

## 1. Identification of the proposed change

### 1.1. Title

## Definition of Reverse \$QUERY

### 1.2. MDC Proposer and Sponsor

This proposal originates from Ed de Moel.

Motions regarding the status of this document will be made by Taskgroup 13 (Data Structure Traversal) of Subcommittee 13 (Data Management and Manipulation).

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### 1.3. Motion

No motion.

### 1.4. History of MDC actions

Date	Document	Action
September 1999	X11/1999-4	Final write-up
September 1998	X11/SC13/1998-15	Presented for consideration as MDC Type A, accepted 15:0:1
June 1998	X11/SC13/TG13/1998-4	Presented for elevation to SC#13 Type A, accepted 13:0:2.
March 1998	X11/SC13/TG13/1998-1	Presented for elevation to SC#13 Type B; accepted 17:0:2.

### 1.5. Dependencies

None.

## 2. Justification of Proposed Change

### 2.1. Needs

The wording of the current definition of reverse \$QUERY does not correspond to the intended behavior of the function.

### 2.2. Existing Practice in Area of the Proposed Change

All implementations known to the author of this proposal conform to the intended behavior of reverse \$QUERY (i.e. none follow the current wording of the standard).

## 3. Description of the proposed change

### 3.1. General Description of the Proposed Change

Make the wording of the definition correspond to the intended behavior.

### 3.2. Annotated Examples of Use

Assume that the following code would be executed:

```
KILL X SET X=1,X(2)=2,X(2,3)=23
WRITE $QUERY(X(2,3),-1)
```

All current implementations would produce "X(2)", as intuitively expected. The wording of the standard currently implies, however, that a value equal to the empty string should be returned (the letters in the

sequence below correspond to the steps in the definition in the current standard):

```
a: V = x(2,2)
b: no action
c: no action
d: no action
e: s=$o(x(2,2)) = ""
f: V = x(2), goto d
d: no action
e: s=$o(x(2)) = ""
f: V = x, goto d
d: return ""
```

The proposed re-definition would change this sequence of steps to:

```
a: V = x(2,2)
b: no action
c: no action
d: no action
e: s=$o(x(2,2)) = ""
f: V = x(2), goto j
j: return "x(2)"
```

### **3.3. Formalization**

In Section 1 (X11/TG6/97-1, Draft Millennium Standard, version 12), clause 7.1.5.15, in the definition of \$Q[QUERY](glvn,expr) replace step f by:

f. If s = "", truncate the last subscript of V, and go to step j.

And add two steps j and k:

j. If \$D(V)#2 = 1, return V formatted as namevalue.

k. Go to step d.

## **4. Implementation impacts**

### **4.1. Impact on Existing User Practices and Investments**

None, there is no change to the language or to any implementation.

### **4.2. Impact on Existing Vendor Practices and Investments**

None, there is no change to the language or to any (known) implementation.

### **4.3. Techniques and Costs for Compliance Verification**

See annotated examples.

### **4.4. Legal considerations**

None.

## **5. Closely related standards activities**

**5.1. Other X11 Proposals (Type A or Type B) Under Consideration**

None.

**5.2. Other Related Standards Efforts**

None.

**5.3. Recommendations for Co-ordinating Liaison**

None.

**6. List of Associated Documents**

None.

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

**7.1. March 1998, Buckhead, Georgia**

The discussion recognized the need for this correction to the standard. One typographical error corrected; no cons raised.

Pro: 1. Corrects flaw in the standard

2. Has been implemented.

**7.2. June 1998, Waltham, Massachusetts**

Accepted as SC#13 Type A (13:0:2), no cons raised.

**7.3. 19 September 1998, Seattle, Washington**

Accepted as MDC Type A (15:0:1), no cons raised.