image on each layer by reference to the brightness and colour of each pixel of the image, the brightness, colour, hue, colour temperature, gamma response and/or contrast to be determined and then by reference to a pre-defined algorithm or look-up table or alternatively an algorithm or look up table which can be adjusted by the user or software developer the transmissivity of each pixel on each layer of the multi layer display is determined. Typically this will involve one layer displaying the image received and a second layer controlling the brightness, colour, hue, colour temperature, gamma response and/or contrast.

[0041] Preferably the determining means or the step of determining throughout this specification is definable by a user/content developer to allow customisation to allow the particular gamma response of each layer of the intended multi layer display device or alternatively any preferred gamma curve to be factored in which calculating the transmissivity of each layer of the multi layer display device in the localised area of each image.

[0042] Preferably the image appearance control system or image appearance controller is attached to a multi layer display device upon which, by utilising appearance control system or image appearance controller, images can be displayed with enhanced or controlled brightness, colour, hue, colour temperature, gamma response and/or contrast of said image(s).

[0043] Preferably the means of communication or communicating step can communicate with individual display layers of multi layer display device or alternatively can communicate with a recording or storage device such as a CPU that is able to record or store the level of transmissivity of each display layer for subsequent retrieval and display of images with enhanced or controlled contrast.

[0044] Accordingly in a first aspect of the invention may broadly said to consist in a brightness, colour, hue, colour temperature, gamma response or contrast controller for controlling brightness, colour, hue, colour temperature, gamma response or contrast of at least one image for display on a multi layer display device comprising:

[0045] i) a receiving means for receiving said at least one image(s) to be displayed;

[0046] ii) a detecting means for detecting the brightness, colour, hue, colour temperature, gamma response or contrast of said image(s) to be displayed,

[0047] iii) a determining means for determining the transmissivity of each of the non-display layers of the multi layer display device in the localised area of said image(s) to achieve the brightness, colour, hue, colour temperature, gamma response and/or contrast detected or received,

[0048] iv) a communicating for communicating the determined transmissivity of the non-display layers of the multi layer display device in the localised area of said (images) to a display device or storage device.

[0049] A further aspect of the current invention may broadly said to consist in a brightness, colour, hue, colour temperature, gamma response or contrast control system for controlling brightness, colour, hue, colour temperature, gamma response or contrast of at least one image for display on a multi layer display device carrying out the steps of:

[0050] i) receiving said at least one image(s) to be displayed;

[0051] ii) detecting the brightness, colour, hue, colour temperature, gamma response or contrast of said image(s) to be displayed,

[0052] iii) determining the transmissivity of each of the non-display layers of the multi layer display device in the localised area of said image(s) to achieve the brightness, colour, hue, colour temperature, gamma response and/or contrast detected or received,

[0053] iv) communicating the determined transmissivity of each of the non-display layers layer of the multi layer display device in the localised area of said (images) to a display device or storage device.

[0054] The term 'non-display layers' as used herein should be interpreted as the layers capable of controlling brightness, colour, hue, colour temperature, gamma response or contrast on which the image as originally received is not displayed. So in a two layered multi layer display consisting of two LCDs which are backlit, one layer would be a display layer on which images are displayed and the other layer would be a 'non display layer' with which brightness, colour, hue, colour temperature, gamma response and/or contrast of images is controlled.

[0055] As such the invention is a method of controlling brightness, colour, hue, colour temperature, gamma response or contrast of an image which is to be displayed on a display as received, unaltered. So the image(s) received can be displayed without altering the transmissivity of the layer on which it is (they are) to be displayed and their appearance (brightness, colour, hue, colour temperature, gamma response or contrast) can be controlled and enhanced through the control of transmissivity of the other layers in the localised area of said image(s).

[0056] Accordingly in another aspect of the current invent can broadly be said to consist in an image appearance controller or an image appearance control system which controls at least two of the following attributes of an image (or images) in combination utilising the methods or steps described here-in: brightness, colour, hue, colour temperature, gamma response or contrast.

[0057] As such the current invention is a method to or apparatus designed to control the controlling brightness, colour, hue, colour temperature, gamma response or contrast in combination, of at least one image to be displayed on a multi layer display device by controlling the transmissivity of the layers of said multi layered device in the localised area of said image(s).

[0058] Preferably the means of detecting means or step of detecting is able to detect information as to brightness, colour, hue, colour temperature, gamma response or contrast of an image or image(s) in combination.

[0059] Preferably the current invention is embodied in software or hardware whereby the user or content developer defines brightness, colour, hue, colour temperature, gamma response or contrast of each image he or she desires to display which is detected by the means of detecting or the detecting step, the determining step or means of determining calculates the localised transmissivity of each layer of the multi layer display for each image and the communicating