

Interactive comment on “The Meteorology-Chemistry Interface Processor (MCIP) for the CMAQ modeling system” by T. L. Otte and J. E. Pleim

T. L. Otte and J. E. Pleim

otte.tanya@epa.gov

Received and published: 17 March 2010

We thank the reviewer for the positive and constructive comments on our manuscript. The feedback from the reviewer has improved the quality of the manuscript. The reviewer’s specific comments (shown in *italics*) are addressed below.

1. Pages 1464-5: the “-” sign in Eq. (11) disappears in Eq. (12).

Eq. (12) is correct as written in the manuscript in GMDD. Eq. (11) has been modified so that it is consistent with Eqs. (10) and (12).

C601

2. Page 1454, “windowing” paragraph: There is no explanation of “dot point/cross point” conversion leading to decrease of maximal CMAQ domain with 3 cells (not two) regarding meteorological model domain.

The text in the manuscript in GMDD correctly states that there will be a two-cell decrease in the maximum extent of the CTM domain, not three. The index decreases by three between the meteorological model and the CTM because each model uses a different method to assess the size of the horizontal domain dimensions, i.e., counting cell edges (dot points) in the meteorological model vs. counting cell centers (cross points) in the CTM. The sentence in question was removed as part of streamlining the manuscript.

3. Page 1472, row 17: “to” omitted in “. . .model to CMAQ. . .”

The text was modified as suggested by the reviewer.

4. Page 1486, fig. 2: I would recommend the Arakawa E grid to be added, as far as it is referred in Sect. 8 (page 1473, row 11).

Figure 2 was modified as suggested by the reviewer. A cross-reference to Fig 2 was also added in Sect. 8.

Interactive comment on Geosci. Model Dev. Discuss., 2, 1449, 2009.

C602