3.16. Decompose 3.16. Decompose Overview This filter is found in Image>Filters/Colors/Decompose This filter separates an



image into its different components (RGB, HSV...). Options Decompose to Layers If this option is checked, greyscaled images will not be displayed straight away. RGB Decomposing If the RGB radio button is clicked, a grey level image is created with three layers (Red, Green and Blue), and two channels (Grey and Alpha). This function is interesting when using Threshold tool. You can also perform operations like cutting, pasting or moving selections in a single RBG channel. You can use an extracted grayscale as a selection or mask by saving it in a channel (right-click>Select>Save to a channel). RGBA Decomposing If the RGBA radio button is clicked, a image is created similar at the RGB Decomposing with a additional Alpha layer filled with the transparencies values of the source image. The full translucent pixels are black and the full opaque pixels are white. HSV Decomposing This option decomposes image into three greyscaled layers, one for Hue, one for Saturation and another for Value. Although Hue is greyscaled, it does represent hues. In color circle, white and black are starting point and are superimposed. They represent Red color at top of circle. Grey intermediate levels are corresponding to intermediate hues on circle: dark grey to orange, mid grey to green and light grey to magenta. Saturation and Value: White is maximum Saturation (pure color) and maximum Value (very bright). Black is minimum Saturation (white) and minimum Value (black). CMY Decomposing This option decomposes image into three greyscaled layers, one for Yellow, one for Magenta and another for Cyan. This option might be useful to transfer image into printing softwares with CMY capabilities. CMYK Decomposing This option is similar at the CMY Decomposing with a additonnal layer for Black. This option might be useful to transfer image into printing softwares with CMY capabilities. Alpha Decomposing This option extracts the image transparency stored in the Alpha channel in Channel dialog in a separate image. The full translucent pixels are Black the full opaque pixels are white. The graytones are smooth transitions of the transparency in the source image. LAB Decomposing This option decomposes image into three greyscaled layers, layer "L" for Luminance, layer "A" for colors between green and red, layer "B" for colors between blue and yellow. The LAB Decomposing is a color model of the Luminance-Color family. A channel is used for the Luminosity while two other channels are used for the Colors. The LAB color model is used by Photoshop. YCbCr Decomposing In Gimp there is four YCbCr decompositions with different values. Each option decomposes image in three greyscaled layers, a layer for Luminance and two other for blueness and redness. The YCbCr color model also called YUV is now used for digital video (initially for PAL analog video). It's based on the idea that the human eye is most sensitive to luminosity, next to colors. The YCbCr Decomposing use a transformation matrix and the different options are different values recommanded by ITU (International Telecommunication Union) applied to the matrix . Prev Up Next 3.15. Compose Home 3.17. Filter Pack