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# HOLONIC FEEDRATE SCHEDULING

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*Abstract:* The key idea of this paper is to replace the offline ISO G-code part programming with online parametric optimal work cycle scheduling software, aiming maximum simplifying the numerical control system architecture and online high-resolution optimizing the machining process. Nowadays, the CAM products work with ISO G-code program-lines, specific for each machining operation. In our holonic approach the program-lines are replaced by parametric optimal scheduling software, also specific for each machining operation. The input data are the task description (for instance machined surface shape, tolerance and roughness), on one hand, and the control variables of the reactive scheduling control system (for instance maximum chip width), on the other hand, while the output data are the values of the hardware modules control variables, specific for each quantum of the process. This paper presents the development of a holonic modeling technique and its application to optimal feedrate scheduling.
*Key words:* holon, holarchy, feedrate scheduling, machining process optimization.