

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

SCHEDULE 13G

Under the Securities Exchange Act of 1934

(Amendment No.)*

DISCOVERY PARTNERS INTERNATIONAL, INC.

(Name of Issuer)

COMMON STOCK

(Title of Class of Securities)

254675101

(CUSIP Number)

December 31, 2001

(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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CUSIP NO. 254675101

13G

Page 2 of 6 Pages

NAME OF REPORTING PERSONS

1 I.R.S. IDENTIFICATION NOS. OF ABOVE PERSONS

HEARTLAND ADVISORS, INC.
#39-1078128

CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP

2 (a)
(b)

SEC USE ONLY

3

CITIZENSHIP OR PLACE OF ORGANIZATION

4

WISCONSIN, U.S.A.

5 SOLE VOTING POWER
NUMBER OF 497,500
SHARES

6 SHARED VOTING POWER
BENEFICIALLY OWNED BY None

7 SOLE DISPOSITIVE POWER
EACH 2,007,700
REPORTING PERSON

8 SHARED DISPOSITIVE POWER
WITH None

9 AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON
2,007,700

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

11 PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (9)
8.3%

12 TYPE OF REPORTING PERSON
IA

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1 NAME OF REPORTING PERSONS
I.R.S. IDENTIFICATION NOS. OF ABOVE PERSONS
WILLIAM J. NASGOVITZ 395-42-0703

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

3 SEC USE ONLY

4 CITIZENSHIP OR PLACE OF ORGANIZATION
U.S.A.

5 SOLE VOTING POWER
NUMBER OF 1,363,000
SHARES

6 SHARED VOTING POWER
BENEFICIALLY OWNED BY None

7 SOLE DISPOSITIVE POWER
EACH None
REPORTING PERSON

8 SHARED DISPOSITIVE POWER
WITH None

9 AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON
1,363,000

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

 11 PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW 9
 5.6%

 12 TYPE OF REPORTING PERSON
 IN

Item 1.
 (a) Name of Issuer: Discovery Partners International, Inc.

(b) Address of Issuer's Principal Executive Offices:

 9640 Towne Centre Drive
 San Diego, California 92121

Item 2.
 (a) Name of Person Filing:

 (1) Heartland Advisors, Inc.
 (2) William J. Nasgovitz

(b) Address of Principal Business Office:

 (1) 789 North Water Street
 Milwaukee, WI 53202
 (2) 789 North Water Street
 Milwaukee, WI 53202

(c) Citizenship: Heartland Advisors is a Wisconsin corporation.

 William J. Nasgovitz - U.S.A

(d) Title of Class of Securities: Common Stock

(e) CUSIP Number: 254675101

Item 3. The persons filing this Schedule 13G are Heartland Advisors, Inc., an investment adviser registered with the SEC, and William J. Nasgovitz, President and principal shareholder of Heartland Advisors, Inc. Mr. Nasgovitz joins in this filing pursuant to SEC staff positions authorizing certain individuals in similar situations to join in a filing with a controlled entity eligible to file on Schedule 13G. The reporting persons do not admit that they constitute a group.

Item 4. Ownership.

(a) Amount beneficially owned:

2,007,700 shares may be deemed beneficially owned within the meaning of Rule 13d-3 of the Securities Exchange Act of 1934 by (1) Heartland Advisors, Inc. by virtue of its investment discretion and in some cases voting power over client securities, which may be revoked; and (2) William J. Nasgovitz, as a result of his position with and stock

ownership of Heartland which could be deemed to confer upon him voting and/or investment power over the shares Heartland beneficially owns. Of these 2,007,700 shares, 1,363,000 shares also may be deemed beneficially owned within the meaning of Rule 13d-3 of the Securities Exchange Act of 1934 by Mr. Nasgovitz as a result of his position as an officer and director of Heartland Group, Inc. which could be deemed to confer upon him voting power over the shares Heartland Group beneficially owns.

(b) Percent of Class:

8.3%

(c) For information on voting and dispositive power with respect to the above listed shares, see Items 5-8 of the Cover Page.

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.

The shares of common stock to which this Schedule relates are held in investment advisory accounts of Heartland Advisors, Inc. As a result, various persons have the right to receive or the power to direct the receipt of dividends from, or the proceeds from the sale of, the securities. The interests of one such account, Heartland Value Fund, a series of Heartland Group, Inc., a registered investment company, relates to more than 5% 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.

Item 10. Certification.

By signing below, the undersigned certify that, to the best of their 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.

DATE: January 8, 2002

WILLIAM J. NASGOVITZ

HEARTLAND ADVISORS, INC.

By: /s/ PAUL T. BESTE

By: /s/ PAUL T. BESTE

Paul T. Beste
As Attorney in Fact for
William J. Nasgovitz

Paul T. Beste
Chief Operating Officer

EXHIBIT INDEX

Exhibit 1 Joint Filing Agreement

EXHIBIT 1

Joint Filing Agreement

The undersigned persons agree and consent to the joint filing on their behalf of this Schedule 13G in connection with their beneficial ownership of Discovery Partners International, Inc. at December 31, 2001.

WILLIAM J. NASGOVITZ

By: /s/ PAUL T. BESTE

Paul T. Beste
As Attorney in Fact for William J. Nasgovitz

HEARTLAND ADVISORS, INC.

By: /s/ PAUL T. BESTE

Paul T. Beste
Chief Operating Officer