

TABLE 2-continued

Document File				
Section	FC Range	Contents	Description/Comments	
structure (text)	20A–20E	brown		
	20F–21A	__fox__jumped__		
	21B–21E	over		
	21F–22D	__the__lazy__dogs.		
	22E–3FF	<unused>		
format structure		text FC	formatting FC	each FC is a long (4 bytes)
property modifier structure	400–407	200	600	
	408–40F	20A	604	
	410–417	20F	600	
	418–41F	21B	60A	
	420–427	21F	600	
	428–42B	22E		(no formatting FC here)
	42C–4FF	<unused>		
	600–603	03		count of bytes in 1st grpprl
		01		sprmCSize
		000A		(word-size) arg for sprmCSize
property modifier structure	604–609	05		count of bytes in 2nd grpprl
		01		sprmCSize
		000A		(word-size) arg: size = 10
		03		sprmCBold
		01		(byte-size) arg: bold = on
	60A–611	07		count of bytes in 3rd grpprl
		01		sprmCSize
		000A		(word-size) arg: size = 10
		02		sprmCInc
		02		(byte-size) arg: size += 2
	04		sprmCIItalic	
	01		(byte-size) arg: italic = on	
	612–6FF	<unused>		

TABLE 3

Default Format Table				
sprm	sgc	spra	fSpec	b
sprmCSize (1)	sgcChp (2)	spraWord (2)	FALSE (0)	0
sprmCInc (2)	sgcChp (2)	spraByte (1)	TRUE (1)	0
sprmCBold (3)	sgcChp (2)	spraBit (0)	FALSE (0)	2
sprmCIItalic (4)	sgcChp (2)	spraBit (0)	FALSE (0)	3

Referring first to Table 1, the example text string is “The quick brown fox jumped over the lazy dogs.” For this example text string, all text is font size 10, the term “brown” is bold, and the term “over” is italic and is two sizes larger than the remaining portion of the text. Consequently, the formatting attributes for this text string include a 10 point font size, bold, italic, and increased font size (by 2 sizes). These format attributes for the text string of Table 1 are defined in the structures of the document file of Table 2 and supported by the format information maintained in the property information array of Table 3.

Referring now to Table 2, a document file for the prior word processing program contains multiple structures including a header, a data structure, a format structure, and a property modifier structure. The header contains general information regarding the document file and defines the text range and the format information range for the data structure and the format structure. A File Character (FC) position represents an offset from the beginning of the document file. Consequently, the header section of the document file is defined by the FC range of 0–1FF. The text range for text maintained in the data structure is 200–22D. The linking information for linking the data of the data structure to the

property modifiers of the property modifier structure is maintained within the format structure at 400–42B. For example, for the FC range of 400–407, the text beginning at FC range 200, “The quick”, is associated with the group of property modifiers within the property modifier structure beginning at the FC range of 600.

In the file shown in Table 2, the formatting is specified using single property modifiers (sprms), also called property modifiers. For this “WORD 95” program example, the relevant property modifiers are directed to the formatting actions of defining a base font size, increasing this font’s size, bold, and italic. These property modifiers and their values are listed below:

- sprmCSize: character formatting to set font size; Value = 1
- sprmCInc: character formatting to increase font size; Value = 2
- sprmCBold: character forming to make text bold; Value = 3
- sprmCIItalic: character formatting to make text italic; Value = 4

Each sprm takes an argument, and multiple sprms and their arguments can define formatting for a piece of text.

Groups of property modifiers in a list, also called a grpprl, are stored in the property modifier structure within the file at FC ranges 600–603, 604–609 and 60A–611. A set of grpprls represents the formatting information for the sample text stream “The quick brown fox jumped over the lazy dogs.” For the text “The__quick__”, a grpprl at FC range 600–603 contains just one sprm and argument: sprmCSize, with its argument of 10 (because the text is size 10). For “brown”, a grpprl at FC range 604–609 contains two sprm/argument