CDF Databases

(Petar Maksimovic for CDF DB group)

- Projects that are done but awaiting closure
- Projects that are still open
  - ODBC
  - Frontier
- Status, risk, milestones

Project Drivers & Scope

- [not quite sure who/what `drivers' are, but...]
- CDF Databases serve calibrations and other conditions to CDF users
- Online DBs required for data taking
- Offline DBs required for data analysis:
  - `Production' – experiment-wide data reconstruction
  - Monte Carlo generation – public or private
  - User analysis jobs – where Physics gets done

Deliverables

- **CDF constants delivered to all jobs asking for them... anywhere**

    (all other deliverables subordinate to this goal)

- Most former deliverables have been delivered

    - DB schemata.................................... Done
    - DB API... Done
    - Freeware DB study.......................... Done
    - Stand-by online DB study............... Done

    (All of them need to be officially closed, though...)

Deliverables still awaiting delivery

- **Now completely in `maintentance mode'**

- Addressing only issues that make a big difference
- Two open projects:
  - ODBC back-end
  - Frontier back-end

Status of ODBC

People: Dennis Box

Status:

- Coding ~ done, resolving issues with packaging
- Needs *lots of* testing/validation/benchmarking

  (NB: infrastructure is being developed for Frontier,

  see below)

Risk:

- Dennis is too busy with two other projects;

  he needs a few weeks off other duties to wrap up

Milestone(s): expected to finish by summer

Status of Frontier

People:

- S.Kosyakov, J.Kowalkowski, L.Lueking, M.Paterno, S.White (CD)
- B.Blumenfeld, P.Maksimovic, M.Mathis (JHU)

Status:

- All calibration API (code-generated) done by Oct 04
- Most (all?) non-calibration API done as of now
  (this phase largely done by S. Kosyakov)
- Incidental testing at Karlsruhe: everything's OK
- Needs large-scale (official?) validation

Status of Frontier Validation

- Want to validate on Physics (e.g. Z -> ee)
- Standard Validation compares New vs Old
- DB Validation compares Frontier vs Oracle
    - (or ODBC vs Oracle vs ...)
- Thus simpler: a null measurement
    - (i.e. If diff not null, then iterate until diff == 0)

Status:

- Validation done by CDF side
- Jobs are running, hope to know by next week

Frontier Risks

<u>Technical Risks:</u>

- In limited tests, Frontier and Oracle return identical DB content
- Remote users claim no difference in physics
- We tried to kill Frontier servers but failed miserably

==> Chances that it won't work are negligible

<u>Schedule Risks:</u>

- Small delays due to validation possible
- Full use @ DCAFs by summer 05
- Full use @ FNAL to be discussed

Effort Profile

DBAs:

- ~ 1.5-2 FTE online + offline maint

API:

- 0.2 FTE CD + 1 FTE CDF maint

ODBC:

- 2-3 FTE weeks devel (CD)
- 2 FTE months validation (CDF)

Frontier:

- 1-2 FTE months devel (fine-tuning, CD + CDF)
- 1 FTE month validation (CDF)
- 1 FTE maint (a wild guess!) (CD + CDF)

Summary

Everything in maintenance mode, except...

ODBC:

- Needs 2-3 weeks of Dennis's time
- Needs extensive validation by CDF
- Expected by late spring/summer

Frontier:

- Production + MC + User Jobs – fully frontierized
- Needs extensive validation by CDF (in progress)
- Ready for Open Beta (open for collab) ~ April
- Ready for production (== default use @ remote) by summer

Project Status Report