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Letter to the Editor—Comments on the Preceding Note

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A more important remark concerns the Note by GLOVER and ZIONTS accompanying Balas' paper. Namely, if one incorporates the first suggestion of Glover and Zionts to enlarge the D_s set he may miss a better feasible solution than that already found. To avoid this situation, it is necessary to change their definition of C_h to something like the following:

$$C_h = \min [C_p | p \in (N_s \cup E_s - \{j\}) \text{ and } a_{ip} < 0].$$

This change is necessary since the addition of $\{j\}$ to J_s might make some of the elements of E_s available as improving vectors for obtaining the $S+2$ solution.

REFERENCE

1. EGON BALAS, "An Additive Algorithm for Solving Linear Programs with Zero-One Variables," *Opns. Res.* **13**, 517-546 (1965).

COMMENTS ON THE PRECEDING NOTE

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EXAMPLE 4 has indeed more than one solution. In fact, shortly after the publication of my paper, S. RUDEANU has computed all feasible solutions to problem 4, and there were 7 of them, listed below:

x_1	x_2	x_3	x_4	x_5	x_6	x_7	x_8	x_9	x_{10}	x_{11}	x_{12}
○	I	I	I	I	○	I	○	○	○	○	I
○	I	I	I	I	○	I	○	○	I	○	I
○	I	I	I	I	○	○	I	○	○	○	I
○	I	I	I	I	○	○	I	○	I	○	I
○	○	I	I	I	○	○	I	I	I	○	I
○	○	I	I	○	○	I	○	○	I	○	I
○	I	I	I	○	○	I	○	○	I	○	I

The erroneous statement that the problem has only one feasible solution has, of course, no connection with the algorithm itself. It was made on a heuristic basis and was due to an error in the transcription of the problem: the constant on the right-hand side of the last constraint was taken for -9 instead of -4 . In that case the problem has indeed only one feasible solution.

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