### TRIMBLE NAVIGATION LTD /CA/ Form SC 13G February 10, 2011

SCHEDULE 13G

(Rule 13d-102)

Information to be Included in Statements Filed Pursuant to Rule 13d-1(b), (c) and (d) and Amendments Thereto Filed Pursuant to Rule 13d-2.

SECURITIES AND EXCHANGE COMMISSION WASHINGTON, D.C. 20549

Under the Securities Exchange Act of 1934 (Amendment No. )\*

Trimble Navigation Limited

(Name of Issuer)

Common Stock

(Title of Class of Securities)

896239100

(CUSIP Number)

December 31, 2010

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

(Date of Event Which Requires Filing of this Statement)

- [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).

Page 1 of 16

CUS	IP No. 89623	391	00 13G	
1	NAME OF REP	ORT	ING PERSON	 
	Artisan Pa	rtn	ers Holdings LP	
2	CHECK THE A		OPRIATE BOX IF A MEMBER OF A GROUP	[_] [_]
	Not Applica	abl	е	
3	SEC USE ONLY	Υ		 
4	CITIZENSHIP Delaware	OR	PLACE OF ORGANIZATION	 
		5	SOLE VOTING POWER	 
	MBER OF		None	
BEN		LY 6 SHARED VOTING POWER 7,317,686	SHARED VOTING POWER	 
1	WNED BY EACH PORTING PERSON		7,317,686	
		7	SOLE DISPOSITIVE POWER	 
	WITH		None	
		8	SHARED DISPOSITIVE POWER	
			7,604,586	
9	AGGREGATE AI	MOU	NT BENEFICIALLY OWNED BY EACH REPORTING PERSON	 
	7,604,586			 
10	CHECK BOX II		HE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES ons)	[_]
	Not Applica	abl	e 	 
11	PERCENT OF	CLA	SS REPRESENTED BY AMOUNT IN ROW (9)	
	6.3%			 
12	TYPE OF REPO			
	НС			

Page 2 of 16

1 NAME OF RE	NAME OF REPORTING PERSON					
Artisan I	nvestment Corporation					
2 CHECK THE 2	APPROPRIATE BOX IF A MEMBER OF A GROUP uctions)	(a) [_] (b) [_]				
Not Appli	cable					
3 SEC USE ON	LY					
4 CITIZENSHI	P OR PLACE OF ORGANIZATION					
Wisconsin						
	5 SOLE VOTING POWER					
NUMBER OF	None					
	6 SHARED VOTING POWER					
OWNED BY EACH	7,317,686					
REPORTING PERSON	7 SOLE DISPOSITIVE POWER					
WITH	None					
	8 SHARED DISPOSITIVE POWER					
	7,604,586					
9 AGGREGATE	AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON					
7,604,586						
10 CHECK BOX	IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES uctions)	[_]				
Not Appli	cable					
11 PERCENT OF	CLASS REPRESENTED BY AMOUNT IN ROW (9)					
6.3%						
12 TYPE OF REI	PORTING PERSON uctions)					
НС						
	Page 3 of 16					
CUSIP No. 896	239100 13G					

1 NAME OF REPORTING PERSON

Artisan Pa	artners Limited Partnership	
2 CHECK THE A	·	a) [_]
Not Applic	cable	
3 SEC USE ONI		
4 CITIZENSHIP	P OR PLACE OF ORGANIZATION	
Delaware		
	5 SOLE VOTING POWER	
NUMBER OF	None	
SHARES BENEFICIALLY	6 SHARED VOTING POWER	
OWNED BY EACH	7,317,686	
REPORTING PERSON	7 SOLE DISPOSITIVE POWER	
WITH	None	
	8 SHARED DISPOSITIVE POWER	
	7,604,586	
9 AGGREGATE A	AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON	
7,604,586		
10 CHECK BOX I (see Instru	IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES actions)	[_]
Not Applic	cable	
11 PERCENT OF	CLASS REPRESENTED BY AMOUNT IN ROW (9)	
6.3%		
12 TYPE OF REF	PORTING PERSON actions)	
IA		
	Page 4 of 16	
CUSIP No. 8962	239100 13G	
1 NAME OF REP	PORTING PERSON	

Artisan Investments GP LLC

2 CHECK THE (see Instr	APPROPRIATE BOX IF A MEMBER OF A GROUP uctions)	[_]
Not Appli	cable	
3 SEC USE ON	LY	 
4 CITIZENSHI	P OR PLACE OF ORGANIZATION	 
Delaware		
	5 SOLE VOTING POWER	 
NUMBER OF	None	
	6 SHARED VOTING POWER	 
OWNED BY EACH	7,317,686	
	7 SOLE DISPOSITIVE POWER	 
WITH	None	
	8 SHARED DISPOSITIVE POWER	 
	7,604,586	
9 AGGREGATE	AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON	 
7,604,586		
10 CHECK BOX (see Instr	IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES uctions)	 [_]
Not Appli	cable	
11 PERCENT OF	CLASS REPRESENTED BY AMOUNT IN ROW (9)	 
6.3%		
12 TYPE OF RE (see Instr	PORTING PERSON uctions)	 
HC		
	Page 5 of 16	 
	rage 3 OI 10	
CUSIP No. 896	239100 13G	
1 NAME OF RE	PORTING PERSON	 
ZFIC, Inc		
2 CHECK THE	APPROPRIATE BOX IF A MEMBER OF A GROUP	 

	(see Instru	cti	ons)	(a) (b)	[_]
	Not Applic	able	е		
3	SEC USE ONL	 Y			
4	CITIZENSHIP	OR	PLACE OF ORGANIZATION		
	Wisconsin				
		5	SOLE VOTING POWER		
NU	MBER OF		None		
	SHARES EFICIALLY	6	SHARED VOTING POWER		
	WNED BY EACH		7,317,686		
	PORTING PERSON	7	SOLE DISPOSITIVE POWER		
	WITH		None		
		8	SHARED DISPOSITIVE POWER		
			7,604,586		
10	CHECK BOX II (see Instruction  Not Application	cti			[_]
11	PERCENT OF	CLA	SS REPRESENTED BY AMOUNT IN ROW (9)		
	6.3%				
12	TYPE OF REPO				
	HC				
			Page 6 of 16		
CUS	IP No. 8962	391	00 13G		
1	NAME OF REP	ORT:	ING PERSON		
	Andrew A.	Zie			
2	CHECK THE A		OPRIATE BOX IF A MEMBER OF A GROUP	(a)	[_]

No	ot Applic	able			
3 SE	C USE ONL	Y			
4 CI	 ΓIZENSHIP	OR	PLACE OF ORGANIZATION		
U	.S.A.				
		5	SOLE VOTING POWER		
NUMBEI			None		
SHARES BENEFICIALLY OWNED BY		6	SHARED VOTING POWER		
EAG	CH		7,317,686		
PERS	PORTING PERSON WITH	7	SOLE DISPOSITIVE POWER		
			None		
		8	SHARED DISPOSITIVE POWER		
			7,604,586		
9 AG	GREGATE A	MOU	NT BENEFICIALLY OWNED BY EACH REPORTING PERSON		
7	,604,586				
	ECK BOX II		HE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES		[_]
No	ot Applic	able			
11 PEI	RCENT OF	CLAS	SS REPRESENTED BY AMOUNT IN ROW (9)		
6	.3%				
	PE OF REPORTED		ING PERSON ons)		
II	N				
			Page 7 of 16		
CUSIP 1	No. 8962	3910	00 13G		
1 NAI	ME OF REP	ORT	ING PERSON		
Ca	arlene M.	Zie			
	ECK THE A		DPRIATE BOX IF A MEMBER OF A GROUP	(a)	[_] [_]
No	ot Applic	able			

3 SEC USE ON	ILY
4 CITIZENSHI	P OR PLACE OF ORGANIZATION
U.S.A.	
	5 SOLE VOTING POWER
NUMBER OF	None
SHARES BENEFICIALLY	6 SHARED VOTING POWER
OWNED BY EACH	7,317,686
REPORTING PERSON	7 SOLE DISPOSITIVE POWER
WITH	None
	8 SHARED DISPOSITIVE POWER
	7,604,586
9 AGGREGATE	AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON
7,604,586	
10 CHECK BOX (see Instr	IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES ructions)
Not Appli	cable
11 PERCENT OF	CLASS REPRESENTED BY AMOUNT IN ROW (9)
6.3%	
12 TYPE OF RE (see Instr	PORTING PERSON ructions)
IN	
	Page 8 of 16
Item 1(a) Na	ume of Issuer:
	Trimble Navigation Limited
Item 1(b) Ad	dress of Issuer's Principal Executive Offices:
	935 Stewart Drive, Sunnyvale, CA 94085
Item 2(a) Na	ume of Person Filing:
	Artisan Partners Holdings LP ("Artisan Holdings") Artisan Investment Corporation, the general partner of Artisan Holdings ("Artisan Corp.") Artisan Partners Limited Partnership ("Artisan Partners") Artisan Investments GP LLC, the general partner of

Artisan Partners ("Artisan Investments")
ZFIC, Inc., the sole stockholder of Artisan Corp. ("ZFIC")
Andrew A. Ziegler
Carlene M. Ziegler

Item 2(b) Address of Principal Business Office:

Artisan Holdings, Artisan Corp., Artisan Partners, Artisan Investments, ZFIC,
Mr. Ziegler and Ms. Ziegler are all located at:

875 East Wisconsin Avenue, Suite 800 Milwaukee, WI 53202

Item 2(c) Citizenship:

Artisan Holdings is a Delaware limited partnership Artisan Corp. is a Wisconsin corporation Artisan Partners is a Delaware limited partnership Artisan Investments is a Delaware limited liability company ZFIC is a Wisconsin corporation Mr. Ziegler and Ms. Ziegler are U.S. citizens

Item 2(d) Title of Class of Securities:

Common Stock

Item 2(e) CUSIP Number:

896239100

(e) Artisan Partners is an investment adviser registered under section 203 of the Investment Advisers Act of 1940; Artisan Holdings is the sole limited partner of Artisan Partners; Artisan Investments is the general partner of Artisan Partners; Artisan Corp is the general partner of Artisan Holdings; ZFIC is the sole stockholder of Artisan Corp.; Mr. Ziegler and Ms. Ziegler are the principal stockholders of ZFIC.

Page 9 of 16

- Item 4 Ownership (at December 31, 2010):
  - (a) Amount owned "beneficially" within the meaning of rule 13d-3:

7,604,586

(b) Percent of class:

6.3% (based on 120,085,706 shares outstanding as of November 4, 2010)

- (c) Number of shares as to which such person has:
  - (i) sole power to vote or to direct the vote:

None

(ii) shared power to vote or to direct the vote:

7,317,686

(iii) sole power to dispose or to direct the disposition of:

None

(iv) shared power to dispose or to direct the disposition of:

7,604,586

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

Not Applicable

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

The shares reported herein have been acquired on behalf of discretionary clients of Artisan Partners. Persons other than Artisan Partners are entitled to receive all dividends from, and proceeds from the sale of, those shares. None of those persons, to the knowledge of Artisan Partners, Artisan Holdings, Artisan Investments, Artisan Corp., ZFIC, Mr. Ziegler or Ms. Ziegler, has an economic interest in more than 5% of the class.

Not Applicable

Not Applicable

Not Applicable

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.

Page 10 of 16

#### 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: February 10, 2011

ARTISAN INVESTMENT CORPORATION, for itself and as the general partner of ARTISAN PARTNERS HOLDINGS LP

By: Janet D. Olsen\*

ARTISAN INVESTMENTS GP LLC, for itself and as the general partner of ARTISAN PARTNERS LIMITED PARTNERSHIP

By: Janet D. Olsen\*

ZFIC, INC.

By: Janet D. Olsen\*

ANDREW A. ZIEGLER

Andrew A. Ziegler\*

-----

CARLENE M. ZIEGLER

Carlene M. Ziegler\*

\*By: /s/ Janet D. Olsen

-----

Janet D. Olsen
Vice President of Artisan
Investment Corporation
Vice President of Artisan
Investments GP LLC

Attorney-in-Fact for ZFIC, Inc. Attorney-in-Fact for Andrew A. Ziegler

Attorney-in-Fact for Carlene M. Ziegler

Page 11 of 16

#### Exhibit Index

- Exhibit 1 Joint Filing Agreement dated February 10, 2011 by and among Artisan Partners Holdings LP, Artisan Investment Corporation, Artisan Partners Limited Partnership, Artisan Investments GP LLC, ZFIC, Inc., Andrew A. Ziegler and Carlene M. Ziegler
- Exhibit 2 Power of Attorney of ZFIC, Inc., dated March 19, 2007
- Exhibit 3 Power of Attorney of Andrew A. Ziegler dated March 19, 2007
- Exhibit 4 Power of Attorney of Carlene M. Ziegler dated March 19, 2007

Page 12 of 16

EXHIBIT 1

#### JOINT FILING AGREEMENT

The undersigned hereby agree to the joint filing of the Schedule 13G to which this Agreement is attached.

Dated: February 10, 2011

ARTISAN INVESTMENT CORPORATION, for itself and as the general partner of ARTISAN PARTNERS HOLDINGS LP

By: Janet D. Olsen\*

ARTISAN INVESTMENTS GP LLC, for itself and as the general partner of ARTISAN PARTNERS LIMITED PARTNERSHIP

By: Janet D. Olsen\*

ZFIC, INC.

By: Janet D. Olsen\*

ANDREW A. ZIEGLER

Andrew A. Ziegler\*

-----

CARLENE M. ZIEGLER

Carlene M. Ziegler\*

-----

\*By: /s/ Janet D. Olsen

-----

Janet D. Olsen

Vice President of Artisan Investment Corporation Vice President of Artisan Investments GP LLC

Attorney-in-Fact for ZFIC, Inc.

Attorney-in-Fact for Andrew A.

Ziegler

Attorney-in-Fact for Carlene M. Ziegler

Page 13 of 16

EXHIBIT 2

#### POWER OF ATTORNEY

The undersigned, ZFIC, Inc., hereby appoints Lawrence A. Totsky, Janet D.

Olsen, and Sarah A. Johnson, and each of them individually, its true and lawful attorney-in-fact and agent, with full power to execute and file with the United States Securities and Exchange Commission and any stock exchange or similar authority, for and on its behalf in any and all capacities, any and all reports required to be filed pursuant to Section 13 of the Securities Exchange Act of 1934 and the rules thereunder, including but not limited to reports on Schedule 13D or 13G, any and all amendments to such reports, with all exhibits, and any other forms or documents as may be necessary in connection with the filing of such reports with the United States Securities and Exchange Commission and any stock exchange or similar authority, granting unto said attorney full power and authority to do and perform any and all acts for and on behalf of the undersigned which may be necessary or desirable to complete, as fully as the undersigned might or could do in person.

This Power of Attorney shall remain in full force and effect until revoked by the undersigned in a signed writing delivered to the foregoing attorneys-in-fact and agents.

IN WITNESS WHEREOF the undersigned has caused this Power of Attorney to be executed this 19th day of March, 2007.

ZFIC, INC.

STATE OF WISCONSIN )

(COUNTY OF MILWAUKEE)

I, Timothy K. Weston, a Notary Public in and for the County of Milwaukee, State of Wisconsin, DO HEREBY CERTIFY that Andrew A. Ziegler, who is personally known to me to be the same person whose name is subscribed to the foregoing instrument, appeared before me this day in person and acknowledged that he signed and delivered the said instrument as his own free and voluntary act, for the uses and purposes therein set forth.

Given under my hand and notarial seal, this 19th day of March, 2007.

/s/ Timothy K. Weston
----Notary Public

Page 14 of 16

EXHIBIT 3

#### POWER OF ATTORNEY

The undersigned, Andrew A. Ziegler, hereby appoints Lawrence A. Totsky, Janet D. Olsen, and Sarah A. Johnson, and each of them individually, his true and lawful attorney-in-fact and agent, with full power to execute and file with the United States Securities and Exchange Commission and any stock exchange or similar authority, for and on his behalf in any and all capacities, any and all reports required to be filed pursuant to Section 13 of the Securities Exchange Act of 1934 and the rules thereunder, including but not limited to reports on Schedule 13D or 13G, any and all amendments to such reports, with all exhibits, and any other forms or documents as may be necessary in connection with the

filing of such reports with the United States Securities and Exchange Commission and any stock exchange or similar authority, granting unto said attorney full power and authority to do and perform any and all acts for and on behalf of the undersigned which may be necessary or desirable to complete, as fully as the undersigned might or could do in person.

This Power of Attorney shall remain in full force and effect until revoked by the undersigned in a signed writing delivered to the foregoing attorneys-in-fact and agents.

IN WITNESS WHEREOF the undersigned has caused this Power of Attorney to be executed this 19th day of March, 2007.

STATE OF WISCONSIN )

OUNTY OF MILWAUKEE)

I, Timothy K. Weston, a Notary Public in and for the County of Milwaukee, State of Wisconsin, DO HEREBY CERTIFY that Andrew A. Ziegler, who is personally known to me to be the same person whose name is subscribed to the foregoing instrument, appeared before me this day in person and acknowledged that he signed and delivered the said instrument as his own free and voluntary act, for the uses and purposes therein set forth.

Given under my hand and notarial seal, this 19th day of March, 2007.

/s/ Timothy K. Weston
----Notary Public

Page 15 of 16

EXHIBIT 4

#### POWER OF ATTORNEY

The undersigned, Carlene M. Ziegler, hereby appoints Lawrence A. Totsky, Janet D. Olsen, and Sarah A. Johnson, and each of them individually, her true and lawful attorney-in-fact and agent, with full power to execute and file with the United States Securities and Exchange Commission and any stock exchange or similar authority, for and on her behalf in any and all capacities, any and all reports required to be filed pursuant to Section 13 of the Securities Exchange Act of 1934 and the rules thereunder, including but not limited to reports on Schedule 13D or 13G, any and all amendments to such reports, with all exhibits, and any other forms or documents as may be necessary in connection with the filing of such reports with the United States Securities and Exchange Commission and any stock exchange or similar authority, granting unto said attorney full power and authority to do and perform any and all acts for and on behalf of the undersigned which may be necessary or desirable to complete, as fully as the undersigned might or could do in person.

This Power of Attorney shall remain in full force and effect until revoked by the undersigned in a signed writing delivered to the foregoing attorneys-in-fact and agents.

IN WITNESS WHEREOF the undersigned has caused this Power of Attorney to be

executed this 19th day of March, 2007.

/s/ Carlene M. Ziegler
-----Carlene M. Ziegler

STATE OF WISCONSIN )

OUNTY OF MILWAUKEE)

I, Timothy K. Weston, a Notary Public in and for the County of Milwaukee, State of Wisconsin, DO HEREBY CERTIFY that Carlene M. Ziegler, who is personally known to me to be the same person whose name is subscribed to the foregoing instrument, appeared before me this day in person and acknowledged that she signed and delivered the said instrument as her own free and voluntary act, for the uses and purposes therein set forth.

Given under my hand and notarial seal, this 19th day of March, 2007.

/s/ Timothy K. Weston
----Notary Public

Page 16 of 16