## **SMAnimator: A Keyframe-Based 2D Animation Creator**

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SMAnimator is an easy-to-use animation creation program, implementing a keyframe-based vector graphics animation. With SMAnimator, users will be able to make short vector animations easily and quickly, and use the created animation in various situations. Most animation software are overly complex, expensive and bulky, as they are targeted towards professionals who want to create full-fledged animations. The time it takes to learn and operate such a program deters users from using commercial animation software for trivial tasks such as for embedding into a presentation. Therefore, there was a need for an easy and lightweight animation creator that users will be able to learn and use with ease. SMAnimator features a simplified user interface, designed in a way that a beginner will have little to no difficulty using it. With little guidance, users can create shapes, animate them, change their shape, and edit their motion with great flexibility. As simple as it may seem, this program is packed with many animation tools, such as parenting and animation curves, the same kind of tools included in professional animation software. Also, this program supports exporting to an MP4 movie or a GIF image. The exported file can be inserted into websites, presentations, or videos with ease. The program also features 'User Modes', a feature that will ease the learning curve of the program. A user, depending on their familiarity with the program, can choose from one of four modes, and the program will dynamically change its interface so that it will expose only some of its features, minimizing confusion.