DATE: 1999-02-04

DOC TYPE:	Expert contribution
TITLE:	Weierstrass p erratum (U+2118)
SOURCE:	Barbara Beeton and Murray Sargent III
PROJECT:	
STATUS:	Proposal
ACTION ID:	FYI
DUE DATE:	--
DISTRIBUTION:	Worldwide
MEDIUM:	Paper and html
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A. Administrative

1. Title	Weierstrass p erratum (U+2118)
2. Requester's name	Murray Sargent III
3. Requester type	Expert request.
4. Submission date	1999-02-04
5. Requester's reference	Scientific and Technical Information Exchange (STIX)
6a. Completion	Complete proposal
6b. More information to be provided?	If requested

B. Technical -- General

1a. New script? Name?	No.
1b. Addition of characters to existing block? Name?	No.
2. Number of characters	none
3. Proposed category	
4. Proposed level of implementation and rationale	Level 1
5a. Character names included in proposal?	Yes.

5b. Character names in accordance with guidelines?	Yes.
5c. Character shapes reviewable?	
6a. Who will provide computerized font?	None needed
6b. Font currently available?	None needed
6c. Font format?	na
7a. Are references (to other character sets, dictionaries, descriptive texts, etc.) provided?	Yes.
7b. Are published examples (such as samples from newspapers, magazines, or other sources) of use of proposed characters attached?	U+2118 is correct for Weierstrass symbol
8. Does the proposal address other aspects of character data processing?	No

C. Technical -- Justification

1. Contact with the user community?	Yes. Barbara Beeton, Murray Sargent III
2. Information on the user community?	Professional mathematicians, physicists, astronomers, engineers, and other scientific and technical researchers.
3a. The context of use for the proposed characters?	Used in publication of research mathematics and other hard sciences.
3b. Reference	
4a. Proposed characters in current use?	Yes.
4b. Where?	Worldwide, by scientific and technical publishers.
5a. Characters should be encoded entirely in BMP?	Yes.
5b. Rationale	Accurate publication of mathematical and scientific research on the Web is impossible without a comprehensive and accurate collection of symbols including various alphabetic variants in common use. Allocation in the BMP is in accordance with the Roadmap.

6. Should characters be kept in a continuous range?	Yes
7a. Can the characters be considered a presentation form of an existing character or character sequence?	No.
7b. Where?	
7c. Reference	
8a. Can any of the characters be considered to be similar (in appearance or function) to an existing character?	No
8b. Where?	
8c. Reference	
9a. Combining characters or use of composite sequences included?	Yes
9b. List of composite sequences and their corresponding glyph images provided?	na
10. Characters with any special properties such as control function, etc. included?	No

D. SC2/WG2 Administrative

To be completed by SC2/WG2

1. Relevant SC 2/WG 2 document numbers:	
2. Status (list of meeting number and corresponding action or disposition)	
3. Additional contact to user communities, liaison organizations etc.	
4. Assigned category and assigned priority/time frame	
Other Comments	

Letterlike symbol ℘ U+2118 as printed in *The Unicode Standard, Version 2* is the correct glyph for the Weierstrass p symbol, but not for the Power Set symbol. The name given, SCRIPT CAPITAL P, does describe the Power Set symbol, which looks like the SCRIPT CAPITAL R (U+211B), without the r tail. However, the Weierstrass p symbol is a lower-case symbol and looks as much like a Greek ρ as it does a script p. The name of the symbol cannot be changed at this date, even though it certainly doesn't apply to the Weierstrass symbol. Accordingly we propose to change the comment

"= Weierstrass elliptic function" to "=Weierstrass elliptic function (which is shown correctly as a lower-case character)"

We propose to delete the comment "= per, power set", since the power set symbol looks quite different, although it is a particular SCRIPT CAPITAL P.

We propose to delete the comment "℘ <font> 0050 P Latin capital letter p".

It seems reasonable to add a new Letterlike Symbol:

21xx ℘ POWER-SET SCRIPT CAPITAL P
          "= per, power set"
          "→ <font> 0050 P Latin capital letter p"