



The HDF Group



HDF5 in Astronomy

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The HDF Group

<http://hdfgroup.org>

Innovations in Data-Intensive Astronomy

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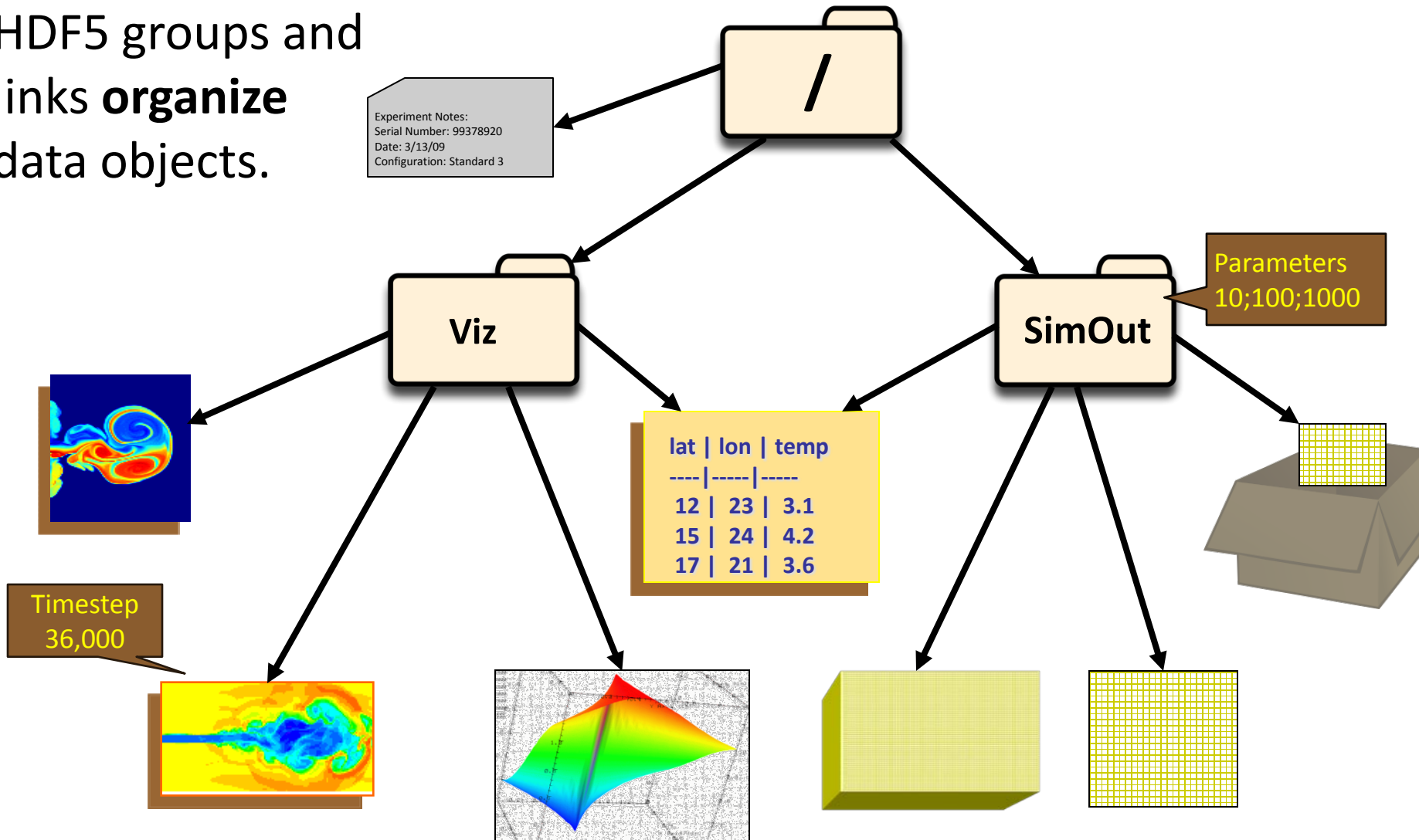


Just the Numbers...*

EXPOSURE TIME	NUMBER OF SUBBANDS	NUMBER OF STATIONS	FILE SIZE KNOWN MODE	FILE SIZE SEARCH MODE
1 min	248	5	11.2 GB	56 GB
1 min	248	20	11.2 GB	244 GB
10 min	248	5	112 GB	560 GB
10 min	248	10	112 GB	1.1 TB
10 min	248	20	112 GB	2.2 TB
10 min	248	30	112 GB	3.3 TB
20 min	248	5	224 GB	1.1 TB
30 min	248	5	336 GB	1.7 TB
1 hr	248	5	672 GB	3.4 TB
1 hr	248	10	672 GB	6.7 TB
1 hr	248	20	672 GB	13.4 TB
1 hr	248	30	672 GB	26.8 TB
2 hr	248	5	1.3 TB	6.7 TB
12 hr	248	5	8.0 TB	40.3 TB
12 hr	248	15	24.0 TB	120.1 TB

*Anderson et al. *Toward a New Radio Data Standard*, PoS(ISKAF2010)062, arXiv:1012.2266v1

HDF5 groups and links **organize** data objects.





Don't buy the cat in the bag

- Appropriate implementation depends on **you**
 - Data types and functions to match your needs
 - Common API and library
 - Tools and applications
 - Community buy-in
- Let the experts do their thing
 - Tweaking, tuning, evolving
 - Maintenance, QA, user support
 - Sustainability



Examples of HDF5-based formats

- HDF-EOS 5 – earth observing system
- JPSS – weather and successor to EOS
- NeXus - neutron, x-ray, and muon science
- BAG – bathymetry attributed grid
- CGNS – CFD general notation system
- NetCDF – a format on top of a format
- EXPRESS-binary – product model data (ISO)



Thank You