Building the Millennium Standard

or . . . Pattern Matching Controversy Resolved

The MUMPS Development Committee meets several times in a year to discuss proposals to enhance the M Technology ANSI standards, including the M Language standard. The MDC last met in September and plans to meet again in March 1998. Several *M Computing* readers who were not able to attend the MDC meetings are, nevertheless, interested in some of the specifics of these proposals. We'll try to, very briefly, describe a few of them in this column in each issue of *M Computing*.

The MUMPS Development Committee plans to begin the canvass process in 1998 to revise several of the current M Technology ANSI standards. If you would like to participate in the canvass process to seek ANSI approval, contact the MDC Secretariat at the MTA office to be put on the preliminary canvass list.

An MDC Type A proposal is one that will be included in the next revised version of the MDC standard document. The MDC standard is the draft standard that will be canvassed for ANSI approval as a revision of the current ANSI standard document.

This is a brief summary of one of the recent proposals that the MDC has passed to MDC Type A status. Not all the sections of the proposal or the formalization of the actual changes proposed for the current ANSI standard have been included.

"Pattern Ranges", document X11/97-3.

Justification of the proposed change:
It is somewhat annoying and nonintuitive to test for a substring matching any of a set of characters, especially when multiple such tests need to be done in one pattern match. Although one can define additional patcodes using the methods developed for internationalization, this is clumsy for checks which need to be done only once, and is not modular (you can't NEW a patcode definition).

Existing practice:
To test for a string starting and ending with the vowels:

```
$TRANSLATE(X,"EIOU","AAAA")?1"A".E1"A"
```

To test for a string containing hexadecimal characters:

```
$TRANSLATE(X,"ABCDEF",999999)?.N
```

General description of the proposed change:
Bracket syntax is added to the definition of underline patcode to allow for a pattern which matches any of a set of characters. Note that due to the use of the sorts after operator in the definition of ranges, the exact list of characters which match one of these patcodes may change depending on the national/cultural environment.

Examples of the use of the proposed change:
The examples above could be replaced by

```
X?1["AEIOU"].E1["AEIOU"]    ;starts and ends with a
vowel
X?.["A":"F"]N    ;any number of occurrences of either
the letters A to F or digits.
```

"The above MDC specification has been approved by the MUMPS Development Committee but it may be a partial specification that relies on information appearing in many parts of the MDC Standard. This specification is dynamic in nature, and the changes reflected by this approved change may not correspond to the latest specification available. Because of the evolutionary nature of MDC specifications, changes are likely to occur in the specification released prior to a complete republication of the MDC standard."

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