PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
GORDON GAUMNITZ	06/23/2014
ROBERT SCHULZE	06/24/2014
LARS DANNECKER	06/23/2014
IVAN BOWMAN	09/10/2014
DANIEL JAMES FARRAR	06/23/2014

RECEIVING PARTY DATA

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Street Address:	DIETMAR-HOPP-ALLEE 16
City:	WALLDORF
State/Country:	GERMANY
Postal Code:	D-69190

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	14326397

CORRESPONDENCE DATA

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ATTORNEY DOCKET NUMBER:	54874-041F01US
NAME OF SUBMITTER:	JAMES P. CLEARY
SIGNATURE:	/JPC/
DATE SIGNED:	09/22/2014

Total Attachments: 6

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> PATENT REEL: 033790 FRAME: 0289

Attorney's Docket No.: 54874-041F01US / 140455US01

ASSIGNMENT

We, Gordon Gaumnitz, Robert Schulze, Lars Dannecker, Ivan Bowman and Daniel James Farrar, the undersigned, hereinafter referred to as the ASSIGNORS, for good and valuable consideration, the receipt of which is hereby acknowledged, confirm that we have sold and assigned, and do hereby assign, sell and transfer to SAP SE, a European Company, with offices at Dietmar-Hopp-Allee 16, D-69190, Walldorf, Germany, and to its successors, assigns and legal representatives, collectively hereinafter referred to as the ASSIGNEE: (1) our entire right, title and interest for the United States and in all countries, in and to any and all inventions, discoveries and applications which are disclosed in the application for United States Letters Patent entitled:

LINEAR RUN LENGTH ENCODING: COMPRESSING THE INDEX VECTOR

filed with the U.S. Patent and Trademark Office on July 8, 2014 and assigned Application No. 14/326,397¹, including any subsequently filed utility applications, which claim priority to Application No. 14/326,397¹, and including any renewals, revivals, reissues, reexaminations, extensions, continuations and divisions thereof and any substitute applications therefor; (2) the full and complete right to file patent applications in the name of the ASSIGNEE, its designee, or in my/our names as the ASSIGNEE, or its designee's election, on the aforesaid inventions, discoveries and applications in all countries of the world; (3) the entire right, title and interest in and to any Letters Patent which may issue thereon in the United States or in any country, and any renewals, revivals, reissues, reexaminations and extensions thereof, and any patents of confirmation, registration and importation of the same; and (4) the entire right, title and interest in all Convention and Treaty Rights of all kinds thereon, including without limitation all rights of priority in any country of the world, in and to the above inventions, discoveries and applications.

We hereby authorize and request the competent authorities to grant and to issue any and all such Letters Patent in the United States and throughout the world to the ASSIGNEE of the entire right, title and interest therein, as fully and entirely as the same would have been held and enjoyed by us had this assignment, sale and transfer not been made.

We agree, at any time, upon the request of the ASSIGNEE, to execute and to deliver to the ASSIGNEE any additional applications for patents for said inventions and discoveries, or any part or parts thereof, and any applications for patents of confirmation, registration and importation based on any Letters Patent issuing on said inventions, discoveries, or applications and divisions, continuations, renewals, revivals, reissues, reexaminations and extensions thereof.

¹ Any attorney or agent of record and any registered attorney or agent of Mintz, Levin, Cohn, Ferris, Glovsky and Popeo, P.C., One Financial Center, Boston, MA 02111, telephone (617) 542-6000, is hereby authorized to insert, when known.

Attorney Docket No.: 54874-041F01US / 140455US01

First Inventor: Gordon Gaumnitz Page 2 of 6

We further agree at any time to execute and to deliver upon request of the ASSIGNEE such additional documents, if any, as are necessary or desirable to secure patent protection on said inventions, discoveries and applications throughout all countries of the world, and otherwise to do the necessary to give full effect to and to perfect the rights of the ASSIGNEE under this Assignment, including the execution, delivery and procurement of any and all further documents evidencing this assignment, transfer and sale as may be necessary or desirable.

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

We 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 ASSIGNOR 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.

Date: 23:6.2014	- lours	
	Signature of: Gordon Gau	mnitz
IN WITNESS WHEREOF, I,	KONSYD AOIR	, hereby declare
that I was personally present and did sassignment.	(Printed Name of Witness) see the above named person duly sign	and execute the
I. Voight		
(Signature of Witness)		
Date: <u> </u>		
IN WITNESS WHEREOF, I,	Millippe Roach	, hereby declare
that I was personally present and did s assignment.	ee the above named person duly sign	and execute the
il Ws.C		
(Signature of Witness)		
Date: <u>23.6.2014</u>	- The second	

First Inventor: Gordon Gaumnitz
Page 3 of 6

Date: 4/06/2014 F. Schulze
Signature of: Robert Schulze

IN WITNESS WHEREOF, I, Obver Horr (Printed Name of Witness)
that I was personally present and did see the above named person duly sign and execute the assignment.

(Signature of Witness)
Date: 24/06/2014

IN WITNESS WHEREOF, I, Marker Red (Arraby hereby declare (Printed Name of Witness))
that I was personally present and did see the above named person duly sign and execute the assignment.

(Printed Name of Witness)
that I was personally present and did see the above named person duly sign and execute the assignment.

(Signature of Witness)
Date: 24/06/2014

		Attorney Docket No	.: 54874-041F01US / 140455US0
First Inventor: Gordon Gaumnitz Page 4 of 6		and the second second	
rage 4 (7) U		all the same of th)
Date: 23.06.7014			
	Sign	nature of: Lars Dann	ecker
IN WITNESS WHEREOF, I,	Thomas	Heinze	, hereby declare
	,	•	
that I was personally present and assignment.	did see the above	named person duly si	gn and execute the
(Signature of Witness)			
(Signature of Witness)			
Date: 23 06.2014			
IN WITNESS WHEREOF, I,	PETKO	TUANOU	, hereby declare
, ,	(Pri	nted Name of Witness)	,
that I was personally present and	did see the above	named person duly si	gn and execute the
assignment.			
(Signature of Witness)			
Date: 23.06 2014	alaste deliterate agricios as de particular del transition de la companya del companya de la companya de la companya del companya de la companya del la companya de la comp		

First Inventor: Gordon Gaumnitz Page 5 of 6	Milothey Docket Ivo.: 54674-041	P0105 / 14045505
Date: 10 Sept. 2014	Signature of: Ivan Bowman	er
IN WITNESS WHEREOF, I, Karin	Mhanis (Printed Name of Witness)	hereby declare
that I was personally present and did see the a	above named person duly sign and exec	cute the
assignment. (Signature of Witness)		***************************************
,		
Date: Sept. 10, 2014		
IN WITNESS WHEREOF, I, Rolph	(Printed Name of Witness)	hereby declare
that I was personally present and did see the a assignment.	above named person duly sign and exec	cute the
- Keld Schroch		
(Signature of Witness)		
Date: Sept 10, 2014		

Attorney Docket No.: 54874-042F01US / 140456US01

First Inventor: Gordon Gaumnitz Page 6 of 6	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
Date: Jun 23 Zoly	tr
	Signature of: Daniel James Farrar
IN WITNESS WHEREOF, I, Evaluation that I was personally present and did see the a	(Printed Name of Witness)
assignment.	nove hanted person duty sign and excede the
(Signature of Witness)	·····
Date: June 23, 2014	
IN WITNESS WHEREOF, I, Graen	(Printed Name of Witness), hereby declare
that I was personally present and did see the a assignment.	bove named person duly sign and execute the
(Signature of Witness) Date: July 23 2014	
Date: JUNE #> #UIT	

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RECORDED: 09/22/2014

PATENT REEL: 033790 FRAME: 0295