# CALCULATION OF PROPERTIES OF OBJECTS/SHAPES ACROSS VERSIONS OF APPLICATIONS

## CROSS-REFERENCE TO RELATED APPLICATIONS

This application is a continuation of patent application Ser. No. 13/350,118, filed Jan. 13, 2012, entitled "CALCULATION OF PROPERTIES OF OBJECTS/SHAPES ACROSS VERSIONS OF APPLICATIONS," which application is incorporated herein by reference in its entirety.

## BACKGROUND

Different applications may be capable of operating upon files with the same or similar file types. However, the different applications may provide different file content and/or support different operations upon files. Oftentimes, it is desirable to maintain compatibility of a file created by a first version of an application with different versions of the application or different applications entirely. Doing so allows users of different applications to share, manipulate, and/or otherwise access a file created by the first version application even though the file may have been created using a version of the application that provides additional content, capabilities or features nor present in other versions or other applications. When this occurs, a less featured version of the application may be able to access and manipulate the file with respect to the capabilities and content it supports while ignoring the capabilities and content it does not, thereby providing the user of the less featured application with the ability to use and/or modify the application file. However, if the less featured application modifies the application file, it may not correctly preserve the portions of the file content unknown to the lesser featured application due to the limitation of the lesser featured application. It is with respect to this general environment that embodiments of the present disclosure have been contemplated.

Although specific problems have been addressed in this Background, this disclosure is not intended in any way to be limited to solving those specific problems.

## SUMMARY

Embodiments of the present disclosure relate to maintaining properties stored in a file that may be shared by different versions of an application. A self-describing file may be used to provide an application with the information that may be used to correctly calculate or otherwise maintain file data, even if portions of the file data are not supported by a version of the application that manipulates the self-describing file. In embodiments, the self-describing file may contain an extension section, or may otherwise store or be associated with metadata, that describes the proper calculation of data that a version of an application may not support, thereby allowing the version of the application to properly preserve unknown file content. As such, the self-describing file may be utilized by applications to properly preserve unknown file content. Further embodiments disclosed herein relate to systems and method for generating and maintaining a self-describing file.

This summary is provided to introduce a selection of concepts in a simplified form that are further described below in the Detailed Description. This summary is not intended to identify key features or essential features of the claimed subject matter, nor is it intended to be used to limit the scope of the claimed subject matter.



## BRIEF DESCRIPTION OF THE DRAWINGS

The same number represents the same element or same type of element in all drawings.

FIG. **1** illustrates an embodiment of a self-describing file **100** preserving unknown file contents.

FIG. **2** is an illustration of a flow chart representing an embodiment of a method **200** for creating a self-describing file.

FIG. **3** is an illustration of a flowchart representing an embodiment of a method **300** performed by an application capable of properly recalculating properties values stored in a self-describing file.

FIG. **4** is an illustration of flowchart representing an embodiment of a method **400** for preserving unknown file contents.

FIG. **5** illustrates an embodiment of a computer environment and computer system **500** for implementing the methods disclosed herein.

FIG. **6**A illustrates one embodiment of a mobile computing device **600** for executing embodiments of creating and utilizing self-descriptive file formats described herein.

FIG. **6**B is a simplified block diagram of an exemplary mobile computing device system **602** suitable for practicing embodiments of the self-describing file format disclosed herein.

FIG. **7** illustrates an embodiment of a system for providing the embodiments disclosed herein to one or more client devices.

## DETAILED DESCRIPTION

This disclosure will now more fully describe exemplary embodiments with reference to the accompanying drawings, in which some of the possible embodiments are shown. Other aspects, however, may be embodied in many different forms and the inclusion of specific embodiments in the disclosure should not be construed as limiting such aspects to the embodiments set forth herein. Rather, the embodiments depicted in the drawings are included to provide a disclosure that is thorough and complete and which fully conveys the intended scope to those skilled in the art. When referring to the figures, like structures and elements shown throughout are indicated with like reference numerals.

Embodiments of the present disclosure relate to maintaining properties stored in a file shared by different versions of an application. Software products are continually developed and released as new versions or different versions, each of which may provide different capabilities and/or content. Oftentimes, different applications may be capable of operating upon same file types. It is desirable to maintain compatibility of a file created by a first version of the application with different versions of the application or entirely different applications. Doing so provides users of different applications the ability share, manipulate, and/or otherwise access a file created by the first application even though the file may have been created using a version of the application that provides additional capabilities and/or content beyond the capabilities of other applications or other versions of the application. In such situations, a less featured version of the application may be able to access and manipulate the file, with respect to the capabilities and content the less featured application supports, while ignoring the capabilities and or content the less featured application does not support and/or provide. Thus a user of the less featured application has the ability to use and/or modify the application file crated by the first application. However, if the less featured application