

**X11/96-11**

# **MUMPS Development Committee**

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

## **fncode Correction**

October 26, 1995

Produced by the MDC Subcommittee #13  
Data Management and Manipulation

Ed de Moel, Chairman  
MUMPS Development Committee

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Subcommittee #13

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. Identification

### 1.1 Title:

## fncode Correction

### 1.2 MDC Proposer and Sponsor:

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### 1.3 Motion:

None (final version of document), superseding X11/SC13/95-23.

### 1.4 History:

<u>Date</u>	<u>Document</u>	<u>Action</u>
01 Feb 96	X11/96-11	Final publication version
31 Aug 95	X11/SC13/95-23	Proposed as MDC/A (passed: 18:3:9)
19 Apr 95	X11/SC13/95-15	Proposed as SC13/A (passed: 22:0:3)
01 Dec 94	X11/SC13/94-49	Proposed as SC13/A (passed: 16:2:5 as amended -> SC13/B)
01 Sep 93	X11/SC13/TG2/93-13	Initial proposal as SC13/B (passed: 9:0:4)

### 1.5 Dependencies:

No proposals have been identified which depend on this proposal.  
No proposals have been identified upon which this proposal depends.

## 2. Justification

### 2.1 Needs

There appears to be no explicit limit on what can be provided within a fncode; the metalanguage says that it is interpreted as a series of fncodatoms without explicitly stating that an error occurs if the fncode cannot be interpreted as a series of fncodatoms. This proposal tries to reserve fncode's as the domain of the MDC.

### 2.2 Existing Practice

How do existing implementors handle 'Z' in an fncode? DSM v6.0A returns an error. DTM v4.8 appears to ignore the invalid fncodatom. This inconsistency should be settled.

### 3. Description

#### 3.1 General description

If a fncode contains characters which cannot be interpreted as fncodatoms, it is an erroneous condition; whether an error occurs can be left to the implementation, but the routine is not 'conforming' to mumps.

#### 3.2 Annotated Examples of Use

The following should not be considered a conforming mumps routine:

```
W !, $FN(number, ", pz", 2)
```

#### 3.3 Formalization (References are to the X11.1-1994 Canvass Document)

- Add after the list of fncodatoms and their actions the sentence:

"All other values for fncodatom are reserved."

### 4. Implementation Effects

#### 4.1 Effect on Existing User Practices and Investments

None expected.

#### 4.2 Effect on Existing Vendor Practices and Investments

Costs of implementation.

#### 4.3 Techniques and Costs for Compliance Verification

Not applicable.

#### 4.4 Legal Considerations

None identified.

### 5. Closely Related Standards Activities

#### 5.1 Other X11 Proposals Under Consideration

None.

#### 5.2 Other Related Standards Efforts

None.

### **5.3 Recommendations for Coordinating Liaison**

None.

### **6. Associated Documents**

None.

### **7. Issues, Pros and Cons, and Discussion**

Assume that 'X' is added to the list of permitted fncodatoms. If the standard does not produce errors when non-fncodatoms are in the fncodexpr, then there might be existing code which contains 'X' in the fncodexpr but which had been ignoring it; now those uses of \$FN will behave differently since now the 'X' fncodatom will be interpreted. If the standard does produce errors when non-fncodatoms are in the fncodexpr, then when a new fncodatom is added, no pre-existing code will change its behavior.

#### **October 1993**

Presented for SC13/B status: passed, 9:0:4

1. Pro: Removes ambiguity.

The ecode value will be requested once the proposal achieves SC13/A status.

#### **January 1995, Albuquerque, NM**

Presented for SC13/A status, passed 16:2:5 as amended as SC13/B

Amendment was to remove the last bullet item from section 3.3 which actually stated the an error is produced. The consensus was that 'reserving' all other fncode's was 'good enough' and avoided problems with adding new fncodes. Amendment declared substantive.

#### **June 1995, Chicago, IL**

Presented for SC13/A status, passed 22:0:3

No cons.

#### **October 1995, New Orleans, LA**

Presented for MDC/A status, passed 18:3:9

Pro: Reserves something that needs to be reserved.

Con: Should produce an error.

### **8. Glossary**

None.

### **9. Appendix**

None.