


04-26-2000

torney Docket No. 16869A-004300US

MED 3.27.00



FORM PTO-1595 (Rev. 6-93)		101333806		U.S. Department of Commerce Patent and Trademark Office	
To the Honorable Asst. Commissioner for Patents. Please record the attached original documents or copy thereof.					
1. Name of conveying party(ies): Naohiko Irie Additional name(s) of conveying parties attached? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No.		2. Name and address of receiving party(ies) Name: Hitachi Ltd., Internal Address: Street Address: Kanda Surugadai 4-chome City: Tokyo State: Japan ZIP: Additional names and addresses attached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
3. Nature of conveyance: <input checked="" type="checkbox"/> Assignment <input type="checkbox"/> Merger <input type="checkbox"/> Security Agreement <input type="checkbox"/> Change of Name <input type="checkbox"/> Other: Execution Date: January 19, 2000; January 12, 2000; January 20, 2000; March 22, 2000; and January 5, 2000					
4. Application Number(s) or Patent Numbers. If this document is being filed together with a new application, the execution date of the application is: A. Patent Application No(s): 09/410,851 B. Patent No(s): Additional numbers attached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No					
5. Name and address of party to whom correspondence concerning document should be mailed: Name: Robert J. Bennett TOWNSEND AND TOWNSEND AND CREW LLP Two Embarcadero Center, 8 th Floor San Francisco, California 94111-3834 (415) 576-0200			6. Total number of applications and patents involved 1 7. Total fee (37 CFR 3.41): -----\$40.00 <input type="checkbox"/> Enclosed <input checked="" type="checkbox"/> Charge Fees to Deposit Account <input checked="" type="checkbox"/> Charge any additional fees associated with this paper or during the pendency of this application, or credit any overpayment, to deposit account. 8. Deposit account number: 20-1430		
DO NOT USE THIS SPACE					
9. Statement and signature. <i>To the best of my knowledge and belief, the foregoing is true and correct and any attached copy is a true of copy of the original document.</i> Robert J. Bennett Name of Person Signing Atty Reg. No. 27,533					
		 Signature		3-23-ff Date	
		Total number of pages including cover sheet, attachments and document 15			
10. Change Correspondence Address to that of Part 5? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No					
OMB No. 0651-0011 (exp. 4/94)					
Mail documents to be recorded with required cover to:			Do not detach this portion		
04/26/2000 TTON11 00000076 201430 09410851			Asst. Commissioner for Patents Box: Assignments Washington, D.C. 20231		
01 FC:581			40.00 CH		

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APR/FINANCE

PATENT
REEL: 010721 FRAME: 0574

1. Additional name(s) of conveying party(ies):
(Continued from Page 1)

Tony Lee Werner
Chih-Jui Peng
Sebastian H. Ziesler
Jackie A. Freeman
Sivaram Krishnan

2. Additional name(s) and address(es) of receiving party(ies):
(Continued from Page 1)

3. Additional application number(s) or patent number(s):
(Continued from Page 1)

A. Patent Application No.(s)

B. Patent No.(s)

SF 150911 v1
SF 1080023 v1

PATENT
REEL: 010721 FRAME: 0575

ASSIGNMENT OF PATENT APPLICATION

JOINT

WHEREAS, Naohiko Irie, of 1540 Vista Club Circle, No. 302, Santa Clara, CA 95054, Tony Lee Werner, of 2200 Agnew Road, No. 211, Santa Clara, CA 95054, Chih-Jui Peng, of 1278 Oak Knoll Drive, San Jose, CA 95129, Sebastian H. Ziesler, of 5315 Joseph Lane, San Jose, CA 95118, Jackie A. Freeman, of 75 South 13th Street, San Jose, CA 95112, Sivaram Krishnan, 1723 Westbrook Avenue, Los Altos, CA 94024-5321, hereinafter referred to as "Assignors," are the inventors of the invention described and set forth in the below-identified application for United States Letters Patent:

Title of Invention: **EMULATING EXECUTION OF SMALLER FIXED-LENGTH BRANCH/DELAY SLOT INSTRUCTIONS WITH A SEQUENCE OF LARGER FIXED-LENGTH INSTRUCTIONS**

Date(s) of execution of Declaration:

Filing Date: **October 1, 1999**

Application No.: **09/410,851; and**

WHEREAS, Hitachi Ltd, of Kanda Surugadai 4-chome, Tokyo, Japan, hereinafter referred to as "ASSIGNEE," is desirous of acquiring an interest in the invention and application and in any U.S. Letters Patent and Registrations which may be granted on the same;

For good and valuable consideration, receipt of which is hereby acknowledged by Assignors, Assignors have assigned, and by these presents do assign to Assignee all right, title and interest in and to the invention and application and to all foreign counterparts (including patent, utility model and industrial designs), and in and to any Letters Patent and Registrations which may hereafter be granted on the same in the United States and all countries throughout the world, and to claim the priority from the application as provided by the Paris Convention. The right, title and interest is to be held and enjoyed by Assignee and Assignee's successors and assigns as fully and exclusively as it would have been held and enjoyed by Assignors had this Assignment not been made, for the full term of any Letters Patent and Registrations which may be granted thereon, or of any division, renewal, continuation in whole or in part, substitution, conversion, reissue, prolongation or extension thereof.

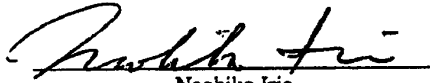
Assignors further agree that they will, without charge to Assignee, but at Assignee's expense, (a) cooperate with Assignee in the prosecution of U.S. Patent applications and foreign counterparts on the invention and any improvements, (b) execute, verify, acknowledge and deliver all such further papers, including patent applications and instruments of transfer, and (c) perform such other acts as Assignee lawfully may request to obtain or maintain Letters Patent and Registrations for the invention and improvements in any and all countries, and to vest title thereto in Assignee, or Assignee's successors and assigns.

Assignors hereby authorize and request Townsend and Townsend and Crew LLP, Two Embarcadero Center, 8th Floor, San Francisco, CA 94111-3834, to insert herein above the application number and filing date of said application when known.

**PATENT
REEL: 010721 FRAME: 0576**

IN TESTIMONY WHEREOF, Assignors have signed their names on the dates indicated.

Dated: 1-19-00



Naohiko Irie

STATE OF CALIFORNIA)
) ss.
COUNTY OF)

On _____, before me, _____, personally appeared
Naohiko Irie, personally known to me (or proved to me on the basis of satisfactory evidence)
to be the person whose name is subscribed to the within instrument, and acknowledged to me that he/she executed
the same in his/her authorized capacity, and that by his/her signature on the instrument the person, or the entity upon
behalf of which the person acted, executed the instrument.

WITNESS my hand and official seal.

NOTARY PUBLIC

My Commission Expires: _____

PATENT
REEL: 010721 FRAME: 0577

Dated: 1/19/2000

Tony Lee Werner
Tony Lee Werner

STATE OF CALIFORNIA)
)
) ss.
COUNTY OF)

On _____, before me, _____, personally appeared
Tony Lee Werner, personally known to me (or proved to me on the basis of satisfactory evidence)
to be the person whose name is subscribed to the within instrument, and acknowledged to me that he/she executed
the same in his/her authorized capacity, and that by his/her signature on the instrument the person, or the entity upon
behalf of which the person acted, executed the instrument.

WITNESS my hand and official seal.

see attached

NOTARY PUBLIC

My Commission Expires: _____

PATENT
REEL: 010721 FRAME: 0578

Dated: Jan 12, 2000

Chih-Jui Peng
Chih-Jui Peng

STATE OF CALIFORNIA)
) ss.
COUNTY OF)

On _____, before me, _____ personally appeared
Chih-Jui Peng, personally known to me (or proved to me on the basis of satisfactory evidence)
to be the person whose name is subscribed to the within instrument, and acknowledged to me that he/she executed
the same in his/her authorized capacity, and that by his/her signature on the instrument the person, or the entity upon
behalf of which the person acted, executed the instrument.

WITNESS my hand and official seal.

Seal

NOTARY PUBLIC

My Commission Expires: _____

PATENT
REEL: 010721 FRAME: 0579

Dated:

1/20/00

Sebastian H. Ziesler
Sebastian H. Ziesler
Seb Ziesler

STATE OF CALIFORNIA)

)

ss.

COUNTY OF)

)

On _____, before me, _____, personally appeared
Sebastian H. Ziesler, personally known to me (or proved to me on the basis of satisfactory evidence)
to be the person whose name is subscribed to the within instrument, and acknowledged to me that he/she executed
the same in his/her authorized capacity, and that by his/her signature on the instrument the person, or the entity upon
behalf of which the person acted, executed the instrument.

WITNESS my hand and official seal.

see attached

NOTARY PUBLIC

My Commission Expires: _____

Dated: March 22, 2000

Jackie A. Freeman
Jackie A. Freeman

STATE OF CALIFORNIA)
)
COUNTY OF)

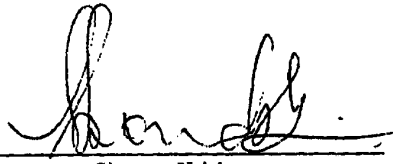
ss.

On _____, before me, _____, personally appeared
Jackie A. Freeman, personally known to me (or proved to me on the basis of satisfactory evidence)
to be the person whose name is subscribed to the within instrument, and acknowledged to me that he/she executed
the same in his/her authorized capacity, and that by his/her signature on the instrument the person, or the entity upon
behalf of which the person acted, executed the instrument.

WITNESS my hand and official seal,
See

NOTARY PUBLIC

My Commission Expires: _____



Sivaram Krishnan

Dated: 1-1-2000

STATE OF CALIFORNIA)
) ss.
COUNTY OF)


On _____, before me, _____, personally appeared
Sivaram Krishnan, personally known to me (or proved to me on the basis of satisfactory evidence)
to be the person whose name is subscribed to the within instrument, and acknowledged to me that he/she executed
the same in his/her authorized capacity, and that by his/her signature on the instrument the person, or the entity upon
behalf of which the person acted, executed the instrument.

WITNESS my hand and official seal.

See attached

NOTARY PUBLIC

My Commission Expires: _____


SF 1047479 v1

PATENT
REEL: 010721 FRAME: 0582

CALIFORNIA ALL-PURPOSE ACKNOWLEDGMENT

State of California }
County of Santa Clara } ss.

On Jan. 5, 2000, before me, Carol A. Iwamoto, Notary Public
Date Name and Title of Officer (e.g., "Jane Doe, Notary Public")
personally appeared Sivaram Krishnan
Name(s) of Signer(s)

personally known to me
 proved to me on the basis of satisfactory evidence

to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.



Document bears embossment
Please Notary Seal Above

WITNESS my hand and official seal.

Carol A. Iwamoto
Signature of Notary Public

OPTIONAL

Though the information below is not required by law, it may prove valuable to persons relying on the document and could prevent fraudulent removal and reattachment of this form to another document.

Description of Attached Document

Title or Type of Document: Assignment of Patent Application

Document Date: October 1, 1999 Number of Pages: 7 pages
(filing date) Single Sided

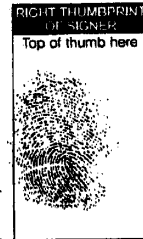
Signer(s) Other Than Named Above: Naohiko Irie, Tony Werner, Chih-Jui Peng, Sebastian Riesler, Jackie Freeman

Capacity(ies) Claimed by Signer

Signer's Name: Sivaram Krishnan

- Individual
- Corporate Officer — Title(s): _____
- Partner — Limited General
- Attorney in Fact
- Trustee
- Guardian or Conservator
- Other: _____

Signer Is Representing: Self



PATENT
REEL: 010721 FRAME: 0583

CALIFORNIA ALL-PURPOSE ACKNOWLEDGMENT

State of California }
County of Santa Clara } ss.

On 12 Jan 2000 before me, Carol A. Iwamoto, Notary Public
Date Name and Title of Officer (e.g., "Jane Doe, Notary Public")

personally appeared Chih-Jui Peng
Name(s) of Signer(s)

- personally known to me
- proved to me on the basis of satisfactory evidence

to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/~~she~~/they executed the same in his/~~her~~/their authorized capacity(ies), and that by his/~~her~~/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.



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WITNESS my hand and official seal.
Carol A. Iwamoto
Signature of Notary Public

OPTIONAL

Though the information below is not required by law, it may prove valuable to persons relying on the document and could prevent fraudulent removal and reattachment of this form to another document.

Description of Attached Document
Title or Type of Document: Assignment of Patent Application
Document Date: October 1, 1999 Number of Pages: 7 pages
(filing date) single sided
Signer(s) Other Than Named Above: _____

Capacity(ies) Claimed by Signer
Signer's Name: Chih-Jui Peng
 Individual
 Corporate Officer — Title(s): _____
 Partner -- () Limited () General
 Attorney in Fact
 Trustee
 Guardian of Conservator
 Other: _____
Signer Is Representing: Self



PATENT
REEL: 010721 FRAME: 0584

CALIFORNIA ALL-PURPOSE ACKNOWLEDGMENT

State of California }
County of Santa Clara } ss.

On 19 Jan 2000, before me, Carol A. Iwamoto Notary Public
Date: Name and Title of Officer (e.g., "Jane Doe, Notary Public")
personally appeared Nashiko Urie
Name(s) of Signer(s)

personally known to me
 proved to me on the basis of satisfactory evidence

to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.



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Please Notary Seal Above

WITNESS my hand and official seal.

Carol A. Iwamoto
Signature of Notary Public

OPTIONAL

Though the information below is not required by law, it may prove valuable to persons relying on the document and could prevent fraudulent removal and reattachment of this form to another document.

Description of Attached Document

Title or Type of Document: _____

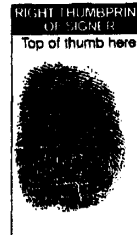
Document Date: _____ Number of Pages: _____

Signer(s) Other Than Named Above: Jong Werner, Chih-Jui Peng
Sebastian Ziesler, Jackie Freeman, Sivaram Krishna
Capacity(ies) Claimed by Signer

Signer's Name: Nashiko Urie

- Individual
- Corporate Officer — Title(s): _____
- Partner -- | | Limited | | General
- Attorney in Fact
- Trustee
- Guardian or Conservator
- Other: Self

Signer Is Representing: Self



PATENT
REEL: 010721 FRAME: 0585

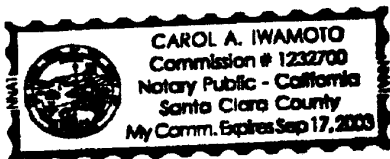
CALIFORNIA ALL-PURPOSE ACKNOWLEDGMENT

State of California }
County of Santa Clara } ss.

On 19 Jan 2000, before me, Carol A. Iwamoto, Notary Public,
Date Name and Title of Officer (e.g., "Jane Doe, Notary Public")
personally appeared Tony Lee Werner,
Name(s) of Signer(s)

personally known to me
 proved to me on the basis of satisfactory evidence

to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.



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Place Notary Seal Above

WITNESS my hand and official seal.

Carol A. Iwamoto
Signature of Notary Public

OPTIONAL

Though the information below is not required by law, it may prove valuable to persons relying on the document and could prevent fraudulent removal and reattachment of this form to another document.

Description of Attached Document

Title or Type of Document: Assignment of Patent Application

Document Date: October 1, 1999 Number of Pages: _____
filing date

Signer(s) Other Than Named Above: Nashiko Eric Chih-gui Peng
Sebastian Zesler, Jackie Freeman, Sivaram Krishnan

Capacity(ies) Claimed by Signer

Signer's Name: Tony Werner

- Individual
- Corporate Officer — Title(s): _____
- Partner — Limited General
- Attorney in Fact
- Trustee
- Guardian or Conservator
- Other: _____

Signer Is Representing: Self



PATENT
REEL: 010721 FRAME: 0586

CALIFORNIA ALL-PURPOSE ACKNOWLEDGMENT

State of California

County of Santa Clara } ss.

On 20 Jan 2000, before me, Carol A. Iwamoto, Notary Public
Date Name and Title of Officer (e.g., "Jane Doe, Notary Public")

personally appeared Sebastian H. Ziesler
Name(s) of Signer(s)

- personally known to me
- proved to me on the basis of satisfactory evidence

to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.



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WITNESS my hand and official seal.

Carol A. Iwamoto

Signature of Notary Public

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Though the information below is not required by law, it may prove valuable to persons relying on the document and could prevent fraudulent removal and reattachment of this form to another document.

Description of Attached Document

Title or Type of Document: Assignment of Patent Application

Document Date: October 1, 1999 Number of Pages: 7 pages
(filing date) Single Sided

Signer(s) Other Than Named Above: Naohiko Urie, Tony Warner, Chih-qui Peng, Jackie Freeman

Capacity(ies) Claimed by Signer

Signer's Name: Sebastian Ziesler

- Individual
- Corporate Officer — Title(s): _____
- Partner — Limited General
- Attorney in Fact
- Trustee
- Guardian or Conservator
- Other: _____

Signer is Representing: Self



PATENT
REEL: 010721 FRAME: 0587

CALIFORNIA ALL-PURPOSE ACKNOWLEDGMENT

State of California

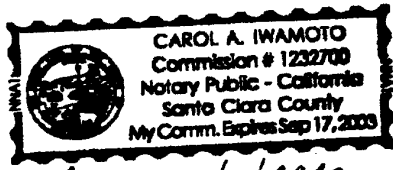
County of Santa Clara } ss.

On 22 _____, before me, Carol A. Iwamoto Notary Public

personally appeared J. Andrew Freeman

personally known to me
 proved to me on the basis of satisfactory evidence

to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.



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WITNESS my hand and official seal.
Carol A. Iwamoto
Signature of Notary Public

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Though the information below is not required by law, it may prove valuable to persons relying on the document and could prevent fraudulent removal and reattachment of this form to another document.

Description of Attached Document
Title or Type of Document: Declaration + Power of Attorney

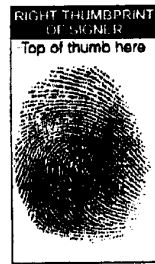
Document Date: March 22, 2000 Number of Pages: 3 pages, single

Signer(s) Other Than Named Above: (filed date Oct 11, 1999) Nao Hiko Urie, Tony Lee, Warner, Chih-Gui Peng, Sebastian H. Ziesle

Capacity(ies) Claimed by Signer
Signer's Name: J. Andrew Freeman

- Individual
- Corporate Officer — Title(s): _____
- Partner -- Limited General
- Attorney in Fact
- Trustee
- Guardian or Conservator
- Other: _____

Signer Is Representing: Self



RECORDED: 03/27/2000

PATENT
REEL: 010721 FRAME: 0588