5.27 PALETTE

BIFF2	BIFF3	BIFF4	BIFF5	BIFF7	BIFF8
---	0092$_H$	0092$_H$	0092$_H$	0092$_H$	0092$_H$

This record contains the definition of all colors available for cell and object formatting.

Record PALETTE, BIFF3-BIFF8:

Offset	Size	Contents			
0	2	Number of following colors (nm)			
2	4·nm	List of nm colors. Each color contains:			
			Offset	Size	Contents
			0	1	Red component of the color
			1	1	Green component of the color
			2	1	Blue component of the color
			3	1	Not used

5.28 PASSWORD

BIFF2	BIFF3	BIFF4	BIFF5	BIFF7	BIFF8
0013$_H$	0013$_H$	0013$_H$	0013$_H$	0013$_H$	0013$_H$

This record stores a 16-bit hash value for a sheet or workbook protection password.

Offset	Size	Contents
0	2	16-bit hash value of the password

This is the algorithm to create the hash value from a given password:

• The ASCII values of all characters are rotated left with a number of digits depending on the character position (first character is rotated left 1 bit, second character 2 bits, and so on). There is a space of 15 bits available for rotation (bit 15 jumps to bit 0, bit 16 jumps to bit 1 and so on).

• All rotated characters are combined using XOR operation.

• The number of characters is added using XOR operation.

• The constant CE4B$_H$ is added using XOR operation.

Example: The password is „abcdefghij" (10 characters).

Character	ASCII	Shifted	Rotated
a	61$_H$	000000C2$_H$	00C2$_H$
b	62$_H$	00000188$_H$	0188$_H$
c	63$_H$	00000318$_H$	0318$_H$
d	64$_H$	00000640$_H$	0640$_H$
e	65$_H$	00000CA0$_H$	0CA0$_H$
f	66$_H$	00001980$_H$	1980$_H$
g	67$_H$	00003380$_H$	3380$_H$
h	68$_H$	00006800$_H$	6800$_H$
i	69$_H$	0000D200$_H$	5201$_H$
j	6A$_H$	0001A800$_H$	2803$_H$

All the rotated values and the number of characters 000A$_H$ and the constant CE4B$_H$ result in the hash value FEF1$_H$.