

MERCURY COMPUTER SYSTEMS INC  
Form S-8 POS  
December 14, 2009

As filed with the Securities and Exchange Commission on December 14, 2009

Registration No. 333-101993

**UNITED STATES**  
**SECURITIES AND EXCHANGE COMMISSION**

Washington, D.C. 20549

**POST-EFFECTIVE**  
**AMENDMENT NO. 4**  
**TO**  
**FORM S-8**  
**REGISTRATION STATEMENT**

*UNDER*

*THE SECURITIES ACT OF 1933*

**MERCURY COMPUTER SYSTEMS, INC.**

(Exact Name of Registrant as Specified in its Charter)

**Massachusetts**  
(State of Incorporation)

**04-2741391**  
(I.R.S. Employer Identification Number)

**201 Riverneck Road**

**Chelmsford, Massachusetts 01824**

**(978) 256-1300**

(Address of Principal Executive Offices)

**MERCURY COMPUTER SYSTEMS, INC.**

**1997 STOCK OPTION PLAN**

(Full Title of the Plan)

**Alex A. Van Adzin**

**Vice President, General Counsel, and Corporation Secretary**

**Mercury Computer Systems, Inc.**

**201 Riverneck Road**

**Chelmsford, Massachusetts 01824**

**(978) 256-1300**

(Name, Address and Telephone Number, Including Area Code, of Agent for Service)

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a smaller reporting company. See the definitions of large accelerated filer, accelerated filer, and smaller reporting company in Rule 12b-2 of the Exchange Act.

Large accelerated filer

Accelerated filer

Non-accelerated filer  (Do not check if a smaller reporting company)

Smaller reporting company



**EXPLANATORY NOTE**

Mercury Computer Systems, Inc. (the Company) is filing this post-effective amendment to deregister certain of the securities originally registered pursuant to the registration statement on Form S-8 (File No. 333-101993), filed with the Securities and Exchange Commission on December 19, 2002 (the Registration Statement) with respect to shares of the Company's common stock, par value \$0.01 per share (Common Stock), thereby registered for issuance under the Company's 1997 Stock Option Plan, as amended (the 1997 Plan). An aggregate of 4,000,000 shares of Common Stock were registered for issuance under the 1997 Plan pursuant to the Registration Statement.

On November 14, 2005, the Company's shareholders approved the Company's 2005 Stock Incentive Plan (as amended from time to time, the 2005 Plan), which replaced the 1997 Plan as of the date of approval. Following the approval of the 2005 Plan, no future awards may be made under the 1997 Plan. The maximum number of shares of Common Stock reserved and available for issuance under the 2005 Plan includes the shares underlying any grants previously made under the 1997 Plan that are forfeited, canceled, or terminated (other than by exercise) from and after the effective date of the 2005 Plan. The total number of shares available for grant under the 1997 Plan as of the effective date of the 2005 Plan was 1,942,264 shares. Additional shares (the Additional Carried Forward Shares) have been included in the shares reserved for issuance under the 2005 Plan as a result of the forfeiture, cancellation, or termination (other than by exercise) of previously-made grants under the 1997 Plan. The Additional Carried Forward Shares included 2,392,245 shares registered under the Registration Statement, which were deregistered pursuant to Post-Effective Amendment No. 1 to the Registration Statement filed on November 30, 2006, 229,978 shares registered under the Registration Statement, which were deregistered pursuant to Post-Effective Amendment No. 2 to the Registration Statement filed on February 4, 2008, and 442,047 shares registered under the Registration Statement, which were deregistered pursuant to Post-Effective Amendment No. 3 to the Registration Statement filed on December 19, 2008. The Additional Carried Forward Shares also include an additional 597,775 shares registered under the Registration Statement, which are hereby deregistered.

Contemporaneously with the filing of this Post-Effective Amendment No. 4 to the Registration Statement, the Company is filing a registration statement on Form S-8 to register, among other shares, an additional 597,775 shares of Common Stock for issuance pursuant to the 2005 Plan.

**SIGNATURES**

Pursuant to the requirements of the Securities Act of 1933, the registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form S-8 and has duly caused this Post-Effective Amendment No. 4 to the Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the town of Chelmsford, the Commonwealth of Massachusetts on this 14th day of December, 2009.

MERCURY COMPUTER SYSTEMS, INC.

By: **ALEX A. VAN ADZIN**  
**Alex A. Van Adzin**  
**Vice President, General Counsel,**

**and Corporation Secretary**

Pursuant to the requirements of the Securities Act of 1933, this Post-Effective Amendment No. 4 to the Registration Statement has been signed by the following persons in the capacities and on the dates indicated.

<b>Signature</b>	<b>Title</b>	<b>Date</b>
/s/ <b>MARK ASLETT</b> <b>Mark Aslett</b>	President, Chief Executive Officer, and Director  (Principal Executive Officer)	December 14, 2009
/s/ <b>ROBERT E. HULT</b> <b>Robert E. Hult</b>	Senior Vice President, Chief Financial Officer, and Treasurer (Principal Financial Officer and Principal Accounting Officer)	December 14, 2009
/s/ <b>RUSSELL K. JOHNSEN</b> <b>Russell K. Johnsen</b>	Chairman of the Board of Directors	December 14, 2009
/s/ <b>ALBERT P. BELLE ISLE</b> <b>Albert P. Belle Isle</b>	Director	December 14, 2009
/s/ <b>GEORGE W. CHAMILLARD</b> <b>George W. Chamillard</b>	Director	December 14, 2009
/s/ <b>WILLIAM K. O BRIEN</b> <b>William K. O Brien</b>	Director	December 14, 2009
/s/ <b>LEE C. STEELE</b> <b>Lee C. Steele</b>	Director	December 14, 2009
/s/ <b>VINCENT VITTO</b> <b>Vincent Vitto</b>	Director	December 14, 2009
/s/ <b>RICHARD P. WISHNER</b> <b>Richard P. Wishner</b>	Director	December 14, 2009

**EXHIBIT INDEX**

<b>Exhibit</b>	<b>Description</b>
23.1	Consent of KPMG LLP (filed herewith).