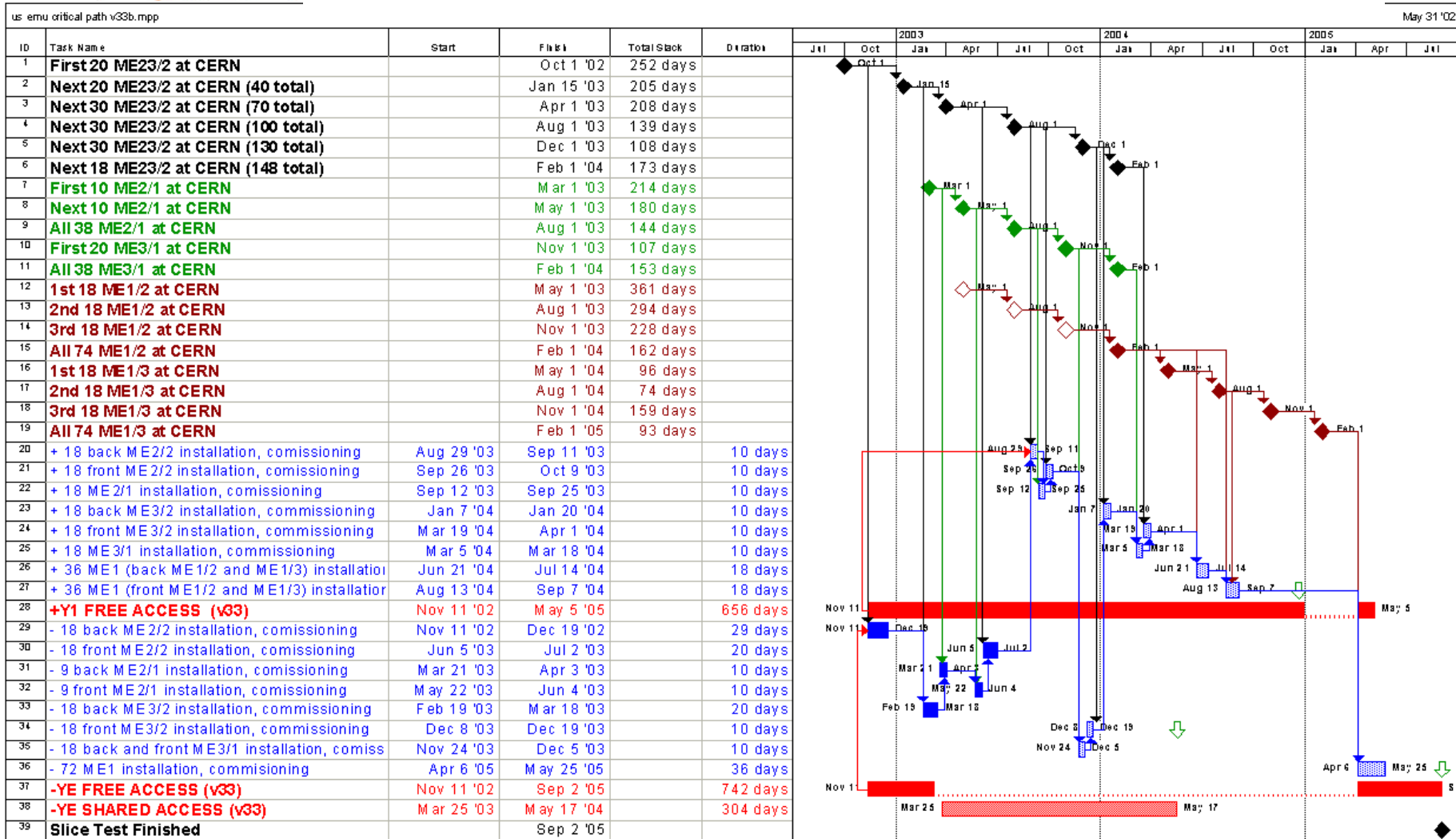




installation/commissioning schedule (V33)





General explanations

1. **Diamonds:** chambers arrive at ISR. Color coding is for chambers from US, PNPI, and IHEP (open diamonds for IHEP mean that these chambers can come much later—as late as the first full diamond)
2. For the first shipments, there is one-month lag is built-in between arrival of chambers to ISR and beginning of installation at SX5. This is for pre-testing of chambers at ISR (chamber integrity, noise, connectivity). Alignment plates (each 6th chamber) are glued at the same time.
3. **Red bars:** SX5 installation windows open for EMU as of V33
4. **Blue bars:** Actual chamber installation/commissioning bursts at SX5 (stations and number of chambers are in the titles). These bars should be within installation windows. Full blue bars indicate the initial pace of 1 chamber per day (including everything). Later, bars become light blue—the pace should shrink by a factor of 2.
5. **Missing pieces:**
 - VME and off-chamber electronics installation and commissioning
 - Alignment sensor installation and commissioning
6. **Drop-dead end of all installation/commissioning at SX5 (arrow marks at the end of red bars of installation windows)**
 - YE+ December 2004
 - YE- August 2005



ISR

1. 20 chambers arrive to ISR:

- **Pre-testing (all chambers), CERN-EMU**
 - Chamber integrity (broken wire, HV connectivity, gas leak—Tests 1, 2, 3)
 - AFEB noise and connectivity (Tests 11, 12)—new FAST-DAQ needed
 - CFEB noise and connectivity (Tests 15, 16)—new FAST-DAQ needed
 - Maybe, more if time permits (e.g., ALCT and CLCT rate plateau, Test 28,—gas and HV needed)
- **Alignment plates (3 chambers of the first 20 shipped), Wisconsin/FNAL**

2. Cables are shipped to ISR during summer-September, attn: Levtchenko

- **High Voltage, UF**
- **Skew-clear, OSU**
- **Low Voltage (one end is connectorless), Wisconsin**
- **LVMB cables, UC Davis**



1st burst of inst/comm. at SX5

1. Chambers and Services, Wisconsin

- 18 back chambers and cable trays (stud drivers?), Wisconsin
→ location of chambers in database, Wisconsin
- Water pipes to manifolds, Wisconsin
- Gas pipes to manifolds, Wisconsin
- Temporary gas flexibles between chambers, Wisconsin (tubes to be ordered by Levtchenko)
- Cable strain relief frames (next to future VME crates), Wisconsin

2. Gas leak testing can start now, CERN-EMU

3. Scaffolding, CERN-CMS

4. Cabling and commissioning

- Needed: order of boards in crates (Wisconsin, OSU)
→ I have verbal confirmation from TY, Jay, Paul, Darin that order of 9 DMB-TMB pairs in VME can be driven by cabling constraints
- Needed: labeling scheme (Wisconsin) and labels (OSU, UF, Wisconsin, UCD)
- Needed: cabling scheme and instructions, Wisconsin
- Needed: support for the commissioning crate in various locations, Wisconsin (UF to provide drawing of the VME box)
- Needed: extension cables to be used with the current version TMB, UCLA
- Cabling, CERN-EMU
- Chamber-by-chamber commissioning (tests 11, 12, 15, 16, 17A), CERN-EMU
- Free cable ends to be bagged (HV with humidity absorber), CERN-EMU