

XRGA myth and reality

What is XRGA ?

- **XRGA is an Xrite calibration methodology that is used for all products used in the graphic arts 45/0 instruments.**
 - Legacy products can be calibrated to XRGA
- **XRGA points to “an unbroken chain of reference” to a reflection reference at NIST**
- **XRGA changed some center wavelength scale and weighting primarily in the longer wavelengths.**
- **XRGA had a larger effect on the Legacy GretagMacbeth Instruments than the Legacy X-rite programs.**

What are the ramifications of XRGA

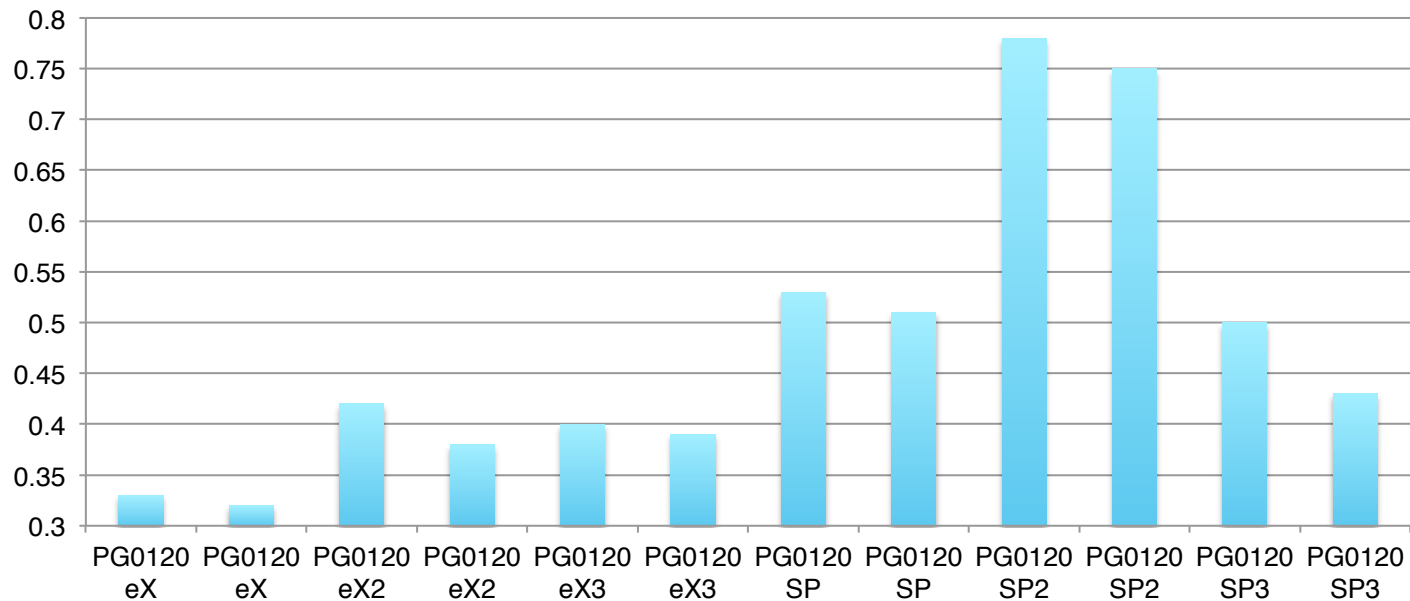
- **Legacy Data Sets may need to be upgraded**
- **Spectral Data can be converted, colorimetry cannot.**
- **Manufacturers that used SpectroEye as a de facto standard for calibration will have to recalibrate if they wish to match XRGA based instruments.**

Aperture Size and Illumination Geometry have a larger impact than XRGA calibration

- **Media interaction with the instruments has a greater effect than XRGA.**
- **As aperture size goes down, measurement variation goes up.**

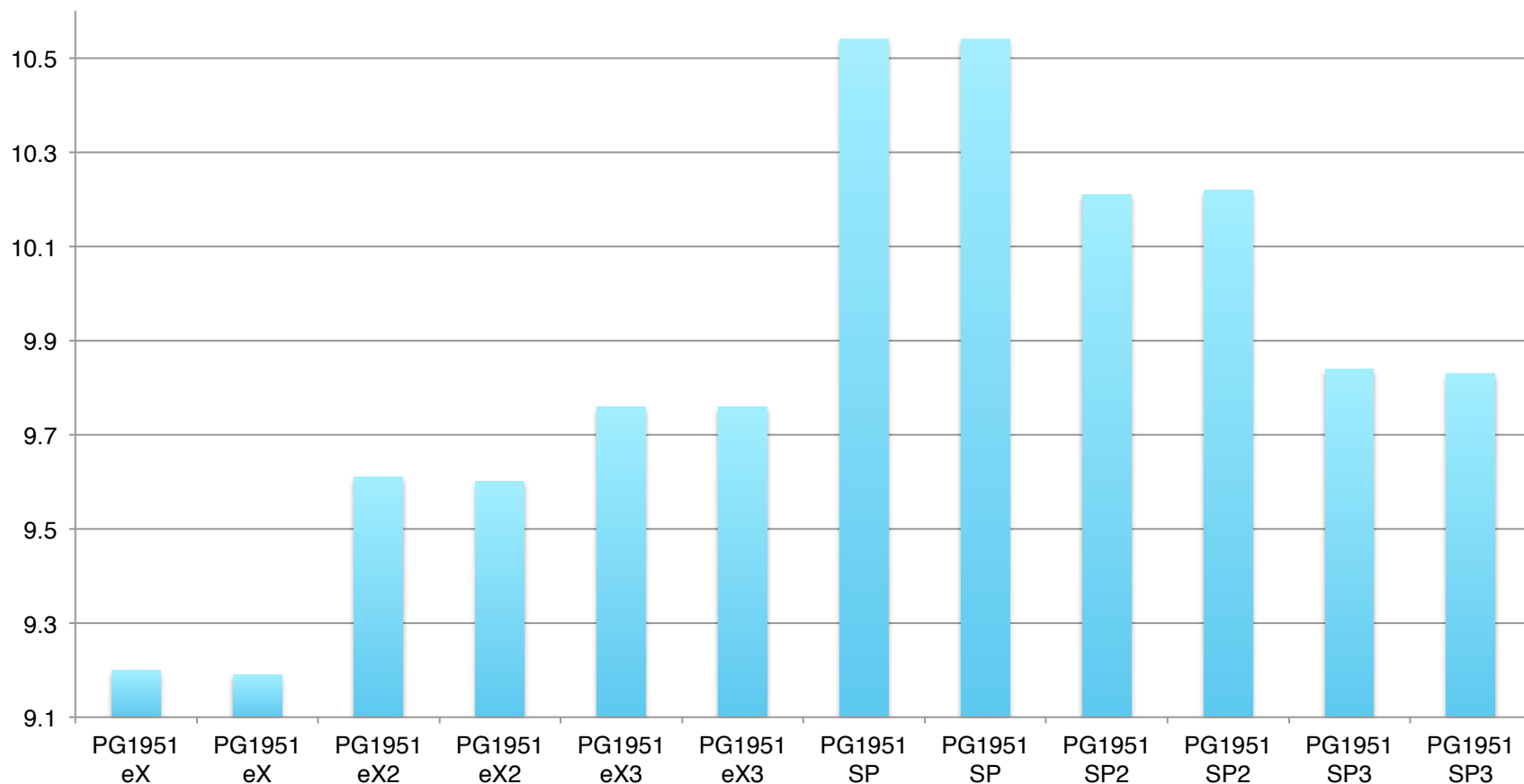
Data comparison between eXact and SE high quality

- 45/0 reference value



Worst case example

- Note Reference value was a sphere based instrument Large aperture
- Worst case error between SE and eXact ~ 1.4



Conclusions

- **XRGA exaggerated differences between GMB and Xrite.**
- **Biggest differences arise with geometry & aperture size.**