MTS SYSTEMS CORP Form SC 13G January 29, 2004

UNITED STATES SECURITIES AND EXCHANGE COMMISSION

WASHINGTON, D.C. 20549

SCHEDULE 13G

UNDER THE SECURITIES EXCHANGE ACT OF 1934 (AMENDMENT NO.)*

MTS Systems Corporation (Name of Issuer) Common Stock (Title of Class of Securities) 553777103 ______ (CUSIP Number) 12-31-03 ______ (Date of Event Which Requires Filing of this Statement) Check the appropriate box to designate the rule pursuant to which this Schedule is filed: /X/ 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).

Mairs and Power Growth Fund, Inc. _____ 1. Names of Reporting Persons I.R.S. Identification Nos. of above persons (entities only). 41-6019924 2. Check the Appropriate Box if a Member of a Group (See Instructions) (b) / / _____ 3. SEC Use Only 4. Citizenship or Place of Organization St. Paul, Minnesota USA ______ Number of Shares 5. Sole Voting Power Beneficially Owned by 1,280,100 Each Reporting Person With ______ 6. Shared Voting Power N/A 7. Sole Dispositive Power 1,280,100 8. Shared Dispositive Power N/A 9. Aggregate Amount Beneficially Owned by Each Reporting Person 1,280,100 10. Check if the Aggregate Amount in Row (9) Excludes Certain Shares (See Instructions) / / 11. Percent of Class Represented by Amount in Row (9) 6.1% ._____ 12. Type of Reporting Person (See Instructions) TV

ITEM	1. (a)	Name of Issuer
		MTS Systems Corporation
	(b)	Address of Issuer's Principal Executive Offices
		14000 Technology Drive, Eden Prairie, MN 55344-2290
ITEM	2. (a)	Name of Person Filing
		Mairs and Power Growth Fund, Inc.
	(b)	Address of Principal Business Office or, if none, Residence
		332 Minnesota Street, W-1520 First National Bank Bldg., St. Paul, MN 55101
	(c)	Citizenship
		USA
	(d)	Title of Class of Securities
		Common Stock
	(e)	CUSIP Number
		553777103
ITEM	3.	IF THIS STATEMENT IS FILED PURSUANT TO SECTIONS 240.13d-1(b) or 240.13d-2(b) or (c), CHECK WHETHER THE PERSON FILING IS A:
		(a) // Broker or dealer registered under section 15 of the Act (15 U.S.C. 78o).
		(b) // Bank as defined in section 3(a)(6) of the Act (15 U.S.C. 78c).
		(c) // Insurance company as defined in section 3(a)(19) of the Act (15 U.S.C. 78c).
		(d) /X/ Investment company registered under section 8 of the Investment Company Act of 1940 (15 U.S.C. 80a-8).
		<pre>(e) / / An investment adviser in accordance with Section</pre>
		<pre>(f) / / An employee benefit plan or endowment fund in accordance with Section 240.13d-1(b)(1)(ii)(F);</pre>
		(g) / / A parent holding company or control person in accordance with Section 240.13d-1(b)(1)(ii)(G);
		(h) / / A savings association as defined in Section 3(b) of the Federal Deposit Insurance Act (12 U.S.C. 1813);

- (i) / 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 (15 U.S.C. 80a-3);
- (j) / Group, in accordance with Section 240.13d-1 (b) (1) (ii) (J).

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: 1,280,100 shares
- ______
- (b) Percent of Class:

6.1%

- _____
- (c) Number of shares as to which the person has:
 - (i) Sole power to vote or to direct the vote 1,280,100
 - -----
 - (ii) Shared power to vote or to direct the vote $\ensuremath{\mathrm{N/A}}$
 - _____
 - (iii) Sole power to dispose or to direct the disposition of $1,280,100\,$
 - (iv) Shared power to dispose or to direct the disposition of
 - (iv) Shared power to dispose or to direct the disposition of N/A

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 / /.

ITEM 6. OWNERSHIP OF MORE THAN FIVE PERCENT ON BEHALF OF ANOTHER PERSON

N/A

ITEM 7. IDENTIFICATION AND CLASSIFICATION OF THE SUBSIDIARY WHICH ACQUIRED THE SECURITY BEING REPORTED ON BY THE PARENT HOLDING COMPANY OR CONTROL PERSON

N/A

ITEM 8. IDENTIFICATION AND CLASSIFICATION OF MEMBERS OF THE GROUP

N/A

ITEM 9. NOTICE OF DISSOLUTION OF GROUP

N/A

ITEM 10. CERTIFICATION

By signing below I certify that, to the best of my knowledge and belief, the securities referred to above were acquired and are held in the ordinary course of business and 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.

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.

January 29, 2004
Date
/s/ George A. Mairs
Signature
George A. Mairs, III / President
Name/Title