

where the fspecial function may implement a low-pass Gaussian filter (e.g., as indicated by the 'gaussian' argument) returning a matrix (e.g., named "filter") with a size defined by the argument "filter_size" and a standard deviation defined by the argument "sigma." The conv function may be used to apply the low-pass filter to a portion of the Q matrix (e.g., determined in step 330 of process 300 of FIG. 3), where the conv function returns the matrix "transQ" comprising low-pass graphical data. Alternatively, other channels of the QTD or other luminance-chrominance spaces may be low-pass filtered in step 510. And in other embodiments, channels of a color space (e.g., RGB) may be low-pass filtered in step 510.

[0046] Step 520 involves subtracting the low-pass graphical data (e.g., determined in step 510) from the graphical data (e.g., 415, transformed graphical data produced by step 330 of process 300 of FIG. 3, etc.) to generate high-pass graphical data. Thereafter, the high-pass graphical data (e.g., generated in step 520) may be added to the graphical data in step 530 to generate updated graphical data (e.g., 425) with amplified high-frequency components.

[0047] In one embodiment, steps 520 and 530 may be performed using the following exemplary computer code:

$$Q_{new} = Q + \beta * (Q - \alpha * \text{trans}Q)$$

where alpha may represent a scaling factor applied to the low-frequency components (e.g., in the transQ matrix) subtracted from the graphical data (e.g., the Q matrix determined in step 330 of process 300 of FIG. 3) and beta may represent a scaling factor applied to the high-frequency components to be added to the graphical data (e.g., the Q matrix determined in step 330 of process 300 of FIG. 3). In one embodiment, alpha may range from approximately 0.5 to 1.5, while beta may range from approximately 0.25 to 1.25. As such, the matrix Qnew may represent the updated graphical data which is compensated (e.g., by amplifying the high-frequency components of the graphical data) to accommodate the distortion/alteration of MCD components (e.g., 130, 140, etc.).

[0048] where Qnew may be formed by adding the Q matrix to the calculated high-frequency components (e.g., determined by subtracting the low-frequency components from the Q matrix). Alternatively, other channels of the QTD or other luminance-chrominance spaces may be processed in steps 520 and 530. And in other embodiments, channels of a color space (e.g., RGB) may be processed in steps 520 and 530.

[0049] FIG. 6 shows exemplary computer system platform 600 upon which embodiments of the present invention may be implemented. As shown in FIG. 6, portions of the present invention are comprised of computer-readable and computer-executable instructions that reside, for example, in computer system platform 600 and which may be used as a part of a general purpose computer network (not shown). It is appreciated that computer system platform 600 of FIG. 6 is merely exemplary. As such, the present invention can operate within a number of different systems including, but not limited to, general-purpose computer systems, embedded computer systems, laptop computer systems, hand-held computer systems, portable computer systems, stand-alone computer systems, game consoles, gaming systems or machines (e.g., found in a casino or other gaming establishment), or online gaming systems.

[0050] In one embodiment, depicted by dashed lines 630, computer system platform 600 may comprise at least one processor 610 and at least one memory 620. Processor 610 may comprise a central processing unit (CPU) or other type of

processor. Depending on the configuration and/or type of computer system environment, memory 620 may comprise volatile memory (e.g., RAM), non-volatile memory (e.g., ROM, flash memory, etc.), or some combination of the two. Additionally, memory 620 may be removable, non-removable, etc.

[0051] In other embodiments, computer system platform 600 may comprise additional storage (e.g., removable storage 640, non-removable storage 645, etc.). Removable storage 640 and/or non-removable storage 645 may comprise volatile memory, non-volatile memory, or any combination thereof. Additionally, removable storage 640 and/or non-removable storage 645 may comprise CD-ROM, digital versatile disks (DVD) or other optical storage, magnetic cassettes, magnetic tape, magnetic disk storage or other magnetic storage devices, or any other medium which can be used to store information for access by computer system platform 600.

[0052] As shown in FIG. 6, computer system platform 600 may communicate with other systems, components, or devices via communication interface 670. Communication interface 670 may embody computer readable instructions, data structures, program modules or other data in a modulated data signal (e.g., a carrier wave) or other transport mechanism. By way of example, and not limitation, communication interface 670 may couple to wired media (e.g., a wired network, direct-wired connection, etc.) and/or wireless media (e.g., a wireless network, a wireless connection utilizing acoustic, RF, infrared, or other wireless signaling, etc.).

[0053] Communication interface 670 may also couple computer system platform 600 to one or more input devices (e.g., a keyboard, mouse, pen, voice input device, touch input device, etc.) and/or output devices (e.g., a display, speaker, printer, etc.). In one embodiment, communication interface 670 may couple computer system platform 600 to a multi-component display (e.g., 110).

[0054] As shown in FIG. 6, graphics processor 650 may perform graphics processing operations on graphical data stored in frame buffer 660 or another memory (e.g., 620, 640, 645, etc.) of computer system platform 600. Graphical data stored in frame buffer 660 may be accessed, processed, and/or modified by components (e.g., graphics processor 650, processor 610, etc.) of computer system platform 600 and/or components of other systems/devices. Additionally, the graphical data may be accessed (e.g., by graphics processor 650) and displayed on an output device coupled to computer system platform 600. Accordingly, memory 620, removable storage 640, non-removable storage 645, frame buffer 660, or a combination thereof, may comprise instructions that when executed on a processor (e.g., 610, 650, etc.) implement a method of processing graphical data (e.g., stored in frame buffer 660) for improved display quality on a multi-component display (e.g., 110).

[0055] In the foregoing specification, embodiments of the invention have been described with reference to numerous specific details that may vary from implementation to implementation. Thus, the sole and exclusive indicator of what is, and is intended by the applicant to be, the invention is the set of claims that issue from this application, in the specific form in which such claims issue, including any subsequent correction. Hence, no limitation, element, property, feature, advantage, or attribute that is not expressly recited in a claim should limit the scope of such claim in any way. Accordingly, the specification and drawings are to be regarded in an illustrative rather than a restrictive sense.