

McPherson Scott E  
Form 4  
September 30, 2008

**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 OF  
SECURITIES**

Filed pursuant to Section 16(a) of the Securities Exchange Act of 1934,  
Section 17(a) of the Public Utility Holding Company Act of 1935 or Section  
30(h) of the Investment Company Act of 1940

## OMB APPROVAL

OMB  
Number: 3235-0287  
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2005  
Estimated average  
burden hours per  
response... 0.5

(Print or Type Responses)

1. Name and Address of Reporting Person \*  
McPherson Scott E

2. Issuer Name **and** Ticker or Trading  
Symbol  
Core-Mark Holding Company, Inc.  
[CORE]

5. Relationship of Reporting Person(s) to  
Issuer

(Check all applicable)

(Last) (First) (Middle)  
395 OYSTER POINT BLVD.,  
SUITE 415

3. Date of Earliest Transaction  
(Month/Day/Year)  
09/30/2008

\_\_\_\_ Director \_\_\_\_ 10% Owner  
\_\_\_\_ Officer (give title below) \_\_\_\_ Other (specify below)  
SVP - U.S. Distribution

(Street)  
SOUTH SAN  
FRANCISCO, CA 94080

4. If Amendment, Date Original  
Filed(Month/Day/Year)

6. Individual or Joint/Group Filing(Check  
Applicable Line)  
\_X\_ Form filed by One Reporting Person  
\_\_\_\_ Form filed by More than One Reporting  
Person

(City) (State) (Zip)

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

1. Title of Security (Instr. 3)	2. Transaction Date (Month/Day/Year)	2A. Deemed Execution Date, if any (Month/Day/Year)	3. Transaction Code (Instr. 8)	4. Securities Acquired (A) or Disposed of (D) (Instr. 3, 4 and 5)	5. Amount of Securities Beneficially Owned Following Reported Transaction(s) (Instr. 3 and 4)	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		
Coremark Common Stock	09/30/2008		M		124 A \$ 0	3,158	D
Coremark Common Stock	09/30/2008		S		124 D \$ 25.4	3,034	D

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

**Persons who respond to the collection of  
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SEC 1474  
(9-02)

**displays a currently valid OMB control number.**

**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. Transaction Code (Instr. 8)	5. Number of Derivative Securities Acquired (A) or Disposed of (D) (Instr. 3, 4, and 5)	6. Date Exercisable and Expiration Date (Month/Day/Year)	7. Title and Amount of Underlying Securities (Instr. 3 and 4)	8. Amount or Number of Shares
Restricted Stock Units 07LTIP	\$ 0	09/30/2008		M	124	07/02/2008 07/01/2017	Coremark Common Stock	124

## Reporting Owners

Reporting Owner Name / Address	Relationships
	Director 10% Owner Officer Other
McPherson Scott E 395 OYSTER POINT BLVD., SUITE 415 SOUTH SAN FRANCISCO, CA 94080	SVP - U.S. Distribution

## Signatures

Amy Morgan,  
POA 09/30/2008

\_\_\_\_\_  
Signature of  
Reporting Person

\_\_\_\_\_  
Date

## Explanation of Responses:

\* 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.

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