П

## FORM 4

UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

| Check this box if no longer subject to |
|--|
| Section 16. Form 4 or Form 5           |
| obligations may continue. See          |
| Instruction 1(b).                      |

### STATEMENT OF CHANGES IN BENEFICIAL OWNERSHIP

Filed pursuant to Section 16(a) of the Securities Exchange Act of 1934 or Section 30(h) of the Investment Company Act of 1940

# OMB APPROVAL OMB Number: 3235-0287

| hours per response:     | 0.5       |
|-------------------------|-----------|
| Estimated average burde | en        |
| OND NUMBER.             | 3233-0207 |

| 1. Name and Addres          | ss of Reporting Person | n*       | 2. Issuer Name <b>and</b> Ticker or Trading Symbol<br><u>AtriCure, Inc.</u> [ ATRC ] |  | tionship of Reporting Perso<br>all applicable)<br>Director<br>Officer (give title                | 10% Owner<br>Other (specify |
|-----------------------------|------------------------|----------|--|--|--|-----------------------------|
| (Last)<br>6217 CENTRE       | (First)<br>PARK DRIVE  | (Middle) | 3. Date of Earliest Transaction (Month/Day/Year)<br>02/09/2012                       |  | below)<br>VP, Regulatory Affair  | below)<br>s and QA          |
| (Street)<br>WEST<br>CHESTER | ОН                     | 45069    | 4. If Amendment, Date of Original Filed (Month/Day/Year)                             |  | idual or Joint/Group Filing (<br>Form filed by One Report<br>Form filed by More than (<br>Person | ting Person                 |
| (City)                      | (State)                | (Zip)    |  |  |  |                             |

### Table I - Non-Derivative Securities Acquired, Disposed of, or Beneficially Owned

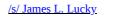
| 1. Title of Security (Instr. 3) | 2. Transaction<br>Date<br>(Month/Day/Year) | 2A. Deemed<br>Execution Date,<br>if any<br>(Month/Day/Year) | Transaction<br>Code (Instr. |   |                           |               |         | 5. Amount of<br>Securities<br>Beneficially<br>Owned Following<br>Reported | 6. Ownership<br>Form: Direct<br>(D) or Indirect<br>(I) (Instr. 4) | 7. Nature<br>of Indirect<br>Beneficial<br>Ownership<br>(Instr. 4) |
|---------------------------------|--|---|-----------------------------|---|---------------------------|---------------|---------|---|---|---|
|                                 |  |   | Code                        | v | Amount                    | (A) or<br>(D) | Price   | Transaction(s)<br>(Instr. 3 and 4)  |   | (11311 4)   |
| Common Stock                    | 02/09/2012                                 |   | F                           |   | <b>790</b> <sup>(1)</sup> | D             | \$11.05 | 50,251  | D   |   |

#### Table II - Derivative Securities Acquired, Disposed of, or Beneficially Owned (e.g., puts, calls, warrants, options, convertible securities)

| 1. Title of<br>Derivative<br>Security<br>(Instr. 3) | 2.<br>Conversion<br>or Exercise<br>Price of<br>Derivative<br>Security | 3. Transaction<br>Date<br>(Month/Day/Year) | 3A. Deemed<br>Execution Date,<br>if any<br>(Month/Day/Year) | 4.<br>Transa<br>Code (<br>8) |   | 5. Nu<br>of<br>Deriv<br>Secu<br>Acqu<br>(A) or<br>Dispo<br>of (D)<br>(Instr<br>and 5 | ative<br>rities<br>ired<br>osed | 6. Date Exerc<br>Expiration Da<br>(Month/Day/Y | 7. Title<br>Amour<br>Securi<br>Under<br>Deriva<br>Securi<br>and 4) | nt of<br>ties<br>lying<br>tive<br>ty (Instr. 3 | 8. Price of<br>Derivative<br>Security<br>(Instr. 5) | 9. Number of<br>derivative<br>Securities<br>Beneficially<br>Owned<br>Following<br>Reported<br>Transaction(s)<br>(Instr. 4) |  | 11. Nature<br>of Indirect<br>Beneficial<br>Ownership<br>(Instr. 4) |  |
|---|---|--|---|------------------------------|---|--|---------------------------------|--|--|--|---|--|--|--|--|
|   |   |  |   | Code                         | v | (A)  | (D)                             | Date<br>Exercisable                            | Expiration<br>Date   | Title  | Amount<br>or<br>Number<br>of<br>Shares              |  |  |  |  |

Explanation of Responses:

1. The Reporting Person has elected to transfer these shares to the Company to satisfy the tax withholding obligation incurred upon the vesting and release of shares previously acquired pursuant to a Restricted Stock Award.



\*\* Signature of Reporting Person

02/10/2012

Date

Reminder: Report on a separate line for each class of securities beneficially owned directly or indirectly.

\* If the form is filed by more than one reporting person, see Instruction 4 (b)(v).

\*\* Intentional misstatements or omissions of facts constitute Federal Criminal Violations See 18 U.S.C. 1001 and 15 U.S.C. 78ff(a).

Note: File three copies of this Form, one of which must be manually signed. If space is insufficient, see Instruction 6 for procedure.

Persons who respond to the collection of information contained in this form are not required to respond unless the form displays a currently valid OMB Number.