Interactive and Programmable Environment for Accelerator Modeling and Simulation*, H. NISHIMURA, LBNL, ALS, U.C.BERKELEY, MS 80-101, BERKELEY, CA 94720 - An interactive, visual and programmable environment, TracyM, for accelerator design, simulation and modeling studies has been created by using Omatrix [1] that is a Matlab-like environment on Windows NT. TracyM wraps a C++ class library Goemon [2] for the use from Omatrix. Goemon provides linear optics calculations, particle tracking and various kinds of fitting routines in a manner that is compatible with the matrix manipulation scheme of Omatrix. A user can define a lattice configuration and program ones own logic by inside the Omatrix environment. A standard graphical user interface is in also provided directly by a C++ layer that connects Goemon to Omatrix.

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- [1] Omatrix: Harmonic Software, Inc. Seattle, Washington.
- [2] H. Nishimura, IEEE 95PAC, 95CB35843 (1996) 2162.