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Derivative-free optimization is an alternative design method for problems where gradient information is unavailable or unreliable. This is often this case in real-world applications. The presence of constraints adds difficulties the search space has to be restricted to a feasible region. We consider constraint handling for (DFO) to local and global methods like Implicit Filtering (IF), Nelder-Mead (NM) for local and Genetic Algorithm (GA), Particle Swarm Optimization (PSO), Simulating Annealing (SA), DIRECT algorithm for global with the standard penalty method for handling constraints. We introduce a new algorithm for local method that combine filter method for constraints with implicit filtering method and with (PSO) for global method. We consider a suite of test problems that include low and high amplitude noise, and some higher dimensional problems. Performance and data profiles can help understand algorithm performance and guide users when choosing a solution approach. (Received September 19, 2012)