PATENT ASSIGNMENT

Electronic Version v1.1 Stylesheet Version v1.1

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
Russell A. BLAINE	12/06/2012
Timothy P. MARSLAND	12/07/2012
Benjamin H. NHAM	12/12/2012
Adam C. SWIFT	12/10/2012
Benjamin C. TRUMBULL	12/10/2012
Umesh S. VAISHAMPAYAN	12/10/2012

RECEIVING PARTY DATA

Name:	Apple Inc.
Street Address:	1 Infinite Loop
City:	Cupertino
State/Country:	CALIFORNIA
Postal Code:	95014

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	13620733

CORRESPONDENCE DATA

Fax Number: 4083413098

Correspondence will be sent via US Mail when the fax attempt is unsuccessful.

408-341-3000 Phone: rorlando@wcsr.com Email:

Correspondent Name: WOMBLE CARLYLE SANDRIDGE & RICE LLP

Address Line 1: 10050 North Wolfe Road, Suite 260 Address Line 4: Cupertino, CALIFORNIA 95014

ATTORNEY DOCKET NUMBER:	P14938US1/11720.US.1
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NAME OF SUBMITTER: Ernest L. Ellenberger

PATENT

REEL: 029608 FRAME: 0429

502191211

Total Attachments: 8 source=P14938US1_ASG_EF#page2.tif source=P14938US1_ASG_EF#page3.tif source=P14938US1_ASG_EF#page4.tif source=P14938US1_ASG_EF#page5.tif source=P14938US1_ASG_EF#page6.tif source=P14938US1_ASG_EF#page7.tif source=P14938US1_ASG_EF#page8.tif

PATENT REEL: 029608 FRAME: 0430

Whereas I, an undersigned inventor, have invented certain new and useful improvements as set forth in the patent application entitled:

GUARDED FILE DESCRIPTORS

(Atty.	Docket No. Pl	14938US1/11720US.1), (check one)	
	which bear	I have executed a U.S. patent application on rs U.S. application No. 13/620,733 U.S. provisional application. (Accompanying)	. (Not accompanying)
acknow		valuable consideration, the receipt and sufficundersigned inventor, hereby:	ciency of which is hereby
all imp	ite Loop, Cupe provements and	nd transfer to Apple Inc., a California corpora ertino, CA 95014 ("ASSIGNEE"), the entire d inventions disclosed in, applications based tents and the right to claim priority), the above	right, title and interest in any and upon, and patents granted upon
2) resultin reissue	Authorize and ag from said ag thereof to the	d request the Commissioner of Patents to issurptication or any division, continuation, subs ASSIGNEE.	ne any and all United States Patents titute, renewal, re-examination or
applica	n any acts which tion, as well as	eute all papers and documents and, entirely at ch are reasonably necessary in connection w s any derivative applications thereof, foreign atents resulting from such applications.	ith the prosecution of said
4) the AS invento	SIGNEE, its su	e terms, covenants and conditions of this assi- uccessors, assigns and other legal representatives and ne inventor's heirs, legal representatives and	tives, and shall be binding upon the
5) contrac	Warrant and rect, or understan	represent that I have not entered and will not adding that conflicts with this assignment.	enter into any assignment,
6) with re	Authorize and cordal of this a	I request my attorney/agent to insert above the assignment.	ne application No. in order to assist
	Signed on the	date indicated beside my signature.	
1)	Signature: Typed Name:	Russell A. BLAINE	Date: 12/6/2012
2)	Signature: Typed Name:	Timothy P. MARSLAND	Date:

Atty Docket No.: P14938USP1/11720US.1

Page 1 of 2

PATENT REEL: 029608 FRAME: 0431

3)	Signature: Typed Name:	Benjamin H. NHAM	Date:
4)	Signature: Typed Name:	Adam C. SWIFT	Date:
5)	Signature: Typed Name:	Benjamin C. TRUMBULL	Date:
6)	Signature:	Limech S. VAISHAMDAVAN	Date:

Whereas I, an undersigned inventor, have invented certain new and useful improvements as set forth in the patent application entitled:

GUARDED FILE DESCRIPTORS

(Atty. Docket No. P14938US1/11720US.1), (check one)				
for which I have executed a U.S. patent application on even date herewith. (Accompanying) which bears U.S. application No (Not accompanying) which is a U.S. provisional application. (Accompanying)				
For good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, I, an undersigned inventor, hereby:				
1) Sell, assign and transfer to Apple Inc., a California corporation having a place of business at 1 Infinite Loop, Cupertino, CA 95014 ("ASSIGNEE"), the entire right, title and interest in any and all improvements and inventions disclosed in, applications based upon, and patents granted upon (including foreign patents and the right to claim priority), the above-referenced application.				
2) Authorize and request the Commissioner of Patents to issue any and all United States Patents resulting from said application or any division, continuation, substitute, renewal, re-examination or reissue thereof to the ASSIGNEE.				
3) Agree to execute all papers and documents and, entirely at the ASSIGNEE's expense, perform any acts which are reasonably necessary in connection with the prosecution of said application, as well as any derivative applications thereof, foreign applications based thereon, and/or the enforcement of patents resulting from such applications.				
4) Agree that the terms, covenants and conditions of this assignment shall inure to the benefit of the ASSIGNEE, its successors, assigns and other legal representatives, and shall be binding upon the inventor, as well as the inventor's heirs, legal representatives and assigns.				
5) Warrant and represent that I have not entered and will not enter into any assignment, contract, or understanding that conflicts with this assignment.				
6) Authorize and request my attorney/agent to insert above the application No. in order to assist with recordal of this assignment.				
Signed on the date indicated beside my signature.				
1) Signature: Date: Date:				
2) Signature: Timothy P. MARSLAND Date: Dec 7th, 2012				

Atty Docket No.: P14938USP1/11720US.1 Page 1 of 2

3)	Signature: Typed Name:	Benjamin H. NHAM	Date:
4)	Signature: Typed Name:	Adam C. SWIFT	Date:
5)	Signature: Typed Name:	Benjamin C. TRUMBULL	Date:
6)	Signature: Typed Name:	Umesh S. VAISHAMPAYAN	Date:

Atty Docket No.: P14938USP1/11720US.1 Page 2 of 2

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(Atty. Docket No. P14938US1/11720US.1), (check one)
for which I have executed a U.S. patent application on even date herewith. (Accompanying) which bears U.S. application No. 13/620,733 (Not accompanying) which is a U.S. provisional application. (Accompanying)
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Signed on the date indicated beside my signature.
1) Signature: Date: Date:
2) Signature: Date: Typed Name. Timothy P. MARSLAND

Amy Docket No.: P14938USP1/11720US.1 Page 1 of 2

3)	Signature: Typed Name:	Benjamin H. NHAM	Date:	12/12/12
4)	Signature: Typed Name	Adam C. SWIFT	Date:	12/10/2012
5)	Signature: Typed Name:	Benjamin C. TRUMBULI,	Date:	12/19/2012
6)	Signature: Typed Name:	Umesh S. VAISHAMPAYAN	Date:	

Whereas I, an undersigned inventor, have invented certain new and useful improvements as set forth in the patent application entitled:

GUARDED FILE DESCRIPTORS

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	1)		Russell A. BLAINE		Date:	
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Page 1 of 2

Atty Docket No.: P14938USP1/11720US.1

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6)	Signature: Typed Name:	Umesh S. VAISHAMPAYAN	Date:	12/10/2012

Atty Docket No.: P14938USP1/11720US.1

RECORDED: 01/10/2013

Page 2 of 2