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1. Ch. 3, Table 7 Origin Recommendations for Microstation and AutoCAD. The table does not, but should, address global origin for feet/tenths units indicated as 1:10:100 in Table 8. The global origin for these units should be set to the bottom left corner of the xy plane and to the center in the z-direction in the Microstation design cube to be compatible with existing files using previous EM-1110-1-1807 mapping and civil/site standards and to be compatible with most state plane and UTM (at least in southern USA) coordinate systems commonly used with these disciplines.

Response: We are currently reevaluating Table 8 and Table 9 based on user responses and will revise accordingly.

2. Ch. 3, Table 8 Microstation Working Units. Recommend that a single quote ‘ be used instead of “ft” units and that a double quote “ be used instead of “in”, so that automatic dimensioning will use the single quote and double quote to indicate feet and inches respectively. If the preceding recommendation is not accepted, recommend that “ft” and “in” units be capitalized for automatic dimensioning purposes.

Response: Concur, will change. The Master Units will now read feet (') and the Subunits will read inches (").

3. Ch. 3, Table 8 Microstation Working Units. There is a discrepancy in the recommended subunits “th” and the SU per MU value of 10 in column 3 of table, assuming that “th” is an abbreviation for “thousandths” of a foot. The discrepancy is not detrimental except that it is misleading and may be confusing. To resolve the discrepancy, recommend either:

- (a) change the SU per MU value to 1000 and change the PU per MU value to 1, or
- (b) change the subunits to “tn” or some other abbreviation of “tenths”.

Response: Concur, will change the Master Units to read feet (') and the Subunits to read tenths (th).

4. Ch. 3, Table 7 and Table 8. Origin Recommendations for Microstation and Autocad. The Meters/Millimeters units (1:1000:10) indicated in Table 8 have a working area only one tenth the size of the working area the size that we have been using for metric work in the past using units of 1:100:10 (429496 vs. 4294967 meters square). The reduced size is not large enough to include most, if not all, of the state plane and UTM coordinate systems commonly used in civil/site and mapping applications. To use files with the 1:1000:10 units in conjunction with commonly used state plane and UTM coordinate systems, the global origin would have to be shifted varying distances depending upon the project location within the coordinate system. Shifting the global origin to a non-standard position causes problems because reference files will not overlay properly unless the global origin is shifted to the same location in all the files that will be referenced. I recommend that units of 1:100:10 (or some other combination that results in 1000 positional units per master unit) be used for civil/site and mapping applications to minimize these problems. The global origin for these units should be set to the bottom left corner of the xy plane and to the center in the z-direction of the Microstation design cube.

Response: We are currently reevaluating Table 8 and Table 9 based on user responses and will revise accordingly.