About ListGammaRamp

ListGammaRamp is a tool to display the LUT values for each and every attached monitor.

ListGammaRamp has been tested to run on Windows XP, Windows Vista and Windows 7, but might also run on previous Windows versions.

ListGammaRamp does not need to be installed, just unpack the ZIP file and run the program.

Terms of Usage

Warranty Disclaimer

Prerequisites

- Windows XP or higher.
- Visual Studio C++ 2008 Runtime Components.

ListGammaRamp requires the runtime libraries **mfc90u.dll** and **msvcr90.dll** to be installed. These libraries are part of the "Visual Studio C++ 2008 redistribution packages", which can be directly downloaded from Microsoft.

Both, the "Visual Studio C++ 2008" and the "Visual Studio C++ 2008 SP1" runtime libraries are required!

32 Bit runtime libraries

The 32 Bit Microsoft Visual C++ 2008 Redistributable Package (x86) can be downloaded from:
http://www.microsoft.com/downloads/details.aspx?FamilyID=9b2da534-3e03-4391-8a4d-074b9f2bc1bf&displaylang=en

The 32 Bit Microsoft Visual C++ 2008 **SP1** Redistributable Package (x86) can be downloaded from:
http://www.microsoft.com/downloads/details.aspx?familyid=A5C84275-3B97-4AB7-A40D-3802B2AF5FC2&displaylang=en

Program Description and Usage

When ListGammaRamp is started it reads the LUT for the primary display. The LUT values for Red, Green and Blue are then displayed in a list in hexadecimal and decimal notation.

The LUT contains 256 entries with indices ranging from 0 to 255. The entry with index 0 contains the lowest intensity value of the respective color. The entry with index 255 contains the highest intensity value of the respective color.

Besides the LUT values, the list contains the gamma value for each LUT entry. LUT entries at index 0 and 255 of an exponential GammaRamp will always have a gamma value of 1, but for a non-exponential GammaRamp these entries might not yield valid gamma values. Thus these entries will show up in the list with 3 dashes.

Hardware based calibration tools will always produce a non-exponential GammaRamp. All entries of such a GammaRamp that do not yield a valid gamma value will show up in the list with 3 dashes.

The gamma value of index 128 is shown next to the top right of the list in separate fields for Red, Green and Blue. This is the most significant gamma value. Theoretically, all LUT entries of a pure exponential LUT should have this gamma value, but in reality this is not true. The reason for this behavior is rounding. LUT values are whole numbers and thus the computed GammaRamp values must be rounded to the nearest whole number. This can cause the displayed gamma values at the lowest and the highest indices to deviate slightly from the gamma value at index 128. When a LUT was created using a hardware based calibration tool, the gamma values of the LUT entries

will more or less deviate from the average gamma and demonstrate the shortcomings of the particular monitor.

If additional monitors are attached to the computer and are turned on, the drop down list box above the LUT list contains a list of these monitors. Just select any monitor from the list and the LUT list for that monitor will be displayed.

The list can be exported into a CSV (Comma Separated Value) file by clicking on the Export button. A file dialog will be displayed with the default path and file name preset. Clicking the OK button in the file dialog will export the list into the specified file. Clicking the Cancel button will not export the list. The CSV file can be opened with Microsoft Excel. The notation of the hexadecimal values in the CSV file is 0xnnnn. Without the 0x before the hexadecimal value, Microsoft Excel tries to interpret the values and comes up with garbage for a large number of hexadecimal values.