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METACOW: A public-domain, high-resolution, fully-digital, noise-free, metameric, extended-dynamic-range, spectral test target for imaging system analysis and simulation

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METACOW: A Public-Domain, High-Resolution, Fully-Digital, Noise-Free, Metameric, Extended-Dynamic-Range, Spectral Test Target for Imaging System Analysis and Simulation

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METACOW Reflectance Image (Ill. E - sRGB)

Abstract
Standard, easily accessible, test targets have long served the field of color imaging as a foundation for comparison of the performance of various imaging systems and algorithms and the open and meaningful exchange of research results. This paper details the creation and application of a new digital color test target useful for research and development of color imaging systems. The target has several advantages over previous types of targets that include spatial resolution, dynamic range, spectral resolution, metameric properties, lack of noise, and continuous tonal variations. All these features can be important for visual assessment, computational analysis, and colorimetric evaluation. This target, known as METACOW, is freely available to all performing research in color imaging.

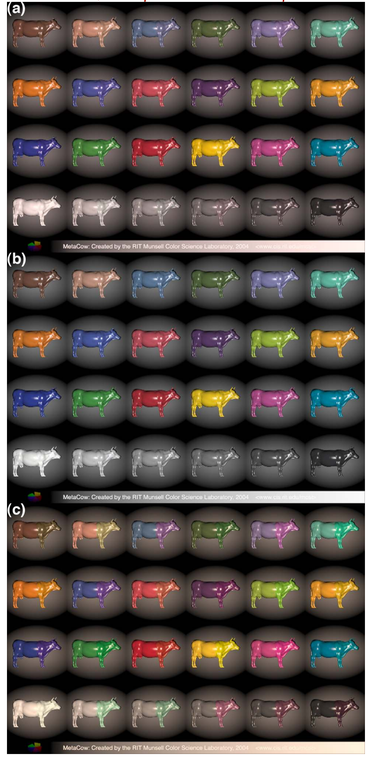
Visit the web page for more details and low-resolution sample images:
<www.cis.rit.edu/mcsl/METACOW>

METACOW PROPERTIES

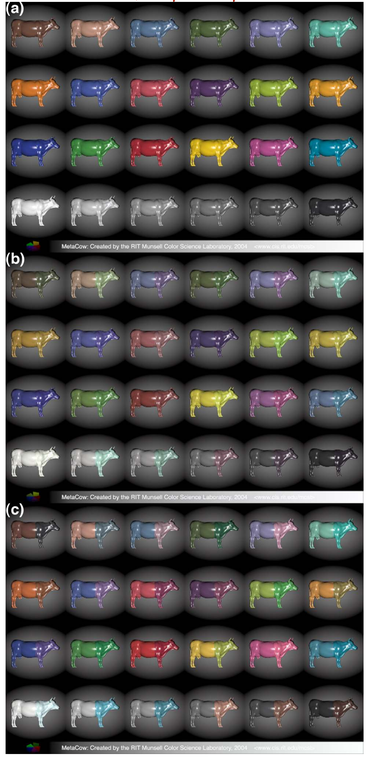
Public Domain:
FREE & UNRESTRICTED
High-Resolution:
6000x4200 pixels
Fully-Digital:
SYNTHETIC with SHADING
Noise-Free:
8x8 ANTI-ALIASED OPENGL
Metameric:
EACH COW A METAMERIC PAIR
Extended-Dynamic-Range:
16-BIT LINEAR
Spectral:
380-760nm, 5nm SAMPLING
Total File Size: ~3.7 GB

METACOW DVD Includes ... Full-Resolution Test Target Low-Resolution Target
Example Images
MATLAB Code (Open & Read)

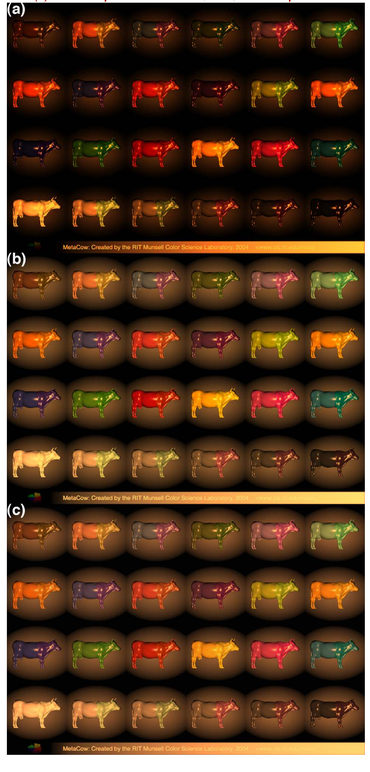
Illuminated by (a) E, (b) D65, (c) A. CIE1931, Incomplete CIECAM02 Adaptation.



Viewed by (a) CIE1931, (b) AgX Film, (c) 3-Chip CCD. Ill. D65, Complete Adaptation



Tone-mapped by (a) Linear, (b) Gamma Corrected, (c) iCAM Spatial. CIE1931, Ill.A, No Adaptation.



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see <www.cis.rit.edu/mcsl/METACOW> for details.

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