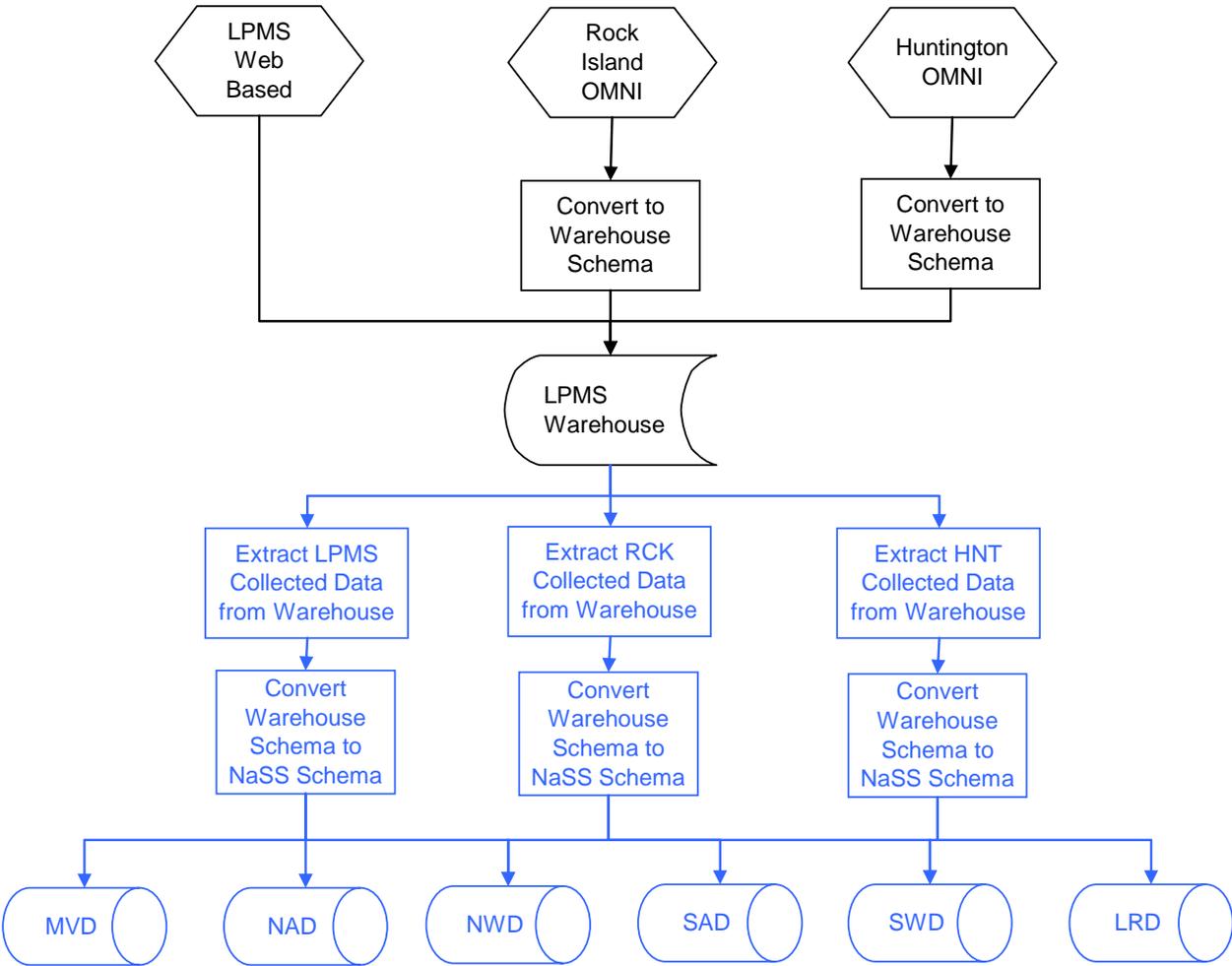
Mark Lisney – USACE

## DAPP

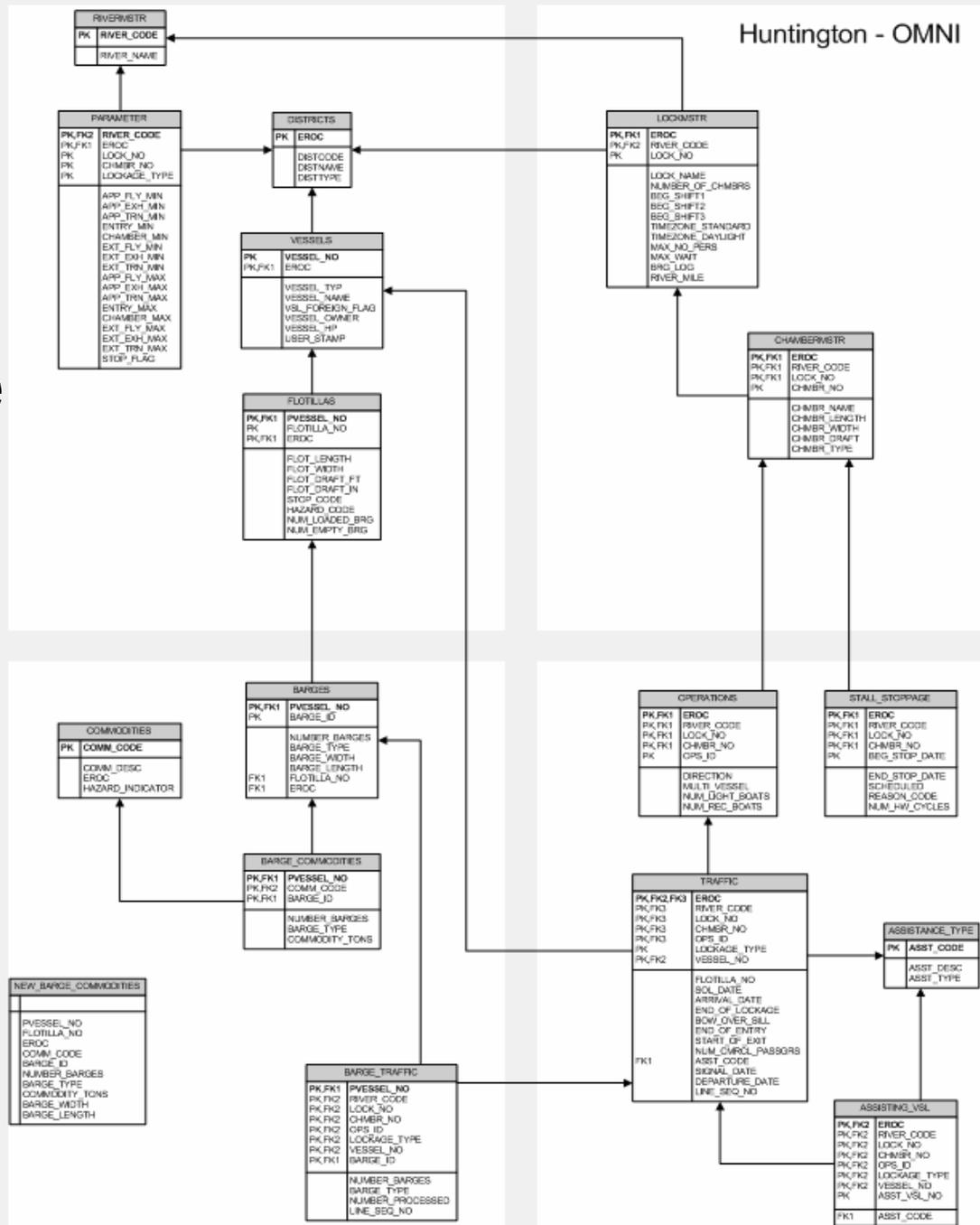
- Data Analyzer-Preprocessor is one component of the Navigation System Simulation Model (NaSS)
- NaSS LPMS database is one component of DAPP
- NaSS LPMS database was developed to facilitate analysis of LPMS warehouse data

# NaSS LPMS Schema Population

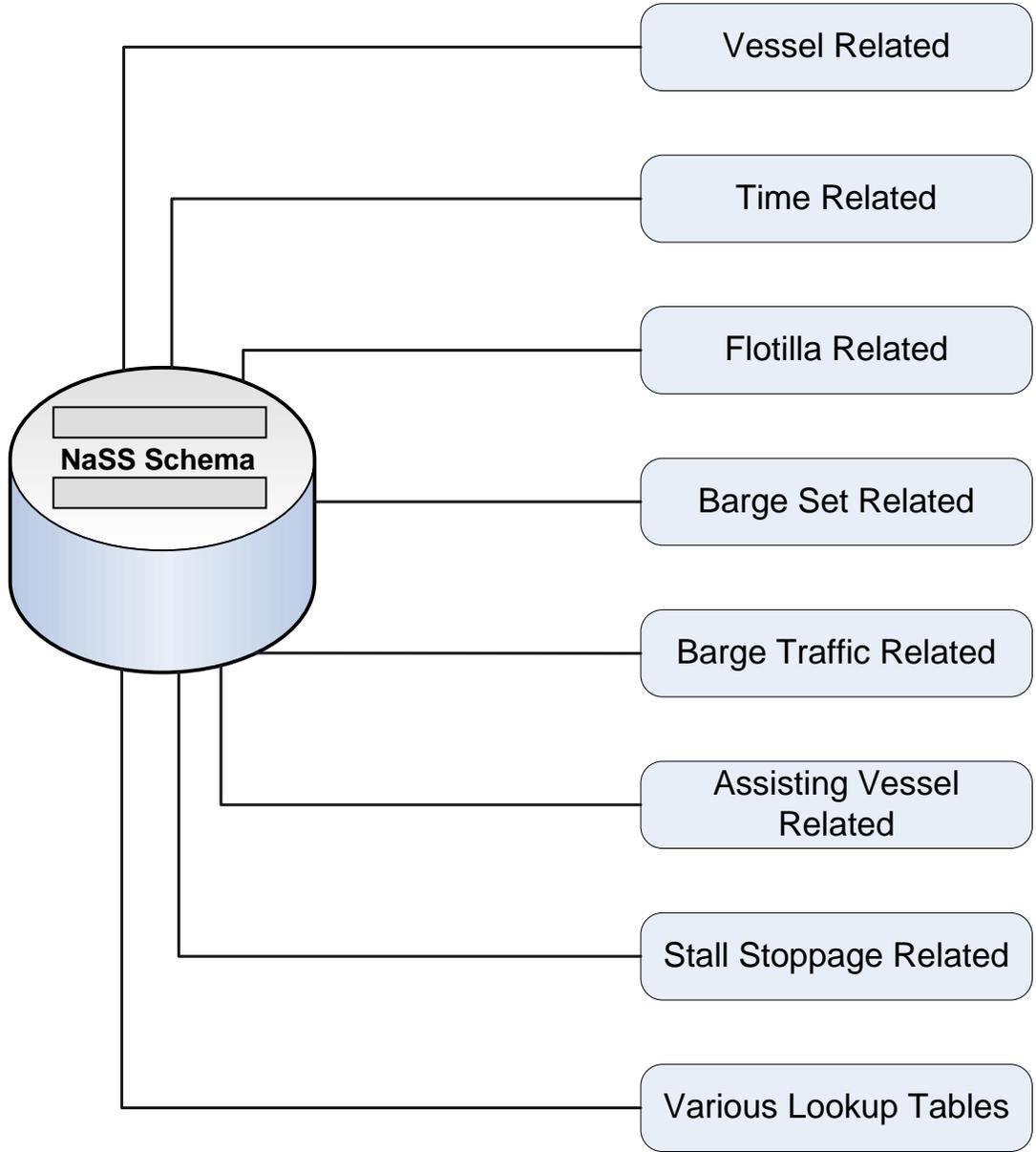
Collection Systems
Convert to Warehouse Schema
LPMS Warehouse
Warehouse Extract
Convert to NaSS Schema
Populate NaSS MS Access Tables



- LPMS Warehouse Entity-Relationship Diagram



# NaSS Schema Table Architecture

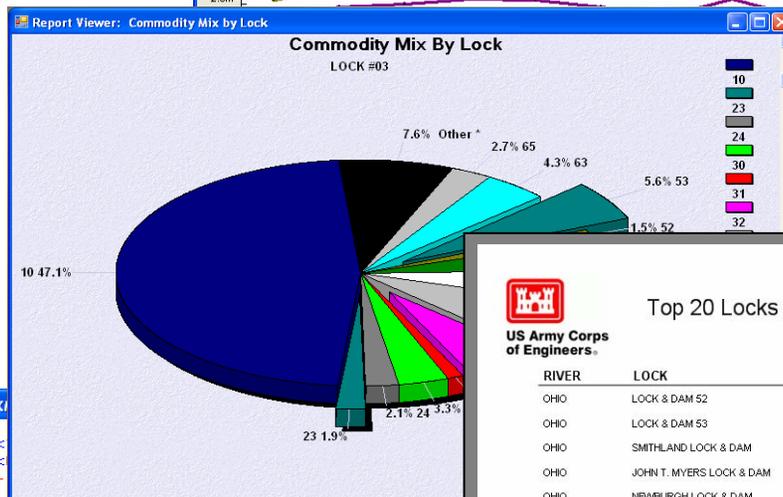
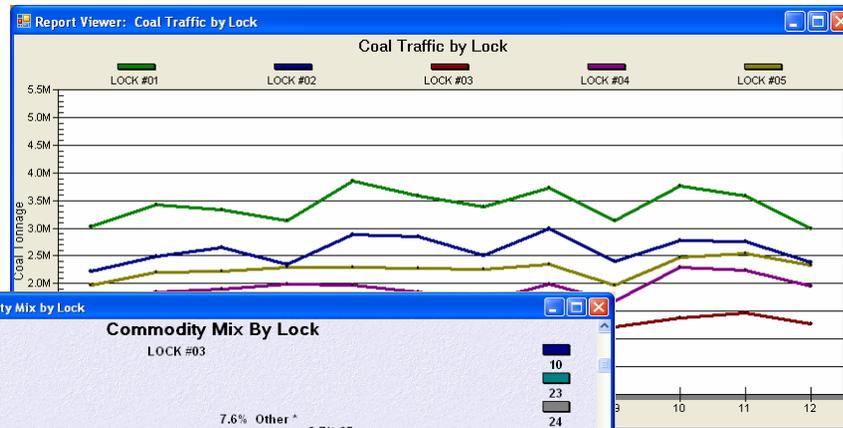


## DAPP – Capabilities

- NaSS Schema Data Import
  - Used to limit working data to a scope relevant to study
- NaSS Schema Data Analysis
  - Generate Basin Model Input Distributions
    - Example: Lock Processing Time Distributions
- INAM Data Generator
- Vessel Movement Generator (in progress)
  - Direct Shipment List Movements
  - Statistically Generated Movements
  - Commodity Demand Driven Movements

# DAPP Outputs

- Graphs
- Charts
- Reports
- Generated Files
  - .XML
  - .XLS
  - .CSV



**US Army Corps of Engineers**

### Top 20 Locks By Tonnage

RIVER	LOCK	TONNAGE
OHIO	LOCK & DAM 52	94935770
OHIO	LOCK & DAM 53	86450353
OHIO	SMITHLAND LOCK & DAM	76972332
OHIO	JOHN T. MYERS LOCK & DAM	67804005
OHIO	NEWBURGH LOCK & DAM	67065797
OHIO	GREENUP LOCKS & DAM	64485060
OHIO	ROBERT C. BYRD	57757639
OHIO	CANNELTON LOCK & DAM	56814918
OHIO	CAPT ANT MELDAHL LOCK & DAM	55257789
OHIO	MCALPINE LOCKS & DAM	52676033
OHIO	RACINE LOCKS & DAM	52284947
OHIO	BELLEVILLE LOCKS & DAM	51372496
OHIO	HANNIBAL LOCKS & DAM	50100457
OHIO	MARKLAND LOCKS & DAM	50036149
OHIO	WILLOW ISLAND LOCKS & DAM	48120688
OHIO	PIKE ISLAND LOCK & DAM	38911432
TENNESSEE	KENTUCKY LOCK	36742618
OHIO	NEW CUMBERLAND LOCK & DAM	31476256
OHIO	MONTGOMERY LOCK & DAM	20245084
OHIO	DASHIELDS LOCK & DAM	19675450

Microsoft Excel - First Review of LPMS Flotilla Report

	A	B	C	D	E
	EROC	River	Lock	Cham	PVessel
2	B2	GI	3	1	5072
3	B2	GI	3	1	6299
4	B2	GI	3	1	5681
5	B2	GI	3	1	5922
6	B2	GI	3	1	5415
7	B2	GI	3	1	6389
8	B2	GI	3	1	6375
9	B2	GI	3	1	6208
10	B2	GI	3	1	10899
11	B2	GI	3	1	6538
12	B2	GI	3	1	5192
13	B2	GI	3	1	5274
14	B2	GI	3	1	10494
15	B2	GI	3	1	5072
16	B2	GI	3	1	5668
17	B2	GI	3	1	5341
18	B2	GI	3	1	6309

```

<VesselID>1021923</VesselID>
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<Commodity />
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</HistoricMovements>
<HistoricMovements>
<HistMoveID>2</HistMoveID>
    
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## Next Steps

- The extraction, conversion, and population process must undergo Independent Technical Review and Certification
- An installable user friendly application must be finalized
- Additional “canned” analysis and pre-processing routines must be developed
- New data needs to be added periodically and a process for sharing “user’s findings” needs to be developed

## DVDs

- Thoughts document which lead to NaSS LPMS schema design
- Documentation of the Warehouse to NaSS conversion process
- NaSS Schema documentation
- Actual databases organized by Division
  - 1/1/2000 through 7/13/2007

# Questions/Comments

# NaSS



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