1.　Identification of the proposed change

1.1.　Title

OPEN command clarification (re-OPEN)

1.2.　MDC Proposer and Sponsor

This proposal originates from David Marcus. The document editor is Ed de Moel.

Motions regarding the status of this document will be made by Taskgroup 9 (General Device Issues) of Subcommittee 12 (Environment).

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1.3.　Motion

No motion.

1.4.　History of MDC actions

Date	Document	Action
September 1998	X11/1998-23	Final print-out
June 1998	X11/SC12/1998-7	Presented for consideration as MDC Type A, accepted 16:0:3.
March 1998	X11/SC12/TG9/1998-4	Presented for consideration as SC#12 Type A; accepted 9:3:5.
September 1997	X11/SC12/TG9/97-3	Presented for consideration as SC#12 Type B, accepted 12:0:5.
March 1997	X11/SC12/TG9/97-1	Presented for consideration as SC#12 Type C, although the document did not appear in the pre-meeting mailing, the general concept found approval of the task group.

1.5.　Dependencies

None.

2.　Justification of Proposed Change

2.1.　Needs

The standard is not explicit about what is intended to happen when an OPEN command is executed while the device that is to be OPENed is already OPEN, and the parameters on the "new" OPEN command are different from those that were established in the OPEN command that was executed earlier for the device in question. This proposal aims to define explicit behavior.

2.2.　Existing Practice in Area of the Proposed Change

To the knowledge of the document authors, all implementations "replace" the established parameters by the newly specified parameters, to the extent that their implementations are in control of such parameters. Some implementations rely upon the underlying operating environment for some or all of the device parameters.

3.　Description of the proposed change

3.1.　General Description of the Proposed Change

This proposal adds explicit language to the standard to define the expected behavior of the OPEN command in the situation described in the "needs" section.

3.2.　Annotated Examples of Use

To be provided.

3.3.   Formalization
In **Section 1** of the M[UMPS] Programming Language Standard, in **clause 8.2.15**, Definition of the OPEN command, near the end of the definition, insert this paragraph:

... that issued the OPEN command.

In the case that a process has successfully executed an OPEN command for a certain device and has established certain operational parameters for that device, and subsequently the same process makes an attempt to execute an OPEN command for the same device while specifying different operational parameters, those established operational parameters that are controlled by the implementation, and for which new values are supplied, will be discarded, and an attempt will be made to establish the newly specified parameters as the current ones for the device in question.

Ownership...

4.   Implementation impacts

4.1.   Impact on Existing User Practices and Investments
This proposal does not affect existing code or practices.

4.2.   Impact on Existing Vendor Practices and Investments
The implementation of Greystone Technology relies upon the underlying operating environment to manipulate certain device parameters, and once certain parameters are established, it is outside of the control of this M[UMPS] implementation whether or not the parameters in question can be modified. The proposal was modified to limit the requirement to those parameters that are controlled by the M[UMPS] implementation.
If the authors' impression is correct that all current implementations behave according to the proposed explicit addition, there will be no impact on existing vendor practices and investments..

4.3.   Techniques and Costs for Compliance Verification
To be provided.

4.4.   Legal considerations
None known to the authors of this document.

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 1997, San Diego, California**
Proposal introduced.

7.2.   **September 1997, Chicago, Illinois**
The concern was raised that some implementations might not be in control of all device parameters.
An addition was made to limit the responsibility of an implementor to those parameters that are controlled
by the M[UMPS] implementation.

Pro: 1. Clarifies as yet unspecified situation.
2. The amendment made in task group is consistent with the current standard.
Con: 1. The amendment made in task group violates the principle of least astonishment.

7.3.   **21 March 1998, Buckhead, Georgia**
A concern was raised about the possible situation where a new value for a parameter is requested. There
may be situations where the implementation or the underlying platform is not able to apply the requested
parameter. It is also felt that the same situation exists with the OPEN command when the "initial" instance
of the command runs into a similar situation. This proposal does not attempt to modify any particular
behavior under this condition.

Pro: 1. Clarifies as yet unspecified situation.
2. Consistent with the current standard.
Con: 1. Does not attempt to define what happens when a change of parameters fails.

7.4.   **28 June 1998, Waltham, Massachusetts**
Approved as MDC Type A (16:0:3); no nons raised.