

# Introduction

Ted Liu, May 16, 2003

- **Goals of the meeting**
- **Project Overview**
- **Plan for the summer**
- **Pulsar people watch**
- **Summary**

Meeting time: 10am - 1pm May 16, 2003.

Meeting location: Industrial Central Building video conference room

## Goals of the meeting(s)

- where progress has been made since last meeting
- where we need to direct more effort
- identify new tasks (if any) that have arisen
- adjust plans accordingly
- set clear near term goals for coming months

**Joe organized last (2nd) group meeting**

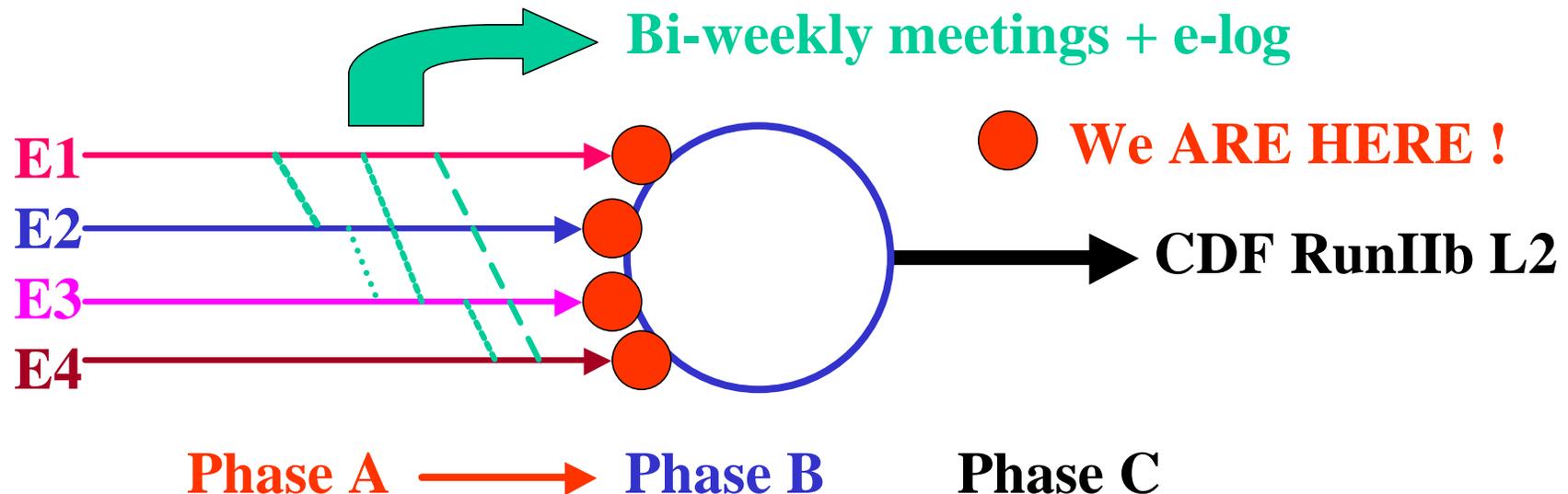
**Mel is organizing this (3rd) meeting**

**Bob will organize the 4th meeting**

**FNAL → UPenn → UC → ANL → ... rotation**

# Project Overview

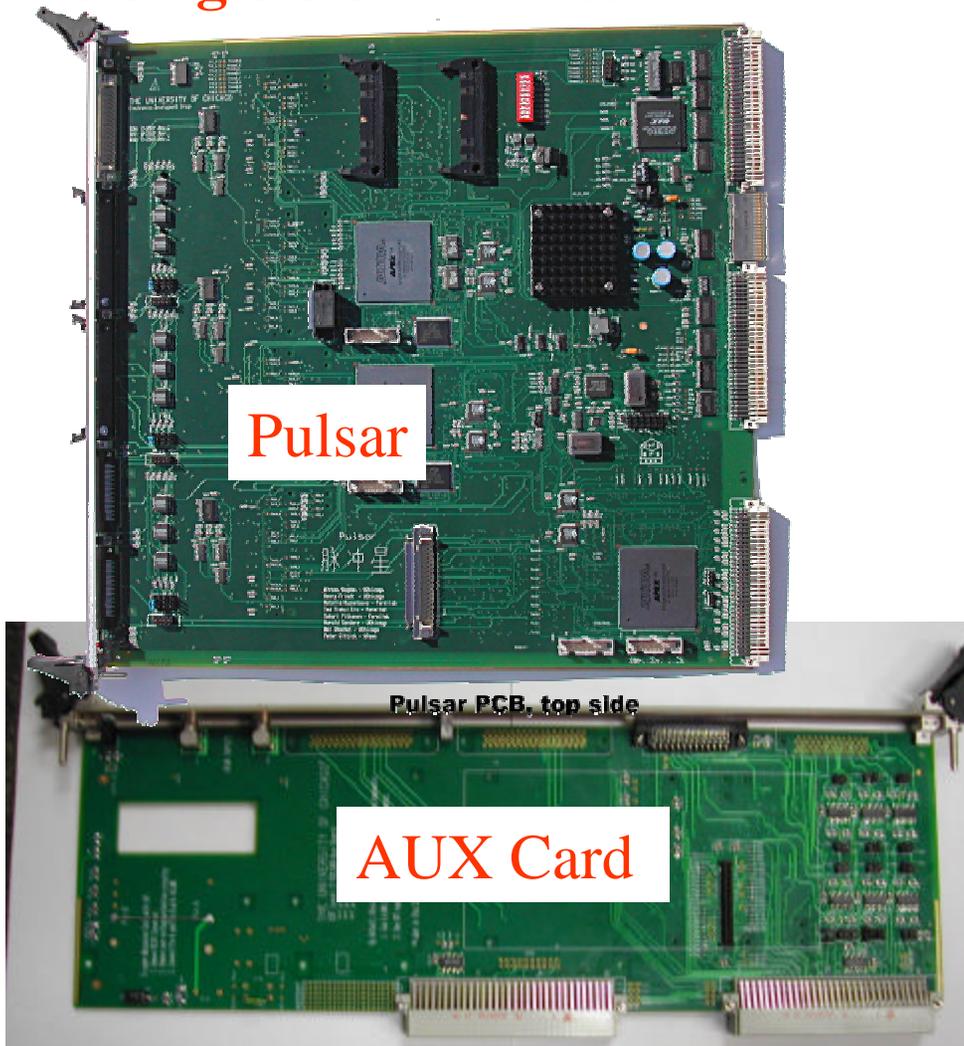
- **E1:** Pulsar hardware/firmware/VME software
- **E2:** Design spec. for data format/algorithm/system interface
- **E3:** RoIB/Gigabit Ethernet option effort
- **E4:** PCI/CPU architecture/OS/Infrastructure SF/L2D SF ...



# Pulsar Hardware:

Six PCB design from last year,  
All survived extensive tests by  
Burkard and Sakari.

No single blue wire ...



Hotlink Tx



Hotlink Rx



Hotlink  
+LVDS Tx



Hotlink  
+LVDS Rx



Taxi Tx



Taxi Rx



Hardware: ALL prototypes tested  
(pre)-production started  
Firmware: core firmware in place  
muon firmware in progress  
VME Software: much improved

Data format defined for  
ALL  
data paths!

E1

E2

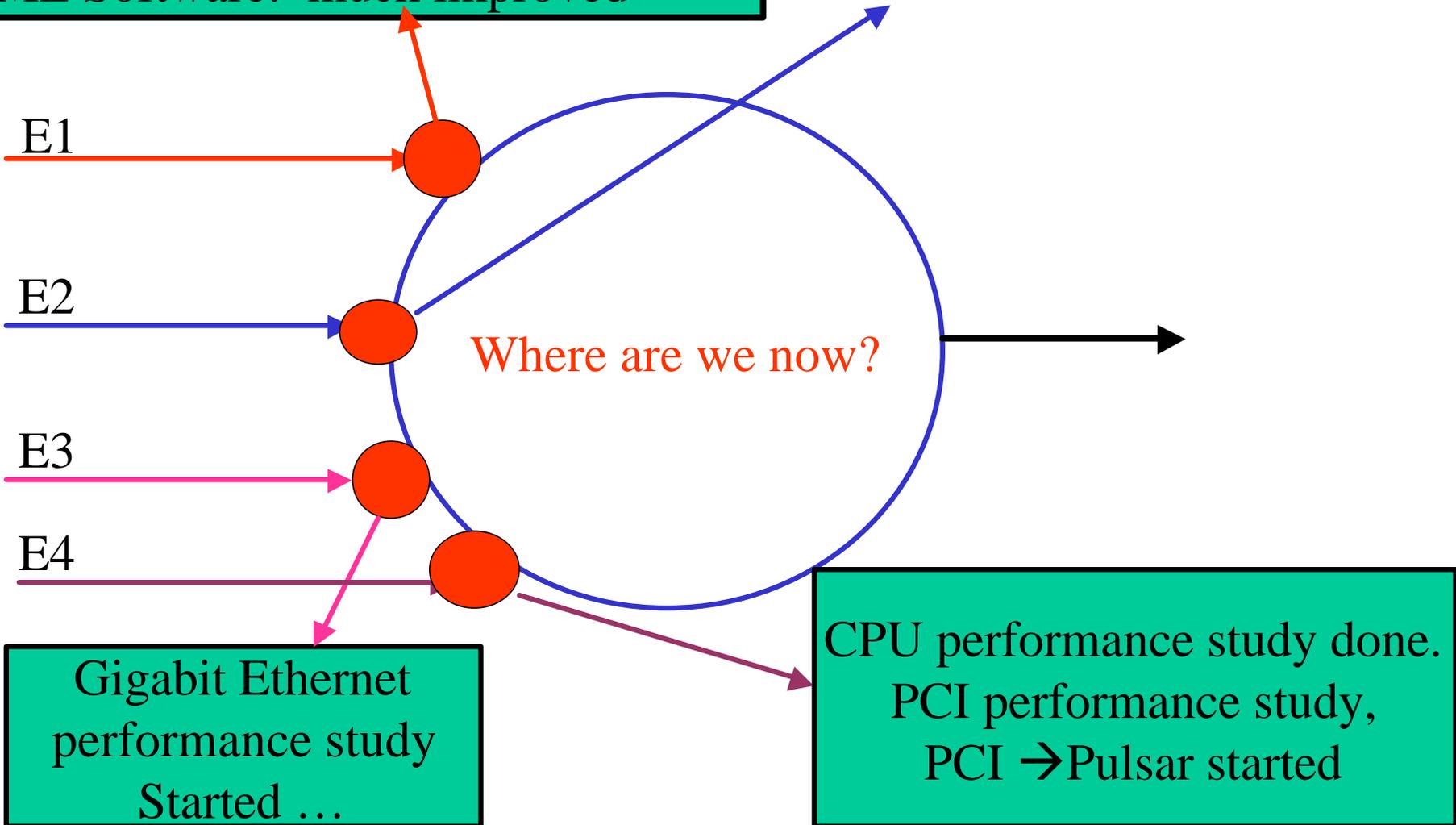
E3

E4

Where are we now?

Gigabit Ethernet  
performance study  
Started ...

CPU performance study done.  
PCI performance study,  
PCI → Pulsar started



Hardware: finish (pre)-production  
Firmware/software:  
**Get ready to use Pulsar as  
teststand tools this summer**

**Software modeling for  
All data Paths:  
Tx data patterns,  
DAQ data path,  
SLINK data into CPU**

E1

E2

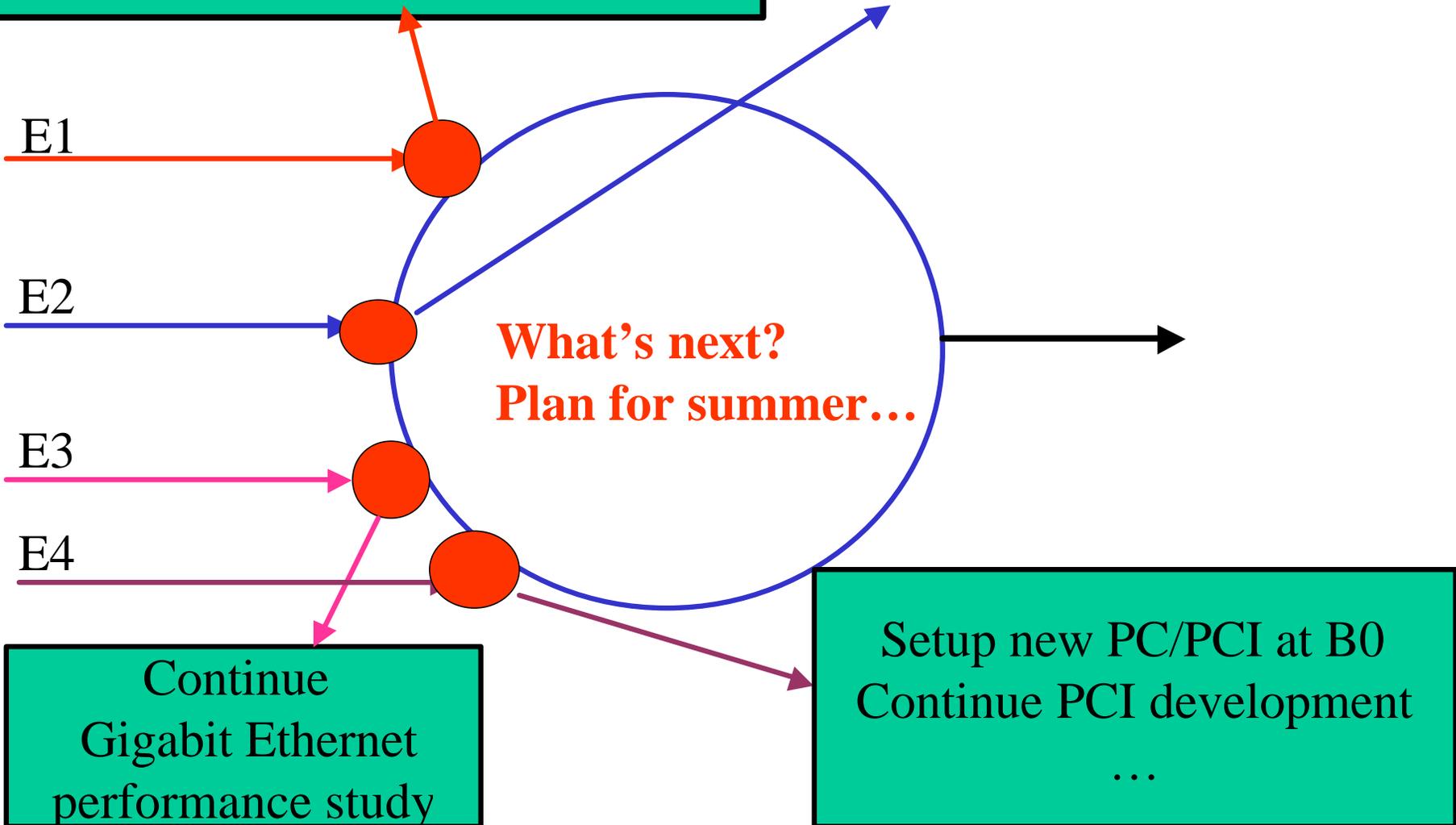
E3

E4

**What's next?  
Plan for summer...**

Continue  
Gigabit Ethernet  
performance study

Setup new PC/PCI at B0  
Continue PCI development  
...





## **Pulsar people watch**

- **Joe has a new graduate student ...**
- **Three Finnish students will come June 2<sup>nd</sup> 2003 (stay for half yr)**

**One student will work with Cheng-Ju to develop software to model the data flow ...**

**One student will work with Sakari on firmware development**

**One student will work with Burkard on VME software and hardware testing ...**

# Summary

- **We have finished the prototyping phase and tested all custom hardware for robustness**
- **Now it is time to make Pulsar useful for CDF**
  - **fully develop the teststand capability this summer**
- **Other efforts can proceed in parallel**