Run II Physics Analysis Software Functional Requirements Group (PASFRG)

- Joint CDF/D0/CD Team
- First stage of eventual project to acquire and support physics analysis tools
- We are to determine functional requirements
- Draft by Apr 1, final document by Apr 15

Membership

- **CDF: Frank Chlebena, Kaori Maeshima, Pavel Murat, Larry Nodulman, Kris Sliwa, Steve Vejcik, Avi Yagil**
- **D0: Iain Bertram, Pushpa Bhat, Sarah Eno, Herb Greenlee, Lee Leuking, Qizhong Li, Andrzej Zieminski**
- **CD: Eileen Berman, Mark Edel, Irwin Gaines, Paul Lebrun, John Marraffino, Dane Skow**

Ground Rules

- **We are not choosing a product, we are laying out the guidelines that will allow selection of a product**
- **Meetings at different times**
- **Lots of e-mail and web documentation (mailing list and web address forthcoming)**
- **Religious discussion limited to <2 min/individual and <10 min overall per meeting**

Charge

- **For this group**
- **For group 2 (technical evaluations)**
- **Project Definition: This project will provide a coordinated set of tools and an environment in which to do physics analysis tasks. The tools may be some combination of commercial, public domain and HEP of FNAL developed products, but in any case they will be distributed, supported and maintained. Tools will be investigated and evaluated in time to be used by CDF and D0 for Run-II**

First pass at categories of requirements

- Providing access to large streams of physics events
- Selecting events based on programmed selection criteria
- Compressing data samples
- Preparing various statistical distributions of various mathematical functions of data in the selected events
- Linking in high level language programs to process event data prior to plotting
- Modifying selection criteria and plotted functions interactively

First pass at categories of requirements

- **Fitting the distributions**
- **Comparing and performing calculations on different distributions**
- **Preserving the selection criteria and functions for later use or to pass along to others**
- **Saving samples of events in a variety of specialized formats for later analysis**
- **Accessing these specially formatted event samples to make plots, fits, statistical outputs, etc.**

First pass at categories of requirements

- Preparing presentation quality graphical output interactive utilities for visualizing experimental data
- automatic document generation