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): January 27, 2009

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.)

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

01824 (Zip Code)

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

Not Applicable (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))

Item 2.01 Completion of Acquisition or Disposition of Assets.

Sale of Visage Imaging Business

On January 27, 2009, Mercury Computer Systems, Inc. (the "Company") closed on the sale of its Visage Imaging business to Australia-based Pro Medicus Limited ("Buyer"). In the sale transaction, the Company sold to Buyer all of the shares in the Company's wholly-owned subsidiary, Visage Imaging, Inc., and its affiliate, Visage Imaging GmbH, as well as certain of the Company's assets used in the Visage Imaging business. In connection with the sale, Buyer agreed to assume certain commitments of the Company related to the Visage Imaging business. The Company has retained liability for taxes incurred by the Visage Imaging business prior to the closing and certain employment-related liabilities, and remains subject to post-closing indemnification claims by Buyer. The gross consideration for the sale was \$3 million in cash, which remains subject to post-closing adjustment based on the net assets and net working capital of the Visage Imaging business. Of the proceeds, a total of \$1.1 million was subject to holdback and/or placed in escrow for general indemnification purposes and employee-termination payments to be incurred by Buyer.

Item 9.01 Financial Statements and Exhibits.

(b) Pro forma financial information

The unaudited pro forma condensed consolidated financial statements below have been prepared by applying pro forma adjustments to the consolidated financial statements included in the Company's Annual Report on Form 10-K for the year ended June 30, 2008 and Quarterly Report on Form 10-Q for the three month period ended September 30, 2008. The unaudited pro forma condensed consolidated statements of operations reflect the transaction described in Item 2.01 above, assuming the transaction had been consummated as of the beginning of the fiscal period presented. The unaudited pro forma condensed consolidated balance sheet reflects the transaction described in Item 2.01 above, assuming it had been consummated as of September 30, 2008.

The pro forma adjustments, as described in the notes to the unaudited pro forma condensed consolidated financial statements, are based upon available information and certain assumptions that we believe are reasonable. The allocations are preliminary in nature and subject to change following the transaction based on refinements as actual data becomes available. The unaudited pro forma condensed consolidated financial statements should be read in conjunction with the historical financial statements and the related management's discussion and analysis of financial condition and results of operations, which are contained in the Quarterly Report on Form 10-Q for the three month period ended September 30, 2008 and the Annual Report on Form 10-K for the year ended June 30, 2008.

The unaudited pro forma financial information is for informational purposes only and does not purport to present what the Company's results would actually have been had this transaction actually occurred on the dates presented or to project our results of operations or financial position for any future period.

Forward-Looking Statements

This report contains certain forward-looking statements, as that term is defined in the Private Securities Litigation Reform Act of 1995, including those relating to the agreement to sell wholly-owned subsidiary Visage Imaging, Inc. and Visage Imaging GmbH to Pro Medicus Limited. You can identify these statements by our use of the words "may," "will," "should," "plans," "expects," "anticipates," "continue," "estimate," "project," "intend," and similar expressions. These forward-looking statements involve risks and uncertainties that could cause actual results to differ materially from those projected or anticipated. Such risks and uncertainties include, but are not limited to, general economic and business conditions, including unforeseen weakness in the Company's markets, effects of continued geo-political unrest and regional conflicts, competition, changes in technology and methods of marketing, delays in completing engineering and manufacturing programs, changes in customer order patterns, changes in product mix, continued success in technological advances and delivering technological innovations, continued funding of defense programs, the timing of such funding, changes in the U.S. Government's interpretation of federal procurement rules and regulations, market acceptance of the Company's products, shortages in components, production delays due to performance quality issues with outsourced components, inability to fully realize the expected benefits from acquisitions or delays in realizing such benefits, challenges in integrating acquired businesses and achieving anticipated synergies, and difficulties in retaining key customers. These risks and uncertainties also include such additional risk factors as are discussed in the Company's filings with the U.S. Securities and Exchange Commission, including its Annual Report on Form 10-K for the fiscal year ended June 30, 2008. The Company cautions readers not to place undue reliance upon any such forward-looking statements, which speak only as of the date made. T

PRO FORMA CONDENSED CONSOLIDATED STATEMENTS OF OPERATIONS

FOR THE THREE MONTHS ENDED SEPTEMBER 30, 2008

(IN THOUSANDS, EXCEPT PER SHARE DATA) (unaudited)

	Mercury Computer Systems, Inc. Consolidated As Reported		Visage Imaging Business (a)		Pro Forma <u>Adjustments</u>	Mercury Computer Systems, Inc. Pro Forma Consolidated	
Net revenues	\$	49,099	\$	(1,965)		\$	47,134
Cost of revenues		20,817		(750)			20,067
Gross profit		28,282		(1,215)			27,067
Operating expenses:							
Selling, general and administrative		15,809		(2,837)			12,972
Research and development		11,883		(776)			11,107
Amortization of acquired intangible assets		1,375		(207)			1,168
Restructuring		558		(318)			240
Total operating expenses		29,625		(4,138)			25,487
Income (loss) from operations		(1,343)		2,923		·	1,580
Interest income		997		(2)			995
Interest expense		(838)					(838)
Other income, net		152		69			221
Income (loss) from continuing operations before income taxes		(1,032)		2,990			1,958
Income tax expense		_		_			
Net income (loss) from continuing operations	\$	(1,032)	\$	2,990		\$	1,958
Net earnings (loss) from continuing operations per share:						<u> </u>	
Basic	\$	(0.05)				\$	0.09
Diluted	\$	(0.05)				\$	0.09
Weighted-average shares outstanding:							
Basic		22,009					22,009
Diluted		22,009			274(b)		22,283

PRO FORMA CONDENSED CONSOLIDATED STATEMENTS OF OPERATIONS

FOR THE YEAR ENDED JUNE 30, 2008

(IN THOUSANDS, EXCEPT PER SHARE DATA) (unaudited)

	Sy Co	ury Computer stems, Inc. onsolidated Reported (c)		ge Imaging siness (a)	Pro Forma Adjustments	Sy F	ury Computer estems, Inc. Pro Forma onsolidated
Net revenues	\$	209,903	\$	(8,722)		\$	201,181
Cost of revenues		83,833		(2,999)			80,834
Gross profit		126,070		(5,723)			120,347
Operating expenses:							
Selling, general and administrative		81,553		(15,882)			65,671
Research and development		52,460		(4,163)			48,297
Amortization of acquired intangible assets		7,280		(1,513)			5,767
Impairment of goodwill and long-lived assets		17,983		(17,422)			561
Restructuring		5,194		(685)			4,509
Gain on sale of long-lived and other assets		(3,151)					(3,151)
Total operating expenses		161,319		(39,665)			121,654
Loss from operations		(35,249)		33,942			(1,307)
Interest income		6,509		(11)			6,498
Interest expense		(3,363)		2			(3,361)
Other income, net		1,047		39			1,086
Income (loss) from continuing operations before income taxes		(31,056)		33,972			2,916
Income tax expense		2,231			1,373(d)		3,604
Net loss from continuing operations	\$	(33,287)	\$	33,972		\$	(688)
Net loss from continuing operations per share – basic and diluted	\$	(1.54)	<u> </u>			\$	(0.03)
Weighted average shares outstanding – basic and diluted		21,639					21,639

PRO FORMA CONDENSED CONSOLIDATED BALANCE SHEET

AS OF SEPTEMBER 30, 2008

(IN THOUSANDS) (unaudited)

	Sy C	Mercury Computer Systems, Inc. Consolidated As Reported		Visage Imaging Business (e)		Mercury Computer Systems, Inc. Pro Forma Consolidated	
Assets							
Current assets:							
Cash and cash equivalents	\$	60,926	\$	250	\$	61,176	
Marketable securities		60,027		_		60,027	
Accounts receivable, net		26,988		(1,543)		25,445	
Inventory		21,458		(389)		21,069	
Prepaid expenses and other current assets		5,350		(629)		4,721	
Total current assets		174,749		(2,311)		172,438	
Marketable securities		46,037		_		46,037	
Property and equipment, net		10,466		(582)		9,884	
Goodwill		79,256		(13,802)		65,454	
Acquired intangible assets, net		6,503		(1,849)		4,654	
Other non-current assets		5,744		<u> </u>		5,744	
Total assets	\$	322,755	\$	(18,544)	\$	304,211	
Liabilities and Shareholders' Equity							
Current liabilities:							
Accounts payable and accrued expenses	\$	28,538	\$	(1,955)	\$	26,583	
Notes payable and current portion of capital lease obligations		125,370				125,370	
Income taxes payable		1,022		_		1,022	
Deferred revenues and customer advances		12,275		(1,747)		10,528	
Current liabilities of discontinued operations		206		_		206	
Total current liabilities		167,411		(3,702)	·	163,709	
Long-term liabilities		11,774		(202)		11,572	
Total liabilities		179,185		(3,904)		175,281	
Shareholders' equity:							
Preferred stock		_		_		_	
Common stock		221		_		221	
Additional paid-in capital		101,618		_		101,618	
Retained earnings		39,271		(9,977)		29,294	
Accumulated other comprehensive income (loss)		2,460		(4,663)		(2,203)	
Total shareholders' equity		143,570		(14,640)		128,930	
Total liabilities and shareholders' equity	\$	322,755	\$	(18,544)	\$	304,211	

NOTES TO THE UNAUDITED PRO FORMA CONDENSED CONSOLIDATED FINANCIAL STATEMENTS

(IN THOUSANDS)

- (a) Reflects the elimination of the results of operations for the Visage Imaging business.
- (b) Reflects the inclusion of the dilutive effect of the weighted average common stock equivalents in the denominator of the Company's earnings per share calculation.
- (c) The Company's consolidated financial results for the year ended June 30, 2008 have been adjusted to reflect the disposal of its former Biotech business unit, which was disposed and reported as a discontinued operation in the three months ended September 30, 2008.
- (d) Reflects the effect on the Company's consolidated income tax expense calculation as a result of the elimination of the results of operations for the Visage Imaging business.
- e) Reflects the elimination of the assets, liabilities and cumulative foreign currency translation adjustment related to the Visage Imaging business, including the resulting loss on the sale, assuming the sale had been consummated on September 30, 2008. The gross consideration for the sale of the Visage Imaging business was \$3,000, however, after deducting estimated transaction related expenses including legal costs, transaction advisory fees and employee termination and other employee-related costs associated with the transaction, the net proceeds are estimated to be approximately \$250. The estimated calculation of the loss on the sale, assuming the sale had been consummated on September 30, 2008, is as follows:

Net proceeds from the sale of the Visage Imaging business	\$	250	
Net assets of the Visage Imaging business	(:	14,890)	
Cumulative foreign currency translation adjustment related to the Visage Imaging business			
Loss on sale		(9,977)	

The Company recorded an impairment charge related to the goodwill and other intangible assets of the Visage Imaging business during its quarter ended December 31, 2008 in the amount of \$14,555. As a result, the loss on the sale of the Visage Imaging business, when recorded in the Company's consolidated statement of operations for the three months ended March 31, 2009 should be considerably less than the amount reflected above.

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 thereunto duly authorized.

Dated: February 2, 2009 MERCURY COMPUTER SYSTEMS, INC.

By: /s/ Robert E. Hult

Robert E. Hult

Senior Vice President and Chief Financial Officer