FORM 4

UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

STATEMENT OF CHANGES IN BENEFICIAL OWNERSHIP

| l | OWR APP | ROVAL | | | | | | | |
|---|--------------------------|-----------|--|--|--|--|--|--|--|
| | OMB Number: | 3235-0287 | | | | | | | |
| l | Estimated average burden | | | | | | | | |

0.5

hours per response:

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

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

| 1. Name and Address of Reporting Person* Seith Douglas J | | | | | | 2. Issuer Name and Ticker or Trading Symbol AtriCure, Inc. [ATRC] | | | | | | | | | Check a | ionship of Reportin all applicable) Director Officer (give title | | 10% | | ssuer Owner (specify |
|--|---|----|--|--|--|--|------|--|--------|-------------------|---|---|-------|--|---------------|--|--|---|--|---|
| (Last) (First) (Middle) 6217 CENTRE PARK DRIVE | | | | | | 3. Date of Earliest Transaction (Month/Day/Year) 05/19/2014 | | | | | | | | | X | below) | | b | below) ad Marketing | |
| (Street) WEST CHESTER OH 45069 (City) (State) (Zip) | | | | | | 4. If Amendment, Date of Original Filed (Month/Day/Year) | | | | | | | | | . Individine) | ividual or Joint/Group Filing (Check Applicable Form filed by One Reporting Person Form filed by More than One Reporting Person | | | | |
| Table I - Non-Derivative Securities Acquired, Disposed of, or Beneficially Owned | | | | | | | | | | | | | | | | | | | | |
| 1. Title of Security (Instr. 3) 2. Transac Date (Month/Da | | | | | | Execution ay/Year) if any | | A. Deemed xecution Date, any lonth/Day/Year) | | Transaction Dispo | | rities Acquired (A) ed Of (D) (Instr. 3, | | | 4 and Se | | ount of ities icially d Following | 6. Ownership Form: Direct (D) or Indirect (I) (Instr. 4) | | 7. Nature of Indirect Beneficial Ownership (Instr. 4) |
| | | | | | | | Code | v | Amount | | A) or D) | Price | . 1 | Reported Fransaction(s) (Instr. 3 and 4) | | | | (IIISU. 4) | | |
| Common Stock 05/19/2 | | | | | | | 2014 | | F | | 683(1) | | D | \$15 | .72 | 95,011 | | D | | |
| Common Stock | | | | | | | | | | | | | | | | 3,500 | | I | | Held by spouse ⁽²⁾ |
| | | Та | | | | | | | | | sed of, onvertib | | | | y Ow | ned | | | | |
| 1. Title of Derivative Security (Instr. 3) | ve Conversion or Exercise (Month/Day/Year) Price of Derivative Security Date (Month/Day/Year) (Month/Day/Year) | | | | saction e (Instr. Securities Acquired (A) or Disposed of (D) (Instr. 3, 4 and 5) | | | 6. Date Exercisable and Expiration Date (Month/Day/Year) Date Expiration Exercisable Date | | | 7. Title and Amount of Securities Underlying Derivative Security (Instr. and 4) Amoun or Numbe of Title Shares | | | nt er | | 9. Number of derivative Securities Beneficially Owned Following Reported Transaction ((Instr. 4) | Owners Form: Direct (or Indir (I) (Inst | D) ect | 11. Nature of Indirect Beneficial Ownership (Instr. 4) | |

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.
- 2. The Reporting Person disclaims beneficial ownership of these securities, except as to his pecuniary interest therein.

Remarks:

/s/ Jeanette Yacucci as Attorney-in-Fact for Douglas J. 05/21/2014 Seith

** Signature of Reporting Person 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.