

while allowing older and newer versions of the same application to continue to correctly interpret the binary files created by different program versions.

Accordingly, an improved method and system for applying formatting information to strings of text, text objects such as paragraphs, sections, or other data has been described. In accordance with the principles of the invention, a wide variety of formatting information may be associated with the string of text while preserving the ability for different versions of a computer application program to cross-handle files created with other versions of the program. The principles of the present invention are also readily applicable to virtually any type of computer application program such as databases, spreadsheets, web browsers, etc. Other uses and modifications of the present invention will be apparent to persons of ordinary skill in the art without departing from the spirit and scope of the present invention. All of such uses and modifications are intended to fall within the scope of the appended claims.

What is claimed is:

1. A computer-readable medium having stored thereon a data structure, comprising:

a property information array stored in association with a program module stored on the computer-readable medium, the property information array comprising values corresponding to formatting information for altering an appearance of data elements on one of the video output and printer output device, the data elements being contained in a computer file upon which the program module is operative for manipulating;

a data element structure for storing data elements, said data elements including text;

a property modifier structure for storing data formatting property modifiers and arguments operatively linked to respective data formatting property modifiers, each data formatting property modifier containing encoded formatting-related information corresponding to the data elements, each data formatting property modifier comprising an index field containing an index into the property information array associated with the program module, each data formatting property modifier comprising a size field containing information indicating the size of argument for the data formatting property modifier, said size field enabling said program module to skip over a respective data formatting property modifier and its argument if unrecognized by said program module.

2. The computer-readable medium of claim 1, wherein each data forming property modifier further comprises a data type code field containing a data type code indicative of a type of data object for formatting to which the data formatting property modifier applies.

3. The computer-readable medium of claim 1, wherein each data formatting property modifier further comprises a special handling data field containing information indicating whether the data formatting property modifier requires a special handling operation.

4. The computer-readable medium of claim 1, further comprising a data formatting structure for storing linking information that associates the data elements with corresponding data formatting property modifiers.

5. The computer-readable medium of claim 1, wherein the property modifier structure comprises a list of groups of data formatting property modifiers, each group comprising a count of the number of bytes contained in the group, at least one of the data formatting property modifiers and a property modifier argument for each of the, data formatting property modifiers in the group.

6. A computer-implemented method of formatting information in a program module operative in a computer system, comprising the steps of:

storing a property information array in association with the program module, the property information array containing values corresponding to formatting information for altering an appearance of textual data on one of a video output and printer output device;

providing at least one group of data formatting property modifiers and corresponding arguments in a property modifier structure, said arguments being operatively linked to respective data formatting property modifiers, each data formatting property modifier comprising encoded formatting-related information containing a size field including information indicating the size of its property modifier argument and an index field comprising an index into the property information array;

traversing the group of data formatting property modifiers associated with selected textual data if the program module does not recognize said property modifier structure by utilizing the information in the size field of the current data formatting property modifier to determine the location of the next data formatting property modifier in the group of data formatting property modifiers; and

applying formatting to the selected textual data if the program recognizes said property modifier structure by using the index of each data formatting property modifier associated with the selected textual data to access the values corresponding to formatting information maintained in the property information array.

7. The computer-implemented method of claim 6, wherein the step of traversing the group of property modifiers is conducted in response to a computer display operation.

8. The computer-implemented method of claim 6, further comprising the step of displaying the selected information in accordance with the formatting information.

9. The computer-implemented method of claim 8, wherein the step of displaying the selected information in accordance with the formatting information comprises the steps of:

in response to an operation to display information, determining the selected information to be displayed;

determining the property modifier group associated with the selected information to be displayed,

locating each data formatting property modifier in the property modifier group associated with the selected information to be displayed,

utilizing the index of each data formatting property modifier to reference the property information array associated with the program module to obtain formatting information, and

applying the formatting information to the selected information to be displayed.

10. The computer-implemented method of claim 6, wherein each data formatting property modifier further comprises a data type code field comprising a data type code indicative of a type of data object for formatting to which the data formatting property modifier applies.

11. The computer-implemented method of claim 10, wherein each data formatting property modifier further comprises a special handling data field comprising information indicating whether the data formatting property modifier requires a special handling operation.

12. A computer-readable medium having stored thereon a word processing data structure, comprising: