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# Implementation of a global fit method for the alignment of the Silicon Tracker in ATLAS Athena framework

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The ATLAS Inner Detector is composed of a pixel detector (PIX), a silicon strip detector (SCT) and a Transition radiation tracker (TRT). The goal of the algorithm is to align the silicon based detectors (PIX and SCT) using a global fit of the alignment constants. The total number of PIX and SCT silicon modules is about 35000, leading to many challenges. The current presentation will focus on the infrastructure of the processing part of the algorithm, leaving the technical issues related to the solving of a system with large number of degrees of freedom to a separate presentation. The main functionalities of the code will be presented and basic analysis of test beam data and simulation will be shown. An alternative method is also briefly discussed.

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