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Topic: Weekly report (6/17-6/23) – implementing “mco” optimization

Last week, I finished implementing “Rglpk” engine and started implementing “mco” engine. Compared to “osqp” and “Rglpk”, “mco” is a multiple criteria optimization which uses genetic algorithms. At the beginning, I tried to transform the objective and constraint criteria to functions which can be used in “mco” environment. Even though I finished setting up the initial environment correctly, the “mco” engine cannot find asset weight combinations fit the constraint criteria, which mean “mco” can find a specific portfolio which is not desirable.

This week, I am going to try to solve these issues. First, I will go through the objective and constraint function again to make sure they coordinate to rules of “mco”. If it doesn’t work, I plan to review the functions of “DEoptim” to figure another way to implement this engine.

Besides, I will polish the codes of “osqp” and “Rglpk”, and make a pull request to merge them.