Mumps Development Committee

Extension to the MDC Standard
Type A Release of the MUMPS Development Committee

Parameter Passing to a Routine

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Produced by the MDC Subcommittee #15
Programming Structures

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The reader is hereby notified that the following MDC specification has been approved by the MUMPS Development Committee but that 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, the reader is further reminded that changes are likely to occur in the specification released, herein, prior to a complete republication of the MDC Standard.

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1.1 Title: Parameter Passing to a Routine

1.2 MDC Proposer and Sponsor:

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1.3 Motion: None. This document supersedes X11/95-90.

1.4 History:

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Feb. 1996	X11/95-132	Final document
Oct. 1995	X11/95-90	Passed as MDC type A (26:1:3)
June 1995	X11/SC15/TG9/95-1	Remanded to task group to expand the implementation impacts statement.
Jan. 1995	X11/SC15/TG9/94-7	Passed as SC15 type A (20:0:2) Passed by TG9 (8:0:2) Changed the location of the added text, expanded the text to follow 8.1.6.1.
June 1994	X11/SC15/TG9/94-4	Voted on by TG9, Passed (13:1:9) Passed as SC15 a type B (21:2:2)
June 1993	X11/SC15/TG9/93-5	Document discussed
Feb. 1993	X11/SC15/93-5	Remanded to TG9
October 1992 X11/SC15/92-14		Passed as SC type C (19:4:2). pro: clarifies a potential ambiguity con: not necessary
29 April 19	992 X11/SC15/92-14	Initial proposal.

2. Justification of Proposed Change

2.1 Needs

A curious observation about parameter passing. When a labelref is just a routine name, i.e. ^routine(param1, param2, ...), this implies that the first line in the routine is a formal line. However, it does not require that the label of this formal line to be anything in particular. In 8.1.6.1 it does say: If the line reference (dlabel [+ intexpr]) is absent, the first line is implied.

This was raised as NIST issue ID#9.

2.2 Existing Practice in Area of the Proposed Change

To have the TAG on the first line the same as the routine NAME. VAX DSM doesn't check.

3. Description of Proposed Change

3.1 General Description of the Proposed Change.

The first paragraph of 8.1.6.2 states that the specified <u>line</u> must be a formal line, but that the value of the TAG is not considered when the call is of the form ^RNAME(param1,param2,...). This proposal will clarify that the first line is implied.

3.2 Annotated Examples of Use

none

3.3 Formalization X11.1

In part 8.1.6.2 add to the beginning of the 3rd paragraph

If the routine reference (^[| environment |] routinename) is absent, the routine being executed is implied. If the line reference (label) is absent, the first line is implied.

4. Implementation Impacts

4.1 Impact on Existing User Practices and Investments

Parameter Passing to a Routine

This is an extension of the description of a <u>entryref</u> to <u>labelref</u>. There is a sizable impact on Greystone and one of their customers that has made use of a different interpretation. DSM for Open VMS, MSM-PC/PLUS and ISM for NT all enforce the same interpretation as the Formalization.

4.2 Effect on Existing Vendor Practices and Investments

Currently DSM for Open VMS, MSM-PC/PLUS and ISM for NT already are conforming to the new formalization. There is a cost to Greystone to work out some accommodation with there current customers that use a different interpretation.

4.3 Techniques and Costs for Compliance Verification

Build two routines T1 and T2.

T1 ;First line not a formal line

EN(X)

Q

T2(X) ; First line is a formal line

Q

D ^T1(1)

Should cause an error.

D ^T2(1)

Should not cause an error.

4.4 Legal Considerations

none

5. Closely Related Standards Activities

5.1 Other X11 Proposals Under Consideration.

X11/SC15-91-13 First Line Format

5.2 Other Related Standards Efforts

none

5.3 Recommendations for Coordinating Liaison

none

6. Associated Documents

X11/92-96 NIST request for clarification, issue #9.

7. Issues, Pros and Cons, and Discussions.

June 1994

Pro 1

Clarifies standard (3)

Con 1

My customers won't like it.

Jan. 1995

Pro 1

Clarifies standard

8 Glossary

none

9. Appendix

none