VSO: A short history

- A bit of (really boring) history
- First attempts organized *c.* 1995 by K. Reardon and L. Sanchez-Duarte as the "Whole Sun Catalog"
  - unfunded by European sources
- BoF session at 2000 SPD (Lake Tahoe), proposal effort led by F. Hill (NSO)
  - unfunded by NSF
- Parallel effort led by R. Bogart (Stanford)
  - unfunded by NASA LWS DATM (now TR&T)
- Proposed as leading to the "withering away" of the SDAC
  - funded by NASA SEC senior review (2001)

VSO: Who?

- Steering Committee
  - Todd Hoeksema (NASA HQ)
  - Rob Bentley, *chair* (MSSL, UK; EGSO)
  - Sam Freeland (LMSAL)
  - Steve Walton (CSUN)
  - Dominic Zarro (L-3 GSI/GSFC)

- NASA
  - Chuck Holmes (MO&DA Program Manager)
  - Joe Gurman (GSFC; *de facto* project scientist)

VSO Team

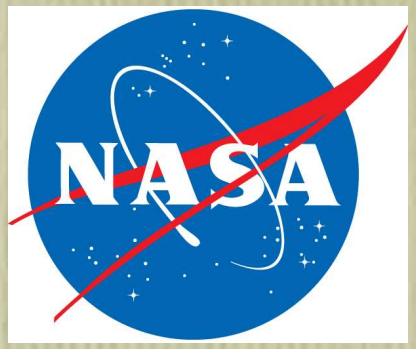
Rick Bogart, Karen Tian (Stanford)
Frank Hill, Igor Suarez-Sola
Steve Wampler (NSO)
Piet Martens, Alisdair Davey (MSU)
Joe Gurman, George Dimitoglou (GSFC)

And *you*

User comments at AAS, AGU, SPD sessions and BoF's

Any input/any time

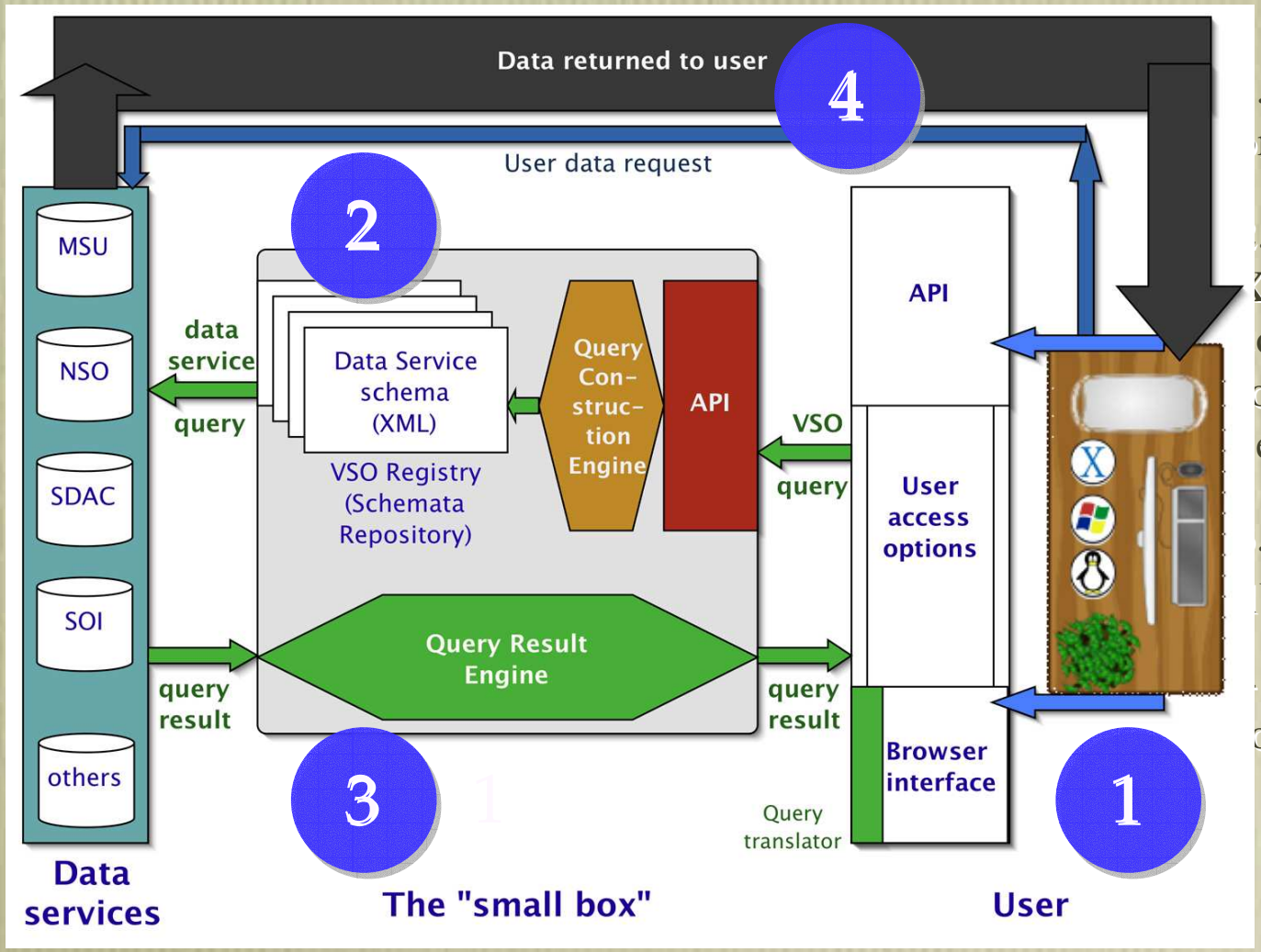
Community testing/adoption (or not)



VSO: What ?

- It should be distributed
- It should let us search for and access data from multiple missions/observatories/wavelengths without intimate knowledge of the data organization (*e.g.* by physical observable and/or mission/instrument)
- It should provide access to analysis software, instrument descriptions, &c. that enable use of the data for research
- It should be easy to add new data sets
- (Given the funding profile for this effort) it has to attempt to draw a "small box" around a small set of attributes that are useful for doing science

VSO: How ?



.Access through a browser
r an API

."Small box" uses registry of
XML data service schema to
onstruct appropriate queries
or each relevant data
ervice

.API or browser can refine
ueries

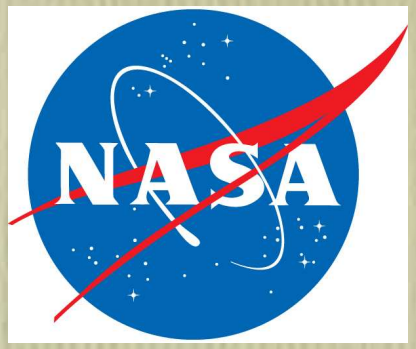
.Final data transfer is direct
o requestor (no middleman)

VSO: When?

- Study (Completed 2002 November; approved by Steering Committee 2003/01)
- Contract (2 years, 2003 May - 2005 April): GSFC to NSO, Stanford, MSU as subcontractors
- 0.5 beta 1 roll-out at San Francisco AGU (2003 December 9, 11): U22A-0011, -0012, SH42A-0503
- Four sites (multiple data services)
- Test usefulness/usability with community (feedback)
- IFF the prototype proves useful to the community
- Refine data model
- Add services (conversations with RHESSI, BBSO, HAO)
- Add "research opportunities" (separately funded)
  - Distributed processing (*e.g.* CoSEC)
  - Connections with other efforts (EGSO, LWSDE)
  - Extended maintenance phase to add nodes, support old, new nodes (after 2005/04)

What will it take to join the VSO?

- You have a network-accessible archive
- VSO should be able to help small data services get online
- Your observations can be described with a few "metadata" parameters understandable by most solar physicists: name, date and time, frequency/wavelength, &c.
- See current data model at: http://virtualsolar.org/docs/ — *liable to change soon*
- In current model, will require registering and running a SOAP server
- Data service as Web service



VSO Resources

- VSO homepage
- http://virtualsolar.org/

- VSO UI test page
- http://vso.stanford.edu/

- Strawman proposal
- http://virtualsolar.org/docs/VSO_strawman_20021125.pdf

- Sample XML schemas:
- http://virtualsolar.org/docs/schemas/