PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT3773106

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
ROBIN ANGUS	12/10/2013
MICHAEL JAMES NEILAN	12/09/2013
EDGAR ROJAS	03/29/2014
TIMOTHY BROWN	03/25/2014

RECEIVING PARTY DATA

Name:	NCR CORPORATION
Street Address:	3097 SATELLITE BOULEVARD
Internal Address:	2ND FLOOR, LAW DEPARTMENT
City:	DULUTH
State/Country:	GEORGIA
Postal Code:	30096

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	14134201

CORRESPONDENCE DATA

Fax Number: (404)487-8949

Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent using a fax number, if provided; if that is unsuccessful, it will be sent via US Mail.

Phone: 678-808-5231

Email: PTOMail.Law@ncr.com
Correspondent Name: NCR CORPORATION

Address Line 1:3097 SATELLITE BOULEVARDAddress Line 2:2ND FLOOR, LAW DEPARTMENT

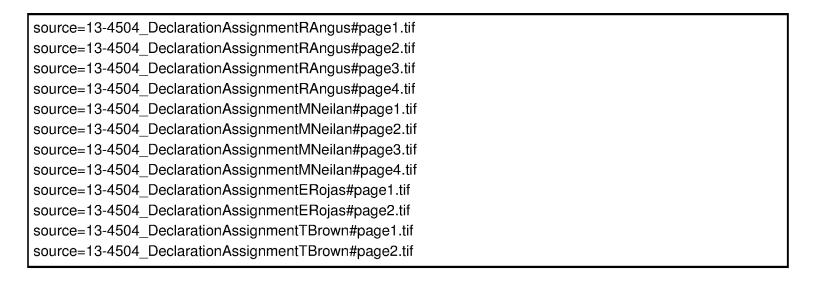
Address Line 4: DULUTH, GEORGIA 30096

ATTORNEY DOCKET NUMBER:	13-4504
NAME OF SUBMITTER:	PAUL W. MARTIN
SIGNATURE:	/Paul W. Martin/
DATE SIGNED:	03/08/2016

Total Attachments: 12

PATENT REEL: 037920 FRAME: 0483

503726463



PATENT REEL: 037920 FRAME: 0484

COMBINED DECLARATION AND ASSIGNMENT

As a below named inventor I hereby declare that:

My residence and post office are as stated below next to my name.

I believe that I am the original inventor or an original joint inventor of a claimed invention in the application entitled:

MEDIA REPLENISHMENT MANAGEMENT and identified by NCR Corporation Docket No. 13 - 4504.00, the specification of which: a. □ is attached hereto b. ☑ was filed on 19-Dec-2013 as United States Application Number or PCT International Application Number 14/134,201 and was amended on _______ (if applicable), which I have reviewed and for which I solicit a United States patent.

The above-identified application was made or authorized to be made by me,

I hereby state that I have reviewed and understand the contents of the above-identified specification, including the claims, as amended by any amendment referred to above.

I am aware of and do hereby acknowledge the duty to disclose all information, which is material to patentability of this application as defined in Title 37, Code of Federal Regulations, § 1.56.

I hereby acknowledge that any willful false statement made in this declaration is punishable under 18 U.S.C. 1001 by fine or imprisonment of not more than five (5) years, or both.

ASSIGNMENT OF UNITED STATES PATENT APPLICATION

WHEREAS, I, Robin Angus of 13 Kirk Road, Newport-on-Tay, Fife DD6 8JD, Scotland, United Kingdom, (hereinafter called "the inventor"), have invented certain new and useful improvements in 'MEDIA REPLENISHMENT MANAGEMENT', Docket No. 13 - 4504.00 (hereinafter called "the invention"), for which I have executed an application for Letters Patent of the United States of America (hereinafter called "the application") on same date herewith, respectively; and

3

WHEREAS, the invention, being made in the circumstances set out in Section 39 (1) of the United Kingdom Patents Act 1977, belongs to our employer at that time, namely NCR Financial Solutions Group Limited, a company incorporated in England whose registered address is 206 Marylebone Road, London NW1, 6LY, United Kingdom; and

WHEREAS, NCR Corporation, a corporation of the State of Maryland, having its principal place of business at 3097 Satellite Boulevard, Duluth, Georgia 30096 USA, is desirous of acquiring from NCR Financial Solutions Group Limited, the entire right, title, and interest in and to the invention and the application; and

WHEREAS, NCR Financial Solutions Group Limited and NCR Corporation have authorized and requested my/our executing the application; and

NOW, THEREFORE, to all whom it may concern be it known that I, the inventor, confirm the ownership by NCR Financial Solutions Group Limited of the invention and the application by operation of law under the United Kingdom Patents Act 1977 and if, under the law of the United States, or any other countries in the world, I the inventor have any ownership right, title, and interest in the invention and the application (which I do not believe to be the case and claim no ownership right, title, or interest in the invention and the application based on the Law of the United Kingdom), in consideration of the sum of One Dollar (\$1.00) and of other valuable considerations, the receipt of which is hereby acknowledged, I, the inventor, nevertheless hereby assign and transfer such ownership right, title, and interest in and to the invention and application to NCR Financial Solutions Group Limited, its successors and assigns. NCR Financial Solutions Group Limited in turn hereby assigns and transfers to NCR Corporation, its successors and assigns, the entire right, title, and interest in and to the invention and the application (including any right to claim priority under the International Convention), and in and to any divisions, continuations, reissues, and extensions thereof.

FURTHER, I, the inventor, and NCR Financial Solutions Group Limited hereby authorize and request any Letters Patent arising therefrom in the United States of America be issued to NCR Corporation, its successors and assigns.

FURTHER, I, the inventor, agree that I will communicate to NCR Corporation, or its representatives, any facts known to myself respecting the invention, and testify in any legal proceeding, sign all lawful papers, execute all divisional, continuation, substitution, renewal, and reissue applications, execute all necessary assignment papers to cause any Letters Patent arising therefrom in the United States of America to be issued to NCR Corporation, make all rightful oaths and generally to do everything possible to aid NCR Corporation, its successors and assigns, to obtain and enforce protection for the invention in the United States of America and in any other countries in the world.

FURTHER, it is hereby declared that the transaction hereby effected does not form part of a larger transaction or of a series of transactions in respect of which the amount or value or the aggregate amount or value, of the consideration exceeds £60,000 (Sterling).

SIGNED at Dundee this 10th day of December, 2013

Full name of inventor Inventor's signature Residence I3 Kirk Road, Newport-on-Tay, Fife DD6 8JD, Scotland, United Kingdom

Post Office Address Same as above

Signed at Dundee, this 11th day of December, 2013

Signature <u>Lystol</u> Name (print) Rody MacLend

Title Head of International Patents

NCR Financial Solutions Group Limited

Signature 444

Name (print) Paul W Martin

Title Senior Attorney

COMBINED DECLARATION AND ASSIGNMENT

As a below named inventor I hereby declare that:

My residence and post office are as stated below next to my name.

I believe that I am the original inventor or an original joint inventor of a claimed invention in the application entitled:

'MEDIA REPLENISHMENT MANAGEMENT'

ane	iden	tified by NCR Corporation Docket No. 13 - 4504.00, the specification	of which:
a.		is attached hereto	
b.		was filed on 19-Dec-2013 as United States Application Number or PC Application Number 14/134,201 and was amended on which I have reviewed and for which I solicit a United States patent.	T International (if applicable),

The above-identified application was made or authorized to be made by me.

I hereby state that I have reviewed and understand the contents of the above-identified specification, including the claims, as amended by any amendment referred to above.

I am aware of and do hereby acknowledge the duty to disclose all information, which is material to patentability of this application as defined in Title 37, Code of Federal Regulations, § 1.56.

I hereby acknowledge that any willful false statement made in this declaration is punishable under 18 U.S.C. 1001 by fine or imprisonment of not more than five (5) years, or both.

ASSIGNMENT OF UNITED STATES PATENT APPLICATION

WHEREAS, I, Michael James Neilan of 30 Neddertoun View, Liff, Dundee DD2 5RU, United Kingdom, (hereinafter called "the inventor"), have invented certain new and useful improvements in 'MEDIA REPLENISHMENT MANAGEMENT', Docket No. 13 - 4504.00 (hereinafter called "the invention"), for which I have executed an application for Letters Patent of the United States of America (hereinafter called "the application") on same date herewith, respectively; and

1

WHEREAS, the invention, being made in the circumstances set out in Section 39 (1) of the United Kingdom Patents Act 1977, belongs to our employer at that time, namely NCR Financial Solutions Group Limited, a company incorporated in England whose registered address is 206 Marylebone Road, London NW1, 6LY, United Kingdom; and

WHEREAS, NCR Corporation, a corporation of the State of Maryland, having its principal place of business at 3097 Satellite Boulevard, Duluth, Georgia 30096 USA, is desirous of acquiring from NCR Financial Solutions Group Limited, the entire right, title, and interest in and to the invention and the application; and

WHEREAS, NCR Financial Solutions Group Limited and NCR Corporation have authorized and requested my/our executing the application; and

NOW, THEREFORE, to all whom it may concern be it known that I, the inventor, confirm the ownership by NCR Financial Solutions Group Limited of the invention and the application by operation of law under the United Kingdom Patents Act 1977 and if, under the law of the United States, or any other countries in the world, I the inventor have any ownership right, title, and interest in the invention and the application (which I do not believe to be the case and claim no ownership right, title, or interest in the invention and the application based on the Law of the United Kingdom), in consideration of the sum of One Dollar (\$1.00) and of other valuable considerations, the receipt of which is hereby acknowledged, I, the inventor, nevertheless hereby assign and transfer such ownership right, title, and interest in and to the invention and application to NCR Financial Solutions Group Limited, its successors and assigns. NCR Financial Solutions Group Limited in turn hereby assigns and transfers to NCR Corporation, its successors and assigns, the entire right, title, and interest in and to the invention and the application (including any right to claim priority under the International Convention), and in and to any divisions, continuations, reissues, and extensions thereof.

FURTHER, I, the inventor, and NCR Financial Solutions Group Limited hereby authorize and request any Letters Patent arising therefrom in the United States of America be issued to NCR Corporation, its successors and assigns.

FURTHER, I, the inventor, agree that I will communicate to NCR Corporation, or its representatives, any facts known to myself respecting the invention, and testify in any legal proceeding, sign all lawful papers, execute all divisional, continuation, substitution, renewal, and reissue applications, execute all necessary assignment papers to cause any Letters Patent arising therefrom in the United States of America to be issued to NCR Corporation, make all rightful oaths and generally to do everything possible to aid NCR Corporation, its successors and assigns, to obtain and enforce protection for the invention in the United States of America and in any other countries in the world.

FURTHER, it is hereby declared that the transaction hereby effected does not form part of a larger transaction or of a series of transactions in respect of which the amount or value or the aggregate amount or value, of the consideration exceeds £60,000 (Sterling).

SIGNED at Dundee this 9th day of December, 2013

Inventor's signature

Residence

Post Office Address

Full name of inventor Michael James Ngilan

Date: 9th December 2013

Date: 9th December 201 30 Neddertoun View, Liff, Dundee DD2 5RU, United Kingdom

Same as above

Signed at Dundee, this 11th day of December, 2013

Signature <u>Republication</u>

Name (print) Rory MacLeod

Title Head of International Patents

NCR Financial Solutions Group Limited

Signed at 2014 1984 this day of MARCIT, 2016

Name (print) Paul W Martin

Title Senior Attorney

COMBINED DECLARATION AND ASSIGNMENT

As a below named inventor I hereby declare that:

My residence and post office are as stated below next to my name.

O.

I believe that I am the original inventor or an original joint inventor of a claimed invention in the application entitled:

MEDIA REPLENISHMENT MANAGEMENT

and identified	1 by NCR Corporation Docket No. 13-4504, the specification of which:
a. 🔲 is at	ttached hereto
Inte	filed on <u>December 19, 2013</u> as United States Application Number or PCT rnational Application Number <u>14/134,201</u> and was amended on (if licable), which I have reviewed and for which I solicit a United States patent.
The above-id	entified application was made or authorized to be made by me.
	that I have reviewed and understand the contents of the above-identified including the claims, as amended by any amendment referred to above.
	f and do hereby acknowledge the duty to disclose all information, which is material ty of this application as defined in Title 37, Code of Federal Regulations, § 1.56.
I hereby ackn	nowledge that any willful false statement made in this declaration is punishable

ASSIGNMENT

WHEREAS, I, Edgar Rojas, have invented certain new and useful improvements as described in the above-identified patent application; and

under 18 U.S.C. 1001 by fine or imprisonment of not more than five (5) years, or both.

WHEREAS, NCR Corporation, a corporation of the State of Maryland, having its principal place of business in Duluth, Georgia, is desirous of acquiring the entire right, title and interest in and to said invention and in and to any Letters Patent that may be granted therefore in the United States and any and all foreign countries;

NOW, THEREFORE, be it known that in consideration of the sum of TEN DOLLARS (\$10.00) and of other valuable consideration, the receipt and sufficiency of which is hereby acknowledged, I do hereby sell, assign and transfer unto said NCR Corporation, its successors and assigns, the entire right, title and interest in and to the invention and improvements in any form or embodiment thereof, disclosed and claimed in said application, or which are disclosed

PATENT REEL: 037920 FRAME: 0493 and may be claimed; also the entire right, title and interest in and to any Letters Patent to be granted in the United States and its territorial possessions and in any and all foreign countries upon said invention in any form or upon any such improvements thereon, and in and to any and all divisions, reissues, continuations and extensions thereof; and I hereby authorize and request the Commissioner of Patents and Trademarks to issue any Letters Patent on said application to the said NCR Corporation, of Maryland, its successors and assigns.

Further, I agree that I will communicate to said NCR Corporation, or its representatives, any facts known to me respecting said invention, and testify in any legal proceeding, sign all lawful papers, execute all divisional, continuation, substitution, renewal and reissue applications, execute all necessary assignment papers to cause any and all of said Letters Patent to be issued to said NCR Corporation, make all rightful oaths and generally to do everything possible to aid said NCR Corporation, its successors and assigns, to obtain and enforce protection for said invention in the United States and in any and all foreign countries.

SIGNED at Weston, FL, this 21 day of March, 2014.
Full name of inventor Edgar Rojas.
Inventor's signature
Residence 2411 Deer Creek Rd., Weston, FL 33327
Post Office Address Same as above
man long

COMBINED DECLARATION AND ASSIGNMENT

As a below named inventor I hereby declare that:

My residence and post office are as stated below next to my name.

I believe that I am the original inventor or an original joint inventor of a claimed invention in the application entitled:

		MEDIA REPLENISHMENT MANAGEMENT
and	iden	tified by NCR Corporation Docket No. 13-4504, the specification of which:
a.		is attached hereto
b.	\boxtimes	was filed on <u>December 19, 2013</u> as United States Application Number or PCT International Application Number <u>14/134,201</u> and was amended on (if applicable), which I have reviewed and for which I solicit a United States patent.
The	abov	ve-identified application was made or authorized to be made by me.
		state that I have reviewed and understand the contents of the above-identified tion, including the claims, as amended by any amendment referred to above.
		are of and do hereby acknowledge the duty to disclose all information, which is material ability of this application as defined in Title 37, Code of Federal Regulations, § 1.56.
	~	acknowledge that any willful false statement made in this declaration is punishable U.S.C. 1001 by fine or imprisonment of not more than five (5) years, or both.
AS	SIGN	IMENT
des		VHEREAS, I, Timothy Brown , have invented certain new and useful improvements as d in the above-identified patent application; and
inte	icipal rest i	WHEREAS, NCR Corporation, a corporation of the State of Maryland, having its place of business in Duluth, Georgia, is desirous of acquiring the entire right, title and n and to said invention and in and to any Letters Patent that may be granted therefore in ed States and any and all foreign countries;

NOW, THEREFORE, be it known that in consideration of the sum of TEN DOLLARS (\$10.00) and of other valuable consideration, the receipt and sufficiency of which is hereby acknowledged, I do hereby sell, assign and transfer unto said NCR Corporation, its successors and assigns, the entire right, title and interest in and to the invention and improvements in any form or embodiment thereof, disclosed and claimed in said application, or which are disclosed

PATENT REEL: 037920 FRAME: 0495 and may be claimed; also the entire right, title and interest in and to any Letters Patent to be granted in the United States and its territorial possessions and in any and all foreign countries upon said invention in any form or upon any such improvements thereon, and in and to any and all divisions, reissues, continuations and extensions thereof; and I hereby authorize and request the Commissioner of Patents and Trademarks to issue any Letters Patent on said application to the said NCR Corporation, of Maryland, its successors and assigns.

Further, I agree that I will communicate to said NCR Corporation, or its representatives, any facts known to me respecting said invention, and testify in any legal proceeding, sign all lawful papers, execute all divisional, continuation, substitution, renewal and reissue applications, execute all necessary assignment papers to cause any and all of said Letters Patent to be issued to said NCR Corporation, make all rightful oaths and generally to do everything possible to aid said NCR Corporation, its successors and assigns, to obtain and enforce protection for said invention in the United States and in any and all foreign countries.

SIGNED at Huntersville, NC, this 25 day of March, 2014.

Full name of inventor <u>Timothy Keith brown</u>
Inventor's signature Timothy K. Brown
Residence 8728 Branchside LN Huntersville, NC 28078
Post Office Address Same as above