

# *SAM Database Usage*

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CD/REX DØ

DØ DB Taking Stock Meeting  
July 10, 2006

Very smooth DB operations thanks to DB group!

## Quick SAM Status

- Complete the DØ v5 to v7 migration.
- Complete the CDF installation.
- Add SRM support.
- Improve testing & monitoring.
- Improve stability and ease of use.

# Changes to Schema

- No major changes to schema envisioned in 2006-2007.
- New tables for v7 Request system
  - New database tables
    - `work_requests`
    - `work_request_handlers`
    - `work_request_handler_statuses`
    - `work_request_status_histories`
    - `work_request_types`
  - Migration will occur over time – will need both old and new systems.
  - Should be completed by fall.

# Scope of the system

As of July 7, 2006

# of files	10,626,703	data_files
# of datasets	363,570	project_definitions
# of snapshots	433,945	project_snapshots
# of projects	564,608	analysis_projects
# of processes	3,690,413	analysis_processes
# of events	2,392,329,503	events

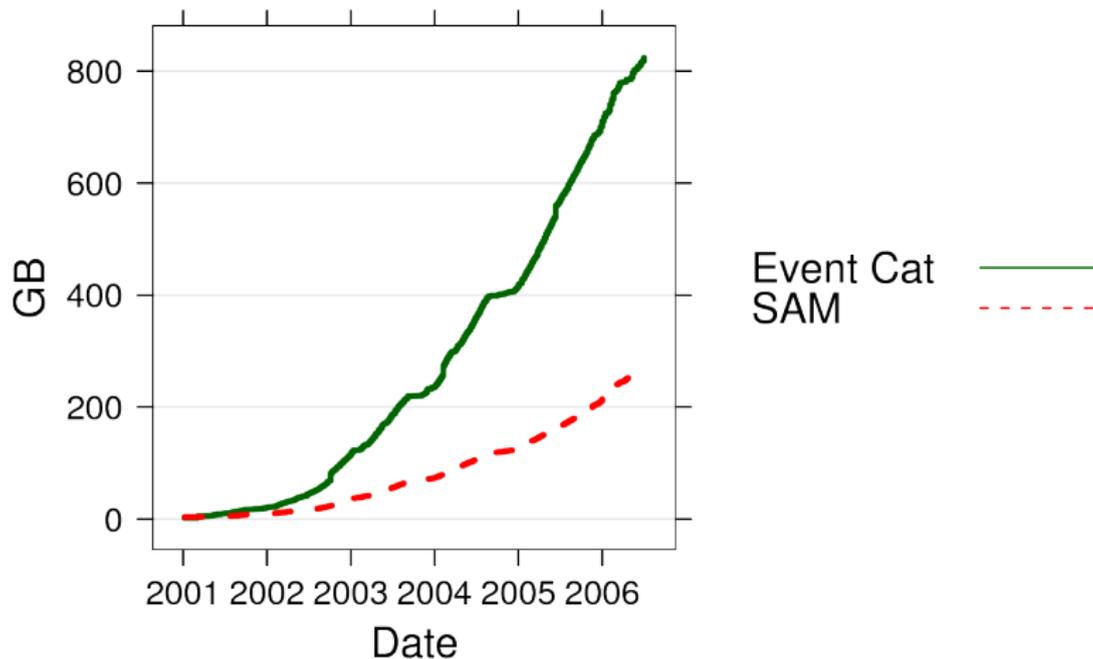
# Current Size

As of July 2, 2006

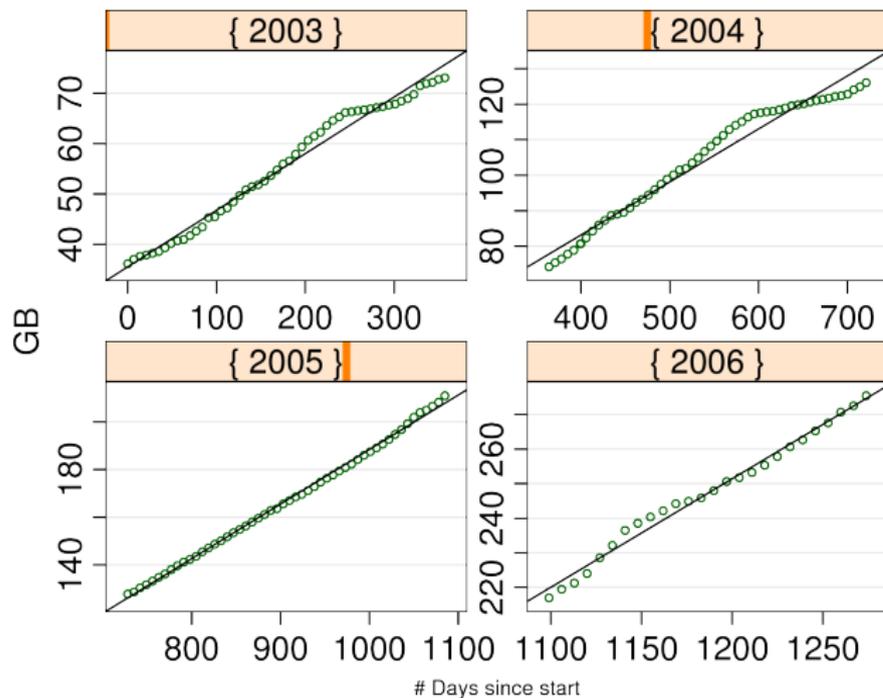
- SAM Data and Event Catalog

	Size (GB)	% indices	Size (GB) 6/1/2005
SAM	282.1	91.2	159.6
Event Cat	843.7	34.9	532.7
Total	1125.7	49.2	692.3

## DB Growth



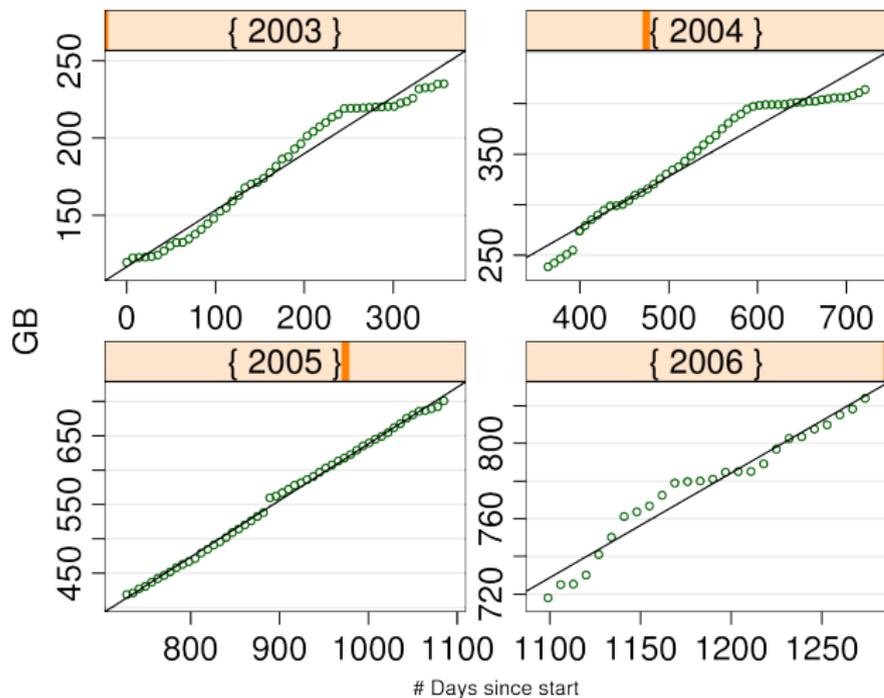
## SAM DB Growth



Year	GB/day
2003	0.11
2004	0.15
2005	0.23
2006	0.31

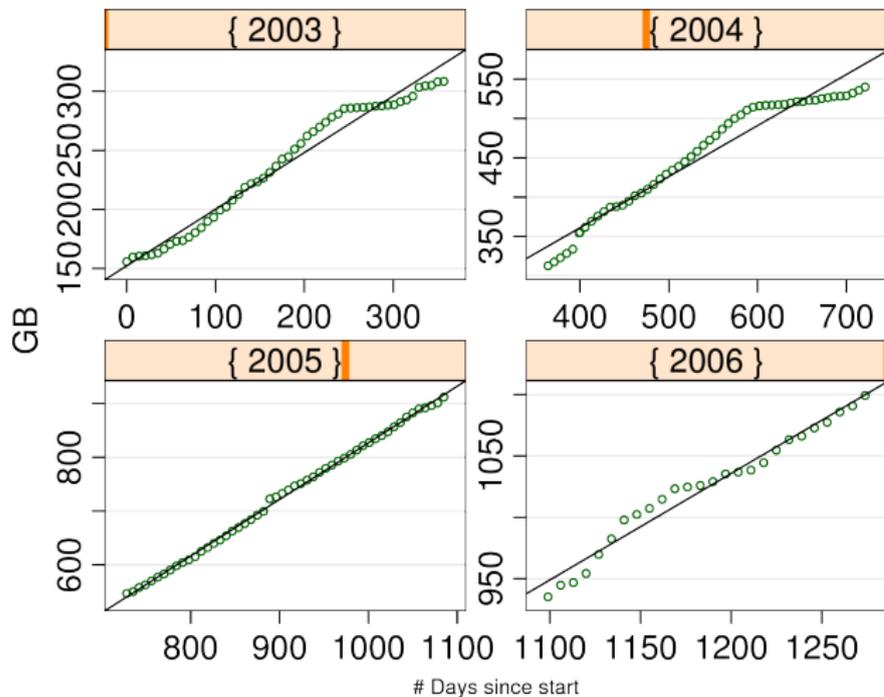
# Event Tables

## Event DB Growth



Year	GB/day
2003	0.37
2004	0.50
2005	0.82
2006	0.56

## Total DB Growth



Year	GB/day
2003	0.48
2004	0.65
2005	1.05
2006	0.87

# Predictions

End of Year	Prediction (GB)	Actual (GB)
2005	881	933
2006	1350	
2007	1900	
2008	2300	