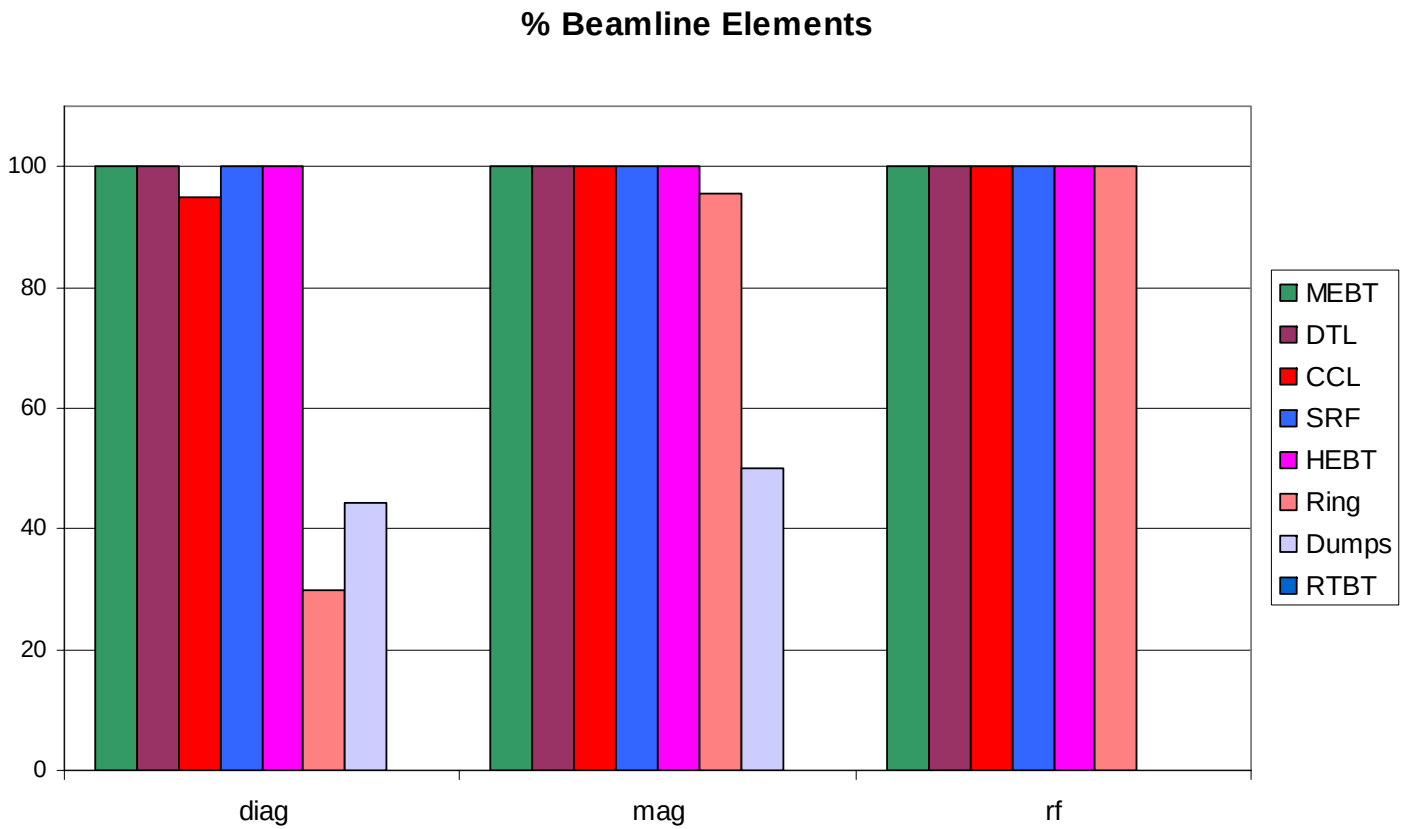
Application Programming

John Galambos

AP Group

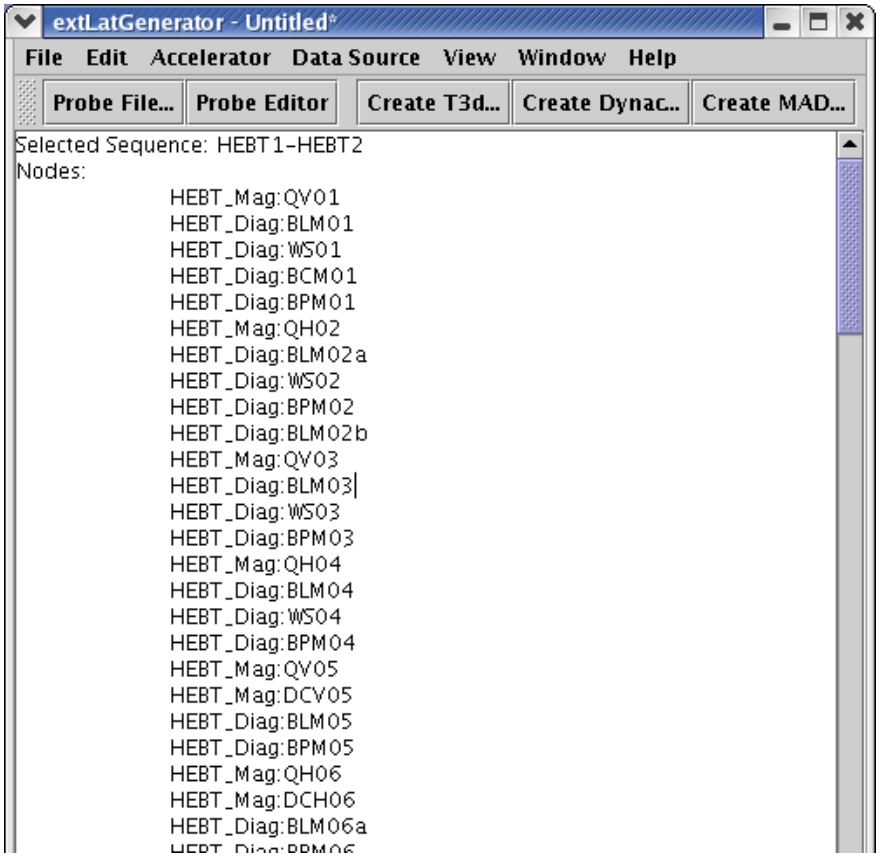
March 10-12, 2003

Database Population



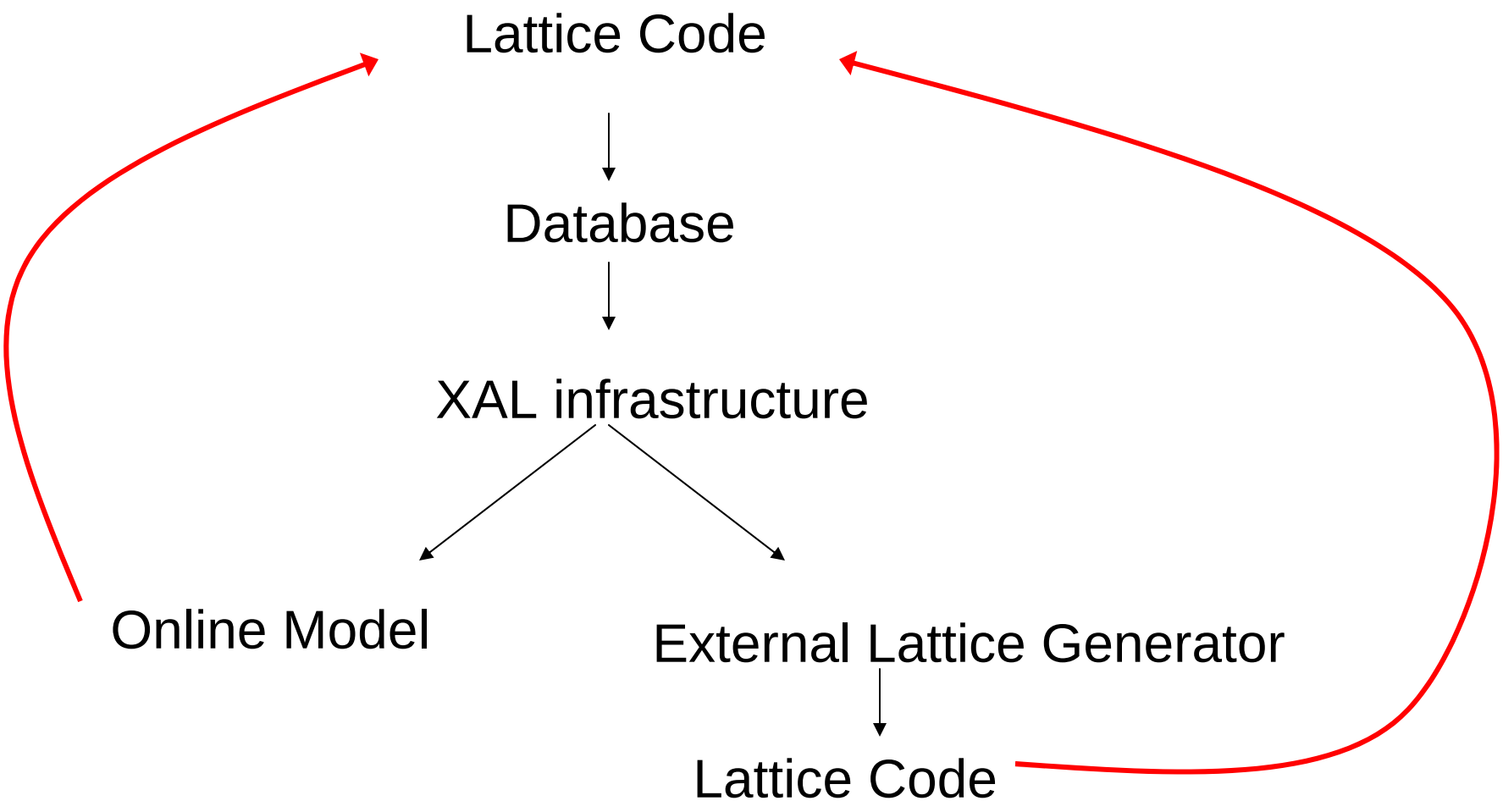
- Mostly populated for MEBT -> Ring
  - RTBT, Injection Dump and Extraction Dump are lacking
- Over 1500 beamline elements are populated

Lattice Generation *(P. Chu)*

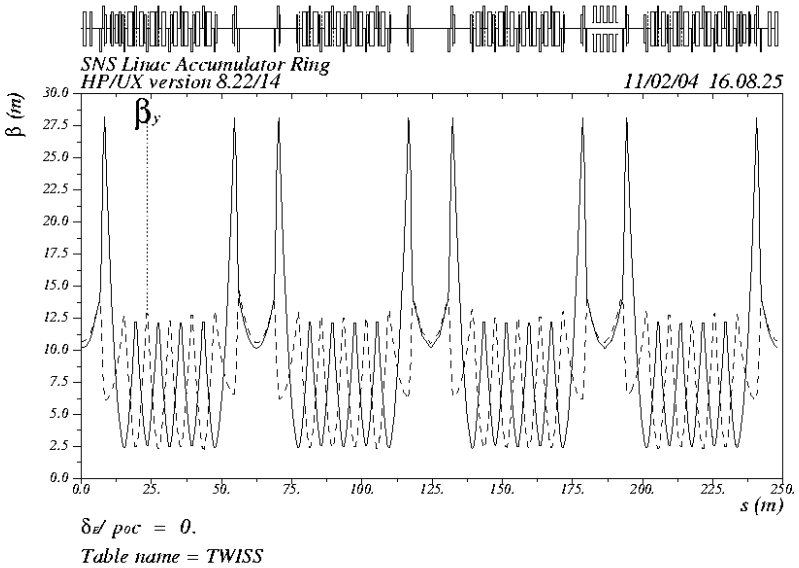


- External Lattice Generator application can generate input files for:
  - Trace 3D, Dynac and MAD
  - For design or live values

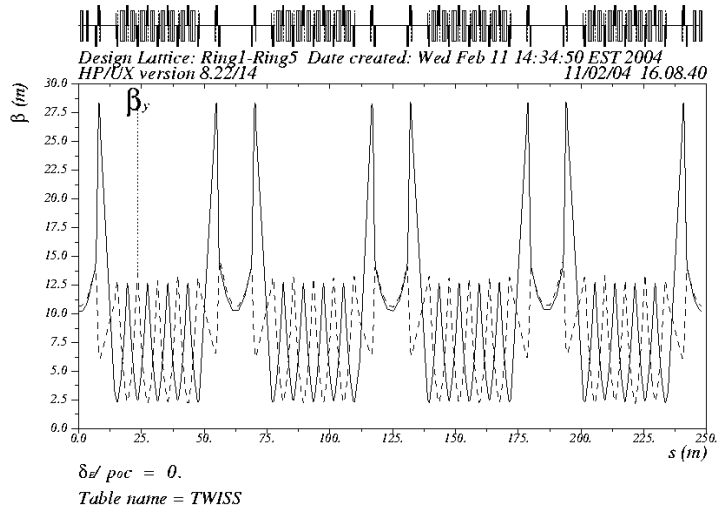
External Lattice Check Procedure



Ring Lattice Check *(P. Chu, S. Couseneau)*



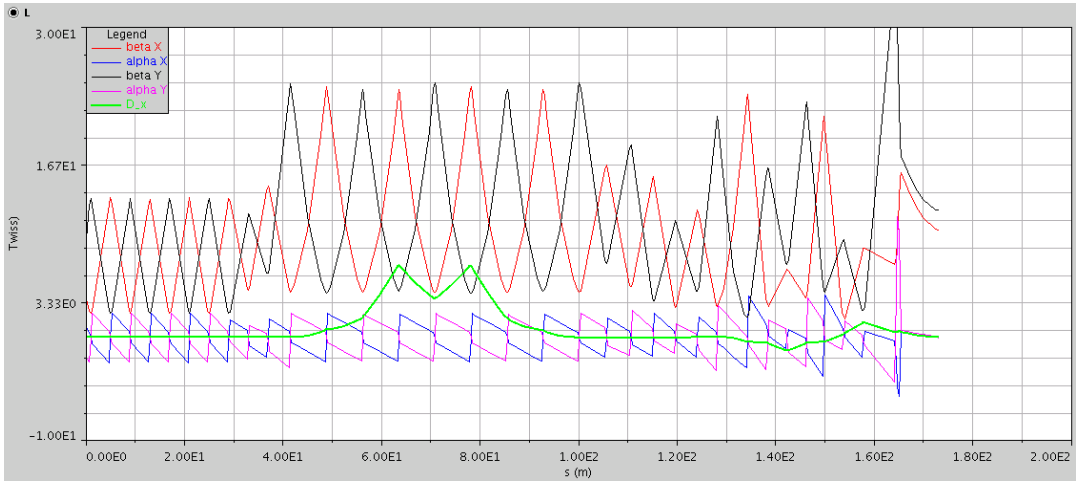
Mad output from original BNL lattice



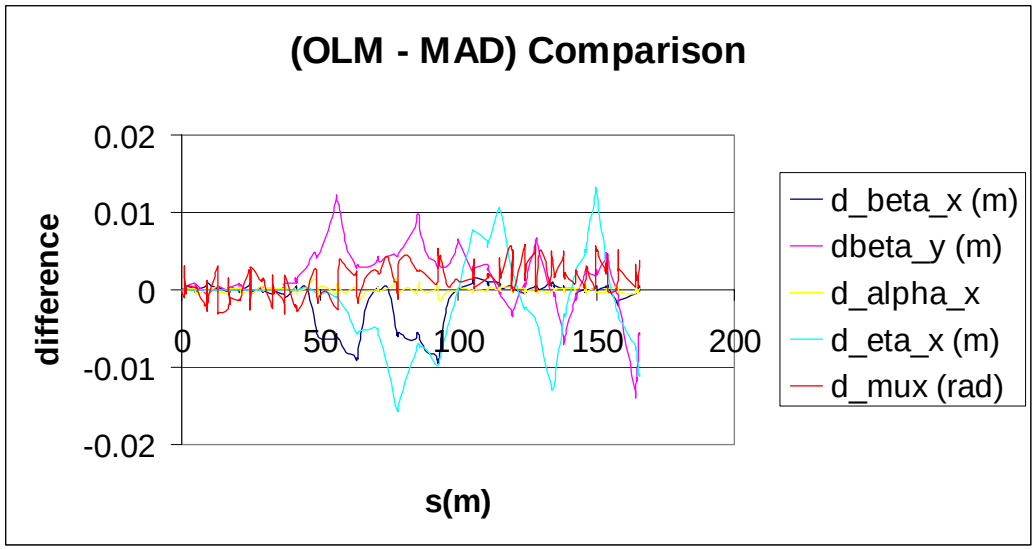
Mad output from XAL generated file

- Good agreement in MAD results, comparing the original starting point and a file generated with XAL (using default values from the database)

HEBT Lattice Check



Online model HEBT results



Comparison of online model and MAD results