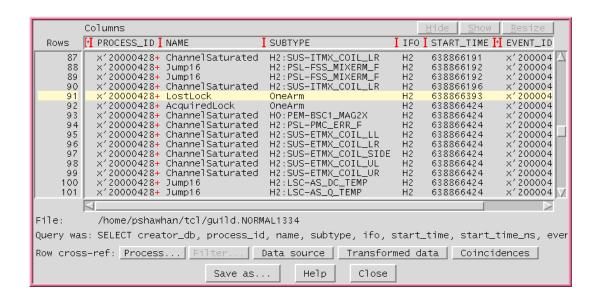
Database Tools Discussion

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Pop Quiz

True/False: "Database tools" deal with:

- (T/F) Events (astrophysical & environmental)
- (T/F) Lists of "segments" (intervals when interferometer is locked, etc.)
- (T/F) Summary info for time periods (scalars, spectra, CSD's, ...)
- (T/F) Trend data (from DAQ system, or from DMT monitors, etc.)
- (T/F) High-rate time-series data

What kind of interface do you want? (Check all that apply)

- Purely graphical (guild, DTT, Data Viewer, Triana, ...)
- Command-line (Matlab, ROOT, Mathematica, R, ...)
- Program (C, C++, ...)

On a scale from 1 to 5, indicate the desired level of sophistication:

- 1 View precomputed data objects
- 2 Do basic tranformations / summaries
- 3 Use certain object types together in predetermined ways
- 4 Full set of operations for one or two object types; scripting support
- 5 Allow arbitrary processing of data objects in any combination



Pop Quiz (2)

Essay question: What do you want to be able to do?



Existing Database Tools

Guild

- Displays tables (events, etc.) in tabular form
- Allows "cuts" on data (in the database query)
- Can do crude histogramming (in tabular form)

"Metaio" C library for parsing LIGO_LW xml table files

Stable prototype version is in LIGOtools "dataflow" package

Data Viewer

- The standard way to display trend data generated by DAQ
- But can't get trend data from archive, or generated by DMT monitors

Diagnostic Test Tools

Could be used as a viewer for spectra, trend data?

(Other pieces: lwtprint; Matlab MEX-files to read/write frame data)



Priorities

Anything is possible, but everything requires work! Genuinely useful tools won't magically appear

We should focus on a few essential tools

My priority list:

- Event analysis (cuts, histogramming, coincidence search, ...)
- Display package for summary spectra, etc.
- Offline trend viewer

In my opinion,

- Building on top of a flexible environment will allow us to add capabilities as the need / opportunity arises
- Scripting capability is essential for serious analysis