Educational Software. Simulation of Charged Particle Trajectories in Presence of Magnetic Fields, F. CALVINO, C. MARTÍNEZ, UPC - A program for learning about charged-particle trajectories in magnetic fields is presented. The program is intended to give students a first sight into the world of accelerators. The numerical resolution of the equations of motion is obtained using an embedded fifth order Runge-Kutta method. Trajectories through a sequence of different magnetic fields, up to octupoles, can be calculated and displayed (in real space and phase space) on the screen simultaneously than any additional information. The values of the different parameters of a ring (beta function, chromaticity...) are also available. Users are allowed to change any desirable parameter and obtain quick information through graphical displays. The program operates on a PC under a MSWindows environment to make easy the user work. A version for DOS is also available.