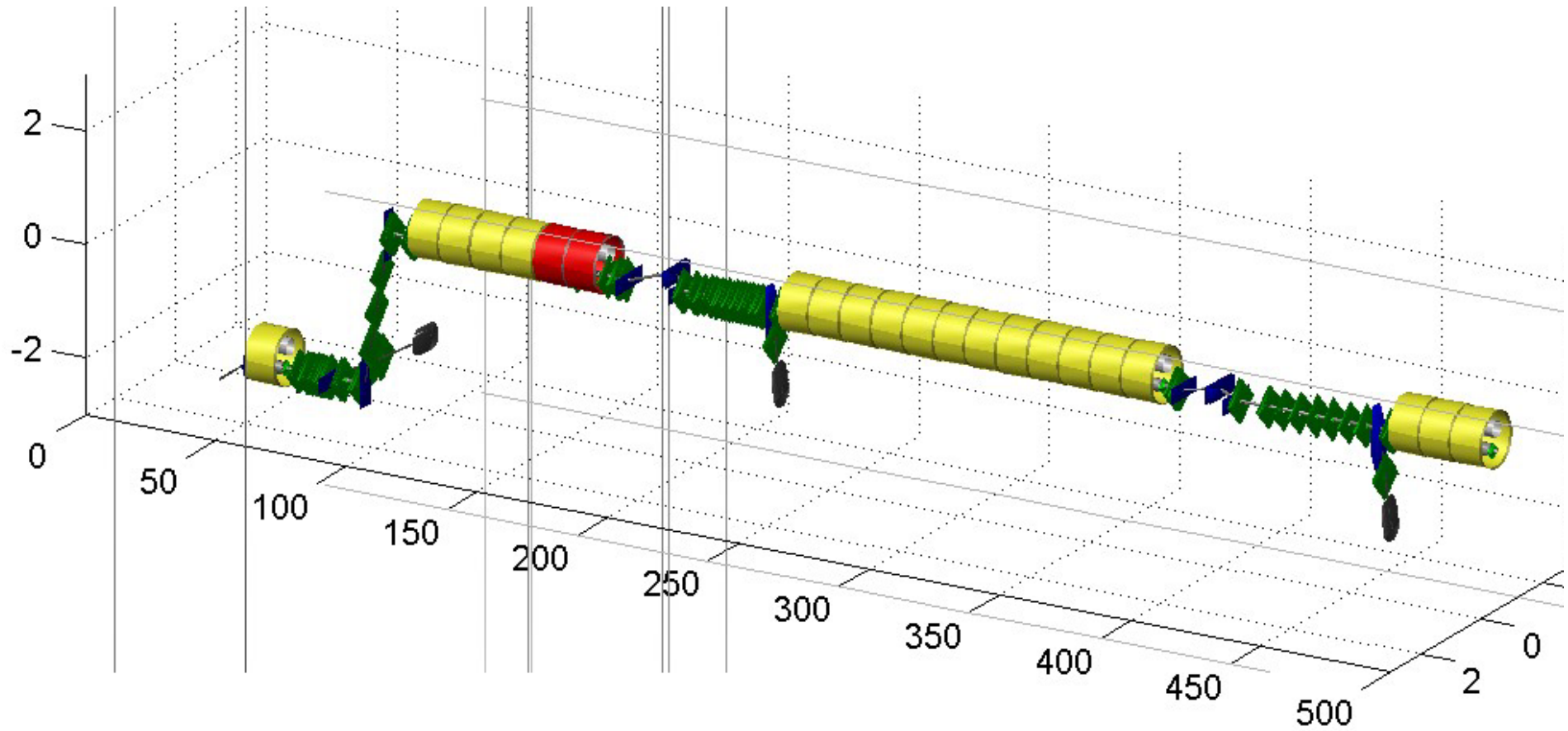
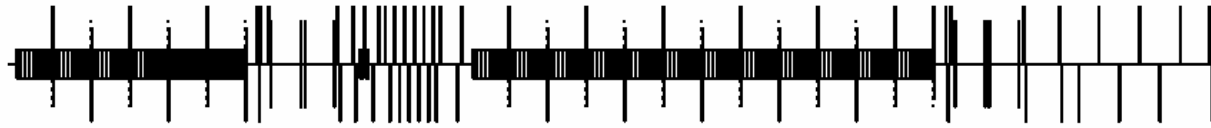




- Geometrical requirements:
 - Fit into tunnel
- So far considered functional requirements:
 - matching of injector to bc1 beam with linac 1
 - diagnostic sections after bc1 and b2 (recently redesigned by Christopher – not yet included in master-deck)
 - beam dump lines after each bunch compressor diagnostics
 - **Note: Beam Dumps are not (and will not be) designed for nominal beam power**

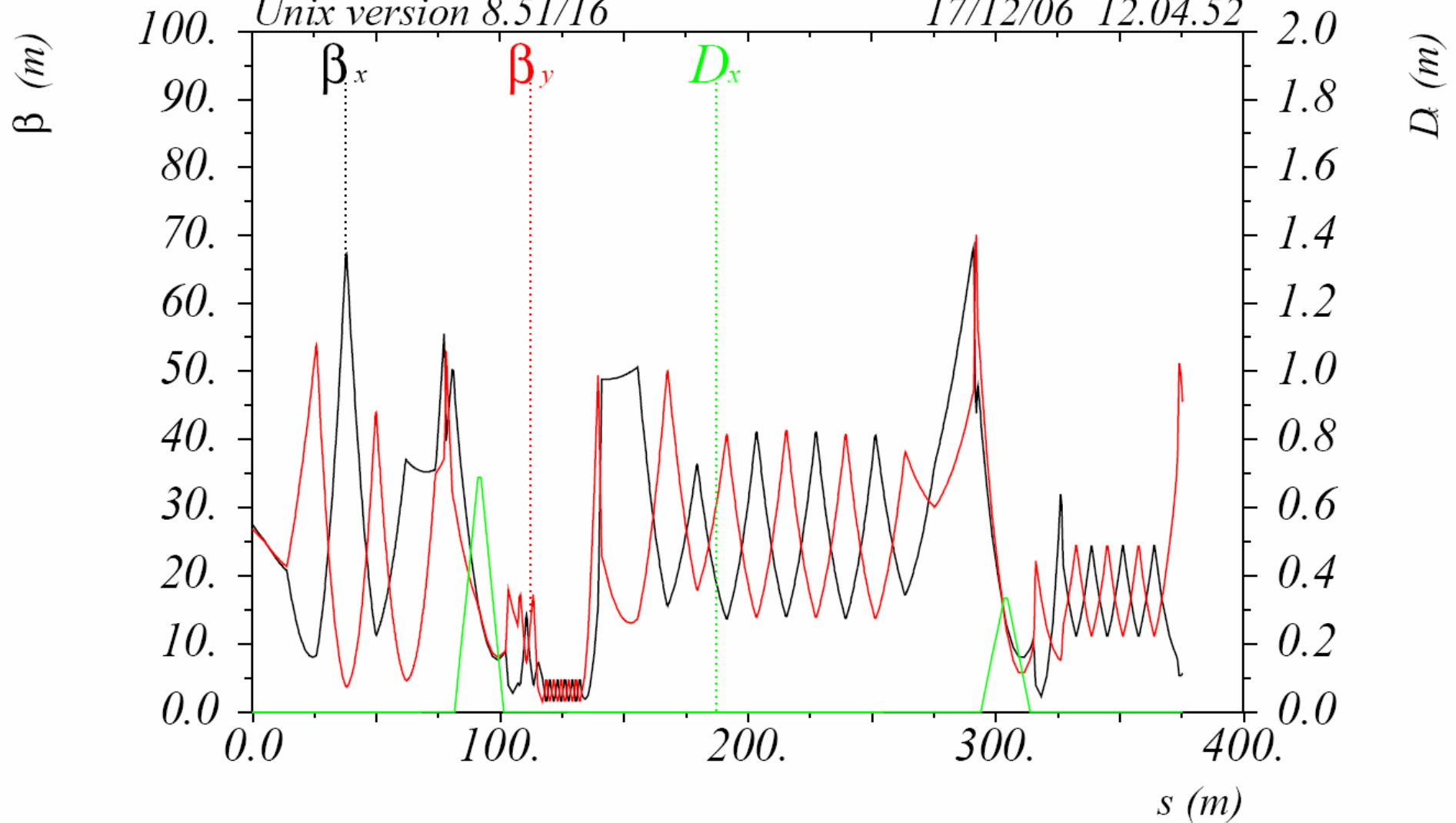




XFEL Bunch Compressor - 15.12.06

Unix version 8.51/16

17/12/06 12.04.52





- Technical Specifications
 - magnet bore radius (half aperture): 20 mm
 - energy reach for magnet system BC1: 800 MeV
 - energy reach for magnet system BC2: 3 GeV

- Include BC Diagnostic Sections in Master Deck
- Increase BC chicane middle dipoles distance to include diagnostics
- Calculate transverse wakefield effects of 3rd harmonic cavities
- Adjust phase advance between BC1 and BC2 to $n\pi$
- Magnet tolerance studies (field quality and alignment of dipoles)