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Karlsruhe Institute of Technology

ANKA

First Experience with the MATLAB Middle Layer at ANKA

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Beam-Based Alignment

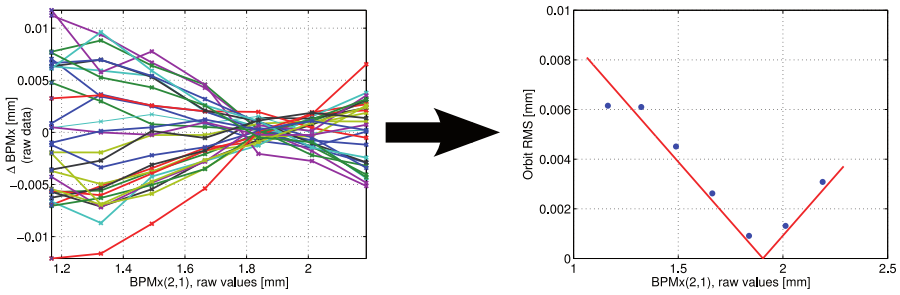
Improved Fitting Algorithm

quadplot

Calculated Center at 0.83 mm

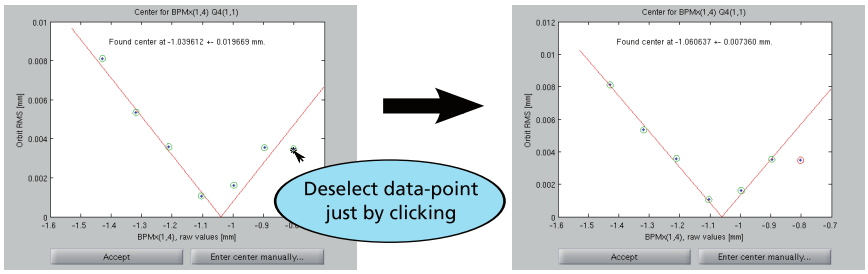
quadplot2

Calculated Center at 1.90 mm

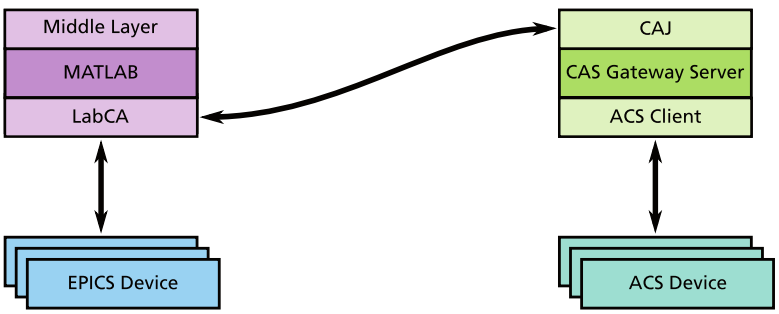


The quadplot function distributed with the MATLAB Middle Layer can return completely wrong results for partly faulty data. The quadplot2 function used at ANKA is more resistent to single defective data-points, because it uses the RMS of all BPMs. Therefore it yields correct results, even if some of the data-points are far away from the fitted function.

Interactive Fitting



Control System Integration



User-Friendly Workflow