UNITED STATES PATENT AND TRADEMARK OFFICE

NOTICE OF ALLOWANCE AND FEE(S) DUE

128357	7590	11/01/2018

Manatt, Phelps & Phillips, LLP
-- IP Docket
11355 W. Olympic Blvd.
Los Angeles, CA 90064

EXAMINER
GRACIA, GARY S

ART UNIT	PAPER NUMBER
2491	

DATE MAILED: 11/01/2018

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
15/423,481	02/02/2017	FUMIO NEGORO	62659-045	1803

TITLE OF INVENTION: DEFINITION STRUCTURE OF PROGRAM FOR AUTONOMOUSLY DISABLING INVADING VIRUS, PROGRAM EQUIPPED WITH STRUCTURE, STORAGE MEDIUM INSTALLED WITH PROGRAM, AND METHOD/DEVICE FOR AUTONOMOUSLY SOLVING VIRUS PROBLEM

APPLN. TYPE	ENTITY STATUS	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	SMALL	$500	$0.00	$0.00	$500	02/01/2019

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

HOW TO REPLY TO THIS NOTICE:

I. Review the ENTITY STATUS shown above. If the ENTITY STATUS is shown as SMALL or MICRO, verify whether entitlement to that entity status still applies.

If the ENTITY STATUS is the same as shown above, pay the TOTAL FEE(S) DUE shown above.

If the ENTITY STATUS is changed from that shown above, on PART B - FEE(S) TRANSMITTAL, complete section number 5 titled "Change in Entity Status (from status indicated above)".

For purposes of this notice, small entity fees are 1/2 the amount of undiscounted fees, and micro entity fees are 1/2 the amount of small entity fees.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Maintenance fees are due in utility patents issuing on applications filed on or after Dec. 12, 1980. It is patentee's responsibility to ensure timely payment of maintenance fees when due. More information is available at www.uspto.gov/PatentMaintenanceFees.

PART B - FEE(S) TRANSMITTAL

Complete and send this form, together with applicable fee(s), by mail or fax, or via EFS-Web.

By mail, send to: Mail Stop ISSUE FEE
              Commissioner for Patents
              P.O. Box 1450
              Alexandria, Virginia 22313-1450

By fax, send to: (571)-273-2885

INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 5 should be completed where appropriate. All further correspondence including the Patent, advance orders and notification of maintenance fees will be mailed to the current correspondence address as indicated unless corrected below or directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" for maintenance fee notifications.

CURRENT CORRESPONDENCE ADDRESS (Note: Use Block 1 for any change of address)

128357   7590   11/01/2018

Manatt, Phelps & Phillips, LLP
-- IP Docket
11355 W. Olympic Blvd.
Los Angeles, CA 90064

Note: A certificate of mailing can only be used for domestic mailings of the Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing or transmission.

Certificate of Mailing or Transmission

I hereby certify that this Fee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Mail Stop ISSUE FEE address above, or being transmitted to the USPTO via EFS-Web or by facsimile to (571) 273-2885, on the date below.

                                      (Typed or printed name)

                                         (Signature)

                                            (Date)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
15/423,481	02/02/2017	FUMIO NEGORO	62659-045	1803

TITLE OF INVENTION: DEFINITION STRUCTURE OF PROGRAM FOR AUTONOMOUSLY DISABLING INVADING VIRUS, PROGRAM EQUIPPED WITH STRUCTURE, STORAGE MEDIUM INSTALLED WITH PROGRAM, AND METHOD/DEVICE FOR AUTONOMOUSLY SOLVING VIRUS PROBLEM.

APPLN. TYPE	ENTITY STATUS	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	SMALL	$500	$0.00	$0.00	$500	02/01/2019

EXAMINER	ART UNIT	CLASS-SUBCLASS
GRACIA, GARY S	2491	726-001000

1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363).

❏ Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached.

❏ "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-09 or more recent) attached. **Use of a Customer Number is required.**

2. For printing on the patent front page, list
(1) The names of up to 3 registered patent attorneys or agents OR, alternatively,
(2) The name of a single firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is listed, no name will be printed.

1 _____

2 _____

3 _____

3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type)

PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. If an assignee is identified below, the document must have been previously recorded, or filed for recordation, as set forth in 37 CFR 3.11 and 37 CFR 3.81(a). Completion of this form is NOT a substitute for filing an assignment.

(A) NAME OF ASSIGNEE   (B) RESIDENCE: (CITY and STATE OR COUNTRY)

Please check the appropriate assignee category or categories (will not be printed on the patent) : ❏ Individual ❏ Corporation or other private group entity ❏ Government

4a. Fees submitted: ❏ Issue Fee   ❏ Publication Fee (if required)   ❏ Advance Order - # of Copies _____

4b. Method of Payment: *(Please first reapply any previously paid fee shown above)*

❏ Electronic Payment via EFS-Web   ❏ Enclosed check   ❏ Non-electronic payment by credit card (Attach form PTO-2038)

❏ The Director is hereby authorized to charge the required fee(s), any deficiency, or credit any overpayment to Deposit Account No. _____

5. Change in Entity Status (from status indicated above)

❏ Applicant certifying micro entity status. See 37 CFR 1.29

❏ Applicant asserting small entity status. See 37 CFR 1.27

❏ Applicant changing to regular undiscounted fee status.

NOTE: Absent a valid certification of Micro Entity Status (see forms PTO/SB/15A and 15B), issue fee payment in the micro entity amount will not be accepted at the risk of application abandonment.
NOTE: If the application was previously under micro entity status, checking this box will be taken to be a notification of loss of entitlement to micro entity status.
NOTE: Checking this box will be taken to be a notification of loss of entitlement to small or micro entity status, as applicable.

NOTE: This form must be signed in accordance with 37 CFR 1.31 and 1.33. See 37 CFR 1.4 for signature requirements and certifications.

Authorized Signature _____   Date _____

Typed or printed name _____   Registration No. _____

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
15/423,481	02/02/2017	FUMIO NEGORO	62659-045	1803

			EXAMINER
128357 7590 11/01/2018			GRACIA, GARY S

Manatt, Phelps & Phillips, LLP
-- IP Docket
11355 W. Olympic Blvd.
Los Angeles, CA 90064

ART UNIT	PAPER NUMBER
2491	

DATE MAILED: 11/01/2018

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)
(Applications filed on or after May 29, 2000)

The Office has discontinued providing a Patent Term Adjustment (PTA) calculation with the Notice of Allowance.

Section 1(h)(2) of the AIA Technical Corrections Act amended 35 U.S.C. 154(b)(3)(B)(i) to eliminate the requirement that the Office provide a patent term adjustment determination with the notice of allowance. See Revisions to Patent Term Adjustment, 78 Fed. Reg. 19416, 19417 (Apr. 1, 2013). Therefore, the Office is no longer providing an initial patent term adjustment determination with the notice of allowance. The Office will continue to provide a patent term adjustment determination with the Issue Notification Letter that is mailed to applicant approximately three weeks prior to the issue date of the patent, and will include the patent term adjustment on the patent. Any request for reconsideration of the patent term adjustment determination (or reinstatement of patent term adjustment) should follow the process outlined in 37 CFR 1.705.

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

OMB Clearance and PRA Burden Statement for PTOL-85 Part B

The Paperwork Reduction Act (PRA) of 1995 requires Federal agencies to obtain Office of Management and Budget approval before requesting most types of information from the public. When OMB approves an agency request to collect information from the public, OMB (i) provides a valid OMB Control Number and expiration date for the agency to display on the instrument that will be used to collect the information and (ii) requires the agency to inform the public about the OMB Control Number's legal significance in accordance with 5 CFR 1320.5(b).

The information collected by PTOL-85 Part B is required by 37 CFR 1.311. 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 30 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, Virginia 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450. 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.

Privacy Act Statement

The Privacy Act of 1974 (P.L. 93-579) requires that you be given certain information in connection with your submission of the attached form related to a patent application or patent. Accordingly, pursuant to the requirements of the Act, please be advised that: (1) the general authority for the collection of this information is 35 U.S.C. 2(b)(2); (2) furnishing of the information solicited is voluntary; and (3) the principal purpose for which the information is used by the U.S. Patent and Trademark Office is to process and/or examine your submission related to a patent application or patent. If you do not furnish the requested information, the U.S. Patent and Trademark Office may not be able to process and/or examine your submission, which may result in termination of proceedings or abandonment of the application or expiration of the patent.

The information provided by you in this form will be subject to the following routine uses:
1. The information on this form will be treated confidentially to the extent allowed under the Freedom of Information Act (5 U.S.C. 552) and the Privacy Act (5 U.S.C 552a). Records from this system of records may be disclosed to the Department of Justice to determine whether disclosure of these records is required by the Freedom of Information Act.
2. A record from this system of records may be disclosed, as a routine use, in the course of presenting evidence to a court, magistrate, or administrative tribunal, including disclosures to opposing counsel in the course of settlement negotiations.
3. A record in this system of records may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pertains, when the individual has requested assistance from the Member with respect to the subject matter of the record.
4. A record in this system of records may be disclosed, as a routine use, to a contractor of the Agency having need for the information in order to perform a contract. Recipients of information shall be required to comply with the requirements of the Privacy Act of 1974, as amended, pursuant to 5 U.S.C. 552a(m).
5. A record related to an International Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent Cooperation Treaty.
6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).
7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (i.e., GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.
8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspection or an issued patent.
9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.

Notice of Allowability	Application No. 15/423,481	Applicant(s) NEGORO, FUMIO	
	Examiner GARY S GRACIA	Art Unit 2491	AIA Status Yes

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

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☑ This communication is responsive to <u>02/27/2018</u>.
  ☐ A declaration(s)/affidavit(s) under **37 CFR 1.130(b)** was/were filed on _____.

2. ☐ An election was made by the applicant in response to a restriction requirement set forth during the interview on _____; the restriction requirement and election have been incorporated into this action.

3. ☑ The allowed claim(s) is/are <u>1-34</u> . As a result of the allowed claim(s), you may be eligible to benefit from the **Patent Prosecution Highway** program at a participating intellectual property office for the corresponding application. For more information, please see **http://www.uspto.gov/patents/init_events/pph/index.jsp** or send an inquiry to **PPHfeedback@uspto.gov.**

4. ☑ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  Certified copies:
   a) ☑ All   b) ☐ Some   *c) ☐ None of the:
     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)).
  * Certified copies not received: _____ .

  Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file areply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
  THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
  ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____ .
  Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).

6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)
1. ☑ Notice of References Cited (PTO-892)
2. ☑ Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date _____.
3. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material _____.
4. ☑ Interview Summary (PTO-413), Paper No./Mail Date. _____.

5. ☑ Examiner's Amendment/Comment
6. ☑ Examiner's Statement of Reasons for Allowance
7. ☑ Other <u>Proposed Amendment</u>.

/GARY S GRACIA/
Primary Examiner, Art Unit 2491

Notice of Pre-AIA or AIA Status

1.   The present application, filed on or after March 16, 2013, is being examined

under the first inventor to file provisions of the AIA.

Election/Restrictions

2.   NO restrictions warranted at initial time of filing for patent.

Priority

3.   Applicant claims foreign priority under 35 USC 119(a)-(d) to Japan application filed

on 08/04/2014.

Information Disclosure Statement

4.   The information disclosure statement (IDS) submitted on 02/02/2017,

the submission is in compliance with the provisions of 37 CFR 1.97. Accordingly,

the information disclosure statement is being considered by the examiner.

Oath/Declaration

5.   Applicant's Oath was filed on 02/02/2017.

Drawings

6.   Applicant's drawings filed on 04/14/2017 has been inspected and is in compliance

with MPEP 608.01.

Specification

7.   Applicant's specification filed on 02/02/2017 has been inspected and is

in compliance with MPEP 608.02.

Claim Objections

8.   NO objections warranted at initial time of filing for patent.

EXAMINER'S AMENDMENT

9.   An examiner's amendment to the record appears below. Should the changes

and/or additions be unacceptable to applicant, an amendment may be filed as provided

by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be

submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in an interview with

Shyh-Jye Wang on 10/24/2018.

The application has been amended as follows:

1. (Currently Amended) A definition structure of a program[[,]] coupled to a non-

transitory computer readable medium comprising executable instructions to

execute the structure to enable enabling the program to establish:

a contamination detection mechanism for unassistedly detecting

contamination in case a predetermined memory area for a program in an

execution state is contaminated with anti-intent information against intent on the

program because of any reason;

a decontamination mechanism for unassistedly disinfecting the

contamination detected by the contamination detection mechanism; and

a normal state recovery mechanism for causing the memory area to

recover a normal state automatically; and

wherein the program comprises:

a first function that has a structure cycling until a critical state of a

Palette-4 where vector structures are accumulated in any order is achieved, the

vector structure being a minimum predicate structure for determining content for

a data area serving as a subject;

a second Function that has a structure cycling until a critical state of a

Palette-2 where vector structures are accumulated in any order is achieved, the

vector structure being a minimum predicate structure for determining content for

a data area serving as a subject;

a third Function that has a structure cycling until a critical state of a

Palette-3 where vector structures are accumulated in any order is achieved, the

vector structure being a minimum predicate structure for determining content for

a data area serving as a subject;

a fourth Function that causes control to transition to the Palette-2 when

the Palette-4 comes into the critical state, transition to the Palette-3 when the

Palette-2 comes into the critical state, and transition to any of the third Function

pertaining to a highest rank, the first Function pertaining to an identical rank, and

the first Function pertaining to a layer lower by one layer according to presence

of a fourth area of a variable subject for establishing the subject when the

Palette-3 comes into the critical state, wherein the functions are all basic

programs of the program stored on a non-transitory computer readable medium

and the vector includes a plurality of rules and the Palettes are three types of

subset of vectors.

2. (Currently Amended) The definition structure of a program according to claim

1, wherein the contamination detection mechanism has a structure of a vector

that includes ~~first to seventh~~ seven rules.

11. (Currently Amended) A definition structure of an autonomous virus solution

program, coupled to an non-transitory computer readable medium, for solving, as

a program structure, a problem which a virus invading an operation program

started on an OS (operating system) or a data area included in ~~pertaining to~~ the

operation program can cause, comprising:

a Coordinate Function-4 that has a structure cycling until a critical state

of a Palette-4 where vector structures are accumulated in any order is achieved,

the vector structure being a minimum predicate structure for determining content

for a data area serving as a subject;

a Coordinate Function-2 that has a structure cycling until a critical state

of a Palette-2 where vector structures are accumulated in any order is achieved,

the vector structure being a minimum predicate structure for determining content

for a data area serving as a subject;

a Coordinate Function-3 that has a structure cycling until a critical state

of a Palette-3 where vector structures are accumulated in any order is achieved,

the vector structure being a minimum predicate structure for determining content

for a data area serving as a subject;

a Synchronization Function that causes control to transition to the

Palette-2 when the Palette-4 comes into the critical state, transition to the

Palette-3 when the Palette-2 comes into the critical state, and transition to any of

the Coordinate Function-3 pertaining to a highest rank, the Coordinate Function-

4 pertaining to an identical rank, and the Coordinate Function-4 pertaining to a

layer lower by one layer according to presence of a fourth area of a variable

subject for establishing the subject when the Palette-3 comes into the critical

state, wherein the Coordinate Function-2, Coordinate Function-3, Coordinate

Function 4 and Synchronization Function are all basic programs of the program

stored on the non-transitory computer readable medium and the Palettes are

three types of subset of vectors; and

wherein the vector includes: a contamination detection mechanism for

unassistedly detecting contamination in case the data area is contaminated

because of any reason;

a decontamination mechanism for unassistedly disinfecting the

contamination detected by the contamination detection mechanism; and

a normal state recovery mechanism for causing the memory area to

recover a normal state automatically, wherein the vector has a plurality of rules.

13. (Currently Amended) The definition structure of a program according to claim 11, wherein the vector has ~~first to seventh~~ seven rules.

23. (Currently Amended) A non-transitory storage medium storing the definition structure of a program according to claim 1.

25. (Currently Amended) An autonomous virus solution method, comprising:

unassistedly detecting contamination in case a predetermined memory area for a program in an execution state is contaminated with anti-intent information against intent on the program because of any reason;

unassistedly disinfecting the detected contamination; and causing the memory area to recover a normal state automatically; and

wherein the program comprises:

a first function that has a structure cycling until a critical state of a Palette-4 where vector structures are accumulated in any order is achieved, the vector structure being a minimum predicate structure for determining content for a data area serving as a subject;

a second Function that has a structure cycling until a critical state of a Palette-2 where vector structures are accumulated in any order is achieved, the vector structure being a minimum predicate structure for determining content for a data area serving as a subject;

a third Function that has a structure cycling until a critical state of a Palette-3 where vector structures are accumulated in any order is achieved, the

vector structure being a minimum predicate structure for determining content for

a data area serving as a subject;

a fourth Function that causes control to transition to the Palette-2 when

the Palette-4 comes into the critical state, transition to the Palette-3 when the

Palette-2 comes into the critical state, and transition to any of the third Function

pertaining to a highest rank, the first Function pertaining to an identical rank, and

the first Function pertaining to a layer lower by one layer according to presence

of a fourth area of a variable subject for establishing the subject when the

Palette-3 comes into the critical state, wherein the functions are all basic

programs of the program stored on a non-transitory computer readable medium

and the vector includes a plurality of rules and the Palettes are three types of

subset of vectors.

26. (Currently Amended) The autonomous virus solution method according to

claim 25, wherein the contamination is ascertained by having a structure of a

vector having ~~first to seventh~~ seven rules.

Reasons for Allowance

10.   Claims 1-34 including all of the limitations of the base claim and any intervening

claims are allowed.

Closest Prior Art:

U.S. Patent No. 8099785 on Col. 5 Lines 54-67 "In the system shown in FIG.

3B, the malware detection means 310 first detects the presence of the malware.

In the event of detection of an infected file, the means 310 then launches the

blocking means 320. The blocking means 320 then executes the blocking of the

activities which can prevent malware treatment. This can include blocking any

attempts to write to the system branches of the registry, blocking the launching of

new processes and threads, blocking creation of new files, and modification of

existing files, etc. Once these processes are blocked, the means 330 executes

the cure, which includes removal, quarantine, or disinfection of the infected file,

as is known in the art. The means 330 also reloads the operating system,

guaranteeing that the malware be removed from the system."

U.S. Publication No. 20060265749 on paragraph 0018-0021 "In accordance

with one aspect, the present invention provides a method for removing computer

viruses comprising the steps of: (A) if a function to be used to search information

about areas injectable by viruses has been changed, restoring the function to be

in a normal state thereof; and (B) carrying out a procedure for scanning of

infection and a disinfection procedure for processes residing in a memory and

associated files scanned using a normal function. The procedure for

determination of infection and the disinfection procedure at the step (B) may be

further carried out for thread areas of the memory."

U.S. Publication No. 20050120238 discloses on paragraph 0007 "It is an

object of the present invention to provide a computer virus protection method

capable of scanning processes and threads residing in the memory as well as

the files corresponding to processes and reliably disinfecting the infected

processes and threads using information in memory areas likely to be infected."

The following is an Examiner's Statement of Reasons for Allowance:

Claims 1-34 are allowable over prior art references taken individually or in

combination fails to particularly disclose, fairly suggests or render obvious are argued

by the applicant which examiner considers persuasive as set forth above

Although the prior art discloses a contamination detection mechanism for

unassistedly detecting contamination in case a predetermined memory area for a

program in an execution state is contaminated with anti-intent information against intent

on the program because of any reason, a decontamination mechanism for unassistedly

disinfecting the contamination detected by the contamination detection mechanism and

a normal state recovery mechanism for causing the memory area to recover a normal

state automatically, **no one or two references anticipates or obviously suggest** a

program comprising a first function that has a structure cycling until a critical state of a

Palette-4 where vector structures are accumulated in any order is achieved, the vector

structure being a minimum predicate structure for determining content for a data area

serving as a subject. A second Function that has a structure cycling until a critical state

of a Palette-2 where vector structures are accumulated in any order is achieved, the

vector structure being a minimum predicate structure for determining content for a data

area serving as a subject. A third Function that has a structure cycling until a critical

state of a Palette-3 where vector structures are accumulated in any order is achieved,

the vector structure being a minimum predicate structure for determining content for a

data area serving as a subject. A fourth Function that causes control to transition to the

Palette-2 when the Palette-4 comes into the critical state, transition to the Palette-3

when the Palette-2 comes into the critical state, and transition to any of the third

Function pertaining to a highest rank, the first Function pertaining to an identical rank,

and the first Function pertaining to a layer lower by one layer according to presence of a

fourth area of a variable subject for establishing the subject when the Palette-3 comes

into the critical state, wherein the functions are all basic programs of the program stored

on a non-transitory computer readable medium and the vector includes a plurality of

rules and the Palettes are three types of subset of vectors.

Any comments considered necessary by applicant must be submitted no later

than the payment of the issue fee and, to avoid processing delays, should preferably

accompany the issue fee. Such submissions should be clearly labeled "Comments on

Statement of Reasons for Allowance."

Conclusion

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to GARY S GRACIA whose telephone number is (571)270-

5192. The examiner can normally be reached on Monday-Friday 9am-6pm.

Examiner interviews are available via telephone, in-person, and video conferencing using a USPTO supplied web-based collaboration tool. To schedule an interview, applicant is encouraged to use the USPTO Automated Interview Request (AIR) at http://www.uspto.gov/interviewpractice.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ashok Patel can be reached on 5712723972. 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.

/GARY S GRACIA/
Primary Examiner, Art Unit 2491