PATENT ASSIGNMENT

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SUBMISSION TYPE:		NEW ASSIGNMENT				
NATURE OF CONVE	YANCE:	ASSIGNMENT				
CONVEYING PARTY DATA						
		Name	Execution Date			
Marta Karczewicz			10/10/2001			
Antti Hallapuro			10/15/2001			
RECEIVING PARTY DATA						
Name:		ATION				
Street Address:	Keilalahdentie 4					
City:	Espoo					
State/Country:	FINLAND					
Postal Code:	02150					
PROPERTY NUMBERS Total: 1						
Property Type		Number				
Application Number:	[110	0717				
CORRESPONDENCE DATA						
Fax Number: (203)255-5170						
Correspondence will be sent via US Mail when the fax attempt is unsuccessful.						
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ATTORNEY DOCKET	NUMBER:	982-010567-US (C01)				
NAME OF SUBMITTE	ER:	Joseph V. Gamberdell, Jr.				
Total Attachments: 6 source=ExecAssignmentfromUSPAR#page1.tif source=ExecAssignmentfromUSPAR#page2.tif source=ExecAssignmentfromUSPAR#page3.tif PATENT						

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Attorney's Docket No.

13

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PATENT

For:	🛛 U.S. and/or 🖾 Foreign Rights
For:	U.S. Application or
	U.S. Provisional Application
For:	U.S. Patent
For:	PCT Application
By:	Inventor(s) or Present Owner

ASSIGNMENT OF INVENTION (MULTIPLE INVENTORS)

In consideration of the payment by ASSIGNEE to ASSIGNORS of the sum of One Dollar (\$1.00), the receipt of which is hereby acknowledged, and for other good and valuable consideration,

ASSIGNORS (Inventors):

Polish

Einnish (Nationality)

(Nationality)

Marta Karczewicz (type or print name of inventors) 1224 Hidden Ridge, Address

#3097 Irving, Texas 75038, U.S.A.

Antti Hallapuro

(type or print name of inventors)

Address

FIN-33720 Tampere, Finland

Insinöörinkatu 60 B 115,

(type or print name of inventors)

Address

(Nationality)

(type or print name of inventors)

Address

(Nationality)

[Assignment of Invention-Multiple Inventors (16-3.2)-page 1 of 3]

hereby sells, assigns a transfers to

ASSIGNEE:

NOKIA CORPORATION

[type or print name(s) of ASSIGNEE(S)]

KEILALAHDENTIE 4

Address

FIN-02150 ESPOO, FINLAND

FINNISH

Nationality

and the successors, assigns and legal representatives of the ASSIGNEE

(complete one of the following)

 \boxtimes the entire right, title and interest

an undivided _____ percent (____%) interest

for the United States and its territorial possessions

(check the following box, if foreign rights are also to be assigned)

and in all foreign countries, including all rights to claim priority,

in and to any and all improvements which are disclosed in the invention entitled:

Method for sub-pixel value interpolation

[check and complete (a), (b), (c), (d), (e), (f) or (g)]

and which is found in

 \boxtimes

- (a) U.S. patent application executed on even date herewith
- (b) U.S. patent application executed on _____

(c) U.S. provisional application naming the above inventor(s) for the above-

entitled invention.

Express mail label no.: _____
Mailed: _____

To comply with 37 CFR 3.21 for recordal of this assignment, I, an ASSIGNOR signing below, hereby authorize and request my attorney to insert below the filing date and application number when they become known.

- (d) U.S. application no. 09/<u>954,608</u> filed on <u>17 Sep. 2001</u>
- (e) International application no. PCT/____
- (f) U.S. patent no. ____ issued ____
 - A change of address to which correspondence is to be sent regarding patent maintenance fees is being sent separately.

[also check (g), if application(s) is also being assigned)

(g) And any legal equivalent thereof in a foreign country, including the right to claim priority

and, in and to, all Letters Patent to be obtained for said invention by the above application or any continuation, division, renewal, or substitute thereof, and as to letters patent any reissue or re-examination thereof.

[Assignment of Invention-Multiple Inventors (16-3.2)-page 2 of 3]

ASSIGNORS hereby covenant that no assignment, sale, agreement or encumbrance has been or will be made or entered into which would conflict with this assignment;

. .

ASSIGNORS further covenant that ASSIGNEE will, upon its request, be provided promptly with all pertinent facts and documents relating to said invention and said Letters Patent and legal equivalents as may be known and accessible to ASSIGNORS and will testify as to the same in any interference, litigation or proceeding related thereto and will promptly execute and deliver to ASSIGNEE or its. legal representatives any and all papers, instruments or affidavits required to apply for, obtain, maintain, issue and enforce said application, said invention and said Letters Patent and said equivalents thereof which may be necessary or desirable to carry out the purposes thereof.

WARNING: The date of signing must be the date of execution of this application, if item (a) was checked above.

DATE SIGNED	SIGNATURE OF ASSIGNOR(S)		
<u>NU/10/2001</u> DATE	Kuy Grewily Name of Inventor: Marta Karczewicz		
DATE	Name of Inventor: Antti Hallapuro		
DATE	Name of Inventor:		
DATE	Name of Inventor:		
NOTE: No witnessing, notarization or legali	ization is necessary. If the assignment is notarized or		

Notarization or Legalization Page Added.

notarization is desired.

legalized, then it will only be prima facie evidence of execution. 35 USC 261. Use next page if

[Assignment of Invention-Multiple Inventors (16-3.2)-page 3 of 3]

Attorney's Docket No.

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PATENT

For: X U.S. and/or X Foreign Rights
For: U.S. Application or
U.S. Provisional Application
For: U.S. Patent
For: PCT Application
By: Inventor(s) or Present Owner

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ASSIGNORS (Inventors):

Marta Karczewicz (type or print name of inventors) 1224 Hidden Ridge, Address

Polish (Nationality) #3097 Irving, Texas 75038, U.S.A.

Antti Hallapuro (type or print name of inventors) Insinöörinkatu 60 B 115. Address

Finnish (Nationality) FIN-33720 Tampere, Finland

(type or print name of inventors)

Address

(Nationality)

(type or print name of inventors)

Address

(Nationality)

hereby sells, assigns and transfers to ASSIGNEE:

NOKIA CORPORATION

[type or print name(s) of ASSIGNEE(S)]

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and the successors, assigns and legal representatives of the ASSIGNEE

(complete one of the following)



an undivided _____ percent (____%) interest

for the United States and its territorial possessions

(check the following box, if foreign rights are also to be assigned)

and in all foreign countries, including all rights to claim priority,

in and to any and all improvements which are disclosed in the invention entitled:

Method for sub-pixel value interpolation

[check and complete (a), (b), (c), (d), (e), (f) or (g)]

and which is found in

- (a) U.S. patent application executed on even date herewith
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(c)'	U.S. provisional application naming the above inventor(s) for the ab			
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WARNING: The date of signing must be the date of execution of this application, if item (a) was checked above.

DATE SIGNED	SIGNATURE OF ASSIGNOR(S)			
DATE	Name of Inventor: Marta Karczewicz			
15,10,2001	Mrt. Halpong			
DATE	Name of Inventor: Antti Hallapuro			
DATE	Name of Inventor:			
DATE	Name of Inventor:			
	r legalization is necessary. If the assignment is notarized or			

NOTE: No witnessing, notarization or legalization is necessary. If the assignment is notarized or legalized, then it will only be prima facie evidence of execution. 35 USC 261. Use next page if notarization is desired.

□ Notarization or Legalization Page Added.

PATENT REEL: 024704 FRAME: 0922

RECORDED: 07/19/2010