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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
11/637,726	12/13/2006	Yukio Kumazawa	130610	1762

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EXAMINER	
COLAN, GIOVANNA B	
ART UNIT	PAPER NUMBER
2162	
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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.

Office Action Summary	Application No.	Applicant(s)	
	11/637,726	KUMAZAWA ET AL.	
	Examiner	Art Unit	
	GIOVANNA COLAN	2162	

-- 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 *13 December 2006*.

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) *1-19* 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4a) Of the above claim(s) _____ is/are withdrawn from consideration.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) *1-19* 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 *13 December 2006* 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)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *12/13/2006*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. This action is issued in response to applicant filed application on 12/13/2006.

2. Claims 1 – 19 are pending.

3. The information disclosure statement (IDS) was submitted on 12/13/2006.The submission is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

Specification

4. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: the term "computer readable medium" lacks antecedent basis in the specification.

Claim Objections

5. Claims 1 – 19 are objected to because of the following informalities:

The limitations "to allow" recited in claim 1, 10, and 19; and "enabling" in claim 19 are indirect, passive, suggest optionally, which renders any recitation claimed after not be given patentable weight. The claims appear to cover anything and everything that does not prohibit actions from occurring.

The Examiner points to MPEP 2106 [III-C] wherein the claim's recitation of "adapted to" raises the question to Language that suggests or makes optional but does

not require steps to be performed or does not limit a claim to a particular structure does not limit the scope of a claim or claim limitation.

Office personnel must rely on the applicant's disclosure to properly determine the meaning of "enabling" and "allowing" in the claims. Limitations appearing in the specification but not recited in the claim are not read into the claim; therefore, in this case, the recitation of "enabling" and "to allow" as interpreted in light of the specification provide the "functionality" or "the capability" of the system to perform the steps without definite disclosure limiting or excluding any alternative, negative, or even all together suggest actually performing or implementing the functionality that its database management system is capable of.

Therefore, any cited art that teaches the steps otherwise in the alternative can be used to reject the instant application. The computer being enabled or allowed to perform a function does not mean that it will ever actually perform that functionality (i.e. "enable" and "allow" should be clarified and changed to a more definite term).

Appropriate correction is required.

Claim Rejections - 35 USC § 101

6. 35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

7. Claims 10 – 19 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Claim 10 recites a “computer-readable medium storing a program for causing a computer…”. However, applicant has failed to provide antecedent basis for the claim terminology “computer-readable medium”. Also, the examiner makes note that; “for causing a computer..." does not necessarily mean including/comprising/consisting of a computer. The claimed invention is addressed to an “computer-readable medium" that can be interpreted as referring to lines of programming within a computer-readable medium, rather than referring to the computer-readable medium as a physical object. The claimed invention is also addressed to "connecting modules", “determining”, and “when a capacity…” that is not a computer-readable medium/hardware/apparatus but is software. Accordingly, the claim becomes nothing more than sets of software instructions which are "software per se".

Claim 19 fails to be limited to embodiments which fall within a statutory category. Specifically, the claim recites "signal embodied in a carrier wave…” which does not appear to be a process, machine, manufacture, or composition of matter. See, e.g., In re Nuitjen, Docket no. 2006-1371 (Fed. Cir. Sept. 20, 2007)(slip. op. at 18)(“A transitory, propagating signal like Nuitjen’s is not a process, machine, manufacture, or composition of matter.’ … Thus, such a signal cannot be patentable subject matter.”).

Claim Rejections - 35 USC § 102

8. 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 –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

9. Claims 1 – 19 are rejected under 35 U.S.C. 102(b) as being anticipated by Duluk, JR et at. (Duluk hereinafter) (US 2004/0130552).

Regarding Claims 10, 19, and 1, Duluk discloses a computer readable medium storing a program for causing a computer with a memory and an external storage apparatus to execute an image processing, the processing comprising:

connecting modules constituted by a plurality of image processing modules and a buffer module according to a pipe line aspect or a directed acyclic graph aspect such that the plurality of image processing modules acquire image data from a preceding module thereof, apply a predetermined image processing to the acquired image data, and output the processed image data or a result of the image processing to a following module thereof, and the buffer module is connected to at least one of the preceding stage or the following stage of the plurality of image processing modules so as to allow writing of the image data output from the preceding module in a buffer and reading of the image data stored in the buffer by the following module (see for example; Abstract, Fig. 15, “Framebuffer memory”, and [0924], Duluk);

determining whether or not a capacity of a storage resource necessary to be allocated is equal to or less than a remaining amount of a securable memory when a module needs to be allocated with the storage resource ([0815], [1139], Duluk); and

when the capacity of the storage resource necessary for allocation is equal to or less than the remaining amount, securing the memory and allocating the secured

memory as the storage resource to the module that needs to be allocated with the storage resource, or, when the capacity of the storage resource necessary for allocation is larger than the remaining amount, securing a storage region of an external storage apparatus so as to allocate the secured storage region of the external storage apparatus as the storage resource to the module that needs to be allocated with the storage resource, or securing the storage region of the external storage apparatus so as to write data written in a memory which has been already allocated to another module as the storage resource in the secured storage region of the external storage apparatus and allocate the storage region of the external storage apparatus in which data is written to the other module in place of the memory in which the data had been written and allocating the memory which had been allocated to the other module as the storage resource to the module that needs to be allocated with the storage resource ([0815], [1139], [0799], Duluk).

Regarding Claims 11, and 2, Duluk discloses a computer readable medium, wherein the allocating further comprises allocating a fixed allocation of the memory in advance as the storage resource necessary for each of the image processing modules, or securing in advance the memory for each of the image processing modules and allocating the memory as the storage resource when the image processing module requires the storage resource ([0815], [1139], [0799], Duluk).

Regarding Claims 12, and 3, Duluk discloses a computer readable medium, wherein the determining further comprises determining whether or not the capacity of the storage resource necessary for allocation is equal to or less than the remaining

amount of the securable memory when respective buffer modules require allocation of the storage resource, and the allocating further comprises securing the memory and allocating the secured memory as the storage resource to the buffer module when the capacity of the storage resource necessary for allocation is equal to or less than the remaining amount, or securing the storage region of the external storage apparatus and allocating the storage region of the secured external storage apparatus as the storage resource to the buffer module when the capacity of the storage resource necessary to be allocated is larger than the remaining capacity ([0815], [1139], [0799], Duluk).

Regarding Claims 13, and 4, Duluk discloses a computer readable medium, wherein the modules are activated in parallel to each other (see for example; Abstract, Fig. 15, “Framebuffer memory”, and [0924], Duluk).

Regarding Claims 14, and 5, Duluk discloses a computer readable medium, wherein the memory has a fixed amount and is allocated in advance to respective buffer modules, the determining further comprises determining whether or not the capacity of the storage resource necessary for allocation is equal to or less than the remaining amount of the memory allocated in advance to the buffer module that needs to be allocated with the storage resource when the buffer module needs to be allocated the storage resource, and the allocating further comprises allocating the memory allocated in advance as the storage resource to the buffer module when the capacity of the storage resource necessary to be allocated is equal to or less than the remaining amount, or securing the storage region of the external storage apparatus and allocating the secured storage region of the external storage apparatus as the storage resource to

the buffer module when the capacity of the storage resource necessary to be allocated is larger than the remaining amount ([0815], [1139], [0799], Duluk).

Regarding Claims 15, and 6, Duluk discloses a computer readable medium, wherein the allocating further comprises monitoring release of the memory by a first buffer module which has been allocated with the memory as the storage resource and, when release of the memory is detected, writing the data written in the storage region of the external storage apparatus which has been already allocated to a second buffer module as the storage resource in the released memory, and allocating the memory in which the data is written in place of the storage region of the external storage apparatus in which the data had been written, to the second buffer module to which the storage region of the external storage apparatus had been already allocated as the storage resource ([0815], [1139], [0715], and [0799], Duluk).

Regarding Claims 16, and 7, Duluk discloses a computer readable medium, wherein when there are a plurality of second buffer modules to which the storage region of the external storage apparatus has been already allocated as the storage resource, the allocating further comprises selecting a second buffer module to which the memory is allocated in place of the storage region of the external storage apparatus, in earliest chronological order with respect a time when the second buffer modules are allocated with the storage region of the external storage apparatus as the storage resource ([0333], [0409], [0410], Duluk).

Regarding Claims 17, and 8, Duluk discloses a computer readable medium, wherein when there are a plurality of second buffer modules to which the storage region

of the external storage apparatus has been already allocated as the storage resource, a priority is set to each of the buffer modules, and the allocating further comprises selecting a second buffer module which is allocated with the memory in place of the storage region of the external storage apparatus in a descending order of the priority ([1788], and [2375], Duluk).

Regarding Claims 18, and 9, Duluk discloses a computer readable medium, wherein the image processing section is actuated by programs corresponding to the respective modules, the programs being executed in parallel to each other by a program execution resource, and further comprising executing an initial setting of an execution priority of each of the programs corresponding to the respective image processing modules in correspondence to a position in the connection aspect of the pipe line aspect or the directed acyclic graph aspect of the image processing module, changing the execution priority of each of the programs corresponding to the respective image processing modules in correspondence to a progress degree of the image processing, and setting and changing the execution priority of each of the buffer modules in correspondence to the execution priority of the program corresponding to the image processing module directly coupled to each of the buffer modules ([1788], and [2375], Duluk).

Points of Contact

Any inquiry concerning this communication or earlier communications from the examiner should be directed to GIOVANNA COLAN whose telephone number is (571)272-2752. The examiner can normally be reached on 8:30 am - 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Breene can be reached on (571) 272-4107. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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.

Giovanna Colan
Examiner
Art Unit 2162
January 12, 2009

/John Breene/
Supervisory Patent Examiner, Art Unit 2162