A coordinate system can severely impact the difficulty of computations of a given problem. The uniformly accelerated coordinates are well-suited for a description of uniformly accelerated motions. It is usually the primary choice for expressing the C-metric, which is an exact solution to Einstein's equations. In this thesis, the coordinates are considered in a limit of a flat spacetime, where problems have analytical solutions, and a good adaptation of coordinates is blatant. A natural definition of those coordinates is presented through Rindler coordinates and Milne coordinates. First from those specific problems that display good adaptation of uniformly accelerated coordinates are null geodesics. Then the Born's solution is computed, followed by pictures of electric intensity, magnetic induction, and Poynting vector field in constant global time. There is also computation of integral curves of electric intensity. And finally, it is shown what happens if a dipole is accelerated.