# An Energy Aware Scheduler for Computational RFID Programs

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We present the design and evaluation of a run-time system that schedules tasks on computational RFID tags so that the limited available energy is used well. This design has been prototyped using Intel WISP programmable RFID tags and evaluated experimentally with a commercial EPC Gen2 RFID reader and two tag programs that gather, compute and communicate sensor values for ubiquitous computing applications. Our software system enables a wide range of tasks to run well on computational RFID tags. It runs an energy-intensive task more often for the same amount of energy than the built-in hardware scheduler, effectively doubling the range. This benefit comes at low cost as our software system performs almost as well as the underlying hardware on lightweight tasks for which the hardware was designed.