

PHENIX VTX DB Design Scheme

Peter Steinberg & Burt
Brookhaven National Laboratory

Basic Structure

- * **Log Table**
- * **IV Table**
- * **Test comments**
- * **Test Environment**
- * **Test Details (Test Type)**
- * **Sensor information (type)**

Functional Design

pvd in Building 555

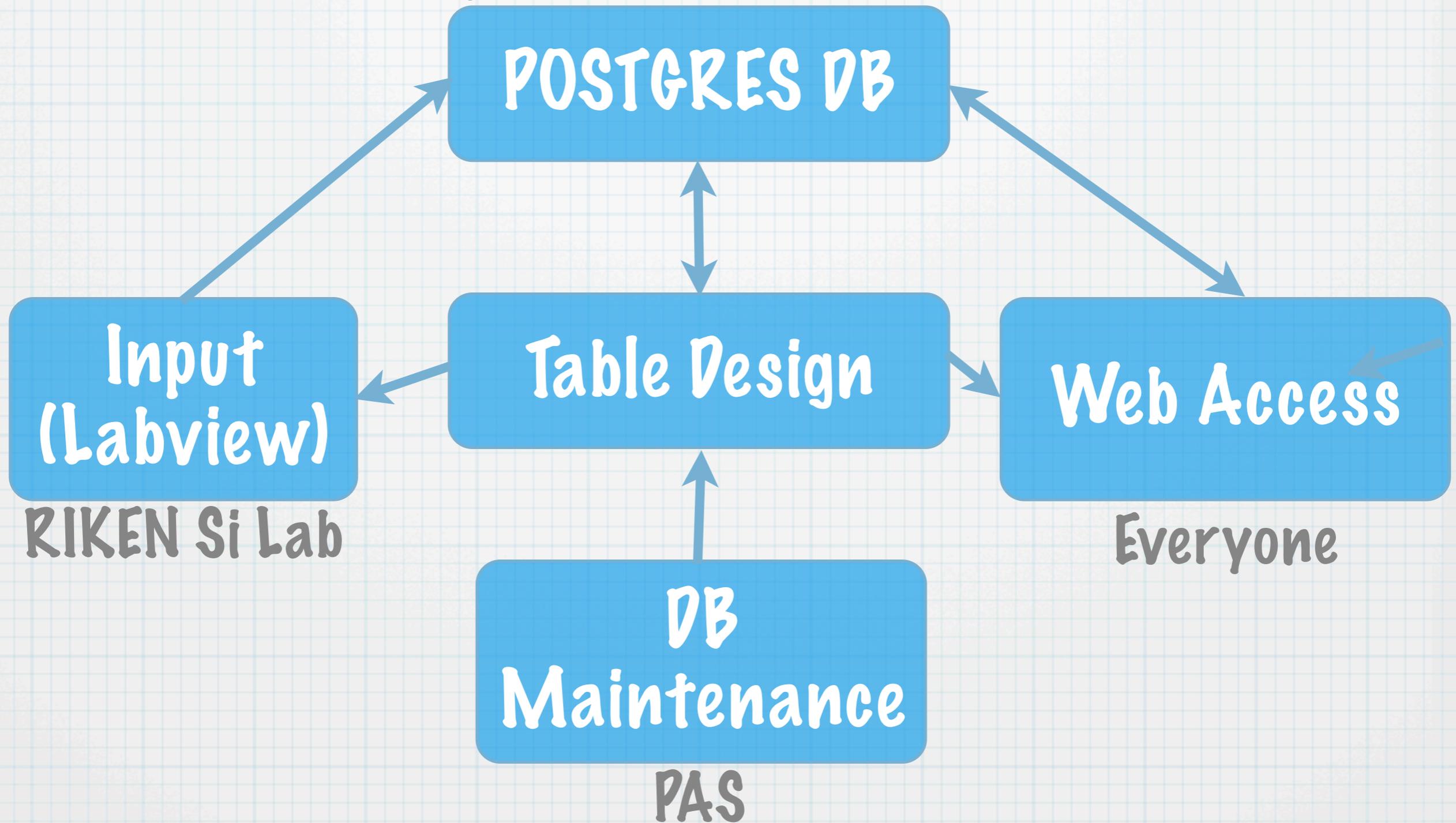


Table Overview

Sensors

Sectors

CV

.....

Channels

IV

Modules

Sensors

Pedestals

.....

Sectors

S/N

Ladders

.....

Detectors

Operations

Short-Term Plans

- * The full DB will take some time to plan and implement
- * We believe it's best to get one test case implemented as soon as possible
- * IV measurements seem to be a natural example
- * Doing this will force development of
 - * Table design (BNL/CHEM w/ SUNYSB)
 - * DB machine (BNL/CHEM) set up Postgres, Web server, PHP/ADO)
 - * Labview side (SUNYSB)
 - * Web pages (BNL/CHEM)

Table Proposal (Burt & Peter)

IV Table
Sensor ID
Channel ID
Sector ID
Validity Date
Creation Date
I (Single or BLOB?)
V (Single or BLOB?)

Test Details
Sensor/Ch./Sect
Type
Validity Date
Creation Date
Location
Tester
Comments
Humidity
Temperature
Status

Sensor Props
Sensor ID
Sensor Type
Vendor
Thickness
Width
Height
Sectors

Test Types
Test ID
Validity Date
Creation Date
Comment

Sector Props
Sensor ID
Sector ID
Sector Type
Channels

Log Table
Log ID
Validity Date
Creation Date
Comment

Batch Props
Batch ID
Validity Date
Creation Date
Vendor
Sensors

Wafer Props
Batch ID
Wafer ID
Validity Date
Creation Date

Test Str Props
Wafer
Structure ID

Under
Construction!

Tasks

- * **PVD already set up**
- * **ADODB installed**
- * **Need pgHPAdmin so PAS can administer tables**
 - * Set up prototype as described here
 - * Need input from SUNYSB gang on details
- * **Need to get labview to speak SQL**
 - * AND need to develop means (i.e. a macro or script) to dump textfiles into postgres (ROOT SQL interface? What does PHENIX use)
- * **Need prototype web page for accessing IV information**
 - * There exist free utilities for ASP, not sure about PHP yet.

The Future

- * **This is an interesting issue**
 - * How comprehensive should we use the PVD in the VTX project?
- * **In ~December, I was advocating using it for everything, a la the PHOBOS model**
 - * Sensors, Modules, Detectors, Calibrations, Slow monitoring, Logbook, etc.
- * **Clearly need more discussion about where we plan to keep information**
 - * Experience suggests the fewer DBs the better!

A Clear Gap

- * **Offline API**
- * **Some interaction w/ Irina**
 - * PHENIX uses psqldb, unixodbc, libodbc++ on top of POSTGRES
 - * ROOT SQL API for BLOBS
- * **Seems natural to adopt the existing PHENIX API**
 - * Unfortunately, I have presently ZERO experience w/ PHENIX software (everything I wrote was destroyed :-))
 - * Clear issue where I need help from VTX software