1018-13-242 Serkan Hosten* (serkan@math.sfsu.edu), Mathematics Department, 1600 Holloway Avenue, San Francisco, CA 94530, and Pierre Dueck, Mathematics Department, One Shields Avenue, Davis, CA 95616. Every codimension two normal toric ideal has a Cohen-Macaulay initial ideal. Preliminary report.

Hochster's theorem states that every normal toric ideal is Cohen-Macaulay. A finer question is whether every normal toric ideal has a Cohen-Macaulay initial ideal. The answer is positive for those which admit a regular unimodular triangulation. It follows that normal toric ideal in dimension one and two have CM initial ideals. We show that the answer is positive also in codimension one and two by exhibiting square free initial ideals. (Received March 07, 2006)