data :=

    E:\..\010824cgh.prn

olddata :=

    E:\..\010823cgh.prn

flag := 0   surfdata :=   oldflag := 0

    E:\..\Lens2srf.prn

Decenter data

$$data^{\langle 0 \rangle} := data^{\langle 0 \rangle} + newdecenter$$

$$olddata^{\langle 0 \rangle} := olddata^{\langle 0 \rangle} + olddecenter$$

Surface Parameters ──────────────────────────────

Function describing probe trace ────────────────────

Calc surface touch points ──────────────────────────

Fit touchpoints to function ────────────────────────

Sag eqn ──────────────────────────────────────

Genfit function setup ─────────────────────────────

Calc Surface Function ─────────────────────────────

$$meassurf = \begin{pmatrix} 3.190282 \times 10^{0} \\ -1.962151 \times 10^{-1} \\ 6.159719 \times 10^{-10} \\ -1.184517 \times 10^{-12} \\ 0.000000 \times 10^{0} \\ 0.000000 \times 10^{0} \end{pmatrix}$$

$$oldmeassurf = \begin{pmatrix} 3.191265 \times 10^{0} \\ -1.993007 \times 10^{-1} \\ 6.360545 \times 10^{-10} \\ -1.727941 \times 10^{-12} \\ -1.922875 \times 10^{-15} \\ 0.000000 \times 10^{0} \end{pmatrix}$$

$$TOL \equiv .001$$

CURRENT

Previous

$measrad = 313.4519 \, mm$ This is the measured vertex radius of the part $oldrad = 313.3553 \, mm$

$measconic = -0.1962$ This is the measured conic of the part $oldconic = -0.1993$

The last 4 entries in these vectors are the 4th, 6th, 8th and 10th order coefficients normalize to the aperture.

Calc residuals from function ──────────────────────

Input the surface parameters to compare with the data (R, K). To compare with the nominal values, make R=rad, K=conic. To compare with the measured R & K, make R=measrad, K=measconic. Otherwise, just type in numbers for R & K.

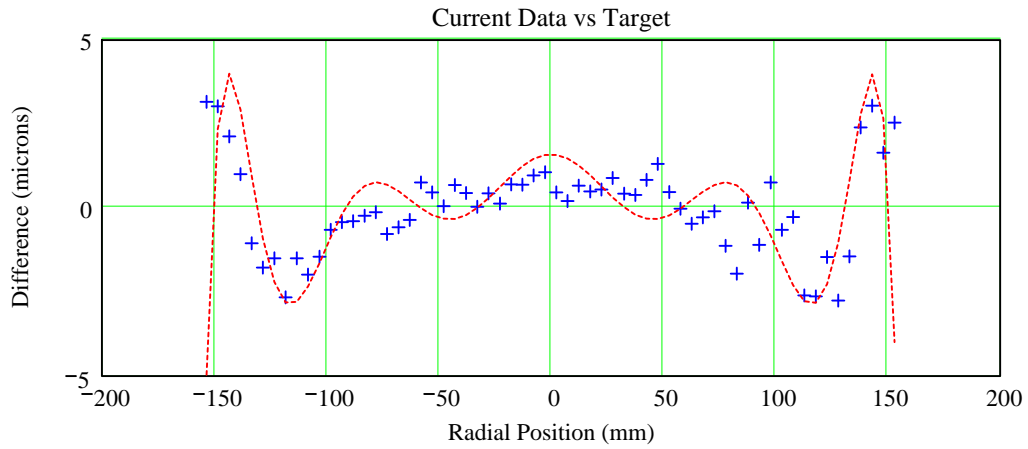$$R := rad + .0 \cdot mm$$

$$K := conic + .000$$

$$R = 312.5800 \, mm$$

$$K = -0.249000$$

Conjugate distances ──

Calculate error from target ──

This plot shows the deviation of the current data from the target asphere (tilt removed):

Current Data vs Target

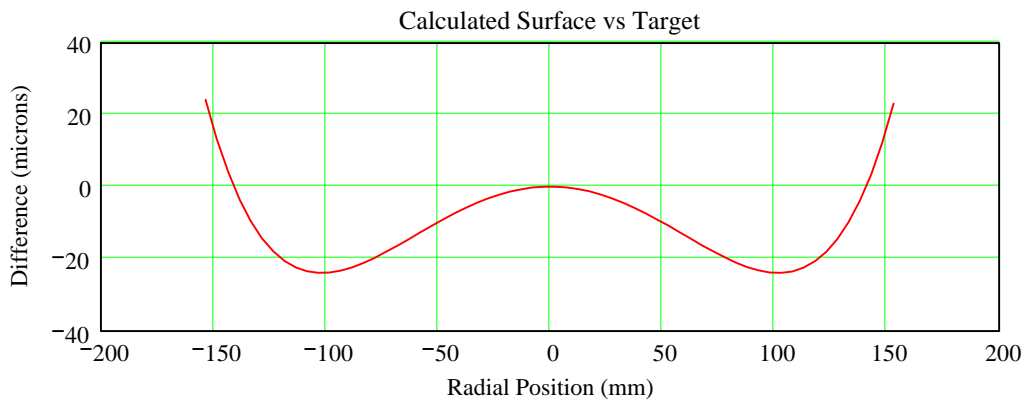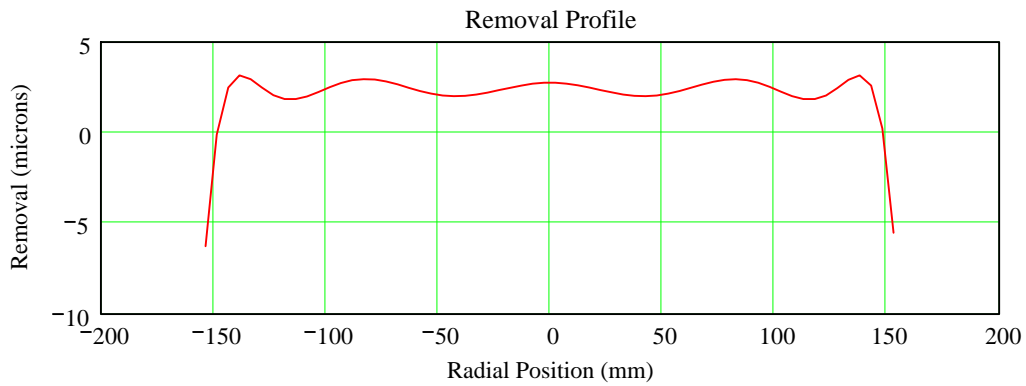$$PtoV(DIF2) = 5.9204\,\mu \qquad RMS(DIF2) = 1.3654\,\mu \qquad newdecenter \equiv -.22$$

This plot compares the current asphere fit to the data with the target asphere:

Calculated Surface vs Target

This plot is the difference of the new data and the old data, a measure of removal:

Removal Profile

$$olddecenter \equiv -0.1$$