

Design Logic 2001 CONTEST

Three
Categories

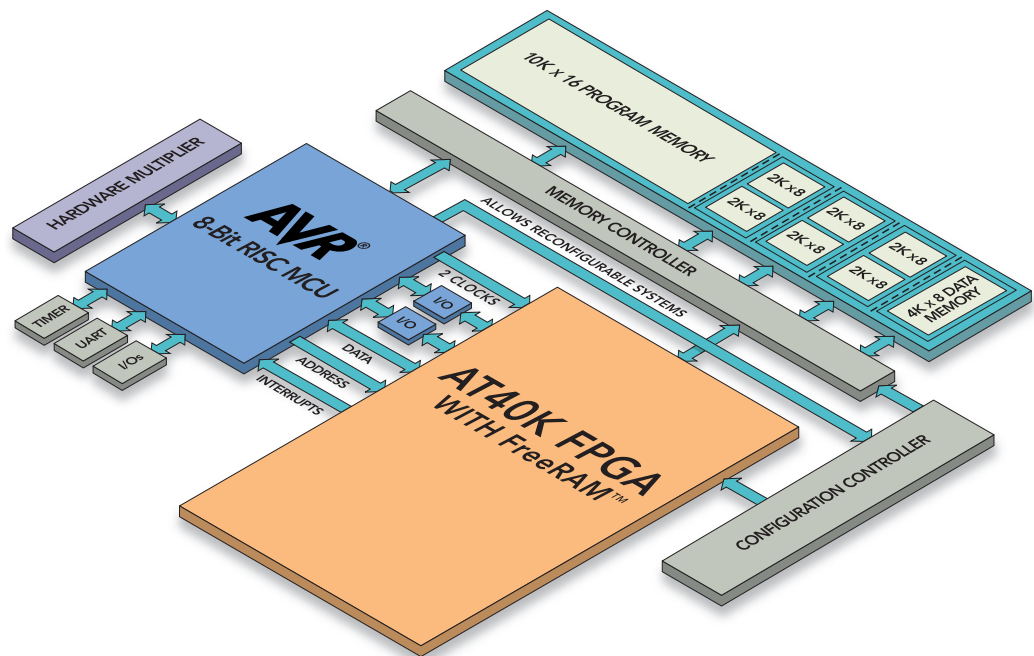
FPSLIC

AVR

FPGA

\$20,000
in cash prizes!

Pick a category and submit your project by
June 15, 2001



www.circuitcellar.com/DL2001

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CIRCUIT CELLAR[®]

THE MAGAZINE FOR COMPUTER APPLICATIONS

ATMEL[®]

Design Logic 2001 CONTEST

www.circuitcellar.com/DL2001

Thank you for your interest in the Design Logic 2001 Contest, the fifteenth *Circuit Cellar* design contest, sponsored by Atmel Corporation. You may enter any working electronics project based on devices within the Atmel FPSLIC, AVR, or FPGA, families. Innovation, simple elegance, and quality of design are key factors to success in the Design Logic 2001 Contest. We welcome entries that run the gamut between proven and leading-edge technologies. Projects can range from the very simple to the most intricate. However, keep in mind that winning is not a function of complexity.

Review the rules, circle the June 15, 2001 deadline on your calendar, and before you know it, you could be enjoying some of the great cash prizes available in the Design Logic 2001 Contest. Winners will be notified by telephone, mail, or e-mail. All winners will be publicly announced at the Embedded Systems Conference on September 4, 2001 and highlighted in the December 2001 issue of *Circuit Cellar*.

FPSLIC

1st \$5000 • 2nd \$2000 • 3rd \$1000

AVR: 1st \$3000 • 2nd \$2000 • 3rd \$1000

FPGA: 1st \$3000 • 2nd \$2000 • 3rd \$1000

Two runners-up in each category will receive a Handspring Visor™

The Atmel AT94K family of Field Programmable System Level Integrated Circuits (FPSLIC™ devices) combines all the basic system build blocks (logic, memory, and uC) in an SRAM-based monolithic field-programmable device. The FPSLIC programmable SLI platform allows true system-level designs to be implemented without the need for expensive NRE (non-recurring engineering) charges.

FPSLIC

Atmel identified the need of an architecture developed specially for the C language in order to reduce code size overhead. The AVR® microcontroller is a true single-cycle RISC machine with 32 general-purpose registers (accumulators) running 4 to 12 times faster than currently used MCUs.

AVR

Atmel's AT40K coprocessor FPGAs are designed for high density, compute-intensive DSP and other fast logic designs. Structured logic functions, including variable array multipliers, can be implemented directly in core cells without using any busing resources—providing dramatic improvements in speed, utilization, power and system cost.

FPGA



Atmel Corporation is a leader in the design, manufacturing and marketing of advanced semiconductors, including advanced logic, nonvolatile memory, mixed signal and RF integrated circuits. Atmel is one of the elite new companies capable of integrating dense nonvolatile memory, logic, and analog functions on a single chip. Atmel chips are manufactured using the most advanced wafer processes, including BiCMOS, CMOS and Silicon Germanium (SiGe) technologies. In fact, Atmel is one of the first manufacturers to offer SiGe, a new technology that cost-effectively addresses the manufacturing requirements of the RF and high-frequency wireless communications markets.

Circuit Cellar™ is the premier source of practical technical information for designers and builders of computer hardware and software applications. *Circuit Cellar* enhances the electronics design skills of its readers by offering creative solutions and unique applications through complete projects, practical tutorials, and useful design techniques. *Circuit Cellar* is the only magazine serving the microcomputer market that is focused on the needs of hands-on designers, engineers, and programmers of microcomputer hardware and software. Articles in the pages of *Circuit Cellar* are written by engineers, for engineers. They give the reader practical information that can immediately be used to develop or improve working computer applications.

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THE MAGAZINE FOR COMPUTER APPLICATIONS

FINE PRINT

- Atmel is solely responsible for the payment and distribution of all prizes and monetary awards. The prizes will be awarded and mailed to the winners. There will be no substitution for prizes other than as offered. Taxes are the sole responsibility of the winners. The winners agree that signing the contest entry form constitutes an affidavit of eligibility and agreement to the terms and conditions of entry as stated above. The winners will be notified by mail, e-mail, and/or telephone on or about September 1st, 2001. The judges' decision is final. If a winner fails to respond within 30 days of notification, an alternate winner will be selected. Prizes are not transferable.
- Direct employees of Circuit Cellar or Atmel, their affiliates, advertising, promotion, production agencies, members of their immediate families, or those with whom they are domiciled are not eligible.
- Entries made on the Internet will be deemed made by the authorized account holder of the e-mail address submitted at the time of entry; however, a physical signed entry form is still required for any entry to be eligible. In the event of a dispute, potential winners may be required to provide proof that the potential winner is the authorized account holder of the e-mail address associated with the potentially winning entry.
- By entering, players release Circuit Cellar and Atmel, its agents, and hosting service from all liability with respect to the use of the prizes awarded herein, agree to be bound by these rules, and consent to the use of their names and likeness for advertising and/or promotional and/or marketing purposes without additional compensation. Circuit Cellar and Atmel are not responsible for incorrect or inaccurate entry of information including, but not limited to, technical malfunctions, human error, lost/delayed data transmission, omission, interruption, deletion, defect, line failures of any telephone network, computer equipment, software or any combination thereof, entry materials that have been tampered with, or e-mail or mail-in entries that are illegible, late, lost, damaged, postage due, or misdirected. Circuit Cellar and Atmel are not responsible for any injury or damage to participant's or any other person's computer related to or resulting from participation or downloading any material in this contest. Entries that have been tampered with or altered are void. Circuit Cellar and Atmel reserve the right to cancel, terminate, modify, or suspend this contest if it becomes technically corrupted or if for any reason the Internet portion of the program is not capable of running as planned, including infections by computer virus, bugs, tampering, unauthorized intervention, fraud, technical failures, or any other causes beyond the control of Atmel or Circuit Cellar Inc., which corrupt or affect the administration, security, fairness, integrity, or proper conduct of this promotion. This contest shall be governed by the laws of the United States. ©2001 Circuit Cellar Inc. All rights reserved.

Atmel DESIGN LOGIC 2001 Official Design Contest Rules

1. Each project must be the original work and property of the person or team who submits it.
2. Projects may be submitted in hardcopy or digital form, and must be written in English. The postal and e-mail addresses for submitting contest entries are shown at the bottom of this page.

All Hardcopy entries must include:

- A completed and signed entry form
- A publishable, technically descriptive, abstract in Microsoft Word or ASCII text, including a hardcopy (approx. 500 words) and block diagram of the design (see examples at www.circuitcellar.com/DL2001). Every entry must contain an abstract with either a block diagram or a schematic in digital format (for hardcopy submissions, please include a disk that contains the abstract and diagram). If the abstract of any entry does not contain a block diagram, then the project schematic will be deemed part of the abstract when used for publication purposes.
- Complete and legible schematics of the hardware used
- Complete documentation of the project and its operation, including software, flowcharts, and diagrams (where appropriate). In addition, entrants must submit fully compilable source code digitally (send four [4] copies on 3.5" disks [1 copy per judge]).
- Four (4) copies of all documentation (1 copy per judge)
- Four (4) identical photographs of the completed project (1 copy per judge)

Note: Do not send the physical project unless you are notified as being a winner

All Digital entries must include:

- A completed and signed entry form submitted either on-line or via e-mail. Each entrant will then be assigned a Project Number which MUST be used to identify your project once submitted.
- A publishable, technically descriptive, abstract in Word or ASCII format (approx. 500 words) and a block diagram (in PDF or Word format) of the design (see examples at www.circuitcellar.com/DL2001). Every entry must contain an abstract with either a block diagram or a schematic in digital format. If the abstract of any entry does not contain a block diagram, then the project schematic will be deemed part of the abstract when used for publication purposes.
- Complete documentation of the project and its operation, including software, flowcharts, schematics, photos, and diagrams. *Please submit documentation in PDF or Microsoft Word format only.*
- A fully compilable source code

Note: Do not send the physical project unless you are notified as being a winner.

Contestants may enter more than one project but must submit each as a separate entry. **There should be no personal identification or corporate affiliation markings on ANY of the submitted material. Your name, address, or corporate affiliation should appear ONLY ON THE ENTRY FORM. Contestants who leave their names in headers, footers, table of contents pages, schematics, etc. may be disqualified.**

3. All core hardware must be Atmel brand (check the *Circuit Cellar* web site for additions, qualifications, or changes to these specifications). Visit www.circuitcellar.com/DL2001 for sources of databooks and downloadable development tools. Sources for development kits and individual chips are available via the *Circuit Cellar* web site, your local Atmel sales office, or a local distributor.

4. **All entries must be received on or before June 15, 2001.** Entries received after this deadline are deemed ineligible.

5. We encourage all contestants to seek patents for any unique or proprietary aspects of the design prior to submission. *The design remains the intellectual property of the contestant.* To avoid additional shipping and organizational difficulties, all copies of entry documentation become the property of *Circuit Cellar* and will not be returned. Source code submitted with any entry remains the property of the entrant and is not distributed except to the judges nor is it published without the entrant's specific permission.

6. Only winning projects must be shipped to *Circuit Cellar* (postal address below). The contestant bears all responsibility for shipping and insuring their winning entry to *Circuit Cellar*. If you are chosen as a winner, we will contact you with all the details and how you need to ship your project to us. Projects will be returned once the winning entry is photographed. In the event of logistical problems in sending your completed project to us, special arrangements can be made among *Circuit Cellar*, Atmel, and the winner as a follow-up alternative.

7. All contestants entering projects in Atmel's DESIGN LOGIC 2001 contest agree to assign *Circuit Cellar* exclusive first-publication and nonexclusive full-publication rights of the project if they win any monetary award and if *Circuit Cellar* elects to publish it. If the project is published as a separate article in *Circuit Cellar*, *Circuit Cellar Online*, or any other *Circuit Cellar* publication, the contestant will be paid at standard *Circuit Cellar* Press remuneration. All contestants entering projects in the Atmel DESIGN LOGIC 2001 contest assign to *Circuit Cellar* and Atmel the right to publish (print or electronic/Internet media) the submitted project abstract.

8. All Atmel DESIGN LOGIC 2001 contest entries will be judged on the following: technical merit, originality, cost effectiveness, utility or applicability, and efficiency of development and design process. Contest judges have been chosen based on their familiarity with engineering design, component familiarity, and experience. Winners will be chosen based on all of the criteria given. *All decisions made by the judges are final.*

9. **PRIZES:** Prizes will be awarded in three component categories: FPSLIC, AVR, and FPGA processors. First prize in the FPSLIC category is \$5000. Second prize is \$2000 and third prize is \$1000. First prize in the FPGA category is \$3000. Second prize is \$2000 and third prize is \$1000. First prize in the AVR processor category is \$3000. Second prize is \$2000 and third prize is \$1000. Each of the three categories will also award two each (total of six) Handspring Visor™ PDAs to Honorable Mention winners. Entries are eligible for an award in a single category only. The judging category of each entry shall be declared on the contest entry form.

No checks or prizes will be issued to U.S. residents until a Social Security number is submitted. All winners will be notified in September of 2001, as well as featured in the December 2001 issue of *Circuit Cellar*. All contestants are invited to submit their design write-ups for future *Circuit Cellar* articles.

10. Contest rules are subject to change. Check www.circuitcellar.com/DL2001 for up-to-date information and answers to frequently asked questions (FAQ).

11. Address all correspondence concerning the contest to:

Atmel DESIGN LOGIC 2001 Contest • Circuit Cellar • 4 Park St. • Vernon, CT 06066 (860) 875-2199 • Fax: (860) 871-0411
www.circuitcellar.com/DL2001 • contest.administrator@circuitcellar.com

Design Logic 2001 CONTEST

OFFICIAL ENTRY FORM

15TH CIRCUIT CELLAR DESIGN CONTEST

Name (please print) _____

Social security number (U.S. residents only) _____

Mailing address _____

City, State, ZIP _____

Telephone (Work) _____ Fax _____

Telephone (Home) _____ E-mail _____

Project title _____

Atmel part used (circle one): FPSLIC AVR FPGA

Project description _____

I certify that this project entered in Design Logic 2001 Contest, *Circuit Cellar's* 15th Design Contest, is my own work, and I hold full rights to it. Furthermore, I have read and understand the rules of this contest, and I agree to abide by them.

Signature Date

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