

MPG Response

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**General comment:** The difference between the “logical” domain and others has always been a messy issue. The committee that produced SMDL (1985-97) weighed every argument I have seen on this list and many more besides. How many people contributing to this discussion have read the documents that committee produced? How many have used SMDL?

In my view, the higher the conceptual level and the broader the aims of the model, the less likely it is to work in practical applications. SMDL attempted to specify every conceivable need of coordinated notation/graphics/sound applications but, as best I know, has been used less than NIFF, which was much less ambitious, hatched in only six months, and more tied to one operating system than any advisory group would recommend.

At the moment, my reading of the current effort is that it is too involved in trying to accommodate special interests, some of which represent users on the fringes of CWMN, and too little focused on “bread-and-butter” music representation(s) for such constituencies as schools, publishers, and software developers.

To illustrate this point I include just a few comments on specific points:

**SMR 2:** There are existing, well-conceived ways to do most of these but they are not compatible with each other as they stand. Do you plan to ignore these and substitute a one-size-fits-all scheme that will not do any of them as well? For neumes, for example, do you want a print-based model (see Perry Roland’s Unicode specs) or an XML-based model (see Louis Barton, forthcoming in *Computing in Musicology*). Analogous questions could be posed for mensural notation (Renaissance), French harpsichord ornaments (c. 300 of them), dialects of lute tablature, and dozens of other repertory-specific needs..

**SMR 10:** How will the “unmeasured” representation deal with a cadenza in a Mozart piano concerto?

**SMR 12:** Does “multilingual” mean to say “Roman and non-Roman alphabets?” If non-Roman, via Unicode or in some other way (which?).

**SMR 22:** Is this supposed to mean that the user can see the symbolic representation (e.g., in ASCII) or that the user can see notated music? The production of music notation requires vast numbers of x/y coordinates (for page-specification) and font data, neither of which plays any role whatsoever in the “logical” domain.

**“Note-pitch”/Item 19:** For notation and analysis of tonal music, it is essential that pitch inflection (sharp, flat, natural, double sharp, double flat) be represented unambiguously.

Otherwise transposition will not always work correctly. For post-tonal music, some constituencies will want symbolic representations for quarter- and other non-half partial-tone scales. This is not simply a matter of tuning: some contemporary works address as many as six divisions of a whole tone and use them all in the same piece.

**Missing specs:** A lot of what is proposed here will not be implementable unless substantially more time is devoted to specifying metre and duration. Some of the most notable recent efforts at musical data interchange (NIFF, MusicXML) have synthesized pitch-specification suited to printing and duration-specs best suited to MIDI (clock ticks, etc.). This kind of synthesis has its ups and downs, but it has the virtue that both efforts have gone forward to produce useful applications.

All of us tend to underestimate the importance of meter in duration in musical perception (if you play one wrong note, everyone knows it; if you play rubato, you will be called an “expressive” performer). In computer applications, the human tolerances seem to be very different. Alter a note for watermarking purposes and no one is supposed to notice it; notate the rhythm (any rhythm) the way it is played in a performance and no one can read from the resulting score (look at issues of MacWorld from c. 1987 for lots of examples).

**“Completeness” issues:** In my view there is no such thing as a representation of any piece of music which is both abstract and complete. If there were, it would be too verbose for any of us to read. CWMN is one of the best symbolic representations of music ever devised, but it is not static and it is not complete. It has worked for several hundred years because it has been buttressed by a vast network of oral tradition. Computers are deaf to oral tradition, and therefore no amount of extra specification is ever quite enough.

**Perfect models:** Many people who have been involved in music applications development for a long time find that the model that seems so perfect at the outset turns out, as new spokes are fitted onto the hub, not to be extensible in convenient ways. The value in the committee’s work is more likely to be counted a success in the long-term future if it proceeds cautiously and tests both the viability and the flexibility of all its elements at each stage.

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