CLAIMS:

1. An animated window system comprising:

a projection surface configured to display an image to a viewer on a viewer side of the projection surface, wherein the projection surface comprises a tinted material;

a projector configured to project the image onto a rear side of the projection surface via rear projection;

a haptic feedback system comprising a plurality of haptic actuators associated with the projection surface; and

a controller comprising a memory and a processor, wherein the controller is configured to output signals to the projector to cause the image to be projected onto the projection surface, wherein the controller is configured to provide instructions to the haptic feedback system indicative of an activation pattern of the plurality of haptic actuators based at least in part on the projected image, and wherein the instructions cause the activation pattern to activate haptic actuators at locations corresponding to window dividers in the projected image.

2. The animated window system of claim 1, wherein the controller is configured to cause the projector to transition from projecting the image to projecting one or more additional images to generate an animation effect, and wherein the controller is configured to update the instructions indicative of the activation pattern of the plurality of haptic actuators based at least in part on the projected one or more additional images.

3. The animated window system of claim 2, comprising a touch interactive frame disposed around the projection surface and communicatively coupled to the controller, wherein the touch interactive frame comprises a plurality of infrared (IR) sensors disposed on opposite sides of the touch interactive frame and configured to detect when and where the projection surface is touched on the viewer side, and wherein the controller is configured to control the animation effect, the activation pattern of the plurality of haptic actuators, or both based at least in part on signals received from the touch interactive frame indicative of when and where the projection surface is touched by the viewer.

4. The animated window system of claim 1, wherein the plurality of haptic actuators comprises a plurality of pegs or fluid-filled cells, and wherein each haptic actuator of the plurality of haptic actuators is individually addressable by the controller.

5. The animated window system of claim 1, wherein the activation pattern of the plurality of haptic actuators is configured to modify the projection surface on the viewer side to provide tactile information corresponding to at least a portion of the projected image.

6. The animated window system of claim 1, comprising a fluid supply and one or more conduits, wherein the one or more conduits are disposed along the projection surface and configured to provide a fluid to the viewer side of the projection surface, wherein the one or more conduits are disposed along portions of the projection surface where the projected image is static, the one or more conduits are coupled to a mechanism configured to move the one or more conduits to track along particular portions of the projected image where the projected image is animated, or both, and wherein the controller is configured to cause the fluid supply to supply fluid to the one or more conduits, cause movement of the one or more conduits, or both based at least in part on the projected image.

7. An animated window system comprising:

a projection surface configured to display at least one image on a viewer side of the projection surface, wherein the projection surface comprises a tinted material;

a projector spaced apart from the projection surface, wherein the projector is configured to project the at least one image onto a rear side of the projection surface, the rear side opposing the viewer side;

a sensor configured to detect an interaction of a user with a location on the viewer side of the projection surface; and

a controller comprising a memory and a processor, wherein the controller is configured to output signals to the projector to cause the at least one image to be projected onto the projection surface, and wherein the controller is configured to provide instructions to a haptic feedback system to activate one or more of a plurality of haptic actuators based at least in part on the location of the detected interaction on the viewer side of the projection surface, and wherein the instructions cause an activation pattern to activate haptic actuators at locations corresponding to window dividers in the projected image.

8. The animated window system of claim 7, wherein the instructions activate the one or more of the plurality of haptic actuators at the detected location.

9. The animated window system of claim 7, wherein the one or more of the plurality of haptic actuators are further activated based on a characteristic of the at least one image at the detected location.

10. The animated window system of claim 9, wherein the characteristic is a color of the at least one image at the location, and wherein a vibration intensity of the one or more of the plurality of haptic actuators is selected based on the color.

11. The animated window system of claim 9, wherein the characteristic is a displayed texture of the at least one image at the detected location.

12. The animated window system of claim 7, wherein the sensor is an infrared sensor.

13. A method, comprising:

projecting a first image onto a projection surface, wherein the projection surface comprises a tinted material;

projecting a second image onto the projection surface subsequent to projecting the first image to cause an animation effect, wherein the second image comprises one or more unchanged regions that are present in the first image and one or more changed regions that are not present in the first image;

receiving a signal relating to a user interaction with the projection surface; and

controlling activation of a special effects system based on the received signal, wherein activation of the special effects system causes a special effects material to be emitted from an opening formed in the projection surface or from a conduit disposed on or in the projection surface, and wherein a location of the opening or the conduit corresponds to an unchanged region of the one or more unchanged regions of the projected second image.

14. The method of claim 13, comprising activating one or more haptic actuators based on the received signal.

15. The method of claim 13, wherein the unchanged region corresponds to a dark or black portion of the projected first image and the projected second image.

16. The method of claim 13, wherein the tinted material comprises a tinted film.

17. The method of claim 13, wherein the tinted material comprises a dyed material.

18. The method of claim 13, wherein the special effects material comprises a fluid.

19. The method of claim 13, wherein the special effects material is emitted in a spray or mist from the opening or the conduit.

20. The method of claim 13, comprising:

projecting an image sequence onto the projection surface; and

activating a movement mechanism to move the conduit relative to the projection surface based on image data of the image sequence.

21. The method of claim 20, wherein a portion of the image data is indicative of movement of black lines in the image sequence.