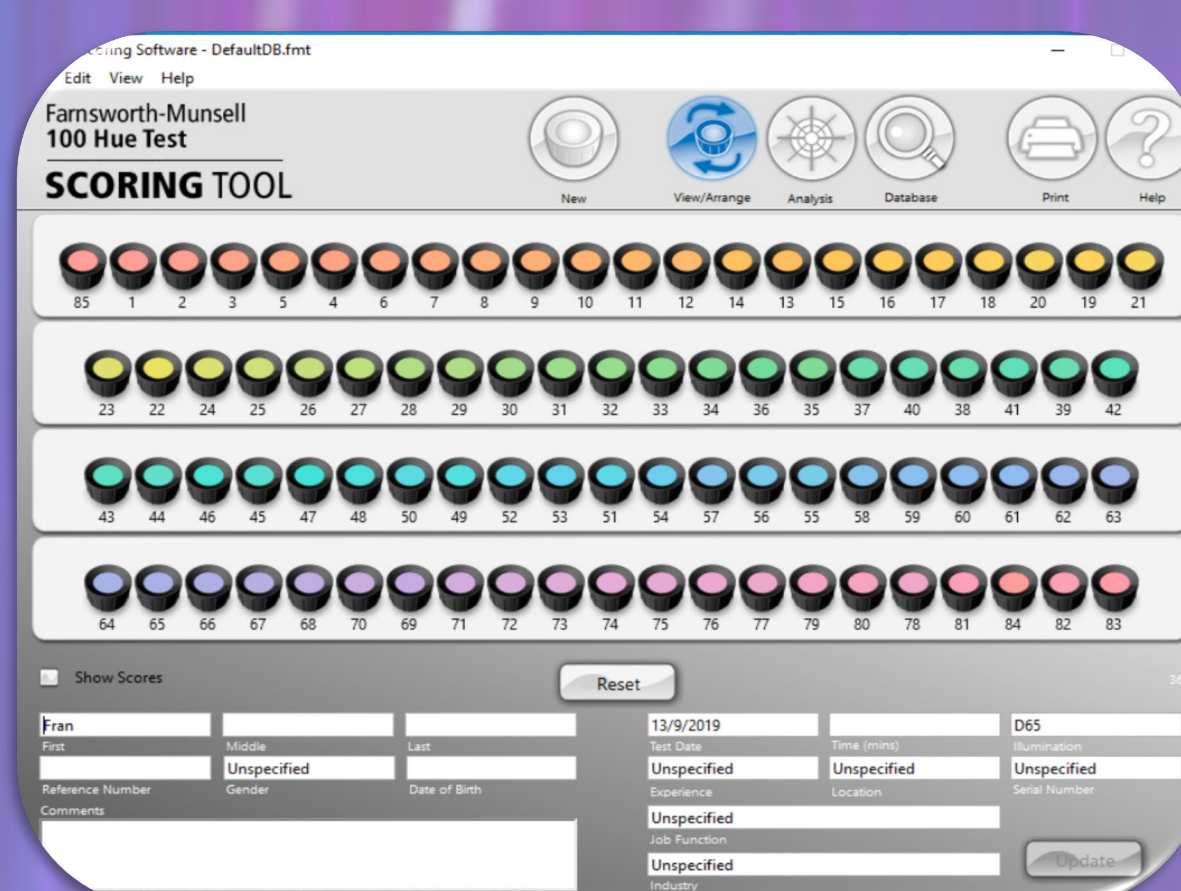


Application of spectral computing technics for color vision testing using virtual reality devices.

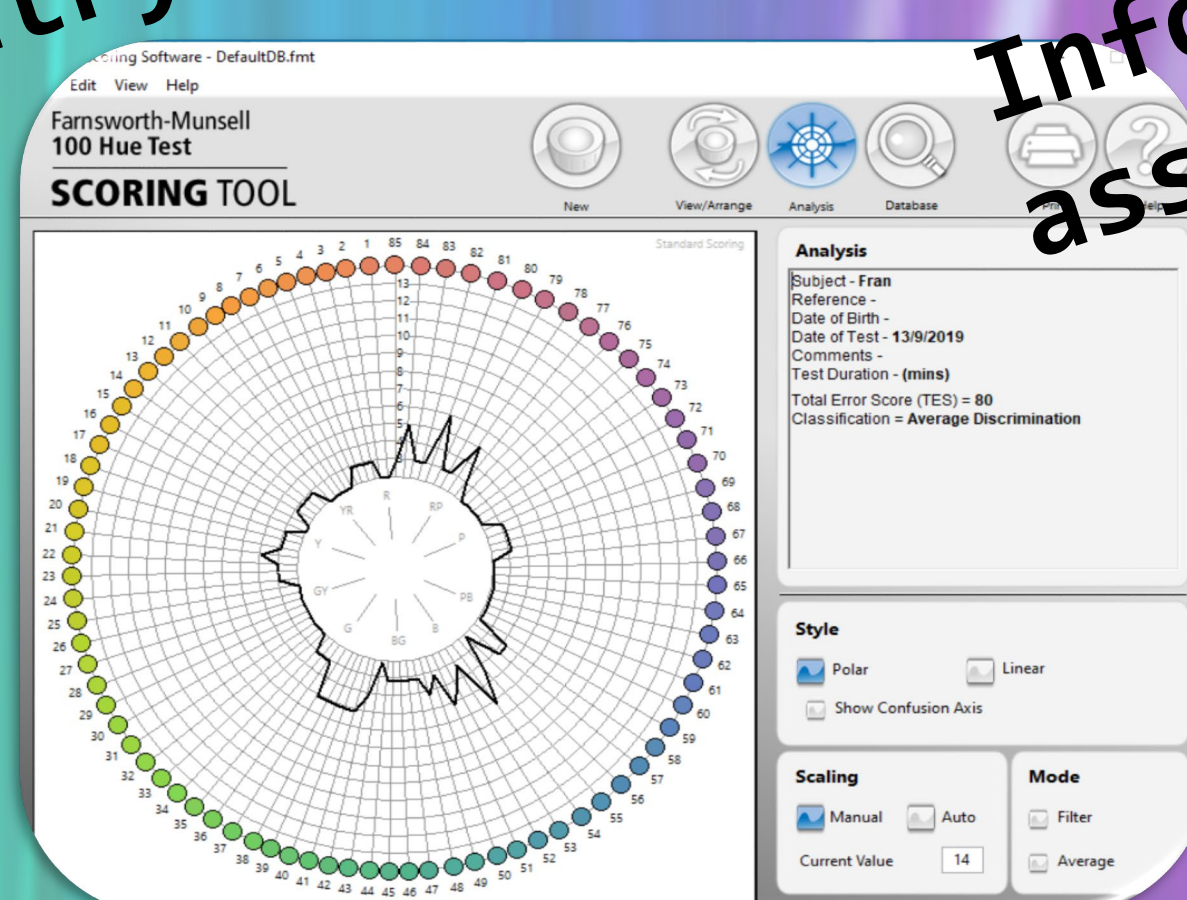
Authors: Halina Cwierz López, Francisco Díaz Barrancas, Pedro José Pardo, Ángel Luis Pérez & María Isabel Suero

Test Farnsworth Munsell 100 Hue



Expiration two years or use
Environmental factors influence
Manual results entry
Manual disarray

Information obtained not associated to the context



Test Farnsworth Munsell 100 Hue **Virtual**



Spectroradiometer



Spectral camera

TOOLS



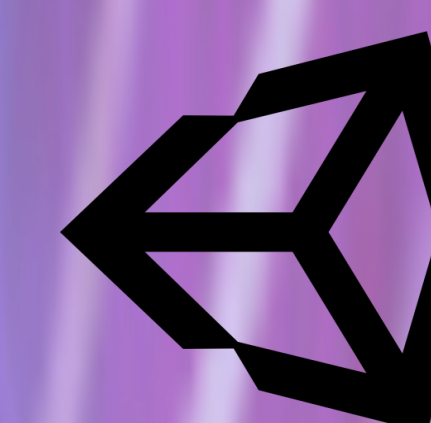
Profile ICC



Spectral reflectance of the 85 test capsules

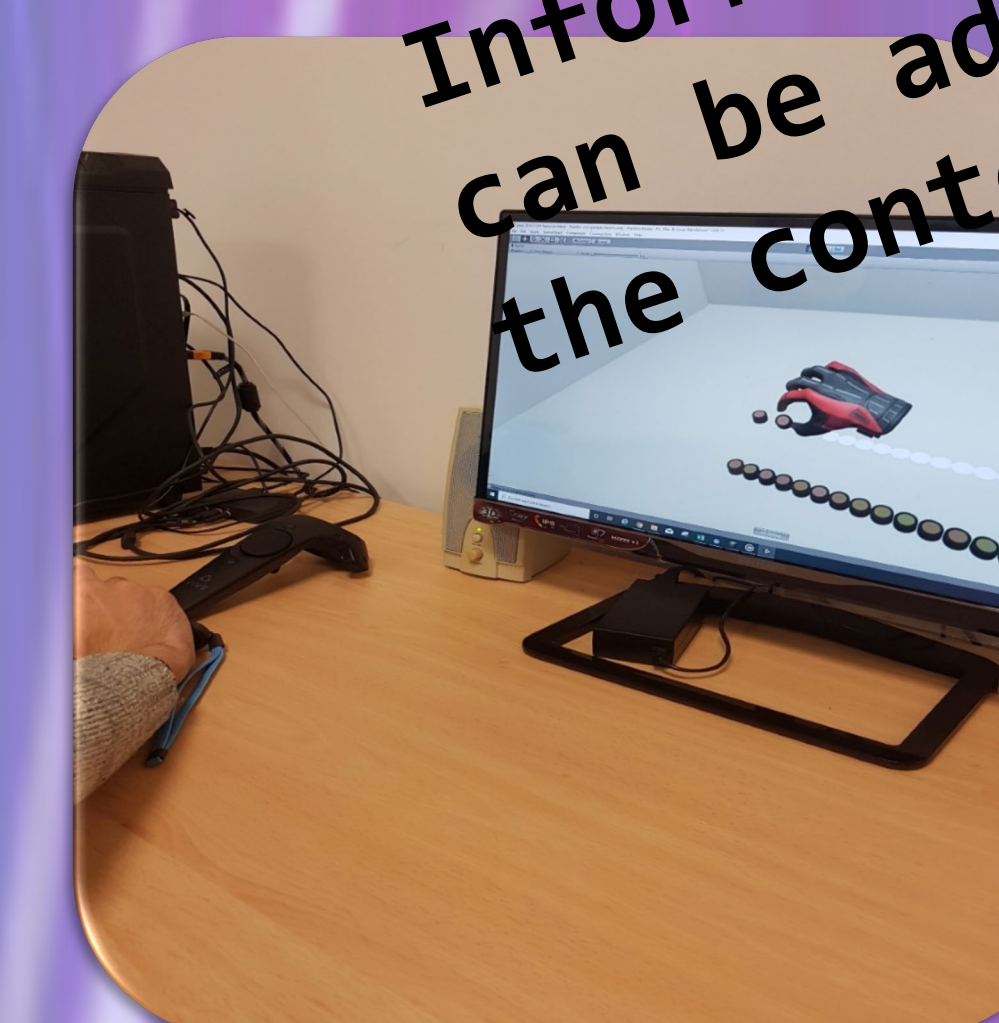


C#



Not expiration
Controlled environment
Automatic results
Automatic and random disarray

Information obtained can be adapted to the context



RESULTS

The results shown are not definitive, due to a small population, we are completing those with more observers and tests.

NOVELTY

The novelty of this work is based on introducing spectral techniques to improve the color rendition of a test for the assessment of the ability to discriminate color in virtual reality.

Observer #	Age	Sex	Physical test		Virtual test	
			Score	Time	Score	Time
1	27	W	0±0	15±4	24±0	20±6
2	26	M	4±0	10±1	25±13	15±6
3	26	W	6±3	9±3	40±10	24±5
4	45	M	9±13	7±1	23±15	18±3
5	56	W	25±14	7±3	27±5	16±3
6	54	W	36±14	6±1	45±18	12±2
7	56	M	44±14	10±5	92±23	11±5
8	55	W	47±5	6±1	101±63	14±2
9	25	M	189±8	8±2	191±108	17±4
10	25	M	212±9	9±2	268±60	9±3

W= Woman, M= Man, Time in minutes

ACKNOWLEDGEMENTS

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