

**UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION  
WASHINGTON, DC 20549**

**FORM 8-K**

**CURRENT REPORT  
Pursuant to Section 13 or 15(d) of the  
Securities Exchange Act of 1934**

**Date of report (Date of earliest event reported): August 15, 2006**

**Mercury Computer Systems, Inc.**

(Exact Name of Registrant as Specified in Charter)

**Massachusetts**  
(State or Other Jurisdiction  
of Incorporation)

**000-23599**  
(Commission File Number)

**04-2741391**  
(IRS Employer  
Identification No.)

**199 Riverneck Road, Chelmsford, Massachusetts**  
(Address of Principal Executive Offices)

**01824**  
(Zip Code)

**Registrant's telephone number, including area code: (978) 256-1300**

**N/A**  
(Former Name or Former Address, if Changed Since Last Report)

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions (see General Instruction A.2. below):

- Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)
- Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)
- Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))
- Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))

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**Item 1.01. Entry into a Material Definitive Agreement.**

On August 15, 2006, the Board of Directors of Mercury Computer Systems, Inc. (the "Company") granted a stock option under the Company's 2005 Stock Incentive Plan (the "2005 Plan") to James R. Bertelli, the Company's President and Chief Executive Officer, covering 75,000 shares of the Company's common stock. The exercise price of the stock option is \$12.41 per share. The option becomes exercisable as to 1/4 of the covered shares on each of the first four anniversaries of the date of grant, provided that Mr. Bertelli remains either an employee or a director of the Company as of each such date, and expires on August 15, 2016.

The form of Stock Option Agreement with respect to the above-referenced grant provides that the stock option shall terminate and no portion will be exercisable on the earliest of the following:

- the expiration date;
- the date the grantee ceases to be an employee of the Company due to dismissal for cause or because the grantee is in breach of any employment agreement with the Company;
- 12 months following the date the grantee ceases to be an employee of the Company due to permanent disability;
- 12 months following the date of the grantee's death;
- five years following the date the grantee ceases to be an employee of the Company due to retirement; and
- 90 days following the date the grantee ceases to be an employee of the Company for any reason other than as described above.

The stock option will be exercisable as described above after the grantee's death or after the grantee otherwise ceases to be an employee of the Company only to the extent it was vested and exercisable immediately prior to the grantee's death or cessation or termination of employment.

If the grantee, either on the date of grant of the stock option or subsequent thereto, is or becomes a director of the Company, and thereafter ceases to be an employee while remaining a non-employee director, such change in status does not constitute a termination of employment for purposes of the last two bulleted clauses set forth above until the grantee's service as a director has ceased.

Mr. Bertelli has previously entered into a change in control severance agreement with the Company which provides, among other things, that if he is employed by the Company upon the occurrence of a change in control (as defined in the agreement), vesting of all his then outstanding stock options and other stock-based awards immediately accelerates and all such awards become exercisable or non-forfeitable.

The form of Stock Option Agreement under the 2005 Plan is filed herewith as Exhibit 10.1 and incorporated herein by reference.

**Item 9.01. Financial Statements and Exhibits.**

(d) Exhibits.

<u>Exhibit No.</u>	<u>Description</u>
10.1	Form of Stock Option Agreement under the Mercury Computer Systems, Inc. 2005 Stock Incentive Plan.

**SIGNATURES**

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned hereunto duly authorized.

MERCURY COMPUTER SYSTEMS, INC.  
(Registrant)

Date: August 21, 2006

By: /s/ Robert E. Hult

Robert E. Hult  
Senior Vice President, Operations and  
Finance, Chief Financial Officer

**EXHIBIT INDEX**

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<b>Exhibit No.</b>	<b>Description</b>
10.1	Form of Stock Option Agreement under the Mercury Computer Systems, Inc. 2005 Stock Incentive Plan.

**Notice of Grant of Stock Options  
and Option Agreement**

**Mercury Computer Systems, Inc.**

ID: [\_\_\_\_\_]   
 199 Riverneck Road   
 Chelmsford, MA 01824

[Name]   
 [Address]

**Option Number:** [\_\_\_\_\_]   
**Plan:** 2005 Stock Incentive Plan   
**ID:** [\_\_\_\_\_]

Effective [\_\_\_\_\_] , you have been granted a[n] [Incentive] Stock Option to buy [\_\_\_\_\_] shares of Mercury Computer Systems, Inc. (the "Company") common stock at [\_\_\_\_\_] per share.

The total option price of the shares granted is [\_\_\_\_\_].

Shares in each period will become fully vested on the date shown.

Shares	Vest Type	Full Vest	Expiration
[_____]	On Vest Date	[_____]	[_____]
[_____]	On Vest Date	[_____]	[_____]
[_____]	On Vest Date	[_____]	[_____]
[_____]	On Vest Date	[_____]	[_____]

By your signature and the Company's signature below, you and the Company agree that these options are granted under and governed by the terms and conditions of the Company's 2005 Stock Incentive Plan, as amended from time to time, and the Option Agreement, all of which are attached and made a part of this document.

\_\_\_\_\_  
 Mercury Computer Systems, Inc.

\_\_\_\_\_  
 Date

\_\_\_\_\_  
 [Name]

\_\_\_\_\_  
 Date

# FORM OF OPTION AGREEMENT

## Terms and Conditions

### 1. Term.

#### **[Terms for Employees]**

This Stock Option shall terminate and no portion will be exercisable on the earliest of the following: (i) the expiration date; (ii) 90 days after the Optionee ceases to be an employee of the Company or one of its subsidiaries for any reason other than as specified in clauses (iii) – (vi) below; (iii) the date the Optionee ceases to be an employee of the Company or one of its subsidiaries if such termination of employment is because of dismissal for cause or because the Optionee is in breach of any employment agreement; (iv) 12 months from the date the Optionee ceases to be an employee if such termination of employment is because the Optionee has become permanently disabled (within the meaning of Section 22(e)(3) of the Code); (v) 12 months from the date of death in the event of the death of the Optionee; or (vi) five years after the Optionee ceases to be an employee of the Company or one of its subsidiaries if such termination of employment is because of the Optionee's retirement on or after attaining the minimum age, completing the minimum number of years of service and satisfying all other conditions specified for retirement status under the Company's Retirement Policy Statement. This Stock Option shall be exercisable in accordance with the preceding sentence after the Optionee's death or after the Optionee otherwise ceases to be an employee of the Company or one of its subsidiaries only to the extent it was vested and exercisable immediately prior to the Optionee's death or cessation or termination of employment.

If the Optionee, either on the date of grant of this Stock Option or subsequent thereto, is or becomes a director, and thereafter ceases to be an employee while remaining a non-employee director, such change in status shall not be a termination of employment for purposes of clauses (ii) or (vi) of the preceding paragraph until the Optionee's service as a director shall have ceased.

#### **[Terms for Board of Directors]**

This Stock Option shall terminate and no portion will be exercisable on the earliest of the following: (i) the expiration date; (ii) 12 months from the date of death in the event of the death of the Optionee while serving as a director; or (iii) five years after the Optionee ceases to be a director of the Company if such cessation is for any reason other than death. This Stock Option shall be exercisable in accordance with the preceding sentence after the Optionee's death or after the Optionee otherwise ceases to be a director of the Company only to the extent it was vested and exercisable immediately prior to the Optionee's death or cessation of service as a director.

### 2. Manner of Exercise.

(a) From time to time on or prior to the expiration of this Stock Option, the Optionee may give written notice to the Company of his election to purchase some or all of the shares of Mercury Computer Systems, Inc. ("Stock") purchasable at the time of such notice. This notice shall specify the number of shares of Stock to be purchased.

Payment of the purchase price for the shares may be made by one or more of the following methods: (i) in cash, by certified or bank check or other instrument acceptable to the Company; (ii) through the delivery of shares of Stock that have been purchased by the Optionee on the open market or that have been beneficially owned by the Optionee for at least six months; (iii) a

combination of (i) and (ii); or (iv) by the Optionee delivering to the Company a properly executed exercise notice together with irrevocable instructions to a broker to promptly deliver to the Company cash or a check payable and acceptable to the Company to pay the option purchase price, provided that in the event the Optionee chooses to pay the option purchase price as so provided, the Optionee and the broker shall comply with such procedures and enter into such agreements of indemnity and other agreements as the Company shall prescribe as a condition of such payment procedure. Payment instruments will be received subject to collection.

(b) Certificates for shares of Stock purchased upon exercise of this Stock Option shall be issued and delivered to the Optionee upon compliance to the satisfaction of the Company with all requirements under applicable laws or regulations in connection with such issuance and with the requirements hereof and of the Plan. The determination of the Company as to such compliance shall be final and binding on the Optionee. The Optionee shall not be deemed to be the holder of, or to have any of the rights of a holder with respect to, any shares of Stock subject to this Stock Option unless and until this Stock Option shall have been exercised pursuant to the terms hereof, the Company shall have issued and delivered the shares to the Optionee, and the Optionee's name shall have been entered as the shareholder of record on the books of the Company. Thereupon, the Optionee shall have full voting, dividend and other ownership rights with respect to such shares of Stock.

(c) The minimum number of shares of Stock with respect to which this Stock Option may be exercised at any one time shall be 50 shares, unless the number of shares with respect to which this Stock Option is being exercised is the total number of shares subject to exercise under this Stock Option at the time.

3. Restrictions. This Stock Option may be cancelled, rescinded, suspended, withheld or otherwise limited or restricted by the Administrator at any time, and any gain realized or payment received as a result of the exercise of this Stock Option may be subject to recapture by the Company if the Optionee engages in any Detrimental Activity prior to or during the six months following any exercise, payment or delivery pursuant to this Stock Option.

4. Incorporation of Plan. Notwithstanding anything herein to the contrary, this Stock Option shall be subject to and governed by all the terms and conditions of the Plan. Capitalized terms in this Agreement shall have the meaning specified in the Plan, unless a different meaning is specified herein.

5. Transferability. This Agreement is personal to the Optionee, is non-assignable and is not transferable in any manner, by operation of law or otherwise, other than by will or the laws of descent and distribution. This Stock Option is exercisable only by the Optionee's legal representative or legatee. All references herein to the Optionee shall be read to include the Optionee's representative or legatee.