Subject: dominant wavelength from an XYZ colour stimulus
Posted by mat.g.allan on Mon, 04 Jul 2016 23:32:28 GMT
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I want to calculate the dominant wavelength from an XYZ colour stimulus.

There is a web page which does this:

http://www.brucelindbloom.com/index.html?Equations.html

Does anyone have any code which would do this?

Thanks in advance,

Mat

Subject: Re: dominant wavelength from an XYZ colour stimulus
Posted by Dick Jackson on Tue, 05 Jul 2016 02:38:21 GMT
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On Monday, 4 July 2016 16:32:30 UTC-7, mat.g...@gmail.com wrote:
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> Does anyone have any code which would do this?
>
> Thanks in advance,
>
> Mat

Hi Mat,

Using Google Chrome, I viewed this page (it's tricky to determine this page's address!):
http://www.brucelindbloom.com/ColorCalculator.html

… and then "View Frame Source" (right-click on the page provided that) showed me the HTML. In there was a link to the JavaScript code at:
http://www.brucelindbloom.com/javascript/ColorConv.js

… where a search for "dominant" gives you two functions that total a few dozen lines that might not be too hard to convert to IDL. (you'll need the lookup arrays, too: CIE1931StdObs_x, CIE1931StdObs_y, CIE1931StdObs_z)

Does that help?

(There's a few formulas in this paper from 25 years ago, but they only work in the expected range of colours of red wine!: https://www.researchgate.net/publication/222642170_Proposal_ of_a_novel_formula_to_calculate_dominant_wavelength_for_colo r_of_red_wines)

(Or, if you prefer tracing through Excel spreadsheets, the XYZtoDom item on this page might do: http://colour4free.org/FrameSpreadsheet.htm)

Cheers,
-Dick

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