Updated value $x = x^{\text{low}} + yd$.

$$
\begin{array}{lll}
\text{Minimize} & f(\boldsymbol{x}) & \\
\text{Subject to} & g_i(\boldsymbol{x}) \leq 0; & i = 1, \ldots, m \\
& h_k(\boldsymbol{x}) = 0; & k = 1, \ldots, p \\
& x_j \geq 0; & j = 1, \ldots, n
\end{array}
$$