FORM 4

UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

| Washington, D.C. 200 |
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| l | OMB APPRO | VAL |
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| l | hours per response: | 0.5 |

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(n) of the Investment Company Act of 1940 | | | | |
|---|---------------------|----------------|---|---|---|----------------------------------|--|
| 1. Name and Address of Reporting Person* <u>Dietrick William M.</u> | | | 2. Issuer Name and Ticker or Trading Symbol Proto Labs Inc [PRLB] | 5. Relationship of Reporting Person(s) to Issuer (Check all applicable) Director 10% Owner | | | |
| (Last) 5540 PIONEER | (First) CREEK DRIVE | (Middle) | 3. Date of Earliest Transaction (Month/Day/Year) 01/16/2013 | X | Officer (give title below) Vice President of | Other (specify below) Marketing | |
| (Street) MAPLE PLAIN (City) | MN (State) | 55359 (Zip) | 4. If Amendment, Date of Original Filed (Month/Day/Year) | 6. Indiv Line) X | idual or Joint/Group Filin Form filed by One Rep Form filed by More tha Person | orting Person | |

| 1. Title of Security (Instr. 3) | 2. Transaction Date (Month/Day/Year) | 2A. Deemed Execution Date, if any (Month/Day/Year) | 3. Transa Code (8) | | 4. Securities Acquired (A) or Disposed Of (D) (Instr. 3, 4 and 5) | | | 5. Amount of Securities Beneficially Owned Following Reported | 6. Ownership Form: Direct (D) or Indirect (I) (Instr. 4) | 7. Nature of Indirect Beneficial Ownership |
|---------------------------------|--|---|------------------------------|---|---|---------------|--------------|---|---|---|
| | | | Code | v | Amount | (A) or (D) | Price | Transaction(s) (Instr. 3 and 4) | | (Instr. 4) |
| Common Stock | 01/16/2013 | | M ⁽¹⁾ | | 20,000 | A | \$5 | 21,250(2) | D | |
| Common Stock | 01/16/2013 | | M ⁽¹⁾ | | 12,000 | A | \$7.86 | 33,250 | D | |
| Common Stock | 01/16/2013 | | S ⁽¹⁾ | | 32,000 | D | \$42.3015(3) | 1,250 | D | |

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

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

| 1. Title of Derivative Security (Instr. 3) | 2. Conversion or Exercise Price of Derivative Security | 3. Transaction Date (Month/Day/Year) | 3A. Deemed Execution Date, if any (Month/Day/Year) | 4. Transa Code (8) | | of | | 6. Date Exerc Expiration Da (Month/Day/\) | ate | 7. Title and Amount of Securities Underlying Derivative Security (Instr. 3 and 4) | | 8. Price of Derivative Security (Instr. 5) | 9. Number of derivative Securities Beneficially Owned Following Reported Transaction(s) (Instr. 4) | 10. Ownership Form: Direct (D) or Indirect (I) (Instr. 4) | 11. Nature of Indirect Beneficial Ownership (Instr. 4) |
|---|---|--|---|------------------------------|---|-----|--------|---|--------------------|---|--|---|--|--|--|
| | | | | Code | v | (A) | (D) | Date Exercisable | Expiration Date | Title | Amount or Number of Shares | | | | |
| Employee Stock Option (right to buy) | \$ 5 | 01/16/2013 | | M ⁽¹⁾ | | | 20,000 | (4) | 05/12/2018 | Common Stock | 20,000 | \$0.00 | 7,000 | D | |
| Employee Stock Option (right to buy) | \$7.86 | 01/16/2013 | | M ⁽¹⁾ | | | 12,000 | (5) | 12/21/2020 | Common Stock | 12,000 | \$0.00 | 23,000 | D | |

Explanation of Responses:

- 1. Transaction effected pursuant to a Rule 10b5-1 trading plan adopted by the reporting person on July 27, 2012. The transactions reported on this Form 4 conclude the transactions contemplated by the reporting person's Rule 10b5-1 trading plan.
- 2. Includes 1,250 shares acquired under the issuers's employee stock purchase plan on November 16, 2012.
- 3. Reflects the weighted average price of 32,000 shares of common stock of Proto Labs, Inc. sold by the reporting person in multiple transactions on January 16, 2013 with sale prices ranging from \$42.00 to \$42.67 per share. The reporting person undertakes to provide upon request by the U.S. Securities and Exchange Commission staff, the issuer, or a security holder of the issuer, full information regarding the number of shares sold at each separate price.
- 4. The option vests as to 20% of the shares in five annual installments beginning on May 12, 2009.
- $5. \ The \ option \ vests \ as \ to \ 20\% \ of \ the \ shares \ in \ five \ annual \ installments \ beginning \ on \ December \ 21, \ 2011.$

Remarks:

/s/ Julie M. Regnier, Attorneyin-Fact for William M. Dietrick

01/17/2013

** 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.