# Design Rule for Frequency-Voltage Cooperative Power Control and Its Application to an MPEG-4 Decoder

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Frequency-voltage cooperative power control (FVC) is considered a powerful method to reduce the power consumption of a program, because it utilizes the information of software loads dynamically. The authors first show through a mathematical analysis that FVC with only two frequency-voltage sets is sufficient for current low-Vdd CPU chips. Then we show an experimental result that FVC feedback control on an MPEG-4 video decoder can reduce the power to one-fourth.