



## Setting the measurement strategy on the CMM with regard to the productivity and capability of the measurement process

*Jan Urban\*, Jiří Resl, Libor Beránek<sup>1</sup>*

<sup>1</sup>Czech technical university in Prague, Faculty of mechanical engineering, Department of machining, process planning and metrology

### **Keywords:**

CMM; Measurement productivity; Measurement strategy, Automation in CMM measurement

### **Abstract:**

Today's highly automated and productive production places high demands on the fluidity and efficiency of dimensional inspection on CMMs. Particularly for tactile machines, which are used in applications with high demands on measurement accuracy, the issue of productivity is a major topic. Inefficiency is already encountered in the very phase of preparing the measurement plan when time-consuming manual operator activities still predominate. Even in terms of setting up a measurement strategy, the full potential of productive CMM measurement is not being realised. This paper focusses on the possibilities of introducing a methodology to ensure automated preparation of measurement plans on CMMs to achieve maximum productivity but with respect to the dimension to be measured and the tolerance bandwidth. Results can also be used outside SW to provide automated preparation of measurement plans. They can be used, for example, to optimise existing measurement programmes to increase the capacity of a CMM laboratory.