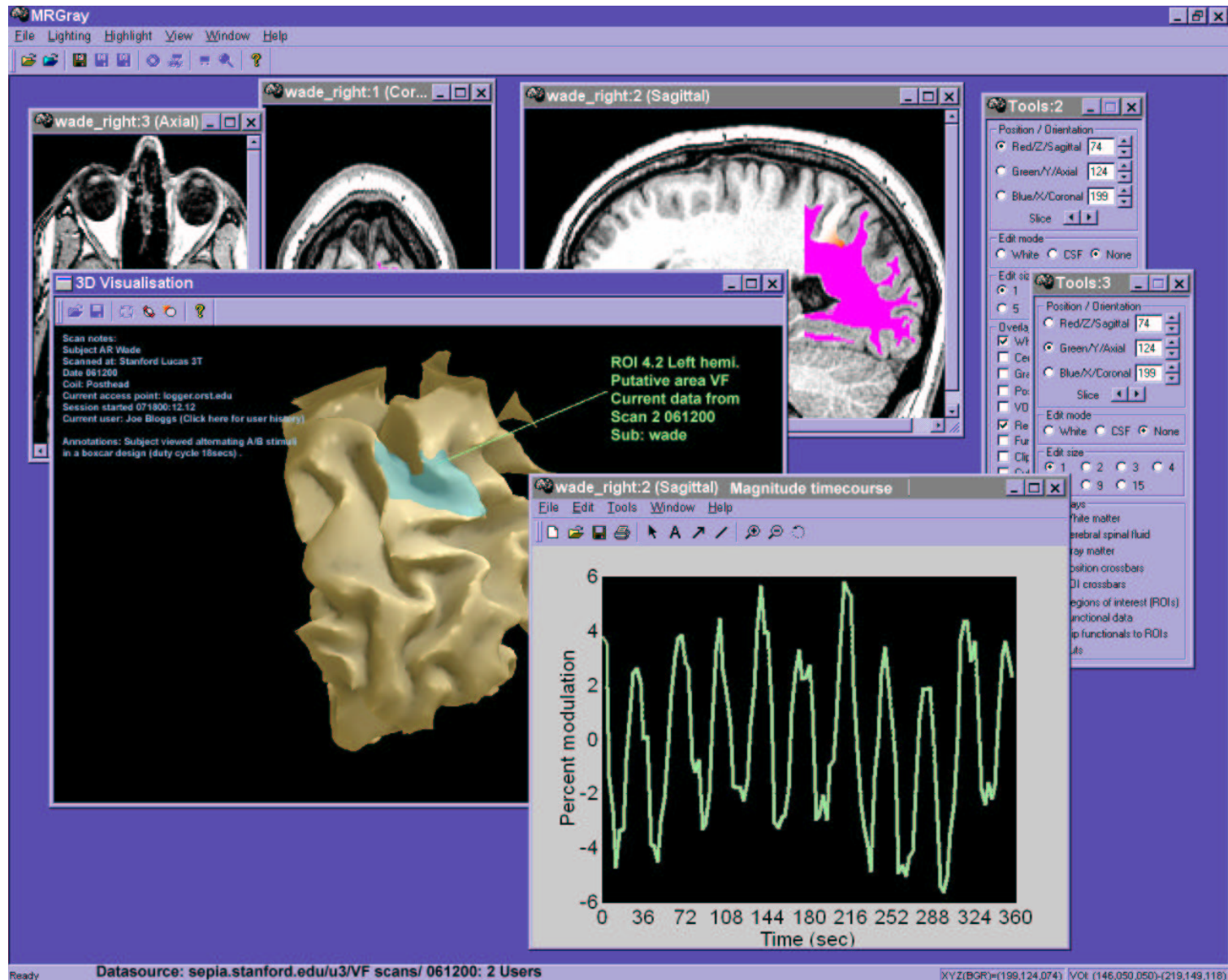


# Integrating Database & Analysis



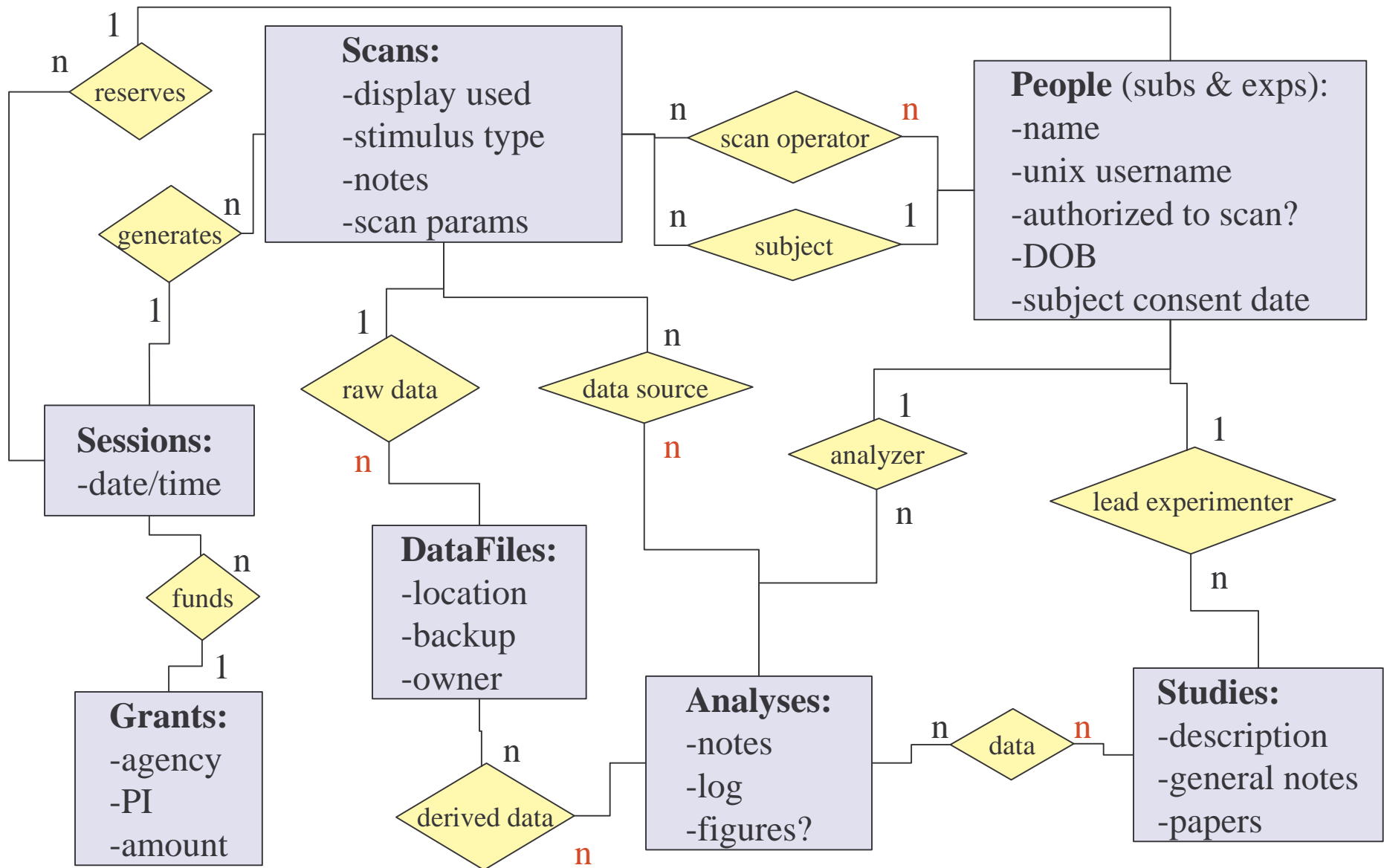
# MrData

- Matlab interface to central database
  - Allows DB queries from Matlab
- MrData's DB records and organizes:
  - Scans: grant, session, subject, operator, etc.
  - Raw data files (generated by scans)
  - Analyses (derived data)
    - Eg. Coranal & t-series for functional data, segmentation & unfold for anatomical data

# MrData Advantages

- SQL-based database engine (MySQL)
  - Structured queries
  - Fast searches
  - Efficient data structure
  - Scalable architecture
- Data entered/retrieved from Matlab
  - web interface is also possible

# Basic Database Structure



# To Do

- Managing unfolds and segments
  - Each dataset (raw or derived) may be linked to other datasets via coordinate transform functions (T)- eg:
    - Inplane anatomy -> P-file, T is identity
    - Inplane coranal -> vAnatomy, T is alignment matrix
    - Flat -> vAnatomy, T is ???
      - perhaps T can either be a small matrix or a LUT in a file

# To Do

- Integrate with mrLoadRet (& mrInitRet)
- Track data relocation
  - Spider to troll the file structure and find moved datasets?
- Integrate into mrGray
  - Move all DB logic from Matlab to java
  - Build java ‘plug-ins’

# To Do

- Interface for more complex searches (joins)
- Interface to edit existing entries
- Web interface for browsing DB
- Security & backups