

General services related to optics

Our expertise covers a wide range in the areas of

- the **Analysis** and **Reverse-Engineering** of optical systems,
- the **Optic Design** of measurement and test systems,
- the **Optical System Analysis** (trouble-shooting)

and many **other areas of Technical Optics**.

We use the optic design software **Zemax** since **more than 20 years now**. Furthermore **since 2017**, we are an **official Zemax Consultant**.

As we cooperate with several manufacturers of premium optical lenses, we are able to provide **solutions** to our customers for the **complete process chain from Development via Prototyping until Batch Production**.

We are an official
Zemax
Consultant



Special services related to optical surface metrology

We are busy in the field of Technical Optics since 1990 and therefore we have consolidated knowledge in the areas of

- non-contact **optical surface metrology**,
- non-contact **optical roughness measurement**,
- the **optimization of optical surface metrology** with respect to the **interaction of light and textured surfaces** (effects of surface slopes),
- the **comparison of optical and stylus sensors**,

each with various **Confocal Techniques**, but also other **optical methods**.

Being your consultant and independent of any manufacturer, you would enjoy freedom for your

- **investments decisions**
- and general **evaluations**

concerning **optical surface metrology**.

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Optical Development Services

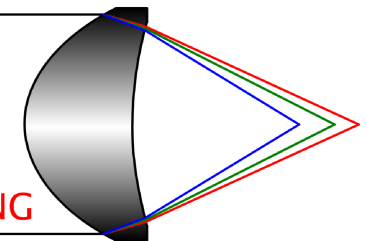
from
Jordan Optical Engineering GmbH

Consulting, Development, Production and more ...
... related to precise optics
and optical sensors ...

... always according to the slogan from
William Somerset Maugham:

**It's a funny thing about life;
if you refuse to accept anything
but the best, you very often get it.**

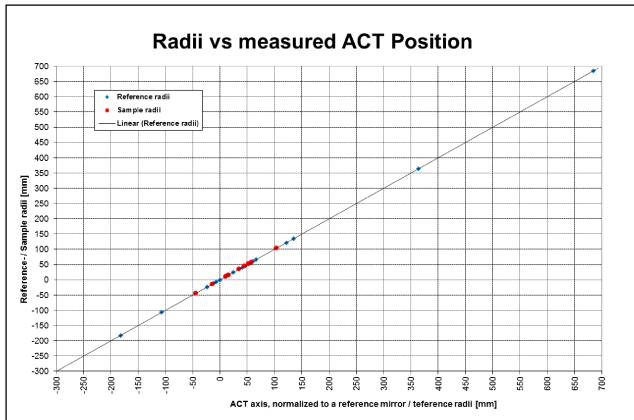
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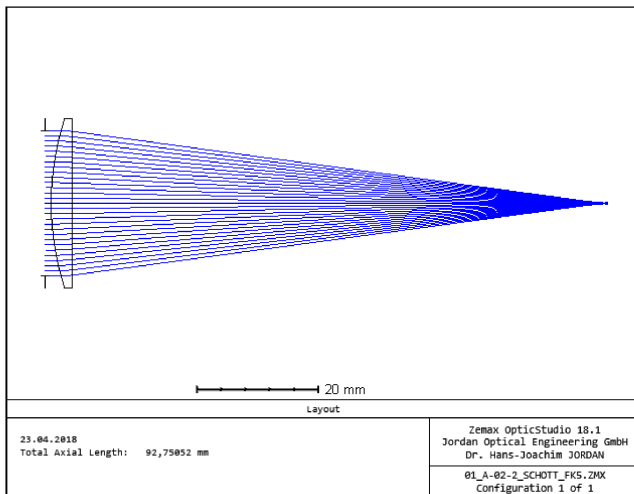
An example for a Lens Analysis / Reverse-Engineering

1. ACT measurement of lens radii



2. Determination of glass density

3. ACT measurement of image widths

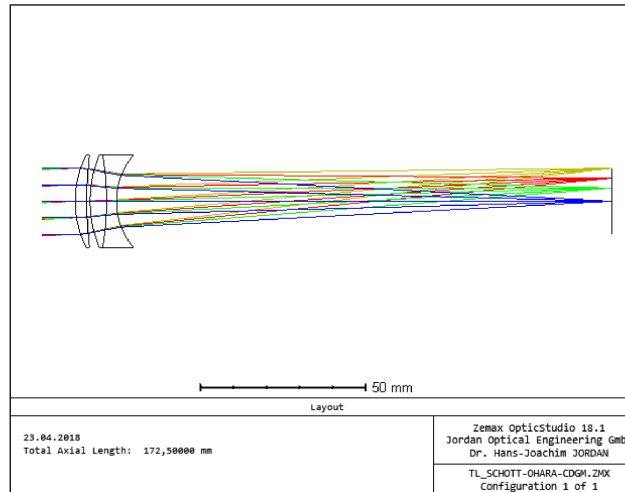


4. Calibration of lens geometry, glass density and image widths in Zemax

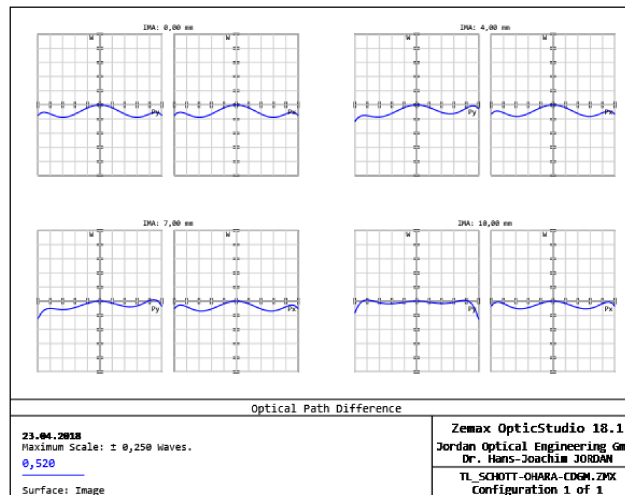
An example for Optic Design (A tube lens for a microscope)

- A 3 element „Tela“ lens
- Image width 150 mm
- Image diameter 20 mm

1. Layout



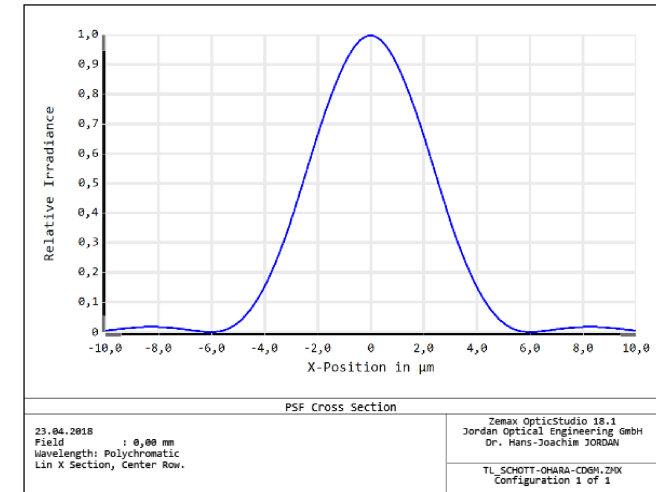
2. OPD (Optical Path Difference)



An example for Optic Design (A tube lens for a microscope)

- Special for video microscopy
- Customized image width
- Customized image diameter

3. PSF (Point Spread Function / Airy-Disc)



4. MTF (Modulation Transfer Function)

