501784576 01/12/2012

PATENT ASSIGNMENT

Electronic Version v1.1 Stylesheet Version v1.1

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	Release

CONVEYING PARTY DATA

Name	Execution Date
Irish Bank Resolution Corporation Limited	01/05/2012

RECEIVING PARTY DATA

Name:	Escher Group Ltd.
Street Address:	12 Farnsworth Street
City:	Boston
State/Country:	MASSACHUSETTS
Postal Code:	02210

PROPERTY NUMBERS Total: 46

Property Type	Number
Application Number:	60130666
Application Number:	60128998
Application Number:	09545758
Application Number:	60139758
Application Number:	09665697
Application Number:	09921172
Application Number:	60236976
Application Number:	09865889
Application Number:	09966033
Application Number:	60268765
Application Number:	60317665
Application Number:	10236697
Application Number:	60327941
Application Number:	60371078
Application Number:	60373213
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PATENT

REEL: 027531 FRAME: 0075

Application Number:	10254171
Application Number:	60371077
Application Number:	10409959
Application Number:	60371073
Application Number:	60394914
Application Number:	60476045
Application Number:	11274966
Application Number:	60736110
Application Number:	11595301
Patent Number:	6349292
Patent Number:	6609117
Patent Number:	D401920
Patent Number:	7035428
Patent Number:	D450759
Patent Number:	7243103
Patent Number:	7069295
Patent Number:	7251347
PCT Number:	US9820980
PCT Number:	US0010535
PCT Number:	US0016099
PCT Number:	US0224178
PCT Number:	US0130433
PCT Number:	US1030443
PCT Number:	US0204349
PCT Number:	US0228350
PCT Number:	US0230703
PCT Number:	US0310800
PCT Number:	US0310839
PCT Number:	US0310846
PCT Number:	US0541258
Patent Number:	7627832

CORRESPONDENCE DATA

 Fax Number:
 (212)656-1342

 Phone:
 212-318-6493

Email: david.adams@thomsonreuters.com

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

Correspondent Name: Robin Riley

Address Line 1: 75 East 55th Street
Address Line 2: Paul Hastings LLP

Address Line 4: New York, NEW YORK 10022

NAME OF SUBMITTER: David Adams

Total Attachments: 15

source=Project Escher Patent Release Agmt with cover page fully-executed (2)#page1.tif source=Project Escher Patent Release Agmt with cover page fully-executed (2)#page3.tif source=Project Escher Patent Release Agmt with cover page fully-executed (2)#page3.tif source=Project Escher Patent Release Agmt with cover page fully-executed (2)#page4.tif source=Project Escher Patent Release Agmt with cover page fully-executed (2)#page5.tif source=Project Escher Patent Release Agmt with cover page fully-executed (2)#page6.tif source=Project Escher Patent Release Agmt with cover page fully-executed (2)#page7.tif source=Project Escher Patent Release Agmt with cover page fully-executed (2)#page8.tif source=Project Escher Patent Release Agmt with cover page fully-executed (2)#page9.tif source=Project Escher Patent Release Agmt with cover page fully-executed (2)#page10.tif source=Project Escher Patent Release Agmt with cover page fully-executed (2)#page11.tif source=Project Escher Patent Release Agmt with cover page fully-executed (2)#page11.tif source=Project Escher Patent Release Agmt with cover page fully-executed (2)#page13.tif source=Project Escher Patent Release Agmt with cover page fully-executed (2)#page13.tif source=Project Escher Patent Release Agmt with cover page fully-executed (2)#page13.tif source=Project Escher Patent Release Agmt with cover page fully-executed (2)#page15.tif

Form PTO-1595 (Rev. 12-08) OMB No. 0651-0027 (exp. 01/31/2009)

RECORDATION FORM COVER SHEET PATENTS ONLY		
To the Director of the U.S. Patent and Trademark Office: Please	e record the attached documents or the new address(es) below.	
1. Name of conveying party(ies)	2. Name and address of receiving party(ies)	
	Name: Escher Group, Ltd.	
Irish Bank Resolution Corporation Limited	Internal Address:	
Additional name(s) of conveying party(ies) attached? Yes X No		
3. Nature of conveyance/Execution Date(s):	Street Address: 12 Farnsworth Street	
Execution Date(s) January 5, 2012	,	
Assignment Merger		
Security Agreement Change of Name	City: Boston	
Joint Research Agreement	State: Massachusetts	
Government Interest Assignment	Country: USA Zip: 02210	
Executive Order 9424, Confirmatory License	21p. 02210	
Other RELEASE	Additional name(s) & address(es) attached? 🗌 Yes 🔀 No	
4. Application or patent number(s): A. Patent Application No.(s)	document is being filed together with a new application. B. Patent No.(s)	
See attached Schedule I.	See attached Schedule I.	
Additional numbers att	ached? XYes No	
5. Name and address to whom correspondence concerning document should be mailed:	6. Total number of applications and patents involved: 32	
Name: _Robin Riley, Legal Assistant	7. Total fee (37 CFR 1.21(h) & 3.41) \$	
Internal Address: Paul Hastings LLP	7. Total lee (57 CFR 1.21(II) & 5.41) \$	
memor Addition Tability EL	Authorized to be charged to deposit account	
Street Address: 75 East 55th Street	Enclosed	
Officet Address. 73 Last 35th Street	None required (government interest not affecting title)	
City: NEW YORK	8. Payment Information	
State: NY Zip: 10022		
Phone Number: <u>212-318-6493</u>	Danacit Assault Number	
Fax Number: 212-319-4090	Deposit Account Number	
Email Address: robinriley@paulhastings.com	Authorized User Name	
9. Signature: 18 08	00) January 9, 2012	
Signature	Date	
Robin Riley Name of Person Signing	Total number of pages including cover sheet, attachments, and documents:	

Documents to be recorded (including cover sheet) should be faxed to (571) 273-0140, or mailed to:
Mail Stop Assignment Recordation Services, Director of the USPTO, P.O.Box 1450, Alexandria, V.A. 22313-1450

PATENT RELEASE

THIS PATENT RELEASE (this "Release"), made as of January 5, 2012 by IRISH BANK RESOLUTION CORPORATION LIMITED (f/k/a Anglo Irish Bank Corporation Limited, f/k/a Anglo Irish Bank Corporation PLC) ("Secured Party").

$\underline{W} \underline{I} \underline{T} \underline{N} \underline{E} \underline{S} \underline{S} \underline{E} \underline{T} \underline{H}$:

WHEREAS, pursuant to (i) that certain Patent Security Agreement dated as of September 17, 2007 (as amended, restated, supplemented, or otherwise modified from time to time, including all schedules thereto, the "Security Agreement") and (ii) that certain Patent Security Agreement Supplement dated as of August 9, 2011, NG NewCo, Ltd. (n/k/a Escher Group Holdings Public Limited Company) ("NG NewCo") and Escher Group, Ltd. (together with NG NewCo, the "Grantors"), have granted to Secured Party a security interest in the Grantors' right, title, and interest in certain patents including those set forth in Schedule 1 (the "Patents");

WHEREAS, the Security Agreement was recorded in the Assignment Branch of the United States Patent and Trademark Office at Reel: 019843, Frame: 0867 on September 19, 2007; and

WHEREAS, at the request of the Grantors, Secured Party has agreed to release its security interest in the Patents.

NOW, THEREFORE, for good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, Secured Party hereby terminates, releases and discharges its security interest in the Patent Collateral (as such term is defined in the Security Agreement), including, without limitation, the Patents, and re-assigns and releases to the Grantors all right, title and interest that Secured Party has in and to the Patent Collateral, including, without limitation, the Patents. The release set forth above is without recourse, representation, warranty (express or implied) or undertaking by Secured Party to the Grantors.

This Release shall be governed by and construed in accordance with the laws of the State of New York without regard to conflicts of law principles.

[SIGNATURE PAGE FOLLOWS]

LEGAL_US_E # 95761229.4

IN WITNESS WHEREOF, Secured Party has caused this Release to be duly executed by its duly authorized officer as of the day and year first above written.

PRESENT when the Common Seal of IRISH BANK RESOLUTION CORPORATION LIMITED

was affixed to this Release and this Release was delivered:

18 / 21 St. Stephen's Green, Dublin 2.

Authorised Signatory

Authorised Signatory

ACO OF MAN

I have examined this document and hereby certify that it is in order for the common seed of IRISH BANK RESOLUTION CORPORATION LIMITED to be officed bereto Signed Solkitors

OF NOTE OF 12 ACREAN SOlkitors

Date: UF, 12 A

[Signature Page to Patent Release]

SCHEDULE 1

Patents

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103140 - 0001		HOD FOR DISTRIBU		
U.S. Utility		ETWORK, ENABLIN		
	i :	FAL INDICIA ON ITE		
		ATING THE PRINTING	********	
Barrers and the second	w V. Sutherland, Micha	ael Richard Klugerman	, and Frank Dippolito	
Serial No.:	Filing Date:	Patent No.:	Issue Date:	
09/167,393	October 6, 1998	6,349,292 B1	February 19, 2002	

103140 - 0001AU	SYSTEM AND MET	HOD FOR DISTRIBU	ITING POSTAGE	
Australia	1	ETWORK, ENABLIN		
		TAL INDICIA ON ITE		
		TING THE PRINTING		
Inventors: Andre	w V. Sutherland, Frank			
Serial No.:		Patent No.:	Issue Date:	
96023/98	October 6, 1998		February 14, 2002	
L		1,020,	12000000 17, 2002	
103140 - 0001C1	CACCENA AND MEE	HOD FOR DISTRIBU		
8	1			
U.S. Continuation		ETWORK, ENABLING		
	PRINTING OF POSTAL INDICIA ON ITEMS TO BE MAILED			
	AND AUTHENTICATING THE PRINTING INDICIA Inventors: Andrew V. Sutherland, Michael R. Klugerman, and Frank M. D'Ippolito			
Serial No.:	Filing Date:	Patent No.:	Issue Date:	
10/023,084	December 17, 2001	6,609,117	August 19, 2003	
103140 - 0001EP	SYSTEM AND MET	HOD FOR DISTRIBU	TING, PRINTING	
Europe	AND AUTHENTICATION OF POSTAGE INDICIA OVER A			
	NETWORK			
Inventors: Andres	w V. Sutherland, Frank	M. D'Ippolito, and Mic	chael R. Klugerman	
Serial No.:	Filing Date:	Patent No.:	Issue Date:	
98949773.0	October 6, 1998			
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103140 - 0001HK	SYSTEM AND MET	HOD FOR DISTRIBU	TING PRINTING	
Hong Kong		TION OF POSTAGE		
1,015 11015	NETWORK	(1.101. Or 1.0.5111(315)	or promise vertex	
	India, in Order			
Inventors: Andrey	w Sutherland, Frank D'l	ppolito and Michael K	lucerman	
Serial No.:		Patent No.:	Issue Date:	
00108127.9	October 6, 1998	z geome (toy)	zoouc Date.	
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LEGAL_US_E # 95761229.4.

103140 - 0001PCT	EVSTEM AND MET	HOD FOR DISTRIBE	TING POSTAGE	
103140 - 0001LC1	SYSTEM AND METHOD FOR DISTRIBUTING POSTAGE OVER A PUBLIC NETWORK ENABLING EFFICIENT			
	PRINTING OF POSTAL INDICIA ON ITEMS TO BE MAILED			
	AND AUTHENTICATING THE INDICIA			
T	<u> </u>		A comment	
	w Sutherland, Frank D'	· • · · · · · · · · · · · · · · · · · ·		
Serial No.:	Filing Date:	Patent No.:	Issue Date:	
PCT/US98/20980	6 October 1998			
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103140 - 0001SG		HOD FOR DISTRIBU		
Singapore	OVER A PUBLIC N	ETWORK ENABLING	FEFFICIENT	
	PRINTING OF POST	AL INDICIA ON ITE	MS TO BE MAILED	
	AND AUTHENTICA	TING THE INDICIA		
Inventors: Andre	w V. Sutherland, Frank	M. D'Ippolito, and Mic	chael R. Klugerman	
Serial No.:	Filing Date:	Patent No.:	Issue Date:	
2000-01693-1	October 6, 1998	72143	June 14, 2002	
	***************************************	***************************************	***************************************	
103140 - 0002	AUTHENTICATION	I TECHNIQUES USIN	G PHYSICAL	
U.S. Provisional	3	PRIMITIVE AND CRP		
0.0.110710101141	SECURITY	**************************************	10014110	
Inventor: Joshua				
	Filing Date:	Patent No.:	Issue Date:	
60/130,666	04/23/99	I divin 110	IBSUC Date.	
00/1303000	1 0-11-22/22	<u> </u>	demonstration of the second	
103140 - 0003	COMMITTED HOUD	INTERFACE DEVICE	AND METHOD	
U.S. Provisional	COME UTEN USEN I	INTERFACE DEVICE	AND METHOD	
	D. Carleb and Mack De	a Calman		
	R. Smith and Noah Be			
	,	Patent No.:	Issue Date:	
60/128,998	April 12, 1999	<u> </u>	L	
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103140 - 0004	COMPUTER VIDEO	DISPLAY TERMINA	L SCREEN	
U.S. Design	DISPLAY INCLUDING NEW WALLPAPER DESIGN AND			
	ICON/PUSHBUTTON DESIGNS			
Inventors: Andre	w Sutherland and Micha	ael Murphy		
Serial No.:	Filing Date:	Patent No.:	Issue Date:	
29/045,255	October 13, 1995	D401,920	December 1, 1998	
		***************************************	Arananananananananananananananananananan	
103140 - 0005	AUTHENTICATION	BASED UPON ONE	OR MORE	
U.S. Utility	AUTHENTICATION BASED UPON ONE OR MORE WORKPIECE IMAGES			
	R. Smith	AJAJ		
Serial No.:	Filing Date:	Patent No.:	Issue Date:	
09/719,430	December 12, 2000	7,035,428	April 25, 2006	
	LERCCOURDEC LZ. ZUUU -	1 7.0000.44Z0	EZDIN 4D. ZWU I	

103140 - 0005EP	WORKPIECE ALITE	IENTICATION BA	SED UPON ONE OR
Europe	MORE WORKPIEC		DESIGNATION OF THE OR
Inventor: Joshu		***************************************	***************************************
Serial No.:	Filing Date:	Patent No.:	Issue Date:
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103140 - 0005IN	AUTHENTICATION	T D A CETY THEY A CO	VII. (33) V (7.2) 2.
§	WORKPIECE IMAC		NE OR MORE
India		300	
Inventor: Joshu		10-1-108-	1 x 22 /
Serial No.:	Filing Date:	Patent No.:	Issue Date:
IN/PCT/2001,	October 19, 2001		
00961/DEL			
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103140 - 0005PCT	I control of the cont		SED UPON ONE OR
	MORE WORKPIEC	E IMAGES	***************************************
Inventor: Joshu		-	***************************************
Serial No.:	Filing Date:	Patent No.:	Issue Date:
PCT/US00/10535	April 19, 2000		
103140 - 0006	COMPUTER USER	INTERFACE	
U.S. Utility			
Inventors: Joshua	R. Smith and Noah Bo	en Salzman	***************************************
Serial No.:	Filing Date:	Patent No.:	Issue Date:
09/545,758	April 10, 2000		
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103140 - 0007	INFORMATION HII	DING	······································
U.S. Provisional	24 11 10 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	- XX 1 - C	
	R. Smith and Christop	her N. Dodge	
Serial No.:	~	Patent No.:	Issue Date:
60/139,758	June 15, 1999	1 1100120 1 10011	15540 2540.
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103140 - 0007AU	DATA ENCODING	AND DECORNIC	
Australia	DATA ENCODING	AND DECODING	
	D. Cuelth and Clariston	San M. Evalue	
	R. Smith and Christop	······································	11
Serial No.:	Filing Date:	Patent No.:	Issue Date:
54824/00	June 13, 2002	<u> </u>	
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103140 - 0007EP	DATA ENCODING	AND DECODING	
Europe	<u> </u>		
Inventors: Joshua	R. Smith and Christop	~ 	
Serial No.:	Filing Date:	Patent No.:	Issue Date:
00 939 795.1-2218	June 13, 2000		

103140 - 0007PCT	DATA ENCODING	AND DECODING	
105140 - 00071 61	DATA ENCODING	AND DECOMING	
Inventors: Joshua	a R. Smith		
Serial No.:	Filing Date:	Patent No.:	Issue Date:
PCT/US00/16099	June 13, 2000		
103140 - 0007SG	DATA ENCODING	AND DECODING	
Singapore		************************************	
	R. Smith and Christop		
Serial No.:	, ,	Patent No.:	Issue Date:
2001-07738-7	December 13, 2001		
103140 -	DATA ENCODING	AND DECODING	
0007SGD1			
Singapore -			
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	R. Smith		***
Serial No.:	0	Patent No.:	Issue Date:
2002-04350-3	June 13, 2000		
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103140 - 0007U	DATA ENCODING	AND DECODING	
U.S. Utility			
	R. Smith	y	
Serial No.:	Filing Date:	Patent No.:	Issue Date:
10/018,416	December 14, 2001		
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103140 - 0008	A Company of the Comp	METHOD FOR OBTA	
U.S. Utility	A	LATED TO AN OBJE	CT
	R. Smith and Noah Be		
Serial No.:	Filing Date:	Patent No.:	Issue Date:
09/665,697	September 20, 2000		
***************************************	.	***************************************	
103140 - 0009	POSTAL INDICIA F	OR AN ENVELOPE	
U.S. Design			
	rosby, Michael J. Murp	ohy, Joshua R. Smith, a	nd Andrew
Suther	~	r- <u>i</u>	·
Serial No.:	Filing Date:	Patent No.:	Issue Date:
29/111,375	September 24, 1999	D450,759	November 20, 2001

Sutherland, II, and Michael R. Klugerman Serial No.: Filing Date: Patent No.: Issue Date: PCT/US01/30443 28 September 2001 103140 - 0012U METHOD AND APPARATUS FOR LINKING DATA AND OBJECTS Inventors: Joshua R. Smith, Paul Michael Yarin, Michael J. Murphy, and Andrew Victor Sutherland, II				
Inventors: Eric Metois and Joshua R. Smith Serial No.: Filing Date: August 2, 2001 Patent No.: Issue Date:	103140 - 0010	DATA ENCODING	AND DECODING US	ING ANGULAR
Serial No.:	U.S. Utility			
103140 - 0010PCT	Inventors: Eric M	letois and Joshua R. Sn	nith	***************************************
Inventors:	Serial No.:	Filing Date:	Patent No.:	Issue Date:
SYMBOLOGY	09/921,172	August 2, 2001		
SYMBOLOGY				
Inventors:	103140 - 0010PCT	DATA ENCODING	AND DECODING US	ING ANGULAR
Serial No.: PCT/US02/24178				
Serial No.: PCT/US02/24178	Inventors: Eric N	letois and Joshua R. Sn	nith	
103140 - 0012 U.S. Provisional Inventors: Joshua R. Smith, Paul Michael Yarin, Michael J. Murphy, Andrew Victor Sutherland, II, and Michael Richard Klugerman Serial No.: 60/236,976 Filing Date: 60/236,976 September 29, 2000 103140 - 0012PCT1 METHOD AND APPARATUS FOR LINKING DATA AND OBJECTS Inventors: Joshua R. Smith, Paul Michael Yarin, Michael J. Murphy, Andrew V. Sutherland, II, and Michael R. Klugerman Serial No.: PCT/US01/30433 PERSONAL MAIL PIECE TRACING AND TRACKING MECHANISM Inventors: Joshua R. Smith, Paul M. Yarin, Michael J. Murphy, Andrew V. Sutherland, II, and Michael R. Klugerman Serial No.: PCT/US01/30433 PERSONAL MAIL PIECE TRACING AND TRACKING MECHANISM Inventors: Joshua R. Smith, Paul M. Yarin, Michael J. Murphy, Andrew V. Sutherland, II, and Michael R. Klugerman Serial No.: PCT/US01/30443 Patent No.: Issue Date:				Issue Date:
U.S. Provisional OBJECT Inventors: Joshua R. Smith, Paul Michael Yarin, Michael J. Murphy, Andrew Victor Sutherland, II, and Michael Richard Klugerman Serial No.: Filing Date: Patent No.: Issue Date: 103140 - 0012PCT1 METHOD AND APPARATUS FOR LINKING DATA AND OBJECTS Inventors: Joshua R. Smith, Paul Michael Yarin, Michael J. Murphy, Andrew V. Sutherland, II, and Michael R. Klugerman Serial No.: Filing Date: Patent No.: Issue Date: PCT/US01/30433 28 September 2001 Inventors: Joshua R. Smith, Paul M. PIECE TRACING AND TRACKING MECHANISM Inventors: Joshua R. Smith, Paul M. Yarin, Michael J. Murphy, Andrew V. Sutherland, II, and Michael R. Klugerman Serial No.: Filing Date: Patent No.: Issue Date: PCT/US01/30443 28 September 2001 Inventors: Joshua R. Smith, Paul M. Yarin, Michael J. Murphy, Andrew V. Sutherland, II, and Michael R. Klugerman Serial No.: Filing Date: Patent No.: Issue Date: Inventors: Joshua R. Smith, Paul Michael Yarin, Michael J. Murphy, and Andrew V. Sutherland, II Inventors: Joshua R. Smith, Paul Michael Yarin, Michael J. Murphy, and Andrew Victor Sutherland, II Serial No.: Filing Date: Patent No.: Issue Date:	PCT/US02/24178	31 July 2002		
U.S. Provisional OBJECT Inventors: Joshua R. Smith, Paul Michael Yarin, Michael J. Murphy, Andrew Victor Sutherland, II, and Michael Richard Klugerman Serial No.: Filing Date: Patent No.: Issue Date: 103140 - 0012PCT1 METHOD AND APPARATUS FOR LINKING DATA AND OBJECTS Inventors: Joshua R. Smith, Paul Michael Yarin, Michael J. Murphy, Andrew V. Sutherland, II, and Michael R. Klugerman Serial No.: Filing Date: Patent No.: Issue Date: PCT/US01/30433 28 September 2001 Inventors: Joshua R. Smith, Paul M. PIECE TRACING AND TRACKING MECHANISM Inventors: Joshua R. Smith, Paul M. Yarin, Michael J. Murphy, Andrew V. Sutherland, II, and Michael R. Klugerman Serial No.: Filing Date: Patent No.: Issue Date: PCT/US01/30443 28 September 2001 Inventors: Joshua R. Smith, Paul M. Yarin, Michael J. Murphy, Andrew V. Sutherland, II, and Michael R. Klugerman Serial No.: Filing Date: Patent No.: Issue Date: Inventors: Joshua R. Smith, Paul Michael Yarin, Michael J. Murphy, and Andrew V. Sutherland, II Inventors: Joshua R. Smith, Paul Michael Yarin, Michael J. Murphy, and Andrew Victor Sutherland, II Serial No.: Filing Date: Patent No.: Issue Date:				***************************************
Inventors: Joshua R. Smith, Paul Michael Yarin, Michael J. Murphy, Andrew Victor Sutherland, II, and Michael Richard Klugerman Serial No.: Filing Date: Patent No.: Issue Date: 60/236,976 September 29, 2000 103140 - 0012PCT1 METHOD AND APPARATUS FOR LINKING DATA AND OBJECTS Inventors: Joshua R. Smith, Paul Michael Yarin, Michael J. Murphy, Andrew V. Sutherland, II, and Michael R. Klugerman Serial No.: Filing Date: Patent No.: Issue Date: PCT/US01/30433 28 September 2001 103140 - 0012PCT2 PERSONAL MAIL PIECE TRACING AND TRACKING MECHANISM Inventors: Joshua R. Smith, Paul M. Yarin, Michael J. Murphy, Andrew V. Sutherland, II, and Michael R. Klugerman Serial No.: Filing Date: Patent No.: Issue Date: PCT/US01/30443 28 September 2001 103140 - 0012U METHOD AND APPARATUS FOR LINKING DATA AND OBJECTS Inventors: Joshua R. Smith, Paul Michael Yarin, Michael J. Murphy, and Andrew Victor Sutherland, II Serial No.: Filing Date: Patent No.: Issue Date:	103140 - 0012	ASSOCIATING ELE	CTRONIC DATA WI	TH PHYSICAL
Sutherland, II, and Michael Richard Klugerman Serial No.: 60/236,976	U.S. Provisional	OBJECT		
Serial No.: 60/236,976 Filing Date: September 29, 2000 Patent No.: Issue Date: 60/236,976 September 29, 2000 103140 - 0012PCT1 METHOD AND APPARATUS FOR LINKING DATA AND OBJECTS Inventors: Joshua R. Smith, Paul Michael Yarin, Michael J. Murphy, Andrew V. Sutherland, II, and Michael R. Klugerman Serial No.: Filing Date: Patent No.: Issue Date: PCT/US01/30433 28 September 2001 Patent No.: Issue Date: 103140 - 0012PCT2 PERSONAL MAIL PIECE TRACING AND TRACKING MECHANISM Inventors: Joshua R. Smith, Paul M. Yarin, Michael J. Murphy, Andrew V. Sutherland, II, and Michael R. Klugerman Serial No.: Filing Date: Patent No.: Issue Date: PCT/US01/30443 28 September 2001 Patent No.: Issue Date: 103140 - 0012U METHOD AND APPARATUS FOR LINKING DATA AND OBJECTS Inventors: Joshua R. Smith, Paul Michael Yarin, Michael J. Murphy, and Andrew Victor Sutherland, II Serial No.: Filing Date: Patent No.: Issue Date:				urphy, Andrew Victor
103140 - 0012PCT1 METHOD AND APPARATUS FOR LINKING DATA AND OBJECTS Inventors: Joshua R. Smith, Paul Michael Yarin, Michael J. Murphy, Andrew V. Sutherland, II, and Michael R. Klugerman Serial No.: Filing Date: Patent No.: Issue Date: PCT/US01/30433 28 September 2001 Patent No.: Issue Date: 103140 - 0012PCT2 PERSONAL MAIL PIECE TRACING AND TRACKING MECHANISM Inventors: Joshua R. Smith, Paul M. Yarin, Michael J. Murphy, Andrew V. Sutherland, II, and Michael R. Klugerman Serial No.: Filing Date: Patent No.: Issue Date: PCT/US01/30443 28 September 2001 Patent No.: Issue Date: PCT/US01/30443 28 September 2001 Patent No.: Issue Date: PCT/US01/30443 September 2001 Patent No.: Issue Date: PCT/US01/30443 September 2001 Patent No.: Issue Date: PCT/US01/30443 Patent No.: Issue Date:	Suther	land, II, and Michael R		****
103140 - 0012PCT1 METHOD AND APPARATUS FOR LINKING DATA AND OBJECTS Inventors: Joshua R. Smith, Paul Michael Yarin, Michael J. Murphy, Andrew V. Sutherland, II, and Michael R. Klugerman Serial No.: Filing Date: Patent No.: Issue Date: PCT/US01/30433 Patent No.: Patent No.: Issue Date: PCT/US01/30443 PECE TRACING AND TRACKING MECHANISM Inventors: Joshua R. Smith, Paul M. Yarin, Michael J. Murphy, Andrew V. Sutherland, II, and Michael R. Klugerman Serial No.: Filing Date: Patent No.: Issue Date: PCT/US01/30443 Patent No.: Issue Date: 103140 - 0012U METHOD AND APPARATUS FOR LINKING DATA AND U.S. Utility OBJECTS Inventors: Joshua R. Smith, Paul Michael Yarin, Michael J. Murphy, and Andrew Victor Sutherland, II Serial No.: Filing Date: Patent No.: Issue Date:	Serial No.:	Filing Date:	Patent No.:	Issue Date:
Inventors: Joshua R. Smith, Paul Michael Yarin, Michael J. Murphy, Andrew V. Sutherland, II, and Michael R. Klugerman Serial No.: Filing Date: Patent No.: Issue Date: PCT/US01/30433 28 September 2001 103140 - 0012PCT2 PERSONAL MAIL PIECE TRACING AND TRACKING MECHANISM Inventors: Joshua R. Smith, Paul M. Yarin, Michael J. Murphy, Andrew V. Sutherland, II, and Michael R. Klugerman Serial No.: Filing Date: Patent No.: Issue Date: PCT/US01/30443 28 September 2001 103140 - 0012U METHOD AND APPARATUS FOR LINKING DATA AND OBJECTS Inventors: Joshua R. Smith, Paul Michael Yarin, Michael J. Murphy, and Andrew Victor Sutherland, II Serial No.: Filing Date: Patent No.: Issue Date:	60/236,976	September 29, 2000		
Inventors: Joshua R. Smith, Paul Michael Yarin, Michael J. Murphy, Andrew V. Sutherland, II, and Michael R. Klugerman Serial No.: Filing Date: Patent No.: Issue Date: PCT/US01/30433 28 September 2001 103140 - 0012PCT2 PERSONAL MAIL PIECE TRACING AND TRACKING MECHANISM Inventors: Joshua R. Smith, Paul M. Yarin, Michael J. Murphy, Andrew V. Sutherland, II, and Michael R. Klugerman Serial No.: Filing Date: Patent No.: Issue Date: PCT/US01/30443 28 September 2001 103140 - 0012U METHOD AND APPARATUS FOR LINKING DATA AND OBJECTS Inventors: Joshua R. Smith, Paul Michael Yarin, Michael J. Murphy, and Andrew Victor Sutherland, II Serial No.: Filing Date: Patent No.: Issue Date:				
Scrial No.: PCT/US01/30433 PERSONAL MAIL PIECE TRACING AND TRACKING MECHANISM Inventors: Joshua R. Smith, Paul M. Yarin, Michael J. Murphy, Andrew V. Sutherland, II, and Michael R. Klugerman Serial No.: PCT/US01/30443 Piling Date: PCT/US01/30443 Patent No.: Issue Date:	103140 - 0012PCT1		ARATUS FOR LINK	ING DATA AND
Scrial No.: PCT/US01/30433 PERSONAL MAIL PIECE TRACING AND TRACKING MECHANISM Inventors: Joshua R. Smith, Paul M. Yarin, Michael J. Murphy, Andrew V. Sutherland, II, and Michael R. Klugerman Serial No.: PCT/US01/30443 Piling Date: PCT/US01/30443 Patent No.: Issue Date:	Inventors: Joshua	R. Smith, Paul Michae	l Yarin, Michael J. Mi	urphy, Andrew V.
PCT/US01/30433 28 September 2001 103140 - 0012PCT2 PERSONAL MAIL PIECE TRACING AND TRACKING MECHANISM Inventors: Joshua R. Smith, Paul M. Yarin, Michael J. Murphy, Andrew V. Sutherland, II, and Michael R. Klugerman Serial No.: Filing Date: Patent No.: Issue Date: PCT/US01/30443 28 September 2001 103140 - 0012U METHOD AND APPARATUS FOR LINKING DATA AND OBJECTS Inventors: Joshua R. Smith, Paul Michael Yarin, Michael J. Murphy, and Andrew Victor Sutherland, II Serial No.: Filing Date: Patent No.: Issue Date:				
103140 - 0012PCT2 PERSONAL MAIL PIECE TRACING AND TRACKING MECHANISM Inventors: Joshua R. Smith, Paul M. Yarin, Michael J. Murphy, Andrew V. Sutherland, II, and Michael R. Klugerman Serial No.: Filing Date: Patent No.: Issue Date: PCT/US01/30443 Patenber 2001 103140 - 0012U METHOD AND APPARATUS FOR LINKING DATA AND OBJECTS Inventors: Joshua R. Smith, Paul Michael Yarin, Michael J. Murphy, and Andrew Victor Sutherland, II Serial No.: Filing Date: Patent No.: Issue Date:	Serial No.:	Filing Date:	Patent No.:	Issue Date:
Inventors: Joshua R. Smith, Paul M. Yarin, Michael J. Murphy, Andrew V. Sutherland, II, and Michael R. Klugerman Serial No.: Filing Date: Patent No.: Issue Date: PCT/US01/30443	PCT/US01/30433	28 September 2001		
Inventors: Joshua R. Smith, Paul M. Yarin, Michael J. Murphy, Andrew V. Sutherland, II, and Michael R. Klugerman Serial No.: Filing Date: Patent No.: Issue Date: PCT/US01/30443				***************************************
Inventors: Joshua R. Smith, Paul M. Yarin, Michael J. Murphy, Andrew V. Sutherland, II, and Michael R. Klugerman Serial No.: Filing Date: Patent No.: Issue Date: PCT/US01/30443 103140 - 0012U METHOD AND APPARATUS FOR LINKING DATA AND OBJECTS Inventors: Joshua R. Smith, Paul Michael Yarin, Michael J. Murphy, and Andrew Victor Sutherland, II Serial No.: Filing Date: Patent No.: Issue Date:	103140 - 0012PCT2	PERSONAL MAIL P	IECE TRACING ANI	TRACKING
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Serial No.: Filing Date: Patent No.: Issue Date: PCT/US01/30443 PARATUS FOR LINKING DATA AND 103140 - 0012U METHOD AND APPARATUS FOR LINKING DATA AND U.S. Utility OBJECTS Inventors: Joshua R. Smith, Paul Michael Yarin, Michael J. Murphy, and Andrew Victor Sutherland, II Serial No.: Filing Date: Patent No.: Issue Date:	Inventors: Joshua	R. Smith, Paul M. Yar	in, Michael J. Murphy.	, Andrew V.
PCT/US01/30443 28 September 2001 103140 - 0012U METHOD AND APPARATUS FOR LINKING DATA AND OBJECTS Inventors: Joshua R. Smith, Paul Michael Yarin, Michael J. Murphy, and Andrew Victor Sutherland, II Serial No.: Filing Date: Patent No.: Issue Date:	Suther	land, II, and Michael R	. Klugerman	
103140 - 0012U METHOD AND APPARATUS FOR LINKING DATA AND U.S. Utility OBJECTS Inventors: Joshua R. Smith, Paul Michael Yarin, Michael J. Murphy, and Andrew Victor Sutherland, II Serial No.: Filing Date: Patent No.: Issue Date:	Serial No.:	Filing Date:	Patent No.:	Issue Date:
U.S. Utility OBJECTS Inventors: Joshua R. Smith, Paul Michael Yarin, Michael J. Murphy, and Andrew Victor Sutherland, II Serial No.: Filing Date: Patent No.: Issue Date:	PCT/US01/30443	28 September 2001		
U.S. Utility OBJECTS Inventors: Joshua R. Smith, Paul Michael Yarin, Michael J. Murphy, and Andrew Victor Sutherland, II Serial No.: Filing Date: Patent No.: Issue Date:				
Inventors: Joshua R. Smith, Paul Michael Yarin, Michael J. Murphy, and Andrew Victor Sutherland, II Serial No.: Filing Date: Patent No.: Issue Date:	103140 - 0012U	METHOD AND APP	ARATUS FOR LINK	NG DATA AND
Victor Sutherland, II Serial No.: Filing Date: Patent No.: Issue Date:	U.S. Utility	OBJECTS		
Serial No.: Filing Date: Patent No.: Issue Date:			l Yarin, Michael J. Mu	rphy, and Andrew
	Victor	Sutherland, II		· ·
09/865,889 May 25, 2001	Serial No.:		Patent No.:	Issue Date:
	09/865,889	May 25, 2001		

103140 - 0012U1		GE TRACING AND T	FRACKING	
U.S. Utility	MECHANISM			
2	a R. Smith, Paul Michae rland, II, and Eric Meto		rphy, Andrew Victor	
Serial No.:	Filing Date:	Patent No.:	Issue Date:	
09/966,033	September 28, 2001			
103140 - 0012EPI	PERSONAL MAIL F	PIECE TRACING AND	TRACKING	
Europe	MECHANISM			
	a R. Smith, Paul M. Yar land, II	rîn, Michael J. Murphy,	and Andrew V.	
Serial No.:	Filing Date:	Patent No.:	Issue Date:	
01973611	September 28, 2003			
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103140 - 0012EP2	PERSONAL MAIL F	PIECE TRACING AND	TRACKING	
Europe	MECHANISM			
	R. Smith, Paul M. Ya	in, Michael J. Murphy,	and Andrew V.	
	land,II			
Serial No.:	Filing Date:	Patent No.:	Issue Date:	
01973613.1	September 28, 2001			
103140 - 0014P1	PEER TO PEER EN	TERPRISE STORAGE	SYSTEM WITH	
U.S. Continuation-	LEXICAL RECOVE	LEXICAL RECOVERY SUB-SYSTEM		
in-Part				
Inventors: Micha	el J. Murphy, Donal O'	Neill, and Eli Zukovsky	<u> </u>	
Serial No.:	Filing Date:	Patent No.:	Issue Date:	
10/217,021	August 12, 2002	7,243,103	July 10, 2007	
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103140 - 0014PCT	PEER-TO-PEER EN	TERPRISE STORAGE	! }	
	w Sutherland, Michael kovsky	Klugerman, Don O'Nei	ll, Alex Ludman, and	
Serial No.:	Filing Date:	Patent No.:	Issue Date:	
PCT/US02/04349	14 February 2002			

103140 - 0014R	PEER-TO-PEER EN	TERPRISE STORAGE	·	
100140° 00141				
U.S. Provisional			II, Alex Ludman, and	
U.S. Provisional Inventors: Andre	w Sutherland, Michael		ll, Alex Ludman, and	
U.S. Provisional Inventors: Andre			II, Alex Ludman, and Issue Date:	

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103140 - 0014U	PEER-TO-PEER ENTERPRISE STORAGE			
U.S. Utility				
	w Sutherland, Michael	Richard Klugerman, D	on O'Neill, Sandor	
Ludma	an, and Eli Zukovsky			
Serial No.:	Filing Date:	Patent No.:	Issue Date:	
10/075,710	February 14, 2002	7,069,295	June 27, 2006	
103140 - 0015PCT	PCT Patent Application No. PCT/US02/28350			
	For SYSTEM AND METHOD FOR AUTHENTICATION AND			
	TRACKING OF A W	ORKPIECE THAT IN	ICLUDES AN	
	OPTICALLY ACTIV			
Inventor: Joshua	R. Smith		***************************************	
Serial No.:	Filing Date:	Patent No.:	Issue Date:	
PCT/US02/28350	6 September 2002		Abbut Day	
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103140 - 0015R	Leverdra and and	THAT SAYS AT TELENT	PICATION AND	
U.S. Provisional	SYSTEM AND METHOD FOR AUTHENTICATION AND TRACKING OF A WORKPIECE THAT INCLUDES AN			
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Invanton Yachue	OPTICALLY VARIA R. Smith	ADEAS IVALSIDI OTAL	****	
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Serial No.:	Filing Date:	Patent No.:	Issue Date:	
60/317,665	September 6, 2001	<u></u>		
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103140 - 0015U	<i>Y</i>	HOD FOR AUTHENT		
U.S. Utility	1	ORKPIECE THAT IN	ICLUDES AN	
		OPTICALLY ACTIVE MEDIUM		
Inventors: Joshua R. Smith, Eric Metois, and Michael J. Murphy				
Serial No.:	Filing Date:	Patent No.:	Issue Date:	
10/236,697	September 6, 2002			
103140 - 0016PCT		BINING POSTAGE, N		
	INFORMATION AND PAYMENT SERVICES			
Inventors: Micha	el J. Murphy, Joshua R.	. Smith, and Paul M. Y	arin	
Serial No.:	Filing Date:	Patent No.:	Issue Date:	
PCT/US02/30703	27 September 2002			
	in and the second se		da	
103140 - 0016R	SYSTEM FOR COMBINING POSTAGE, MAILING ADDRESS			
U.S. Provisional	INFORMATION, AND PAYMENT SERVICES			
Inventors: Michael J. Murphy, Joshua R. Smith, and Paul Yarin				
Serial No.:	Filing Date:	Patent No.:	Issue Date:	
60/327,941	October 9, 2001	a atom ino.	LOSGO LAGIO.	
09.527,271	1, 2000001 2, 2001	<u> </u>	<u> </u>	

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103140 - 0016U	2	BINING POSTAGE, N		
U.S. Utility	INFORMATION, AND PAYMENT SERVICES			
	el J. Murphy, Joshua R			
Serial No.:	Filing Date:	Patent No.:	Issue Date:	
103140 - 0017R	DATA ENCODING AND WORKPIECE AUTHENTICATION			
U.S. Provisional	USING HALFTONING			
Inventors: Eric M	fetois, Joshua R. Smith	, and Paul Yarin	**************************************	
Serial No.:	Filing Date:	Patent No.:	Issue Date:	
60/371,078	April 9, 2002			
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103140 - 0017R2 DATA ENCODING AND WORKPIECE AUTHENTICATION				
U.S. Provisional	USING HALFTONING			
Inventors: Eric Metois, Joshua R. Smith, and Paul Michael Yarin				
Serial No.:	Filing Date:	Patent No.:	Issue Date:	
60/373,213	April 17, 2002			
			A	
103140 - 0017U	103140 - 0017U DATA ENCODING AND WORKPIECE AUTHENTICATION			
U.S. Utility	USING HALFTONE INFORMATION			
	letois, Joshua R. Smith		***************************************	
Serial No.:	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	Patent No.:	Issue Date:	
10/254,171	1 0	2 337		
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103140 - 0017PCT	PCT Patent Applicati	on for DATA ENCOD	ING AND	
100140 - 00101 61		ENTICATION USING		
	INFORMATION	imitroration com	3.117 XLM X OTNES	
Inventor: Joshua	R. Smith	***************************************		
	Filing Date:	Patent No.:	Issue Date:	
PCT/US03/10800	7 April 2003	Lawinition	issue Date.	
LEELOUS INDUI	7 / 14911 2003	<u> </u>	<u> </u>	
102140 00100	300140 0040b			
103140 - 0018R U.S. Provisional	U.S. Provisional Patent Application for ANGULAR SYMBOLOGY WITH POSITIONING			
		H LOSITIONING	***************************************	
Inventor: Eric M		Detail No	Tanan Thata	
Serial No.:	Filing Date:	ratent No.:	Issue Date:	
60/371,077	April 9, 2002			

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103140 - 0018PCT	A SYSTEM AND METHOD FOR ENCODING AND			
		AND POSITION INFO		
	ANGULAR SYMBOLOGY AND BEACONS			
	Applicant: THE Escher Group, Ltd.			
Attorney for matter:		~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~		
Inventor: Eric M	<u> 1etois</u>	*		
Serial No.:	Filing Date:	Patent No.:	Issue Date:	
PCT/US03/10839	April 9, 2003			
103140 - 0018U	A SYSTEM AND M	ETHOD FOR ENCOD	ING AND	
U.S. Utility	DECODING DATA	AND POSITION INFO	RMATION USING	
	ANGULAR SYMBOLOGY AND BEACONS			
Inventor: Eric M			***************************************	
Serial No.:	Filing Date:	Patent No.:	Issue Date:	
10/409,959	April 9, 2003			
103140 - 0019R	AUTHENTICATION USING SHAPE RECOVERY OF 3D			
U.S. Provisional	SURFACE FEATURES			
Inventor: Joshua	R. Smith	***************************************	***************************************	
Serial No.:	Filing Date:	Patent No.:	Issue Date:	
60/371,073	April 9, 2002		20020	
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103140 - 0019PCT	SYSTEM AND MET	HOD FOR AUTHENT	TCATION OF A	
100 1 10, 00 101	i	G THREE DIMENSIO		
	RECOVERY		TRINEFORKI MILI	
٠	Applicant: The Esche	er Group Ltd		
Inventor: Joshua	R. Smith		***************************************	
Serial No.:	Filing Date:	Patent No.:	Issue Date:	
PCT/US 03/10846	April 9, 2003	2 30000 2 40.1	EBSGO: EMERCE	

103140 - 0019U	SVSTEM AND MET	HOD FOR AUTHENI	TO ATTOM OC. A	
U.S. Utility		3 THREE DIMENSION		
C.D. Cunty	RECOVERY	n structs tarianiano.	NAL SHAFE	
Inventor: Joshua	R. Smith			
Serial No.:	Filing Date:	Patent No.:	Inona Data	
10/410,487	April 9, 2003	7,251,347	Issue Date:	
LUITELU;TO/	7, 20V3	1 1960 150771	July 31, 2007	
105140 000111	11/2/15/17/15/17/17/17/2/ X 17/7/2/	DESTRUCTION ASSESSMENT OF THE PROPERTY OF	The A STATE THE STATE AND A ST	
103140 - 0021R	WORKPIECE AUTHENTICATION AND TRACKING USING			
U.S. Provisional GEMSTONE DUST				
Serial No.:	Filing Date:	Patent No.:	Issue Date:	
60/394,914	July 10, 2002			

103140 - 0023R		LICATION FOR SYS	
U.S. Provisional	1	AND AUTHENTICATI	ON OF
	HOLOGRAMS USIN	IG SPECKLE	
Inventor: Joshua R. Smith			
Serial No.:		Patent No.:	Issue Date:
60/476,045	June 5, 2003		
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103140 - 0024U	SYSTEM AND METHOD FOR DISPENSING, SORTING AND		
U.S. Utility	DELIVERING PRESCRIPTION AND NON-PRESCRIPTION		
	MEDICATIONS THROUGH THE POST OFFICE		
Inventors: Micha	el J. Murphy and Pame	la A. Hoodes	,
Serial No.:	Filing Date:	Patent No.:	Issue Date:
11/274,966	November 15, 2005		
***************************************		,	
103140 - 0024PCT SYSTEM AND METHOD FOR DISPENSING, SORTING AND			
		CRIPTION AND NON	
	MEDICATIONS THROUGH THE POST OFFICE		
Inventors: Micha	el J. Murphy and Pame	la Hoodes	
Serial No.:	Filing Date:	Patent No.:	Issue Date:
PCT/US2005/			
041258			
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103140 - 0024EP	SYSTEM AND MET	HOD FOR DISPENSI	NG. SORTING AND
Europe		CRIPTION AND NON	
.com vpv		ROUGH THE POST O	
Inventor Michael I	Murphy and Pamela Ho		
Serial No.:	Filing Date:	Patent No.:	Issue Date:
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103140 - 0024SG	CVCTCM ANDMET	HOD FOR DISPENSI	VG SORTING AND
Singapore	DELIVERING PRESCRIPTION AND NON-PRESCRIPTION MEDICATIONS THROUGH THE POST OFFICE		
Year A.C. Land Y			UINGES
	Murphy and Pamela Ho	7	Tagua Data:
Serial No.:	Filing Date:	Patent No.:	Issue Date:
2007-03454-9	November 15, 2005		
		The figure of the second of the first of the second of the	
103140 - 0027R	AUTOMATED ACCOUNTING SYSTEM		
U.S. Provisional			
	el J. Murphy	Υ	
Serial No.:	Filing Date:	Patent No.:	Issue Date:
60/736,110	November 10, 2005		

103140 - 0027U	AUTOMATED ACCOUNTING SYSTEM		
Inventor: Michael J. Murphy			
Serial No.: 11/595,301	Filing Date: November 9, 2006	Patent No.:	Issue Date:
103140 - 0028 DYNAMICALLY PLACING RESOURCES WITHIN A			
U.S. Utility	GRAPHICAL USER		, MILLIAN VA
Inventor: Sandor Ludmann			
Serial No.:	Filing Date:	Patent No.:	Issue Date:
11/359,839	February 22, 2006	7627832	December 1, 2009

Note that Debtor may not have paid certain required maintenance fees applicable to the patents listed above, and therefore such patents may have expired.

PATENT REEL: 027531 FRAME: 0092

RECORDED: 01/12/2012