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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
Edmund B. Nightingale	06/19/2012
Brian LaMacchia	06/19/2012
Paul Barham	06/20/2012

RECEIVING PARTY DATA

Name:	Microsoft Corporation
Street Address:	One Microsoft Way
City:	Redmond
State/Country:	WASHINGTON
Postal Code:	98052

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	13528329

CORRESPONDENCE DATA

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via US Mail.

Correspondent Name: Assal Meftahi
Address Line 1: One Microsoft Way

Address Line 2: Patent Group Docketing Dept.

Address Line 4: Redmond, WASHINGTON 98052

ATTORNEY DOCKET NUMBER:	335401.01
NAME OF SUBMITTER:	Peter J. Gordon

Total Attachments: 5

PATENT REEL: 028412 FRAME: 0335 D \$40,00 1352

501962640 REEL: 0

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PATENT REEL: 028412 FRAME: 0336

PATENT ASSIGNMENT MS Docket No.: 335401.01

WE, Edmund B. Nightingale, Brian LaMacchia and Paul Barham ("ASSIGNOR"), have invented subject matter ("INVENTION") disclosed and/or claimed in a patent application entitled "UPDATING HARDWARE LIBRARIES FOR USE BY APPLICATIONS ON A COMPUTER SYSTEM WITH AN FPGA COPROCESSOR" ("APPLICATION"), which:

X	will be filed without this executed PATENT ASSIGNMENT. ASSIGNOR
	hereby authorizes, and requests, ASSIGNEE'S legal representatives, of
	the Law and Corporate Affairs Department, Microsoft Corporation, One
	Microsoft Way, Redmond, Washington 98052, who are associated with
	customer number 69316, to insert here in parenthesis (Application No.
13	3/528,329, filed $6-20-12$) this APPLICATION's Application No. and
	filing date, when known;
	was filed on and was given Application No;
	is filed concurrently herewith;

Microsoft Corporation, a Washington Corporation, on behalf of itself and its successors and assigns ("ASSIGNEE"), is entitled to, and is desirous of acquiring, the entire and exclusive rights, title and interest in the INVENTION and the APPLICATION (and all other applications and patents derived therefrom, such as continuing applications, in and for the United States, its territories, and all foreign countries ("APPLICATION DERIVATIVES")):

For good and valuable consideration, the receipt of which is hereby acknowledged by the ASSIGNOR, the ASSIGNOR hereby sells, assigns and transfers to the ASSIGNEE, the entire and exclusive rights, title and interest in the INVENTION and the APPLICATION (and APPLICATION DERIVATIVES);

ASSIGNOR agrees to execute all instruments and documents required for the making and prosecution of the APPLICATION (and APPLICATION DERIVATIVES), for litigation regarding letters patent derived therefrom, and for the purpose of protecting and perfecting title to the APPLICATION (and APPLICATION DERIVATIVES).

Inventor's Signature Edmund B. Nightingale	
Printed Name in English	Printed Name in Native Language (if
rince vanc in English	
	other than English)

WE, Edmund B. Nightingale, Brian LaMacchia and Paul Barham ("ASSIGNOR"), have invented subject matter ("INVENTION") disclosed and/or claimed in a patent application entitled "UPDATING HARDWARE LIBRARIES FOR USE BY APPLICATIONS ON A COMPUTER SYSTEM WITH AN FPGA COPROCESSOR" ("APPLICATION"), which:

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filing date, when known;

was filed on _____ and was given Application No. ____;

is filed concurrently herewith;

customer number <u>69316</u>, to insert here in parenthesis (Application No. 13/528, 329, filed 6-20-12) this APPLICATION's Application No. and

Microsoft Corporation, a Washington Corporation, on behalf of itself and its successors and assigns ("ASSIGNEE"), is entitled to, and is desirous of acquiring, the entire and exclusive rights, title and interest in the INVENTION and the APPLICATION (and all other applications and patents derived therefrom, such as continuing applications, in and for the United States, its territories, and all foreign countries ("APPLICATION DERIVATIVES"));

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Inventor's Signature	Date
Edmund B. Nightingale	
Printed Name in English	Printed Name in Native Language (if other than English)

Page 1 of 2

ALCZIALL.	6/19/12
nventor's Signature	Date
Brian LaMacchia	
Printed Name in English	Printed Name in Native Language (if
	other than English)
nventor's Signature	Date
Paul Barham	

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Inventor's Signature Date	

Edmund B. Nightingale
Printed Name in English

Printed Name in Native Language (if

other than English)

Inventor's Signature

Brian LaMacchia

Printed Name in English

Printed Name in Native Language (if other than English)

20 To N 2012

Inventor's Signature

Date

Paul Barham

Printed Name in English

Printed Name in Native Language (if

other than English)