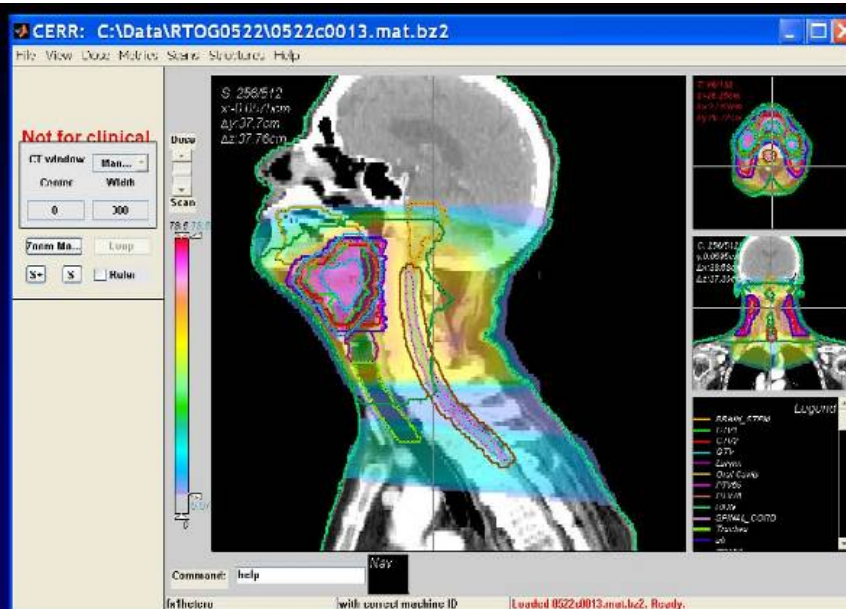


Computational Environment for Radiotherapy Research – Deasy

- Extensible Review Tool for Treatment Planning Data
 - Images (T/S/C planes), Structures, Doses, DVHs
- Data Format Conversion
 - RTOG/DICOM Import
 - DICOM Export
- Support for multiple image series CT, MRI, PET

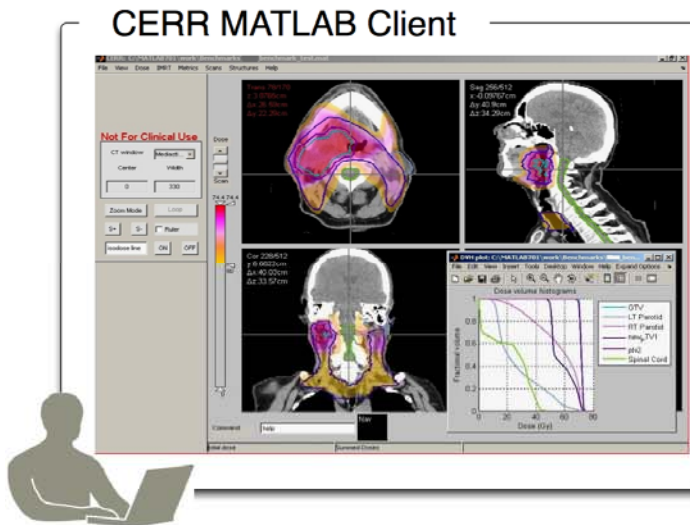
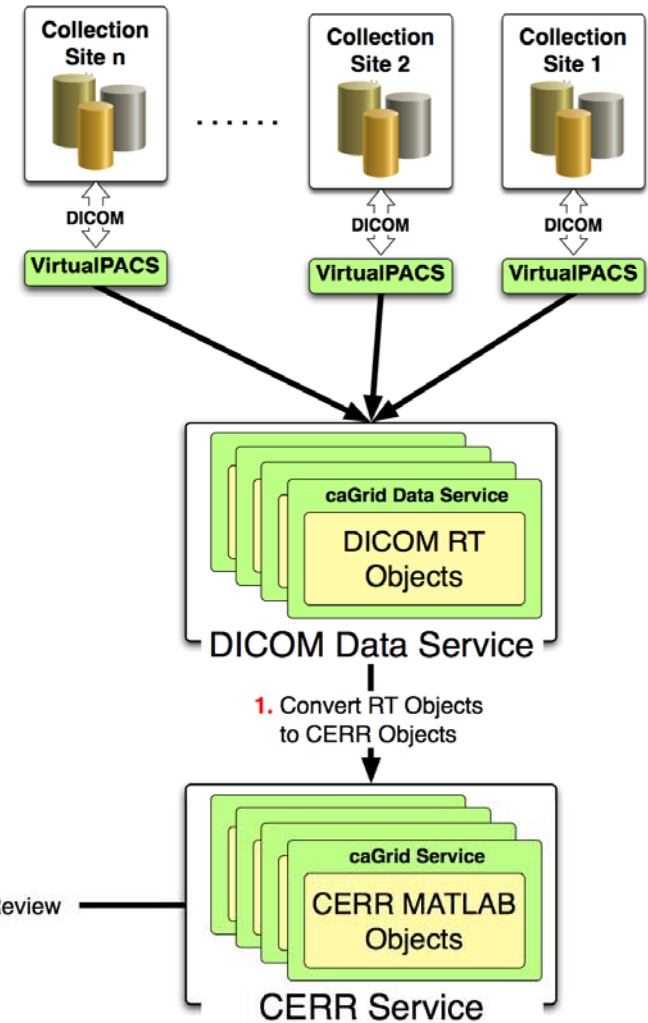


- Open-source (Matlab) code available from <http://radium.wustl.edu/CERR>
- Free-standing version (“compiled” Matlab)



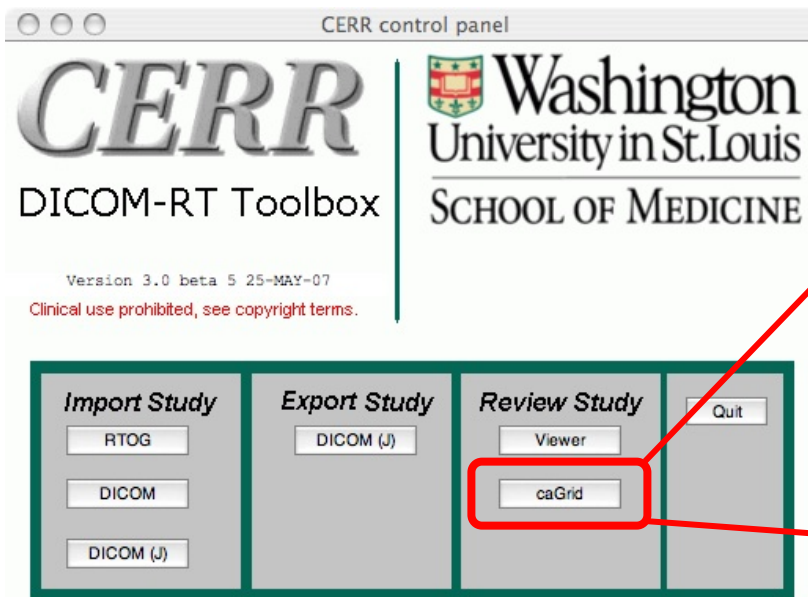
Grid Enabled CERR

- caGrid enabled data collection in cooperative groups
 - Data service for DICOM RT Objects
 - Data service for CERR Objects
- CERR client capable of interacting with caGrid services
- Access data and store image review results at ATC, QARC, CALGB, ACRIN, NCIA archives
- Capable of executing MATLAB codes locally or remotely

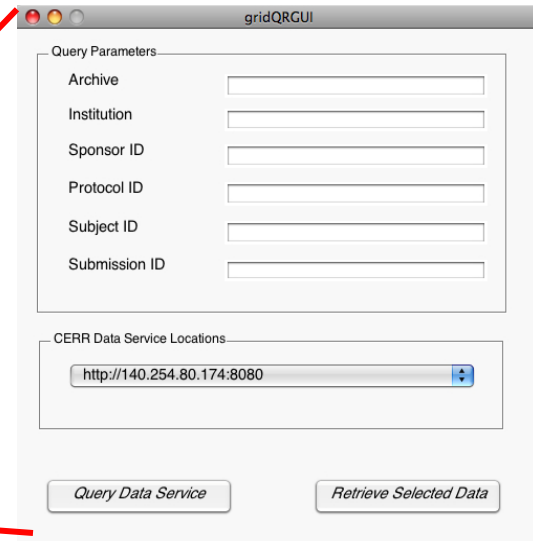


Components of grid-CERR

- A caGrid data service for storing CERR objects
 - XML database backend
- CERR client is modified to support grid interactions
 - Grid based Query/Retrieve interface
 - Grid security interface



Grid Q/R GUI



Grid data service for CERR objects

- A caGrid data service for storing CERR objects
- Capabilities
 - Query, Retrieve, Submit
 - Bulk data transport
- Components
 - Berkeley DB XML database
 - caBIG In Vivo Imaging Middleware v1.2
 - caGrid v1.1
- Security
 - Ongoing work to add authentication and data level and role-based authorization framework
 - Will leverage the caGrid security infrastructure
- **Will be combined with the DICOM data service to create workflows for radiation treatment planning**
- **Support for a thin client remote viewer is being developed**