

## ABSTRACT OF THE DISCLOSURE

An electrode (4) is disposed spaced away from and in facing relation with an electrically conductive grinding wheel (2). There is applied a voltage  
5 across the grinding wheel and the electrode with making electrically conductive fluid (7) flow between the grinding wheel and the electrode. A position of the grinding wheel is numerically controlled with the grinding wheel being dressed by electrolysis to thereby grind a work with the grinding wheel. The work is ground in accordance with command data  $Zx^{(i)}$ , and then a shape of a ground  
10 surface is measured by means of a measuring device (12). The measurement data is filtered to thereby record shape error data  $e_x^{(i)}$ . There is established new command data  $Zx^{(i+1)}$  by adding compensation, and then the work is ground again with the thus established new command data. The compensation refers to past command data, and determines new command data to be equal to an  
15 expected value of the past command data. In accordance with the present invention, it is possible to obtain higher shape accuracy with the less number of processing steps, extract real shape indicating signals out of measurement data, and avoid misregistration of a work which would be caused by fixing/removing.