FORM PTO-1619A Expires 96/30/99 OMB 9651-0027		U.S. DEPARTMENT OF COMMERCE Parent and Trademark Office PATENT	
RECORDA	ATION FORM COVER SHEET		
TO: The Commissioner of Patents and Tradema	PATENTS ONLY		
SUBMISSION TYPE	ks: Please record the attached original document(s) or copy(ies). CONVEYANCE TYPE		
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Reel # Frame#	U.S. Government	17 Af Al J.	
Corrective Document Reel # Frame#	(For Use ONLY by U.S. Government Departmental File	Agencies) Secret File	
Conveying Party(ies)	Mark if additional names of conveying		
Name (line1) LOWY, Menahem		Execution Date Month Day Year 09 06 2001	
Name (line 2) citizen of U.S.		Execution Date	
Second Party Name (line 1) BUTLER, Neal R.		Month Day Year 09 24 2001	
Name (line 2) citizen of U.S.	19 To House Management		
Receiving Party	Mark if additional names of receiving p	party attached	
Name (line1) BAE SYSTEMS Information a	and Electronic Systems	if a document to be recorded is an assignment and the	
Name (line 2) Integration, Inc A Delaware	Corporation	receiving party is not domiciled in the United States,	
Address (line I) 65 Spit Brook Road		an appointment of a domestic representative is attached.	
Address (line 2)		(Designation must be a separate document from Assignment)	
Address (line 3) Nashua	NH 03061		
City	State/Country Zip Code		
Domestic Representative Name and Address	Enter for the first Receiving Party only.		
Name			
Address (line 1)			
Address (line 2)			
Address (line 3)			
Address (line 4)			
	FOR OFFICE USE ONLY		

Public burden reporting for this collection of information is estimated to average approximately 30 minutes per Cover Sheet to be recorded, inleading time for reviewing the document and gathering the data needed to complete the Cover Sheet. Send comments regarding this burden estimate to the U.S. Patent and Trademark Office, Chief Information Officer. Washington, DC 2023) and to the Office of Information and Regulatory Affairs, Office of Management and Budget, Patent and Trademark Assignment Practice. DO NOT SEND REQUESTS TO RECORD ASSIGNMENT DOCUMENTS TO THIS ADDRESS.

MAIL documents to be recorded with required cover sheet(s) information to: Commissioner of Patents and Trademarks, Box Assignments, Washington, DC 20231

PATENT

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REEL: 012022 FRAME: 0720

FORM PTO-16 Expires 06/30/99 OMB 0651-0027	519B	Page 2	U.S. DEPARTMENT OF COMMERCE Patent and Trademark Office PATENT
Corresponden	t Name and Address		
Ĭ,		Area Code and Telephone Number	603.886.6100
Name	Scott J. Asmus	D-4439	
Address (line 1)	Maine & Asmus	0	100000
Address (line 2)	PO Box 3445		
Address (line 3)	Nashua NH 03061-34	445	
Address (line 4)			
Pages	Enter the total number of pages of Including any attachments.	f the attached conveyance document	# 3
Application Nun	iber(s) or Patent Number(s)	Mark if addit	ional numbers attached
Enter either the	Patent Application Number or the Pate	nt Number (DO NOT ENTER BOTH numbers f	or the same property).
	Patent Application Number(s)	Patent Number(s)	
09/947044			
If this document is bei	ng filed together with a new Patent Applic	ation, enter the date the patent application was	Month Day Year
signed by the first nam	ned executing inventor.		Vitalia Lav
Patent Cooperati	ion Treaty (PCT)		
	application number	PCT PCT	PCT
	l.S. Application Number en assigned	PCT PCT	PCT
Number of Prope	erties		
-	Enter the total	number of properties involved	#1
Fee Amount	Fee Amount	for Properties Listed (37 CFR 3.41):	\$ 40
Method of Pa Deposit Accor		sed Deposit Account	
	t by deposit account or if addition	al fees can be charged to the account.)	
		eposit Account Number: uthorization to charge additional fees:	# 500323 Yes No No
Statement and Si	gnature		· · · · · · · · · · · · · · · · · · ·
attached	est of my knowledge and belief, the copy is a true copy of the original dherein.	ne foregoing information is true and correct document. Charges to deposit account are	and any authorized, as
Scott J. As		Scott larun	10/2/01
Name of Pe	rson Signing	ngnature .	/ Date

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FORM PTO-1619C Expires 08/30/99 OMB 0651-0027	RECORDATION FORM COVER SHEET Continuation PATENTS ONLY	U.S. DEPARTMENT OF COMMERCE Patient and Trademark Office PATENT
Conveying Party(ies) Enter additional Conv	Mark if additional names of conveying par	rties attached
Enter additional Conv		Execution Date
	INKLER, Rosanne	Month Day Year 09 26 2001
Name (line 2) ci	itizen of U.S.	07 20 2001
Name (line I)		Execution Date Month Day Year
Name (line 2)		
Name (line 1)		Execution Date Month Day Year
Name (line 2)		
Receiving Party Enter additional Receiving	Mark if additional names of r	rcceiving party attached
Name (line1)		if a document to be recorded is an assignment and the
Name (line 2)		receiving party is not domiciled in the United States, an appointment
Address (line 1)		of a domestic representative is attached.
Address (line 2)		(Designation must be a separate document from Assignment)
Address (line 3)		
· •	City State/Country Zip Code	
Name (line1)		if a document to be recorded
Name (line 2)		is an assignment and the receiving party is not domicited in the United States,
Address (line 1)	- NAP-LAL	un appointment of a domestic representative is attached.
Address (line 2)		(Designation must be a separate document from Assignment)
Address (line 3)		
	City State/Country Zip Code	
Application Number(s) or I	Patent Number(s) Mark if additi	ional numbers attached
Enter either the Patent Applie	cation Number or the Patent Number (DO NOT ENTER BOTH numbers for	or the same property).
Patent Appl	lication Number(s) Patent Number(s)	
		
L		

SENT BY: MAINE & ASMUS;

PATENT REEL: 012022 FRAME: 0722

D-4439

ASSIGNMENT

For value received, I, Menahem Lowy, residing at the address set forth below next to my name, a citizen of the United States of America, do hereby sell and assign for myself and my heirs, successors, and assigns, to BAE SYSTEMS Information and Electronic Systems Integration Inc. (hereinafter referred to as the Company), a Delaware corporation, having a place of business at 65 Spit Brook Road, Nashua, New Hampshire 03061, its successors, assigns, and nominees, my entire right, title and interest, in the United States and its territorial possessions and in any and all foreign countries, in and to the invention relating to improvements in

EFFICIENT SEQUENTIAL CIRCUITS USING CRITICAL RACE CONTROL

invented by me along with Neal R. Butler and Rosanne Tinkler, and the application for United States Patent therefor, identified by Docket No. D-4439 of the Company, and executed on even date herewith, as well as its priority Provisional Patent Application 60/277,687 filed March 21, 1001 and all divisions and continuations thereof, and all Patents which may be granted therefor and all reissues and extensions thereof together with all my rights in and to the said invention and any Patents that may hereafter be obtained therefor in any and all foreign countries including the right of priority under the International Convention based on the said application and the right of said Company to apply in its own name for Letters Patent therefor in any and all foreign countries, where legally permissible, and authorize and request the Commissioner of Patents and Trademarks to issue all United States Patents on said invention or resulting therefrom to said Company as assignee of the entire interest, and covenant that I have full right so to do, and agree that I will communicate to said Company or its representatives any facts known to me respecting said invention and testify in any legal proceeding, execute all divisional, continuing and reissue applications and all assignments of said invention, make all rightful oaths, sign all lawful papers, if and when required to do so, and generally do everything reasonably possible to aid said Company, its successors, assigns and nominees, to obtain and enforce proper patent protection for said invention in all countries.

Signed at

Merrimacle September at , NH. this 6 day of , 2001

13 Mountain View Drive, Merrimack, NH 03054

Residence

State of New Hampshire)

County of Hillsborough)

On this day of John 2001, before me appeared Menahem Lowy to me known and known to me or providing satisfactory identifying materials to be the person described in and who executed the foregoing instrument, and he acknowledged the same to be his free act and deed.

Notary Public/Fix

My commission expires:

CONSTANCE | GINIEWICZ, Notary Public My Commission Expires January 26, 2003

PATENT

REEL: 012022 FRAME: 0723

D-4439

ASSIGNMENT

For value received, I, Neal R. Butler, residing at the address set forth below next to my name, a citizen of the United States of America, do hereby sell and assign for mysclf and my heirs, successors, and assigns, to BAE SYSTEMS Information and Electronic Systems Integration Inc. (hereinafter referred to as the Company), a Delaware corporation, having a place of business at 65 Spit Brook Road, Nashua, New Hampshire 03061, its successors, assigns, and nominees, my entire right, title and interest, in the United States and its territorial possessions and in any and all foreign countries, in and to the invention relating to improvements in

EFFICIENT SEQUENTIAL CIRCUITS USING CRITICAL RACE CONTROL

invented by me along with Menahem Lowy and Rosanne Tinkler, and the application for United States Patent therefor, identified by Docket No. D-4439 of the Company, and executed on even date herewith, as well as its priority Provisional Patent Application 60/277,687filed March 21, 1001 and all divisions and continuations thereof, and all Patents which may be granted therefor and all reissues and extensions thereof together with all my rights in and to the said invention and any Patents that may hereafter be obtained therefor in any and all foreign countries including the right of priority under the International Convention based on the said application and the right of said Company to apply in its own name for Letters Patent therefor in any and all foreign countries, where legally permissible, and authorize and request the Commissioner of Patents and Trademarks to issue all United States Patents on said invention or resulting therefrom to said Company as assignee of the entire interest, and covenant that I have full right so to do, and agree that I will communicate to said Company or its representatives any facts known to me respecting said invention and testify in any legal proceeding, execute all divisional, continuing and reissue applications and all assignments of said invention, make all rightful oaths, sign all lawful papers, if and when required to do so, and generally do everything reasonably possible to aid said Company, its successors, assigns and nominees, to obtain and enforce proper patent protection for said invention in all countries.

Signed at Lexington, Massachusetts. this 24th day of September, 2001

Neal R. Butler

144 School Street, Acton, MA 01720

Residence

State of MASSACHUSETTS)

County of minaceses)

On this 24 day of SEPTEMBER, 2001, before me appeared Neal R. Butler to me known and known to me or providing satisfactory identifying materials to be the person described in and who executed the foregoing instrument, and he acknowledged the same to be his free act and deed.

My commission expires:

Notary Public/Justice of the Peace

KAREN A. LASKOWSKY
Notary Public
My Commission Expires
June 30, 2006

PATENT

REEL: 012022 FRAME: 0724

D-4439

ASSIGNMENT

For value received, I, Rosanne Tinkler, residing at the address set forth below next to my name, a citizen of the United States of America, do hereby sell and assign for myself and my heirs, successors, and assigns, to BAE SYSTEMS Information and Electronic Systems Integration Inc. (hereinafter referred to as the Company), a Delaware corporation, having a place of business at 65 Spit Brook Road, Nashua, New Hampshire 03061, its successors, assigns, and nominees, my entire right, title and interest, in the United States and its territorial possessions and in any and all foreign countries, in and to the invention relating to improvements in

EFFICIENT SEQUENTIAL CIRCUITS USING CRITICAL RACE CONTROL

invented by me along with Menahem Lowy and Neal R. Butler, and the application for United States Patent therefor, identified by Docket No. D-4439 of the Company, and executed on even date herewith. as well as its priority Provisional Patent Application 60/277,687filed March 21, 1001 and all divisions and continuations thereof, and all Patents which may be granted therefor and all reissues and extensions thereof together with all my rights in and to the said invention and any Patents that may hereafter be obtained therefor in any and all foreign countries including the right of priority under the International Convention based on the said application and the right of said Company to apply in its own name for Letters Patent therefor in any and all foreign countries, where legally permissible, and authorize and request the Commissioner of Patents and Trademarks to issue all United States Patents on said invention or resulting therefrom to said Company as assignee of the entire interest, and covenant that I have full right so to do, and agree that I will communicate to said Company or its representatives any facts known to me respecting said invention and testify in any legal proceeding, execute all divisional, continuing and reissue applications and all assignments of said invention, make all rightful oaths, sign all lawful papers, if and when required to do so, and generally do everything reasonably possible to aid said Company, its successors, assigns and nominees, to obtain and enforce proper patent protection for said invention in all countries.

Signed at , NH: this day of 9/24, 2001

22 Donald Street, Lexington, MA 02420

State of Nassachusetts

County of Middlesex)

On this 26 day of 50/2, 2001, before me appeared Rosanne Tinkler to me known and known to me of providing satisfactory identifying materials to be the person described in and who executed the foregoing instrument, and he acknowledged the same to be his free act and deed.

My commission expires:

Notary Public/Justice of the Per

RECORDED: 10/02/2001

PATENT REEL: 012022 FRAME: 0725