

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Application Serial No. 12/644,511
Filing Date December 22, 2009
Confirmation No. 6489
Applicant Tao Logic Systems LLC
Inventorship Frank W. Ahern, et al.
Group Art Unit 2111
Examiner Huynh, Kim T.
Attorney's Docket No. TALS0090
Title: A Computing Module with Serial Data Connectivity

RESPONSE TO OFFICE ACTION DATED JUNE 21, 2010

To: Commissioner for Patents
PO Box 1450
Alexandria, Virginia 22313-1450

From: Allan T. Sponseller (Tel. 509-755-7255; Fax 509-755-7252)
Sadler, Breen, Morasch & Colby p.s.
600 W. Main Ave., Suite 1300
Spokane, WA 99201

Customer No. 75671

Sir:

In response to the Office Action of June 21, 2010 in connection with the above-identified application, the following remarks are submitted. Favorable consideration is respectfully requested.

A detailed listing of the claims is provided below. A status identifier is provided for each claim in a parenthetical expression following each claim number.

The Claims

1. (Currently amended) An apparatus ~~computing module~~ comprising:
a processor;
a parallel ~~system~~ bus; and
an interface configured to receive parallel data from the parallel bus and
configured to asynchronously, serially exchange serial data, corresponding to the parallel
~~system-bus data,~~ with one or more ~~other~~ modules without requiring handshaking of a
~~computer system that includes the computing module.~~
2. (Currently amended) The apparatus ~~computing module~~ as recited in claim 1,
wherein the interface comprises a bridge.
3. (Canceled).
4. (Currently amended) The apparatus ~~computing module~~ as recited in claim 1,
wherein the computing first module is separated from each of the one or more ~~other~~
modules ~~of the computer system~~ by a distance of at least a meter.
5. (Currently amended) The apparatus ~~computing module~~ as recited in claim 1,
wherein ~~each of the one or more other modules~~ include one or more of ~~comprises a~~
~~module selected from a group including:~~ a disk drive, a keyboard, a mouse, a monitor, a
printer, an Internet connection, a wireless accessory, ~~and~~ or a storage module.

6. (Currently amended) A method comprising[[,]]:
~~receiving, at a first module, first parallel bus data;~~
asynchronously, serially transferring first serial data, corresponding to the first
parallel bus data, from a first module to a second module via a serial link without using
handshaking;
~~receiving, at the second module, second parallel bus data; and~~
asynchronously, serially transferring second serial data, corresponding to the
second parallel bus data, from the second module to the first module via the serial link
without using handshaking.
7. (Canceled).
8. (Original) The method as recited in claim 6, wherein the first module comprises a processor module including a CPU and memory, and wherein the second module comprises a peripheral device.
9. (Original) The method as recited in claim 8, wherein the peripheral device comprises a hard drive.
10. (Original) The method as recited in claim 6, wherein the first module is separated from the second module by a distance of at least a meter.
11. (Original) The method as recited in claim 6, wherein the first module and the second module each comprises a portable computing device.

12. (Currently amended) The method as recited in claim 6, wherein the first module comprises one of: a disk drive, a keyboard, a mouse, a monitor, a printer, an Internet connection, a wireless accessory, ~~and~~ or a storage module.

13. (Currently amended) ~~A method in a first module of a computer system including the first module and a second module coupled together via a serial link, the method comprising:~~

~~receiving first parallel bus data;~~

~~asynchronously, serially transferring first serial data, corresponding to the first parallel bus data, from a first module to a the second module using a via the serial link;~~
~~and~~

~~asynchronously, serially receiving second serial data, corresponding to second parallel bus data, from the second module using via the serial link; and~~

~~generating a first clock signal, for use by the first module, using the second serial data.~~

14. (Currently amended) The method as recited in claim 13, wherein the asynchronously, serially transferring the first serial ~~parallel-bus~~ data comprises asynchronously, serially transferring the first serial ~~parallel-bus~~ data without requiring handshaking.

15. (Original) The method as recited in claim 13, wherein the first module is separated from the second module by a distance of at least several meters.

16. (Original) The method as recited in claim 13, wherein the first module and the second module each comprises a portable computing device.

17. (Currently amended) The method as recited in claim 13, wherein the second module comprises one of: a disk drive, a keyboard, a mouse, a monitor, a printer, an Internet connection, a wireless accessory, ~~and~~ or a storage module.

18. (Original) The method as recited in claim 13, wherein the first module comprises a processor module including a CPU and memory, and wherein the second module comprises a peripheral device.

19. (Original) The method as recited in claim 13, wherein the first module comprises a hard drive.

20. (Original) The method as recited in claim 13, wherein the first module comprises a memory device.

21. (New) A computing module comprising:

a processor;

a parallel bus; and

a first interface coupled to a serial communications link and configured to asynchronously, serially exchange serial data corresponding to parallel bus data received from the parallel bus, via the serial communications link, with an additional module of a

computer system that includes the computing module, the additional module including a second interface coupled to the serial communications link.

22. (New) The computing module as recited in claim 21, wherein the first interface comprises a bridge.

23. (New) The computing module as recited in claim 21, wherein the first interface is further configured to asynchronously, serially exchange the parallel bus data without requiring handshaking.

24. (New) The computing module as recited in claim 21, further comprising:
a device configured to generate a clock signal from serial data received from the additional module via the serial communications link.

25. (New) The computing module as recited in claim 21, wherein the computing module is separated from the additional module of the computer system by a distance of at least a meter.

26. (New) The computing module as recited in claim 21, wherein the additional module comprises one or more of: a disk drive, a keyboard, a mouse, a monitor, a printer, an Internet connection, a wireless accessory, or a storage module.

27. (New) A computing module comprising:
a processor;

a parallel bus;

an interface configured to asynchronously, serially exchange serial data corresponding to parallel bus data with one or more modules of a computer system that includes the computing module; and

a device configured to generate a clock signal from the serial data.

28. (New) The computing module as recited in claim 27, wherein:

the serial data corresponds to the parallel bus data received at the interface from the parallel bus.

29. (New) The computing module as recited in claim 27, wherein:

the interface includes a configuration to serially exchange the serial data without requiring handshaking.

30. (New) The computing module as recited in claim 27, wherein the interface comprises a bridge.

31. (New) The computing module as recited in claim 27, wherein the computing module is separated from the one or more modules of the computer system by a distance of at least a meter.

32. (New) The computing module as recited in claim 27, wherein each of the one or more modules of the computer system comprises one of: a disk drive, a keyboard, a

mouse, a monitor, a printer, an Internet connection, a wireless accessory, or a storage module.

33. (New) The apparatus as recited in claim 1, further comprising:

a device configured to generate a clock signal, for use by the apparatus, from serial data asynchronously, serially received from the one or more modules.

34. (New) The method as recited in claim 6, further comprising:

generating a clock signal, for use by the first module, using the second serial data.

35. (New) The method as recited in claim 13, further comprising:

generating a second clock signal, for use by the second module, using the first serial data.

REMARKS

Applicant respectfully requests reconsideration and allowance of the subject application. New claims 21-35 have been added. Claims 3 and 7 have been canceled without prejudice. Claims 1, 2, 4-6, and 8-35 are pending in this application.

Applicant makes no representation that cited references are prior art. This response and any remarks or comments included herein are not intended to be, and are not to be interpreted as, an admission that any cited references are prior art. Applicant reserves the right to dispose of any cited reference under 35 U.S.C. §102 and/or 35 U.S.C. §103, including but not limited to antedating any one or more of the cited references.

Examiner Interview

The undersigned wishes to thank Examiner Kim Huynh for her time during a telephonic interview that was conducted on September 14, 2010. During the interview, the undersigned and Examiner Huynh discussed U.S. Patent No. 5,991,304 to Abramson, and amendments to the claims to include one or more additional modules each including an interface coupled to the serial communications link. Examiner Huynh indicated that additional review of a written response and the Abramson reference would be needed before an agreement as to the allowability of the claims could be reached. No agreement as to the allowability of the claims was reached.

Double Patenting

Claims 1-20 stand rejected on the ground of nonstatutory double patenting over claims 1-38 of parent application 11/300,131. Applicant notes the nonstatutory double patenting rejection, and will submit a terminal disclaimer to overcome the nonstatutory double patenting rejection if the nonstatutory double patenting rejection remains when the claims of the present application are allowed.

35 U.S.C. § 102

Claims 1-20 stand rejected under 35 U.S.C. §102(e) as being anticipated by U.S. Patent No. 5,991,304 to Abramson (hereinafter “Abramson”). Claims 3 and 7 are canceled without prejudice. Applicant respectfully traverses the rejection of claims 1, 2, 4-6, 8-20, and submits that claims 1, 2, 4-6, 8-20 are not anticipated by Abramson.

Amended **claim 1** is directed to an apparatus comprising:

- a processor;
- a parallel bus; and
- an interface configured to receive parallel data from the parallel bus and configured to asynchronously, serially exchange serial data, corresponding to the parallel data, with one or more modules without requiring handshaking.

Applicant respectfully submits that Abramson does not disclose an apparatus as recited in amended claim 1.

In the June 21, 2010 Office Action at ¶ 3, p. 6, with reference to claim 3, it was asserted that Abramson at col. 3, lines 1-65 “discloses wherein the interface is further configured to asynchronously, serially exchange the parallel system bus data without requiring handshaking”. Abramson at col. 3, lines 1-65 discusses that a south bridge 140 bridges transactions from the PCI bus 130 and a serial bus 160, and that in the preferred

embodiment the serial bus is a 1394 serial bus in accordance with “IEEE 1394-1995 High Performance Serial Bus” (see, col. 3, lines 36-40). However, Applicant respectfully submits that nowhere in Abramson is there any discussion or mention to asynchronously, serially exchange serial data **without requiring handshaking** as recited in amended claim 1. Applicant respectfully submits that merely mentioning bridging transactions from the PCI bus to a serial bus, or use of 1394 serial bus, does not disclose to asynchronously, serially exchange serial data **without requiring handshaking**. If the Office maintains its assertion that Abramson discloses to asynchronously, serially exchange serial data without requiring handshaking, Applicant respectfully requests that the Office identify specifically where Abramson discloses to asynchronously, serially exchange serial data without requiring handshaking.

As Abramson does not disclose to asynchronously, serially exchange serial data without requiring handshaking, Applicant respectfully submits that Abramson does not disclose the apparatus of amended claim 1. For at least these reasons, Applicant respectfully submits that amended claim 1 is allowable over Abramson.

With respect to amended **claim 6**, Applicant respectfully submits that, similar to the discussion above regarding amended claim 1, Abramson does not disclose asynchronously, serially transferring first serial data, corresponding to first parallel bus data, from a first module to a second module via a serial link without using handshaking; and asynchronously, serially transferring second serial data, corresponding to second parallel bus data, from the second module to the first module via the serial link without using handshaking as recited in amended claim 6. For at least these reasons, Applicant respectfully submits that amended claim 6 is allowable over Abramson.

Amended **claim 13** is directed to a method comprising:

- asynchronously, serially transferring first serial data, corresponding to first parallel bus data, from a first module to a second module using a serial link;
- asynchronously, serially receiving second serial data, corresponding to second parallel bus data, from the second module using the serial link; and
- generating a first clock signal, for use by the first module, using the second serial data.

Applicant respectfully submits that Abramson does not disclose a method as recited in amended claim 13.

Amended claim 13 recites generating a first clock signal, for use by the first module, using the second serial data. Support for this amendment can be found at, for example, col. 6, lines 33-46 and col. 8, lines 38-53 of U.S. Patent No. 6,070,214, which is incorporated by reference in the present application. Applicant respectfully submits that Abramson is not cited as disclosing, and does not disclose, generating a first clock signal, for use by the first module, using the second serial data. Without any such disclosure, Applicant respectfully submits that Abramson cannot disclose generating a first clock signal, for use by the first module, using the second serial data as recited in amended claim 13. For at least these reasons, Applicant respectfully submits that amended claim 13 is allowable over Abramson.

Claims 2, 4, and 5 depend from amended claim 1, **claims 8-12** depend from amended claim 6, and **claims 14-20** depend from amended claim 13, and Applicant respectfully submits that claims 2, 4, 5, 8-12, and 14-20 are allowable as depending from an allowable base claim. These claims are also allowable for their own recited features which, in combination with those recited in their respective base claims, are neither disclosed nor suggested in the references cited and applied by the Office.

Applicant respectfully requests that the §102 rejections be withdrawn.

New claims

New claims 21-35 are added. New claim 21 recites a processor; a parallel bus; and a first interface coupled to a serial communications link and configured to asynchronously, serially exchange serial data corresponding to parallel bus data received from the parallel bus, via the serial communications link, with an additional module of a computer system that includes the computing module, the additional module including a second interface coupled to the serial communications link.

In the June 21, 2010 Office Action at ¶ 3, p. 5, the interface of claim 1 is asserted as being disclosed by arbitration module 215 of Abramson. The arbitration module 215 of Abramson is coupled to asynchronous transmit module 220 (referred to as “ATX module”), isochronous transmit module 225 (referred to as “ITX module”), and receive module 230, and performs the necessary arbitration between ATX, ITX, and receive modules 220, 225, and 230 to access the PCI bus 130 (see, col. 3, lines 58-64). However, nowhere in Abramson is there any discussion or mention of arbitration module 215, or any other interface, being coupled to a serial communications link and configured to asynchronously, serially exchange serial data corresponding to parallel bus data with an additional module via the serial communications link coupled to a second interface of the additional module as recited in new claim 21. Without any such discussion or mention, Applicant respectfully submits that Abramson cannot disclose the computing module of new claim 21. For at least these reasons, Applicant respectfully submits that new claim 21 is allowable over the cited references.

New claims 22-26 depend from new claim 21, and Applicant respectfully submits that new claims 22-26 are allowable as depending from an allowable base claim. These claims are also allowable for their own recited features which, in combination with those recited in their respective base claims, are neither disclosed nor suggested in the references cited and applied by the Office. For at least these reasons, Applicant respectfully submits that new claims 22-26 are allowable over the cited references.

New claim 27 recites a processor; a parallel bus; an interface configured to asynchronously, serially exchange serial data corresponding to parallel bus data with one or more modules of a computer system that includes the computing module; and a device configured to generate a clock signal from the serial data. Applicant respectfully submits that the cited references do not disclose or suggest an interface configured to asynchronously, serially exchange serial data corresponding to parallel bus data with one or more modules of a computer system that includes the computing module; and a device configured to generate a clock signal from the serial data as recited in new claim 27. For at least these reasons, Applicant respectfully submits that new claim 27 is allowable over the cited references.

New claims 28-32 depend from new claim 27, and Applicant respectfully submits that new claims 28-32 are allowable as depending from an allowable base claim. These claims are also allowable for their own recited features which, in combination with those recited in their respective base claims, are neither disclosed nor suggested in the references cited and applied by the Office. For at least these reasons, Applicant respectfully submits that new claims 28-32 are allowable over the cited references.

New claim 33 depends from amended claim 1, new claim 34 depends from amended claim 6, and new claim 35 depends from amended claim 13, and Applicant respectfully submits that new claims 33-35 are allowable as depending from an allowable base claim. These claims are also allowable for their own recited features which, in combination with those recited in their respective base claims, are neither disclosed nor suggested in the references cited and applied by the Office. For at least these reasons, Applicant respectfully submits that new claims 33-35 are allowable over the cited references.

Conclusion

All of the claims are in condition for allowance. Accordingly, Applicant requests that the Office issue a Notice of Allowability. If the Office's next anticipated action is to be anything other than issuance of a Notice of Allowability, Applicant respectfully requests a telephone call for the purpose of scheduling an interview.

Respectfully Submitted,

Date: October 21, 2010

By: /Allan T. Sponseller, Reg. #38,318/
Allan T. Sponseller
Reg. No. 38,318
(509) 755-7255

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant:	Frank W. Ahern et al.	Examiner:	Kim T Huynh
Serial No.:	12/644,511	Group Art Unit:	2111
Filed:	December 22, 2009	Docket:	TALS0090
Title:	A Computing Module with Serial Data Connectivity		

SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

In compliance with the duty imposed by 37 C.F.R. § 1.56, and in accordance with 37 C.F.R. §§ 1.97 *et. seq.*, the referenced materials are brought to the attention of the Examiner for consideration in connection with the above-identified patent application. Applicants respectfully request that this Supplemental Information Disclosure Statement be entered and the documents listed on the attached Form 1449 be considered by the Examiner and made of record. Pursuant to the provisions of MPEP 609, Applicants request that a copy of the 1449 form, initialed as being considered by the Examiner, be returned to the Applicants with the next official communication.

Pursuant to 37 C.F.R. §1.97(c)(2), Applicants have included the fee of \$180.00 as set forth in 37 C.F.R. §1.17(p). Please charge any additional fees or credit any overpayment to Deposit Account No. 50-4143.

Pursuant to 37 C.F.R. 1.98(a)(2), Applicant believes that copies of cited U.S. Patents and Published Applications, and Non-Published Applications identifiable by USPTO Serial Number, are no longer required to be provided to the Office. Notification of this change to this effect was provided in the United States Patent and Trademark Office OG Notices dated October 12, 2004 and October 19, 2004. Thus, Applicant has not included copies of any US Patents or US Patent Applications identifiable by serial number that may be cited with this submission. Should the Office require copies to be provided, Applicant respectfully requests that notice of such requirement be directed to Applicant's below-signed representative. Applicant acknowledges the requirement to submit copies of foreign patent documents and non-patent literature in accordance with 37 C.F.R. 1.98(a)(2).

SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT

Serial No :12/644,511

Filing Date: December 22, 2009

Title: A Computing Module with Serial Data Connectivity

Page 2

Dkt: TALS0090

Respectfully submitted,

Frank W. Ahern et al.

By their Representatives,

Date October 21, 2010

By /Allan T. Sponseller, Reg. #38,318/

Allan T. Sponseller

Reg. No. 38,318

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

PATENT APPLICATION FEE DETERMINATION RECORD Substitute for Form PTO-875					Application or Docket Number 12/644,511		Filing Date 12/22/2009		☐ To be Mailed		
APPLICATION AS FILED – PART I											
(Column 1)			(Column 2)		SMALL ENTITY ☐		OR		OTHER THAN SMALL ENTITY		
FOR	NUMBER FILED	NUMBER EXTRA	RATE (\$)	FEE (\$)	RATE (\$)	FEE (\$)					
☐ BASIC FEE (37 CFR 1.16(a), (b), or (c))	N/A	N/A	N/A		N/A						
☐ SEARCH FEE (37 CFR 1.16(k), (l), or (m))	N/A	N/A	N/A		N/A						
☐ EXAMINATION FEE (37 CFR 1.16(o), (p), or (q))	N/A	N/A	N/A		N/A						
TOTAL CLAIMS (37 CFR 1.16(i))	minus 20 =	*	X \$	=	OR	X \$	=				
INDEPENDENT CLAIMS (37 CFR 1.16(h))	minus 3 =	*	X \$	=		X \$	=				
☐ APPLICATION SIZE FEE (37 CFR 1.16(s))	If the specification and drawings exceed 100 sheets of paper, the application size fee due is \$250 (\$125 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).										
☐ MULTIPLE DEPENDENT CLAIM PRESENT (37 CFR 1.16(j))											
* If the difference in column 1 is less than zero, enter "0" in column 2.			TOTAL			TOTAL					
APPLICATION AS AMENDED – PART II											
(Column 1)		(Column 2)		(Column 3)		SMALL ENTITY		OR		OTHER THAN SMALL ENTITY	
AMENDMENT	10/21/2010	CLAIMS REMAINING AFTER AMENDMENT	HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA	RATE (\$)	ADDITIONAL FEE (\$)	RATE (\$)	ADDITIONAL FEE (\$)			
	Total (37 CFR 1.16(i))	* 33	Minus	** 20	= 13	X \$	=	OR	X \$52=	676	
	Independent (37 CFR 1.16(h))	* 5	Minus	***3	= 2	X \$	=	OR	X \$220=	440	
☐ Application Size Fee (37 CFR 1.16(s))											
☐ FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))								OR			
						TOTAL ADD'L FEE		OR	TOTAL ADD'L FEE	1116	
(Column 1)		(Column 2)		(Column 3)		SMALL ENTITY		OR		OTHER THAN SMALL ENTITY	
AMENDMENT		CLAIMS REMAINING AFTER AMENDMENT	HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA	RATE (\$)	ADDITIONAL FEE (\$)	RATE (\$)	ADDITIONAL FEE (\$)			
	Total (37 CFR 1.16(i))	*	Minus	**	=	X \$	=	OR	X \$	=	
	Independent (37 CFR 1.16(h))	*	Minus	***	=	X \$	=	OR	X \$	=	
☐ Application Size Fee (37 CFR 1.16(s))											
☐ FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))								OR			
						TOTAL ADD'L FEE		OR	TOTAL ADD'L FEE		
* If the entry in column 1 is less than the entry in column 2, write "0" in column 3. ** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, enter "20". *** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 3, enter "3". The "Highest Number Previously Paid For" (Total or Independent) is the highest number found in the appropriate box in column 1.											

Legal Instrument Examiner:
/DEBORAH PORTER/

This collection of information is required by 37 CFR 1.16. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.



Fax Transmittal

**To: Examiner Kim Huynh
Art Unit 2111**

Fax: (571) 273-3635

From: Allan Sponseller (509-755-7255)

Date: August 17, 2010

Pages (including cover): 4

Notes:

See attached Interview Request Form and proposed amendments.

**Thanks,
Allan**

**Sadler, Breen, Morasch & Colby, PS
422 W. Riverside Ave. Ste 424
Spokane, WA 99201
Phone: (509) 755-7262 -- Fax: (509) 755-7252**

Applicant Initiated Interview Request Form

Application No.: 12/644,511Examiner: Kim HuynhFirst Named Applicant: Frank W. AhernArt Unit: 2111Status of Application: nonfinal OA
issued**Tentative Participants:**(1) Kim Huynh(2) Allan Sponseller

(3) _____

(4) _____

Proposed Date of Interview: _____

Proposed Time: _____ (AM/PM)

Type of Interview Requested:(1) ☒ Telephonic(2) ☐ Personal(3) ☐ Video ConferenceExhibit To Be Shown or Demonstrated: ☐ YES☒ NO

If yes, provide brief description: _____

Issues To Be Discussed

Issues (Rej., Obj., etc)	Claims/ Fig. #s	Prior Art	Discussed	Agreed	Not Agreed
(1) <u>35 USC 102</u>	<u>1-20</u>	<u>5,991,304</u>	☐	☐	☐
(2) _____	_____	_____	☐	☐	☐
(3) _____	_____	_____	☐	☐	☐
(4) _____	_____	_____	☐	☐	☐
☐ Continuation Sheet Attached					

Brief Description of Arguments to be Presented:would like to discuss attached proposed claim amendments.

An interview was conducted on the above-identified application on _____.

NOTE: This form should be completed by applicant and submitted to the examiner in advance of the interview (see MPEP § 713.01).

This application will not be delayed from issue because of applicant's failure to submit a written record of this interview. Therefore, applicant is advised to file a statement of the substance of this interview (37 CFR 1.133(b)) as soon as possible.

Applicant/Applicant's Representative Signature_____
Examiner/SPE Signature_____
Typed/Printed Name of Applicant or Representative_____
Registration Number, if applicable

This collection of information is required by 37 CFR 1.133. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 21 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

Proposed Claim Amendments

1. (Currently amended) A computing module comprising:
a processor;
a parallel system bus; and
an interface coupled to a serial communications link and configured to asynchronously, serially exchange parallel system bus data, via the serial communications link, with one or more other modules of a computer system that includes the computing module, the one or more other modules each including an interface coupled to the serial communications link.

6. (Currently amended) A method in a computer, the method comprising[[,]]:
receiving, at a first module of the computer, first parallel bus data;
asynchronously, serially transferring the first parallel bus data from an interface of the first module to an interface of a second module via a serial link coupled to the first module and the second module;
receiving, at the second module, second parallel bus data; and
asynchronously, serially transferring the second parallel bus data from the interface of the second module to the interface of the first module via the serial link.

13. (Currently amended) A method in a first module of a computer system including the first module and a second module coupled together via a serial link, the method comprising:
receiving first parallel bus data;

Proposed Claim Amendments

asynchronously, serially transferring the first parallel bus data to the second module from an interface of the first module to an interface of the second module via the serial link; and

asynchronously, serially receiving second parallel bus data at the interface of the first module from the interface of the second module via the serial link,



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
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Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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12/644,511

12/22/2009

Frank W. Ahern

TALS0090

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09/20/2010

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EXAMINER

HUYNH, KIM T

ART UNIT

PAPER NUMBER

2111

NOTIFICATION DATE

DELIVERY MODE

09/20/2010

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

usptocorrespondence@sbsmc-law.com

Interview Summary	Application No. 12/644,511	Applicant(s) AHERN ET AL.	
	Examiner KIM T. HUYNH	Art Unit 2111	

All participants (applicant, applicant's representative, PTO personnel):

(1) KIM T. HUYNH, (USPTO). (3) ____.

(2) Allan Sponseller (Reg. #38318). (4) ____.

Date of Interview: 14 September 2010.

Type: a) ☒ Telephonic b) ☐ Video Conference
c) ☐ Personal [copy given to: 1) ☐ applicant 2) ☐ applicant's representative]

Exhibit shown or demonstration conducted: d) ☒ Yes e) ☐ No.
If Yes, brief description: interview agenda fax received on 8/17/2009.

Claim(s) discussed: 1.

Identification of prior art discussed: Abramson.

Agreement with respect to the claims f) ☐ was reached. g) ☐ was not reached. h) ☒ N/A.

Substance of Interview including description of the general nature of what was agreed to if an agreement was reached, or any other comments: Discussed a potential amendment which may overcome the cited reference. Applicant was advised to submit the amendment with the arguments for further consideration.

(A fuller description, if necessary, and a copy of the amendments which the examiner agreed would render the claims allowable, if available, must be attached. Also, where no copy of the amendments that would render the claims allowable is available, a summary thereof must be attached.)

THE FORMAL WRITTEN REPLY TO THE LAST OFFICE ACTION MUST INCLUDE THE SUBSTANCE OF THE INTERVIEW. (See MPEP Section 713.04). If a reply to the last Office action has already been filed, APPLICANT IS GIVEN A NON-EXTENDABLE PERIOD OF THE LONGER OF ONE MONTH OR THIRTY DAYS FROM THIS INTERVIEW DATE, OR THE MAILING DATE OF THIS INTERVIEW SUMMARY FORM, WHICHEVER IS LATER, TO FILE A STATEMENT OF THE SUBSTANCE OF THE INTERVIEW. See Summary of Record of Interview requirements on reverse side or on attached sheet.

	/Mark Rinehart/ Supervisory Patent Examiner, Art Unit 2111
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Summary of Record of Interview Requirements

Manual of Patent Examining Procedure (MPEP), Section 713.04, Substance of Interview Must be Made of Record

A complete written statement as to the substance of any face-to-face, video conference, or telephone interview with regard to an application must be made of record in the application whether or not an agreement with the examiner was reached at the interview.

Title 37 Code of Federal Regulations (CFR) § 1.133 Interviews Paragraph (b)

In every instance where reconsideration is requested in view of an interview with an examiner, a complete written statement of the reasons presented at the interview as warranting favorable action must be filed by the applicant. An interview does not remove the necessity for reply to Office action as specified in §§ 1.111, 1.135. (35 U.S.C. 132)

37 CFR §1.2 Business to be transacted in writing.

All business with the Patent or Trademark Office should be transacted in writing. The personal attendance of applicants or their attorneys or agents at the Patent and Trademark Office is unnecessary. The action of the Patent and Trademark Office will be based exclusively on the written record in the Office. No attention will be paid to any alleged oral promise, stipulation, or understanding in relation to which there is disagreement or doubt.

The action of the Patent and Trademark Office cannot be based exclusively on the written record in the Office if that record is itself incomplete through the failure to record the substance of interviews.

It is the responsibility of the applicant or the attorney or agent to make the substance of an interview of record in the application file, unless the examiner indicates he or she will do so. It is the examiner's responsibility to see that such a record is made and to correct material inaccuracies which bear directly on the question of patentability.

Examiners must complete an Interview Summary Form for each interview held where a matter of substance has been discussed during the interview by checking the appropriate boxes and filling in the blanks. Discussions regarding only procedural matters, directed solely to restriction requirements for which interview recordation is otherwise provided for in Section 812.01 of the Manual of Patent Examining Procedure, or pointing out typographical errors or unreadable script in Office actions or the like, are excluded from the interview recordation procedures below. Where the substance of an interview is completely recorded in an Examiners Amendment, no separate Interview Summary Record is required.

The Interview Summary Form shall be given an appropriate Paper No., placed in the right hand portion of the file, and listed on the "Contents" section of the file wrapper. In a personal interview, a duplicate of the Form is given to the applicant (or attorney or agent) at the conclusion of the interview. In the case of a telephone or video-conference interview, the copy is mailed to the applicant's correspondence address either with or prior to the next official communication. If additional correspondence from the examiner is not likely before an allowance or if other circumstances dictate, the Form should be mailed promptly after the interview rather than with the next official communication.

The Form provides for recordation of the following information:

- Application Number (Series Code and Serial Number)
- Name of applicant
- Name of examiner
- Date of interview
- Type of interview (telephonic, video-conference, or personal)
- Name of participant(s) (applicant, attorney or agent, examiner, other PTO personnel, etc.)
- An indication whether or not an exhibit was shown or a demonstration conducted
- An identification of the specific prior art discussed
- An indication whether an agreement was reached and if so, a description of the general nature of the agreement (may be by attachment of a copy of amendments or claims agreed as being allowable). Note: Agreement as to allowability is tentative and does not restrict further action by the examiner to the contrary.
- The signature of the examiner who conducted the interview (if Form is not an attachment to a signed Office action)

It is desirable that the examiner orally remind the applicant of his or her obligation to record the substance of the interview of each case. It should be noted, however, that the Interview Summary Form will not normally be considered a complete and proper recordation of the interview unless it includes, or is supplemented by the applicant or the examiner to include, all of the applicable items required below concerning the substance of the interview.

A complete and proper recordation of the substance of any interview should include at least the following applicable items:

- 1) A brief description of the nature of any exhibit shown or any demonstration conducted,
- 2) an identification of the claims discussed,
- 3) an identification of the specific prior art discussed,
- 4) an identification of the principal proposed amendments of a substantive nature discussed, unless these are already described on the Interview Summary Form completed by the Examiner,
- 5) a brief identification of the general thrust of the principal arguments presented to the examiner,
(The identification of arguments need not be lengthy or elaborate. A verbatim or highly detailed description of the arguments is not required. The identification of the arguments is sufficient if the general nature or thrust of the principal arguments made to the examiner can be understood in the context of the application file. Of course, the applicant may desire to emphasize and fully describe those arguments which he or she feels were or might be persuasive to the examiner.)
- 6) a general indication of any other pertinent matters discussed, and
- 7) if appropriate, the general results or outcome of the interview unless already described in the Interview Summary Form completed by the examiner.

Examiners are expected to carefully review the applicant's record of the substance of an interview. If the record is not complete and accurate, the examiner will give the applicant an extendable one month time period to correct the record.

Examiner to Check for Accuracy

If the claims are allowable for other reasons of record, the examiner should send a letter setting forth the examiner's version of the statement attributed to him or her. If the record is complete and accurate, the examiner should place the indication, "Interview Record OK" on the paper recording the substance of the interview along with the date and the examiner's initials.



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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
12/644,511	12/22/2009	Frank W. Ahern	TALS0090	6489
75671	7590	06/21/2010		
Sadler, Breen, Morasch & Colby, ps 422 W. Riverside Ave, Suite 424 Spokane, WA 99201			EXAMINER HUYNH, KIM T	
			ART UNIT 2111	PAPER NUMBER
			NOTIFICATION DATE 06/21/2010	DELIVERY MODE ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

usptocorrespondence@sbmc-law.com

Office Action Summary	Application No. 12/644,511	Applicant(s) AHERN ET AL.	
	Examiner KIM T. HUYNH	Art Unit 2111	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 December 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 December 2009 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) ☒ Notice of References Cited (PTO-892) | 4) ☐ Interview Summary (PTO-413) |
| 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) ☒ Information Disclosure Statement(s) (PTO/SB/08) | 5) ☐ Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>4/23/2010 & 12/22/2009</u> . | 6) ☐ Other: _____ |

DETAILED ACTION***Double Patenting***

1. Claims 1-20 of this application conflict with claims 1-38 of Application No. 11/300,131. 37 CFR 1.78(b) provides that when two or more applications filed by the same applicant contain conflicting claims, elimination of such claims from all but one application may be required in the absence of good and sufficient reason for their retention during pendency in more than one application.

Applicant is required to either cancel the conflicting claims from all but one application or maintain a clear line of demarcation between the applications. See MPEP § 822.

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the “right to exclude” granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

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2. Claims 1-20 are rejected on the ground of nonstatutory double patenting over claims 1-38 of parent application 11/300,131. Claim 1 of the instant application is unpatentable under the judicially created doctrine of "obviousness-type" double patenting with respect to claim 1 of parent application 11/300,131.

Although the conflicting claims are not identical, they are not patentably distinct from each other because claim 1 of the instant application is anticipated by parent claim 1 in that claim 1 of the patent contains all the limitations of claim 1 of the instant application. Claim 1 of the instant application therefore is not patently distinct from the earlier patent claim and as such is unpatentable for obvious-type double patenting. See *In re Goodman*(CA FC) 29 USPQ2d 2010(12/3/1993)

Claim 1 of the Parent (11/300131), as shown in the table below contains every element of claim 1 of the instant application and as such anticipates claim 1 of the Instant Application.

And The limitations of the remaining claims 2-20 are found, with minor variations, in the recitation of parent claims 2-38.

<u>Parent (11/300,131)</u>	<u>Instant Application(12/644511)</u>
A spatially separated computer system, comprising:	A computing module comprising:
a first connectivity station having a first interface adapted to asynchronously,	An interface configured to asynchronously , serially exchange

serially exchange parallel bus data thereacross;	parallel system bus data with one or more other modules of a computer system that includes the computing module.
A computing module disposed in the first connectivity station and including a processing unit adapted to create the parallel bus data on a system bus coupled to the first interface;	A processor;
A first module remotely positioned relative to the first connectivity station and having an interface coupled to the first connectivity station first interface via a serial communications link, wherein the first module is adapted to cooperate with the processing unit; and	
Wherein the first module and the first connectivity station asynchronously, serially transfer the parallel bus data there between via the serial communications link and collectively	

operate as a single computer.	
-------------------------------	--

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this

Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-20 are rejected under 35 U.S.C. 102(e) as being anticipated by Abramson (US Patent 5,991,304)

As per 1, Abramson discloses a computing module comprising:

a processor; (fig.1, 105)

a parallel system bus; and (fig.1, 130)

an interface (i.e., arbitration 215) configured to asynchronously,

serially exchange parallel system bus data with one or more other

modules of a computer system that includes the computing module. (col.3,

lines 1-65, i.e., arbitration module performs the necessary arbitration

between the modules)

As per claim 2, Abramson discloses wherein the interface comprises a

bridge. (fig.2, 210)

As per claim 3, Abramson discloses wherein the interface is further configured to asynchronously, serially exchange the parallel system bus data without requiring handshaking. (col.3, lines 1-65)

As per claims 4, 10, 15, Abramson discloses wherein the computing module is separated from each of the one or more other modules of the computer system by a distance of at least a meter. (col.2, lines 53-65)

As per claim 5, Abramson discloses wherein each of the one or more other modules comprises a module selected from a group including: a disk drive, a keyboard, a mouse, a monitor, a printer, an Internet connection, a wireless accessory, and a storage module. (col.3, lines 25-37)

As per claims 6,13, Abramson discloses a method comprising:

receiving, at a first module, first parallel bus data; (col.3,lines 17-65)
asynchronously, serially transferring the first parallel bus data to a second module via a serial link; (col.3, line 17-col.4, line 44, i.e.,
transferring from system memory via PCI to serial nodes via serial bus)
receiving, at the second module, second parallel bus data; and
asynchronously, serially transferring the second parallel bus data to the first module via the serial link. (col.3, line 17-col.4, line 44, i.e.,
transferring from system memory via PCI to serial nodes via serial bus)

As per claims 7, 14, Abramson discloses wherein the asynchronously, serially transferring the first parallel bus data comprises asynchronously, serially transferring the first parallel bus data without requiring handshaking. col.3, line 17-col.4, line 44, i.e., transferring from system memory via PCI to serial nodes via serial bus)

As per claims 8, 18, 20, Abramson discloses wherein the first module comprises a processor module including a CPU and memory, and wherein the second module comprises a peripheral device. (col.3, lines 17-65)

As per claims 9,19, Abramson discloses wherein the peripheral device comprises a hard drive. (col.3, lines 17-65)

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As per claims 11, 16, Abramson discloses wherein the first module and the second module each comprises a portable computing device. (col.3, lines 17-65)

As per claims 12,17, Abramson discloses wherein the first module comprises one of: a disk drive, a keyboard, a mouse, a monitor, a printer, an Internet connection, a wireless accessory, and a storage module. (col.3, lines 17-65)

Conclusion

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kim Huynh whose telephone number is (571)272-3635 or via e-mail addressed to [kim.huynh3@uspto.gov]. The examiner can normally be reached on M-F 9.00AM- 6:00PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Rinehart can be reached at (571)272-3632 or via e-mail addressed to [mark.rinehart@uspto.gov].

The fax phone numbers for the organization where this application or proceeding is assigned are (571)273-8300 for regular communications and After Final communications. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (571)272-2100.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/K. T. H./

Examiner, Art Unit 2111

/Mark Rinehart/

Supervisory Patent Examiner, Art Unit 2111