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NOTICE OF ALLOWANCE AND FEE(S) DUE

126234 7590 09/01/2026
Morgan, Lewis & Bockius LLP (PA)(Facebook)
1400 Page Mill Road
Palo Alto, CA 94304-1124

EXAMINER	
MARINELLI, PATRICK	
ART UNIT	PAPER NUMBER
2699	

DATE MAILED: 09/01/2026

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
19/358,328	10/14/2025	Emron Jackson Henry	139004-00-5729-US01	8998

TITLE OF INVENTION: INTERMEDIARY DEVICE FOR OFFLOADING PROCESSING OPERATIONS FOR AN ARTIFICIAL-REALITY SYSTEM AND FOR ENABLING INTERACTIONS AND INPUT PARADIGMS, AND SYSTEMS AND METHODS OF USE THEREOF

APPLN. TYPE	ENTITY STATUS	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	UNDISCOUNTED	\$1290	\$0.00	\$0.00	\$1290	12/01/2026

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 40% the amount of undiscounted fees, and micro entity fees are 20% the amount of undiscounted 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. 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 the USPTO patent electronic filing system.

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 6 should be completed where appropriate. All further correspondence 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. **Because electronic patent issuance may occur shortly after issue fee payment, any desired continuing application should preferably be filed prior to payment of this issue fee in order not to jeopardize copendency.**

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

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 the USPTO patent electronic filing system 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.
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nonprovisional	UNDISCOUNTED	\$1290	\$0.00	\$0.00	\$1290	12/01/2026

EXAMINER	ART UNIT	CLASS-SUBCLASS
MARINELLI, PATRICK	2699	345-156000

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/AIA/122 or PTO/SB/122) attached.

☐ "Fee Address" indication (or "Fee Address" Indication form PTO/AIA/47 or PTO/SB/47; Rev 03-02 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,

1 _____

(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.

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)

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

☐ Electronic Payment via the USPTO patent electronic filing system ☐ 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.

6. Courtesy Ceremonial Copy

☐ Applicant requests a courtesy ceremonial copy of the electronic patent grant. Applicant understands that the electronic patent grant is the official statutory patent grant.

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. _____



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126234	7590	09/01/2026	EXAMINER	
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Palo Alto, CA 94304-1124			PAPER NUMBER	
			2699	

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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. The United States Patent and Trademark Office (USPTO) collects the information in this record under authority of 35 U.S.C. 2. The USPTO's system of records is used to manage all applicant and owner information including name, citizenship, residence, post office address, and other information with respect to inventors and their legal representatives pertaining to the applicant's/owner's activities in connection with the invention for which a patent is sought or has been granted. The applicable Privacy Act System of Records Notice for the information collected in this form is COMMERCE/PAT-TM-7 Patent Application Files, available in the Federal Register at 78 FR 19243 (March 29, 2013).

<https://www.govinfo.gov/content/pkg/FR-2013-03-29/pdf/2013-07341.pdf>

Routine uses of the information in this record may include disclosure to:

- 1) law enforcement, in the event that the system of records indicates a violation or potential violation of law;
- 2) a federal, state, local, or international agency, in response to its request;
- 3) a contractor of the USPTO having need for the information in order to perform a contract;
- 4) the Department of Justice for determination of whether the Freedom of Information Act (FOIA) requires disclosure of the record;
- 5) a Member of Congress submitting a request involving an individual to whom the record pertains, when the individual has requested the Member's assistance with respect to the subject matter of the record;
- 6) a court, magistrate, or administrative tribunal, in the course of presenting evidence, including disclosures to opposing counsel in the course of settlement negotiations;
- 7) the Administrator, General Services Administration (GSA), or their designee, during an inspection of records conducted by GSA under authority of 44 U.S.C. 2904 and 2906, in accordance with the GSA regulations and any other relevant (i.e., GSA or Commerce) directive, where such disclosure shall not be used to make determinations about individuals;
- 8) 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));
- 9) the Office of Personnel Management (OPM) for personnel research purposes; and
- 10) the Office of Management and Budget (OMB) for legislative coordination and clearance.

If you do not furnish the information requested on this form, the USPTO may not be able to process and/or examine your submission, which may result in termination of proceedings, abandonment of the application, and/or expiration of the patent.

Notice of Allowability	Application No. 19/358,328	Applicant(s) Henry et al.	
	Examiner PATRICK F MARINELLI	Art Unit 2699	AIA (First Inventor to File) 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 7/28/2026.
☐ 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 1-9 and 11-20. 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 a reply 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) | 5. ☒ Examiner's Amendment/Comment |
| 2. ☐ Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date ____. | 6. ☒ Examiner's Statement of Reasons for Allowance |
| 3. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material ____. | 7. ☐ Other ____. |
| 4. ☒ Interview Summary (PTO-413),
Paper No./Mail Date ____. | |

/PATRICK F MARINELLI/
Primary Examiner, Art Unit 2699

DETAILED ACTION

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.
2. Claims 1, 2, and 5-20 have been amended as per the amendment filed on 7/28/2026.
3. Currently Claims 1-20 are pending and prosecuted.

EXAMINER'S AMENDMENT

4. 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 Alexander Stein and Garrett Pierson on 8/18/2026.

The application has been amended as follows:

1. (Currently Amended) A non-transitory computer-readable storage medium including instructions that, when executed by one or more processors, cause the one or more processors to:

while a handheld intermediary processing device, a wrist-wearable device distinct from the handheld intermediary processing device, and a head-wearable device are communicatively coupled and share image data:

identify one or more back-end image data processing tasks, ~~[[and]]~~ one or more front-end image data presenting tasks, and one or more additional front-end tasks associated with the image data;

in accordance with a determination that a thermal level of the head-wearable device requires distributing the one or more back-end image data processing tasks to the handheld intermediary processing device, cause performance of the one or more back-end image data processing tasks at the handheld intermediary processing device;

cause performance of the one or more front-end image data presenting tasks at the head-wearable device, wherein the one or more front-end image data presenting tasks includes causing image data to be presented to a user at the head-wearable device;

receive one or more input commands from the wrist-wearable device; and

cause execution of an action at the head-wearable device based on the one or more input commands and the one or more additional front-end tasks.

2. (Previously Presented) The non-transitory computer-readable storage medium of claim 1, wherein the executable instructions further cause the one or more processors to:

before the handheld intermediary processing device, the wrist-wearable device, and the head-wearable device are communicatively coupled, detect that the head-wearable device is within a proximity to the handheld intermediary processing device and associated with the handheld intermediary processing device; and

in accordance with a determination that the head-wearable device is within the proximity to the handheld intermediary processing device and associated with the handheld intermediary processing device, communicatively couple the head-wearable device and the handheld intermediary processing device.

3. (Previously Presented) The non-transitory computer-readable storage medium of claim 2, wherein the proximity is twenty feet.

4. (Previously Presented) The non-transitory computer-readable storage medium of claim 2, wherein detecting that the head-wearable device is within the proximity to the handheld intermediary processing device and associated with the handheld intermediary processing device is based on one or more of:

receiving, from the handheld intermediary device, a signal to communicatively couple with the head-wearable device within the proximity of the handheld intermediary processing device; and

receiving, from the head-wearable device, a signal to communicatively couple with the handheld intermediary processing device within the proximity of the head-wearable device.

5. (Currently Amended) The non-transitory computer-readable storage medium of claim 1, wherein the executable instructions further cause the one or more processors to:

while the handheld intermediary processing device and the wrist-wearable device are communicatively coupled and share additional image data:

identify one or more additional back-end ~~image data processing~~ tasks and one or more additional front-end ~~image data presenting~~ tasks associated with the additional image data;

in accordance with a determination that a thermal level of the wrist-wearable device requires distributing the one or more additional back-end ~~image data processing~~ tasks to the handheld intermediary processing device, cause performance of the one or more additional back-end ~~image data processing~~ tasks at the handheld intermediary processing device; and

cause performance of the one or more additional front-end ~~image data presenting~~ tasks at the head-wearable device, wherein the one or more additional front-end ~~image data presenting~~ tasks includes causing the additional image data to be presented to the user at the wrist-wearable device.

6. (Currently Amended) The non-transitory computer-readable storage medium of claim 1, wherein the executable instructions further cause the one or more processors to:

while the handheld intermediary processing device and another display device, including one or more displays, are communicatively coupled and share third image data:

identify one or more third back-end ~~image data processing~~ tasks and one or more third front-end ~~image data presenting~~ tasks associated with the third image data;

in accordance with a determination that a thermal level of the other display device requires distributing the one or more back-end ~~image data processing~~ tasks to the handheld intermediary processing device, cause performance of the one or more third back-end ~~image data processing~~ tasks at the handheld intermediary processing device; and

cause performance of the one or more third front-end ~~image data~~ ~~presenting~~ tasks at the other display device, wherein the one or more third front-end ~~image data~~ ~~presenting~~ tasks includes causing the third image data to be presented to the user at the other display device.

7. (Currently Amended) The non-transitory computer-readable storage medium of claim 1, wherein identifying the one or more back-end ~~image data processing~~ tasks and the one or more front-end ~~image data presenting~~ tasks associated with the image data is based on one or more of:

detecting respective battery levels of the head-wearable device and the handheld intermediary processing device;

detecting respective thermal levels of the head-wearable device and the handheld intermediary processing device;

detecting respective time-of-completions for a graphics processing task of the head-wearable device and the handheld intermediary processing device; and

detecting respective available computational resources of the head-wearable device and the handheld intermediary processing device.

8. (Currently Amended) The non-transitory computer-readable storage medium of Claim 1, further cause the one or more processors to:

while the handheld intermediary processing device, the wrist-wearable device, and the head-wearable device are communicatively coupled and share fourth graphical data:

identify one or more fourth back-end ~~image data processing~~ tasks and one or more fourth front-end ~~image data presenting~~ tasks associated with the fourth image data;

in accordance with a determination that a thermal level of the head-wearable device requires distributing a first portion of the one or more fourth back-end ~~image data processing~~ tasks to the handheld intermediary processing device:

cause performance of the first portion of the one or more fourth back-end ~~image data processing~~ tasks at the handheld intermediary processing device; and

cause performance of a second portion, distinct from the first portion, of the one or more fourth back-end ~~image data processing~~ tasks at the head-wearable device; and

cause performance of the one or more fourth front-end ~~image data presenting~~ tasks at the head-wearable device, wherein the one or more fourth front-end ~~image data presenting~~ tasks includes causing the fourth image data to be presented to the user at the head-wearable device.

9. (Currently Amended) The non-transitory computer-readable storage medium of claim 1, wherein the one or more back-end ~~image data processing~~ tasks includes one or more of:

upsampling the image data; and
generating an extended reality (XR) representation of the image data.

10. (Cancelled)

11. (Currently Amended) The non-transitory computer-readable storage medium of claim 1, wherein the executable instructions further cause the one or more processors to:

while the handheld intermediary processing device, the wrist-wearable device, and the head-wearable device are communicatively coupled and share other image data:

identify one or more other back-end ~~image data processing~~ tasks and one or more other front-end ~~image data presenting~~ tasks associated with the other image data;

in accordance with a determination that another thermal level of the head-wearable device requires distributing the one or more other back-end ~~image data processing~~ tasks to the handheld intermediary processing device, cause performance of the one or more other back-end ~~image data processing~~ tasks at the handheld intermediary processing device; and

cause performance of the one or more front-end ~~image data presenting~~ tasks at the head-wearable device, wherein the one or more front-end ~~image data presenting~~ tasks includes causing the other image data to be presented to the user at the head-wearable device;

receive one or more other input commands from the wrist-wearable device; and

cause execution of another action at the head-wearable device based on the one or more other input commands.

12. (Previously Presented) The non-transitory computer-readable storage medium of claim 1, wherein:

the head-wearable device includes one or more displays configured to present the image data; and

the handheld intermediary processing device does not include one or more displays.

13. (Currently Amended) A method comprising:

while a handheld intermediary processing device, a wrist-wearable device distinct from the handheld intermediary processing device, and a head-wearable device are communicatively coupled and share image data:

identifying one or more back-end image data processing tasks, ~~[[and]] one or more front-end image data presenting tasks, and one or more additional front-end tasks~~ associated with the image data;

in accordance with a determination that a thermal level of the head-wearable device requires distributing the one or more back-end image data processing tasks to the handheld intermediary processing device, causing performance of the one or more back-end image data processing tasks at the handheld intermediary processing; and

causing performance of the one or more front-end image data presenting tasks at the head-wearable device, wherein the one or more front-end image data presenting tasks includes causing the image data to be presented to a user at the head-wearable device;

receiving one or more input commands from the wrist-wearable device; and

causing execution of an action at the head-wearable device based on the one or more input commands and the one or more additional front-end tasks.

14. (Previously Presented) The method of claim 13, further comprising:

before the handheld intermediary processing device, the wrist-wearable device, and the head-wearable device are communicatively coupled, detecting, by the handheld intermediary processing device, the head-wearable device is within a proximity to the handheld intermediary processing device and associated with the handheld intermediary processing device; and

in accordance with a determination that the head-wearable device is within the proximity to the handheld intermediary processing device and associated with the handheld intermediary processing device, communicatively coupling the head-wearable device and the handheld intermediary processing device.

15. (Currently Amended) The method of claim 13, further comprising:

while the handheld intermediary processing device and the wrist-wearable device are communicatively coupled and share additional image data:

identifying one or more additional back-end ~~image data processing~~ tasks and one or more additional front-end ~~image data presenting~~ tasks associated with the additional image data;

in accordance with a determination that a thermal level of the wrist-wearable device requires distributing the one or more additional back-end ~~image data processing~~ tasks to the handheld intermediary processing device, causing performance of the one or more additional back-end ~~image data processing~~ tasks at the handheld intermediary processing device; and

causing performance of the one or more additional front-end image data presenting tasks at the head-wearable device, wherein the one or more additional front-end image data presenting tasks includes causing the additional image data to be presented to the user at the wrist-wearable device.

16. (Currently Amended) The method of claim 13, further comprising:

while the handheld intermediary processing device, the wrist-wearable device, and the head-wearable device are communicatively coupled and share other image data:

identifying one or more other back-end image data processing tasks and one or more other front-end image data presenting associated with the other image data;

in accordance with a determination that another thermal level of the head-wearable device requires distributing the one or more other back-end image data processing tasks to the handheld intermediary processing device, causing performance of the one or more other back-end image data processing tasks at the handheld intermediary processing device; and

causing performance of the one or more front-end image data presenting tasks at the head-wearable device, wherein the one or more front-end image data presenting tasks includes causing the other image data to be presented to the user at the head-wearable device;

receiving one or more other input commands from the wrist-wearable device;

and

causing execution of another action at the head-wearable device based on the one or more other input commands.

17. (Currently Amended) A system comprising:

- a handheld intermediary processing device;
- a wrist-wearable device, distinct from the handheld intermediary processing device;
- a head-wearable device;
- one or more processors; and
- one or more memory devices including executable instructions that, when executed by the one or more processors, cause the one or more processors to:
 - while the handheld intermediary processing device, the wrist-wearable device, and the head-wearable device are communicatively coupled and share image data:

- identify one or more back-end image data processing tasks, ~~[[and]]~~ one or more front-end image data presenting tasks, and one or more additional front-end tasks associated with the image data;

- in accordance with a determination that a thermal level of the head-wearable device requires distributing the one or more back-end image data processing tasks to the handheld intermediary processing device, cause performance of the one or more back-end image data processing tasks at the handheld intermediary processing device; and

cause performance of the one or more front-end image data
~~presenting~~ tasks at the head-wearable device, wherein the one or more
front-end image data ~~presenting~~ tasks includes causing the image data to
be presented to a user at the head-wearable device;
receive one or more input commands from the wrist-wearable device; and
cause execution of an action at the head-wearable device based on the one or
more input commands and the one or more additional front-end tasks.

18. (Previously Presented) The system of claim 17, further comprising a wrist-wearable device, wherein the executable instructions further cause the one or more processors to:

before the handheld intermediary processing device, the wrist-wearable device, and the head-wearable device are communicatively coupled, detect that the head-wearable device is within a proximity to the handheld intermediary processing device and associated with the handheld intermediary processing device; and

in accordance with a determination that the head-wearable device is within the proximity to the handheld intermediary processing device and associated with the handheld intermediary processing device, communicatively couple the head-wearable device and the handheld intermediary processing device.

19. (Currently Amended) The system of claim 17, wherein the executable instructions further cause the one or more processors to:

while the handheld intermediary processing device and the wrist-wearable device are communicatively coupled and share additional graphical data:

identify one or more additional back-end ~~image data processing~~ tasks and one or more additional front-end ~~image data presenting~~ tasks associated with the additional image data;

in accordance with a determination that a thermal level of the wrist-wearable device requires distributing the one or more additional back-end ~~image data processing~~ tasks to the handheld intermediary processing device, cause performance of the one or more additional back-end ~~image data processing~~ tasks at the handheld intermediary processing device; and

cause performance of the one or more additional front-end ~~image data presenting~~ tasks at the head-wearable device, wherein the one or more additional front-end ~~image data presenting~~ tasks includes causing the additional image data to be presented to the user at the wrist-wearable device.

20. (Currently Amended) The system of claim 17, wherein the executable instructions further cause the one or more processors to:

while the handheld intermediary processing device, the wrist-wearable device, and the head-wearable device are communicatively coupled and share other image data:

identify one or more other back-end ~~image data processing~~ tasks and one or more other front-end ~~image data presenting~~ tasks associated with the other image data;

in accordance with a determination that another thermal level of the head-wearable device requires distributing the one or more other back-end image data processing tasks to the handheld intermediary processing device, cause performance of the one or more other back-end image data processing tasks at the handheld intermediary processing device; and

cause performance of the one or more front-end image data presenting tasks at the head-wearable device, wherein the one or more front-end image data presenting tasks includes causing the other image data to be presented to the user at the head-wearable device;

receive one or more other input commands from the wrist-wearable device; and

cause execution of another action at the head-wearable device based on the one or more other input commands.

End of Amendment.

Allowable Subject Matter

5. Claims 1-9 and 11-20 are allowed.
6. The following is an examiner's statement of reasons for allowance:

None of the prior art, made of record, singularly or in combination, teaches or fairly suggests the amended features in conjunction with the remaining aspects presented in independent claims 1, 13, and 17.

Vasavads, US Patent Publication 2022/0100148, discloses a wearable device and an HMD communicatively coupled to share graphics data, and that selectively offloads at least one computing task of the HMD that is suitable for processing on the available computing resources of the watch body, such as a graphics processing tasks that can be processed on the watch body and then rendered on the HMD. However, Vasavada doesn't explicitly teach the features present in independent claims 1, 13, and 17.

Hanumanthaiah 2026/0004684 (Foreign filed on 8/14/2022, PCT filed on 12/23/2022) discloses a companion device configured to assist the wearable device in thermal management by offloading processes from the wearable device, and providing reduced data to the wearable device. A thermal controller configured to generate a signal indicative of a thermal mitigation level based on the set of one or more temperature signals; a set of one or more subsystems configured to perform one or more operations based on the thermal mitigation level signal, respectively; and a communication interface configured to send the thermal mitigation level signal to a companion device. In another aspect, a companion device configured to assist the wearable device in thermal management by offloading processes from the wearable device, and providing

reduced data to the wearable device. However, Hanumanthaiah doesn't explicitly teach the features present in independent claims 1, 13, and 17.

Kumar et al., US Patent Publication 2022/0197651, discloses various embodiments can utilize integrated and discrete graphics processing devices or multiple graphics processing devices to utilize additional graphics processing capabilities to reduce a time to completion of video decoding and processing by offloading video processing workload to a graphics processing unit that does not perform video decode. However, Kumar doesn't explicitly teach the features present in independent claims 1, 13, and 17.

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

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to PATRICK F MARINELLI whose telephone number is (571)270-3383. The examiner can normally be reached Monday - Friday: 8:00AM - 5:00PM PST.

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, George Eng can be reached at (571)-272-7495. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of published or unpublished applications may be obtained from Patent Center. Unpublished application information in Patent Center is available to registered users. To file and manage patent submissions in Patent Center, visit: <https://patentcenter.uspto.gov>. Visit <https://www.uspto.gov/patents/apply/patent-center> for more information about Patent Center and <https://www.uspto.gov/patents/docx> for information about filing in DOCX format. For additional questions, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/PATRICK F MARINELLI/
Primary Examiner, Art Unit 2699