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## FROM THE EDITOR

# Pronouncing the Name of a Global... Or: A Carrot is a Carrot



Valerie J. Harvey

by Valerie J. Harvey

It is something M users do all the time: saying out loud the name of a "global." We read "<sup>^</sup>GLOBAL" and say... well, at this point the "implementations" in natural language differ. The symbol is properly "caret" or "circumflex" and yet we often say "up-arrow." Historically, when M was first used, the symbol above some number (not necessarily 6, as today) was really an up-arrow. This usage continues among many M users. Today most keyboards have a key with a "real" up-arrow (intended for cursor control), sometimes leading to confusion if the instruction is given, enter "'up-arrow' 'G' 'L' 'O' 'B' 'A' 'L.'" When people encounter M for the first time, this up-arrow usage may seem strange or anachronistic, but it certainly represents "tradition!"

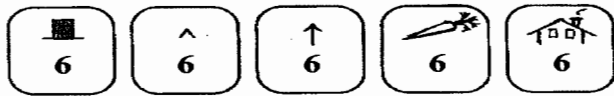
At Robert Morris College from 60 to 80 students each year sign up for CI330 (Introduction to M Programming, usually with my colleague Don Caputo) and CI331 (Advanced M Programming) and use M in other classes. For almost all of these students M is a new experience. It seems sensible to guide the students toward a usage for globals that is correct in a majority of the cases. When some of these students go to work using M, they will have to interact with other programmers, customers, etc. Once habits are established, they are difficult to change. Also, the students face technical questions during job interviews and need to discuss code appropriately. Students cannot turn to non-M programmers or students for information. Nick Thireos at Rochester Institute of Technology and Dick Walters at the University of California at Davis, as well as staffs of companies offering M training and employee training teams for many M users, must have similar experiences.

The only way to determine usage (in this case) is to ask the experts. Since very few colleges and universities offer M courses in the regular curriculum, many have to turn to M-user organizations to find out how things are "really" done. So recently an informal survey of usage on global and function names was conducted on the M newsgroup (comp.lang.mumps).

Interestingly enough, although there is good agreement on how to say function names, there is not such good agreement on how to pronounce notation for global references. There is even difference on rendering subscripts (involving syntax and use of: of, sub, comma). One respondent pointed out that the common, but not universal up-arrow (which made sense on the old keyboards of terminals used with PDP systems for years) is now confusing when there is a rather obvious cursor control up-arrow on every keyboard and the M up-arrow really looks like a caret.

Responses were requested on “^XYZ” and “\$ORDER (^XYZ (2, 5))” as examples.

Here are the responses on ^XYZ:



up-arrow	7
caret	2
hat	1
up-arrow or caret or global sign	1
up-arrow or global	3
up-arrow or caret	1
up-arrow or [just] up	1
hat or global	1
caret or [just] up	1

Some respondents reported having to use “shift 6” for clarity, and to distinguish between up-arrow and “real” up-arrow. There was also mention of ways of distinguishing between local arrays (“array XYZ”) and global arrays (“global XYZ”).

Other contributions on global references:

In Canada, “ca-ray” is reported as a pronunciation for caret. In German it is: Hütchen (little hat) or Dächerl (little roof). In Dutch they say: dakye (roof or housetop) or hoedje (hat).

The rendering of \$ORDER was an easier topic:

dollar O	12
dollar order	3

One reported “dollar order” but “dollar D” (for \$DATA).

Differences also showed up regarding how to refer to the subscript portion of an array reference. The subscript portion of ^XYZ (2, 5) could be read as:

“of XYZ of 2 comma 5” or “XYZ sub 2 sub 5.”

Discussion also touched the integer arithmetic operator symbols \ and #:

The borrowing of “div” for \ from Pascal usage was considered confusing by some. The symbol # is pronounced “hash” in the U.K.

For the new syntax \$&, both “dollar ampersand” and “dollar amp” were reported.

There is a story of an air traffic controller’s recommendation on how to handle a pilot who has been told to turn left but has turned right. Using the same word again over a radio channel might be useless. The recommended, somewhat less than courteous, next instruction is: “The *other left*, you idiot!” Although these M usage questions may appear trivial, communication among employees in an organization and with customers at a technical level (often on the phone) needs to be as trouble-free as possible. Frustrations and errors can arise from simple differences in usage.

Paul M. Friedland entitled a post on this topic “A carrot is a carrot” and wrote, “I just spent 10 years at [name of organization omitted] where the ^ character was called up-arrow almost exclusively. Occasionally, a newcomer would try to call it caret, but would not be understood.” He continued, “The subject line is a quote from the playwright Chekhov and is completely irrelevant, but interesting. The full quote is, ‘You ask me what love is? That’s like asking what a carrot is. A carrot is a carrot; nothing else is known’.”

While the usage within different organizations is likely well established (and therefore usage is not standardized within the M community (What? Not standardized?)), at least awareness of the varying usage within the community should help us in spoken technical communication. Consideration might also be given as to how such usage should be handled in the process of presenting the technology to new potential users. Jeff Freeze wrote: “I work in a section of a U.S. organization whose clients are in Europe. It is not uncommon that ‘small technical details’ need to be clarified and clear; accurate communication is absolutely critical for success. Even in organizations where the employee/client base has been primarily ‘non-European’, I am amazed at how often humans fail to communicate clearly over the littlest details.” **M**

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