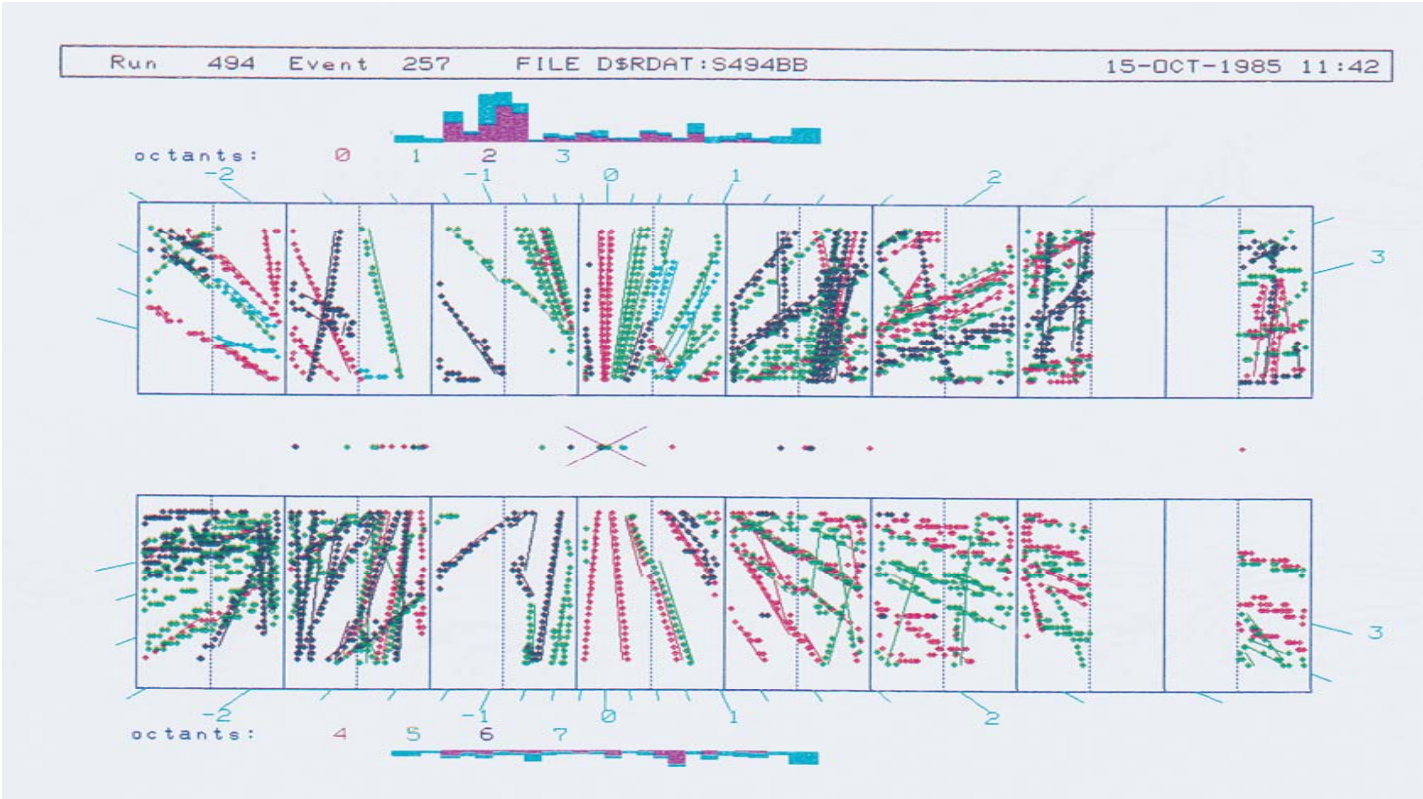
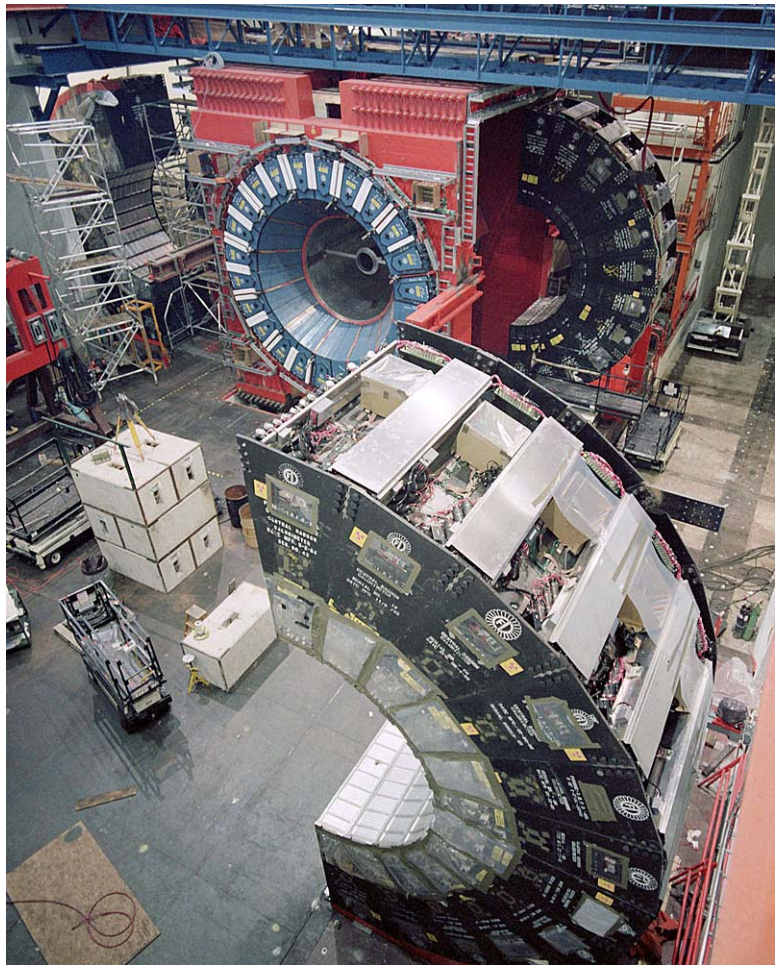
Calorimeters, 1985

Event display of one of the first collisions at CDF, October 13, 1985:



Actually, the central and endwall calorimeters are very large systems:



Many people and groups had provided substantial manpower and components by 1985, including:

Japan (Tsukuba, KEK): Scintillator, wavelength shifters and phototubes for the EM calorimeter

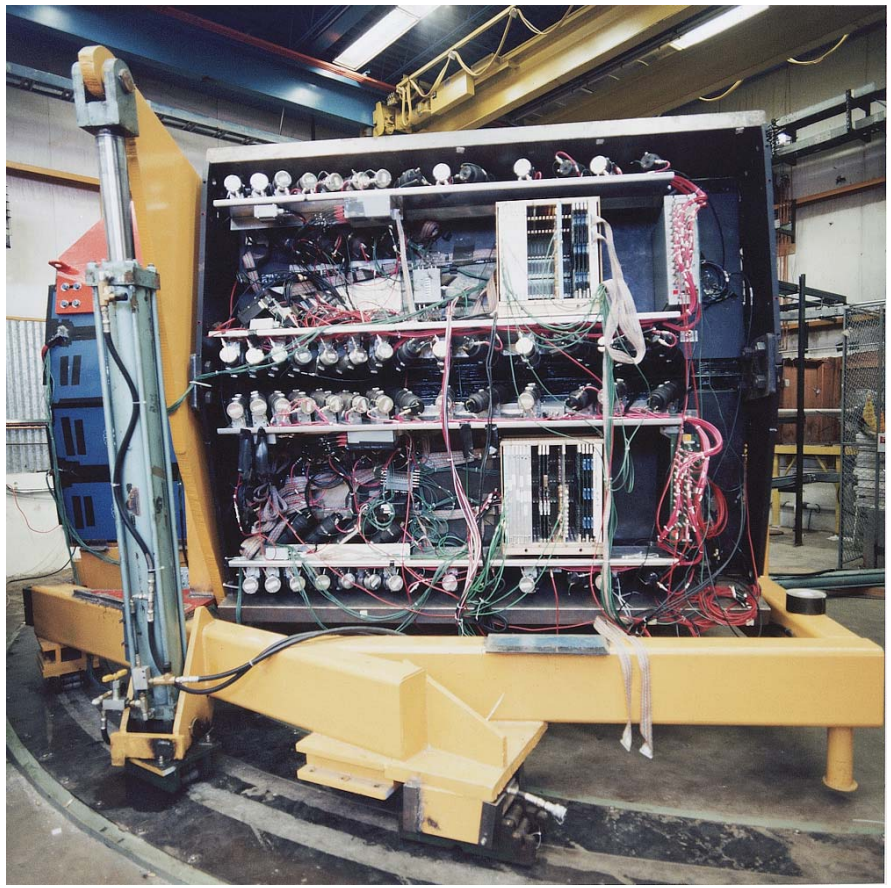
Italy (Frascati, Pisa): Scintillator, wavelength shifters, light guides and phototubes for the hadron calorimeters, laser calibration system

US (ANL, FNAL, Illinois, Penn, Purdue, Rutgers):

ANL: Strip chambers, lead-scintillator stack assembly, LED calibration
FNAL: RABBIT electronics system by PIG group, module assembly, calibration beam, rigging and cabling at B0, DAQ system
Illinois: CMU system (chambers)
Penn: Source calibration system
Purdue: Steel structures
Rutgers: Phototube testing (EM)

Assembly line in Industrial Building 4

Every tower of every central calorimeter module was calibrated in the test beam with 50 GeV electrons and pions:



Archtest

Name of the ~5 month long task at B0 in 1985 to commission the calorimeters for the first collisions

It developed into a very intense effort, 24x7

Given the short time and the many last-minute parts deliveries (production electronics, power supplies), it had a chance of success only because so much work had already been done (calibration in test beam and with sources and cosmic rays)

It achieved its goal and brought CDF a big step forward. And the calorimeters are still working!