

RUDOLPH TECHNOLOGIES INC
Form SC 13G/A
February 12, 2016

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

SCHEDULE 13G/A

Under the Securities Exchange Act of 1934

(Amendment No. 2)*

RUDOLPH TECHNOLOGIES, INC.
(Name of Issuer)

Common Stock, \$0.001 par value per share
(Title of Class of Securities)

781270103
(CUSIP Number)

December 31, 2015
(Date of Event Which Requires Filing of this Statement)

Check the
appropriate box
to designate the
rule pursuant to
which this
Schedule is
filed:

- Rule 13d-1(b)
- Rule 13d-1(c)
- Rule 13d-1(d)

*The remainder of this cover page shall be filled out for a reporting person's initial filing on this form with respect to the subject class of securities, and for any subsequent amendment containing information which would alter the disclosures provided in a prior cover page.

The information required in the remainder of this cover page shall not be deemed to be "filed" for the purpose of Section 18 of the Securities Exchange Act of 1934 ("Act") or otherwise subject to the liabilities of that section of the Act but shall be subject to all other provisions of the Act (however, see the Notes).

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Names Of Reporting Persons

I.R.S. Identification No. Of Above
Persons (Entities Only)

1.

Neil Gagnon

2. check the appropriate box if a (a) o
group (b) x
3. sec use only

citizenship or place of
organization

4.

USA

- | | | |
|--------------|-------------------------------------------------------------------------------------------------|-----------|
| number of | 5. sole voting power | 178,717 |
| shares | 6. shared voting power | 1,544,973 |
| beneficially | 7. sole dispositive power | 178,717 |
| owned by | | |
| each | 8. shared dispositive power | 1,558,221 |
| reporting | | |
| person with: | | |
| 9. | aggregate amount beneficially
owned by each reporting
person | 1,736,938 |
| 10. | check box if the aggregate amount in
row (9) excludes certain shares (See o
Instructions) | |
| 11. | percent of class represented by
amount in row (9) | 5.6% |
| 12. | type of reporting person (See IN
Instructions) | |

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Item 1.

- (a) Name of Issuer: Rudolph Technologies, Inc.
- (b) Address of Issuer's Principal Executive Offices: One Rudolph Road
P.O. Box 1000, Flanders, NJ 078362

Item 2.

Name of Person Filing:

Neil Gagnon has sole voting and dispositive power over 178,717 shares of the Issuer's Common Stock. In addition, Mr. Gagnon has shared voting power over 1,544,973 shares of the Issuer's Common Stock and shared dispositive power over 1,558,221 shares of the Issuer's Common Stock.

Mr. Gagnon is the managing member and principal owner of Gagnon Securities LLC ("GS"), an investment adviser registered with the U.S. Securities and Exchange Commission ("SEC") under the Investment Advisers Act of 1940, as amended (the "Advisers Act"), and a registered broker-dealer, in its role as investment manager to several customer accounts, foundations, partnerships and trusts (collectively, the "Accounts") to which it furnishes investment advice. Mr. Gagnon and GS may be deemed to share voting power with respect to 825,879 shares of Common Stock held in the Accounts and dispositive power with respect to 831,340 shares of Common Stock held in the Accounts. GS and Mr. Gagnon expressly disclaim beneficial ownership of all securities held in the Accounts.

Mr. Gagnon is also the Chief Executive Officer of Gagnon Advisors, LLC ("Gagnon Advisors"), an investment adviser registered with the SEC under the Advisers Act. Mr. Gagnon and Gagnon Advisors, in its role as investment manager to Gagnon Investment Associates, LLC ("GIA"), a private investment fund, may be deemed to share voting and dispositive power with respect to the 637,573 shares of the Issuer's Common Stock held by GIA. GS and Mr. Gagnon expressly disclaim beneficial ownership of all securities held by GIA.

- (c) Address of Principal Business Office or, if none, Residence: 1370 Ave. of the Americas, 24th Floor
New York, NY 10019

- (d) Citizenship: USA
- (e) Title of Class of Securities: Common Stock, \$0.001 par value per share
- (f) CUSIP Number: 781270103

Item 3. If this statement is filed pursuant to §§240.13d-1(b) or 13d-2(b) or (c), check whether the person filing is
a:

- (a) o Broker or dealer registered under section 15 of the Act (15 U.S.C. 78o).

- (b) o Bank as defined in section 3(a)(6) of the Act (15 U.S.C. 78c).
- (c) o Insurance company as defined in section 3(a)(19) of the Act (15 U.S.C. 78c).
- (d) o Investment company registered under section 8 of the Investment Company Act of 1940 (15 U.S.C 80a-8).
- (e) o An investment adviser in accordance with §240.13d-1(b)(1)(ii)(E);
- (f) o An employee benefit plan or endowment fund in accordance with §240.13d-1(b)(1)(ii)(F);
- (g) o A parent holding company or control person in accordance with § 13d-1(b)(1)(ii)(G);
- (h) o A savings associations as defined in Section 3(b) of the Federal Deposit Insurance Act (12 U.S.C. 1813);
- (i) o A church plan that is excluded from the definition of an investment company under section 3(c)(14) of the Investment Company Act of 1940 (15U.S.C. 80a-3);
- (j) o Group, in accordance with §240.13d-1(b)(1)(ii)(J).

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Item 4. Ownership.

Provide the following information regarding the aggregate number and percentage of the class of securities of the issuer identified in Item 1.

(a) Amount
beneficially owned: 1,736,938

(b) Percent of class: 5.57%

Calculation of percentage of beneficial ownership is based on 31,208,881 outstanding shares of the Issuer's Common Stock as reported by the Issuer on its Form 10-Q filed on November 3, 2015.

(c) Number of shares as to which the person has:

(i) Sole power to vote or to direct the vote:	178,717
(ii) Shared power to vote or to direct the vote:	1,544,973
(iii) Sole power to dispose or to direct the disposition of:	178,717
(iv) Shared power to dispose or to direct the disposition of:	1,558,221

Item 5. Ownership of Five Percent or Less of a Class

If this statement is being filed to report the fact that as of the date hereof the reporting person has ceased to be the beneficial owner of more than five percent of the class of securities, check the following o.

Item 6. Ownership of More than Five Percent on Behalf of Another Person

The Accounts described above in Item 2 have the right to receive or the power to direct the receipt of dividends from, or the proceeds from the sale of, securities held in their respective accounts. To the knowledge of the Reporting Persons, the interest in any such account does not exceed 5% of the class of securities. Except to the extent described herein, each Reporting Person disclaims beneficial ownership of all such securities.

Items 7 – 9 Not Applicable

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Item 10. Certification

By signing below I certify that, to the best of my knowledge and belief, the securities referred to above were not acquired and are not held for the purpose of or with the effect of changing or influencing the control of the issuer of the securities and were not acquired and are not held in connection with or as a participant in any transaction having that purpose or effect, other than activities solely in connection with a nomination under Section 230.14a-11.

SIGNATURE

After reasonable inquiry and to the best of my knowledge and belief, I certify that the information set forth in this statement is true, complete and correct.

February 11, 2016

Date

NEIL GAGNON

/s/ Neil Gagnon

Signature