VBNLTrak: An Interactive Graphical Post Processor for the Tri-Comp Particle Accelerator Modeling Suite. ANDREW SIEMION, Sierra College / Brookhaven National Lab, AHOVI KPONOU[1], Brookhaven National Laboratory — We present the development of the application VBNLTrak, an interactive graphical post-processor for some components of Field Precision's TriComp 2D suite of finite element (FE) electrostatic and magnetostatic field solution and charged particle orbit tracking programs. VBNLTrak serves as an alternative post-processing tool to VTrak, one of the visualization routines distributed with the TriComp suite. VBNLTrak includes a number of upgrades to VTrak, including the addition of an interactively resizable graphical windowing/layering system with overlay, new plot types which allow the display of axial electric potential, axial magnetic field magnitude, and beam emittance and a full range of customization options which allow the user much improved control over plot style, annotation and inclusions. VBNLTrak was written for the Windows environment using a combination of Compaq Visual Fortran and the Winteracter Graphics Libraries. Here we describe the upgrades and additions instituted in VBNLTrak and detail methods used to interpret TriComp solution files.

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