

COGNEX CORP  
Form SC 13G/A  
February 14, 2005

UNITED STATES  
WASHINGTON, D.C. 20549

SCHEDULE 13G  
UNDER THE SECURITIES EXCHANGE ACT OF 1934  
(AMENDMENT NO.   3  )\*

Cognex Corp.

(Name of Issuer)

Common Stock

(Title of Class of Securities)

192422103

(Cusip Number)

\*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 disclosures provided in a prior cover page.

The information required on 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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1. NAMES OF REPORTING PERSONS S.S. OR I.R.S. IDENTIFICATION NOS. OF ABOVE PERSONS  
Brown Capital Management, Inc

2. CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP\* (a) [ ]  
(b) [ ]

3. SEC USE ONLY

4. CITIZENSHIP OR PLACE OF ORGANIZATION Maryland

|   |                             |           |
|---|-----------------------------|-----------|
| REPORTING NUMBER OF SHARES BENEFICIALLY OWNED BY EACH PERSON WITH | 5. SOLE VOTING POWER        | 1,086,704 |
|   | 6. SHARED VOTING POWER      | None      |
|   | 7. SOLE DISPOSITIVE POWER   | 2,164,304 |
|   | 8. SHARED DISPOSITIVE POWER | None      |

9. AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON 2,164,304

10. CHECK IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES

11. PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (9) 4.29%

12. TYPE OF REPORTING PERSON\* IA CO

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|            |  |   |
|------------|--|---|
| Item 1 (a) | Name of Issuer:  | Cognex Corp.  |
| (b)        | Address of Issuer  | One Vision Drive<br>Natick, MA 01760-2059           |
| Item 2 (a) | Name of Person Filing:                                       | Brown Capital Management, Inc                       |
| (b)        | Address of Principal Business Office or, if none, Residence: | 1201 N. Calvert Street<br>Baltimore, Maryland 21202 |
| (c)        | Citizenship:   | Maryland  |
| (d)        | Title of Class of Securities:                                | Common Stock  |
| (e)        | CUSIP Number:  | 192422103   |

Item 3: Capacity in Which Person is Filing:  Investment Adviser registered under Section 203 of the Investment Advisers Act of 1940

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Item 4: Ownership As of January 31, 2005:

|       |   |           |
|-------|---|-----------|
| (a)   | Amount Beneficially Owned:                                | 2,164,304 |
| (b)   | Percent of class:   | 4.29%     |
| (c)   | Number of shares to which such person has:                |           |
| (i)   | Sole power to vote or to direct the vote:                 | 1,086,704 |
| (ii)  | Shared power to vote or to direct the vote:               | None      |
| (iii) | Sole power to dispose or to direct the disposition of:    | 2,164,304 |
| (iv)  | Shared power to dispose or to direct the disposition of : | None      |

Item 5: Ownership of Five Percent of Less of Class: Not applicable

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

All of the shares of Common Stock set forth in Item 4 are owned by various investment advisory clients of Brown Capital Management, Inc., which is deemed to be a beneficial owner of those shares pursuant to Rule 13d-3 under the Securities Exchange Act of 1934, due to its discretionary power to make investment decisions over such shares for its clients and its ability to vote such shares. In all cases, persons other than Brown Capital Management, Inc. has the right to receive, or the power to direct the receipt of, dividends from, or the proceeds from the sale of the shares. No individual client holds more than five percent of the class.

Item 7: Identification and Classification of the Subsidiary Which Acquired the Security Being Reported on By the Parent Holding Company: Not applicable

Item 8: Identification and Classification of Members of the Group: Not applicable

Item 9: Notice of Dissolution of Group:

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 acquired in the ordinary course of business and were not acquired for the purpose of and do not have the effect of changing or influencing the control of the issuer of such securities and were not acquired in connection with or as a participant in any transaction having such purposes or effect

**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.

Brown Capital Management, Inc.

By: /s/ Eddie C. Brown

Eddie C. Brown

President

Date:

January 31, 2005