IEEE STANDARDS ASSOCIATION

P1752 Working Group Meeting

Sponsored by IEEE Engineering in Medicine & Biology (EMB) Standards Committee

Attendance Taken by Secretary

- 27 May 2025
- Teleconference

Attendance

- Attendance is important for determining voting rights, so please remember to "check in" **Write full name and affiliation on your zoom name or in the chat**.
  If you attend only by phone, please email the info to simona@openmhealth.org
- Secretary will mark attendance for everyone
- If you attended a previous call and your attendance was not noted on the draft minutes distributed by the Secretary, please email simona@openmhealth.org

Voting membership

- Attendance is important for determining voting membership
- After you've attended 2 consecutive meetings you are eligible for voting membership
- If you wish to become a voting member, send an email with the request to simona@openmhealth.org
- You don't need to be a voting member to participate in the WG or subgroup calls
- You need to be a voting member to move or second motions and to vote whenever the WG entertains a motion (e.g., to approve the agenda, to approve an action by the WG, etc.)
- If you miss 2 consecutive meetings, voting membership is revoked and can be gained again by attending 2 consecutive meeting and sending a request
- Accommodation can be made for special circumstances, which should be brought to the Chair's attention

IEEE Policies

IEEE SA Call for Patents

Participants have a duty to inform the IEEE

- Participants shall inform the IEEE (or cause the IEEE to be informed) of the identity of each holder of any potential Essential Patent Claims of which they are personally aware if the claims are owned or controlled by the participant or the entity the participant is from, employed by, or otherwise represents

- Participants should inform the IEEE (or cause the IEEE to be informed) of the identity of any other holders of potential Essential Patent Claims

Early identification of holders of potential Essential Patent Claims is encouraged

Slide #1

Ways to inform IEEE

- **Cause an LOA to be submitted to the IEEE-SA (patcom@ieee.org); or**
- **Provide the chair of this group with the identity of the holder(s) of any and all such claims as soon as possible; or**
- **Speak up now and respond to this Call for Potentially Essential Patents**

If anyone in this meeting is personally aware of the holder of any patent claims that are potentially essential to implementation of the proposed standard(s) under consideration by this group and that are not already the subject of an Accepted Letter of Assurance, please respond at this time by providing relevant information to the WG Chair

Slide #2

Other guidelines for IEEE WG meetings

- **All IEEE-SA standards meetings shall be conducted in compliance with all applicable laws, including antitrust and competition laws.**
  - **Don't discuss the interpretation, validity, or essentiality of patents/patent claims.**
  - **Don't discuss specific license rates, terms, or conditions.**
    - Relative costs of different technical approaches that include relative costs of patent licensing terms may be discussed in standards development meetings.
      - **Technical considerations remain the primary focus**
  - **Don't discuss or engage in the fixing of product prices, allocation of customers, or division of sales markets.**
  - **Don't discuss the status or substance of ongoing or threatened litigation.**
  - **Don't be silent if inappropriate topics are discussed … do formally object.**

For more details, see *IEEE-SA Standards Board Operations Manual*, clause 5.3.10 and *Antitrust and Competition Policy: What You Need to Know* at http://standards.ieee.org/develop/policies/antitrust.pdf

Slide #3

Patent-related information

The patent policy and the procedures used to execute that policy are documented in the:

- ***IEEE-SA Standards Board Bylaws***
  (http://standards.ieee.org/develop/policies/bylaws/sect6-7.html#6)
- ***IEEE-SA Standards Board Operations Manual***
  (http://standards.ieee.org/develop/policies/opman/sect6.html#6.3)

Material about the patent policy is available at
http://standards.ieee.org/about/sasb/patcom/materials.html

If you have questions, contact the IEEE-SA Standards Board Patent Committee Administrator at patcom@ieee.org

IEEE SA Copyright Policy

IEEE SA Copyright Policy (November 2019)

- **By participating in this activity, you agree to comply with the IEEE Code of Ethics, all applicable laws, and all IEEE policies and procedures including, but not limited to, the IEEE SA Copyright Policy.**

    - Previously Published material (copyright assertion indicated) shall not be presented/submitted to the Working Group nor incorporated into a Working Group draft unless permission is granted.
    - Prior to presentation or submission, you shall notify the Working Group Chair of previously Published material and should assist the Chair in obtaining copyright permission acceptable to IEEE SA.
    - For material that is not previously Published, IEEE is automatically granted a license to use any material that is presented or submitted.

IEEE SA Copyright Policy

- The IEEE SA Copyright Policy is described in the IEEE SA Standards Board Bylaws and IEEE SA Standards Board Operations Manual

- IEEE SA Copyright Policy, see
  Clause 7 of the IEEE SA Standards Board Bylaws
  https://standards.ieee.org/about/policies/bylaws/sect6-7.html#7
  Clause 6.1 of the IEEE SA Standards Board Operations Manual
  https://standards.ieee.org/about/policies/opman/sect6.html

- IEEE SA Copyright Permission

- https://standards.ieee.org/content/dam/ieee-standards/standards/web/documents/other/permissionltrs.zip

- IEEE SA Copyright FAQs

- http://standards.ieee.org/faqs/copyrights.html/

- IEEE SA Best Practices for IEEE Standards Development

- http://standards.ieee.org/develop/policies/best_practices_for_ieee_standards_development_051215.pdf

- Distribution of Draft Standards (see 6.1.3 of the SASB Operations Manual)

- https://standards.ieee.org/about/policies/opman/sect6.html

IEEE SA Individual Participation

Participant behavior in IEEE-SA activities is guided by the IEEE Codes of Ethics & Conduct

- All participants in IEEE-SA activities are expected to adhere to the core principles underlying the:
  - IEEE Code of Ethics
  - IEEE Code of Conduct
  - The core principles of the IEEE Codes of Ethics & Conduct are to:
    - *Uphold the highest standards of integrity, responsible behavior, and ethical and professional conduct*
    - *Treat people fairly and with respect, to not engage in harassment, discrimination, or retaliation, and to protect people's privacy.*
    - *Avoid injuring others, their property, reputation, or employment by false or malicious action*
- The most recent versions of these Codes are available at http://www.ieee.org/about/corporate/governance

Participants in the IEEE-SA "individual process" shall act independently of others, including employers

- The IEEE-SA Standards Board Bylaws require that "participants in the IEEE standards development individual process shall act based on their qualifications and experience"
- This means participants:
  – Shall act & vote based on their personal & independent opinions derived from their expertise, knowledge, and qualifications
  – Shall not act or vote based on any obligation to or any direction from any other person or organization, including an employer or client, regardless of any external commitments, agreements, contracts, or orders
  – Shall not direct the actions or votes of other participants or retaliate against other participants for fulfilling their responsibility to act & vote based on their personal & independently developed opinions
- By participating in standards activities using the "individual process", you are deemed to accept these requirements; if you are unable to satisfy these requirements then you shall immediately cease any participation

IEEE-SA standards activities shall allow the fair & equitable consideration of all viewpoints

- The IEEE-SA Standards Board Bylaws (clause 5.2.1.3) specifies that "*the standards development process shall not be dominated by any single interest category, individual, or organization*"
  - This means no participant may exercise "*authority, leadership, or influence by reason of superior leverage, strength, or representation to the exclusion of fair and equitable consideration of other viewpoints" or "to hinder the progress of the standards development activity*"
- This rule applies equally to those participating in a standards development project and to that project's leadership group
- Any person who reasonably suspects that dominance is occurring in a standards development project is encouraged to bring the issue to the attention of the Standards Committee or the project's IEEE-SA Program Manager

Determination of Quorum

Approval of Agenda

1. Attendance
2. Call for Patents, Copyright Policy, Code of Ethics
3. Approval of agenda and minutes (if quorum present)
4. PAR expiration
5. Updates: CR subgroup
6. Contribution from PHRC
7. Other business

Approval of Prior Minutes

(April 15, 2025)

PAR Expiration

Project Authorization Request (PAR)

- Introduction to the topic
- Current PAR expires 12/31/2025
- Brief review of ballot process
- WG to discuss and vote on options
  - Approval requirements (2/3 majority)
  - Timelines

Update from Subgroup

P1752.2 Cardiorespiratory Subgroup

Meeting Summary of May 22, 2025 → Next Meeting June 26, 2025 @ 5PM PDT

1) **Properties within expanding Data Wrapper constructs**
   - Header → Describes and labels the JSON object
     - Include "uuid", "schema_id", "source_creation_date" (of the JSON object)
   - Acquisition_Context
     - Data wrapper type
     - Provenance data
   - Body → Specifies the modeled data, containing multiple subsections (some optional)
     - Global Data Values: For specifying common properties of the data modeled w/i the JSON object, including "timestamp"
     - Preprocessed signal from which measures derived (*optional*) → *ex*: electrogram
     - Body Data: The modeled data organized into value arrays
2) **Maintaining the JSON Schema 'meta' distinct and separate from information associated with the actual modeled data**
   - JSON schema → "source_creation_date_time"
   - Physiologic time series data → "timestamp"
     - Accuracy discussed (synch_type *and* timebase_accuracy)
     - Time series signals → physio_data_count

P1752 Data Wrapper - Accommodating Dimensionality

This organizational abstraction broadly accommodates dimensionality within the context of the temporal domain, rather than the spatial domain or spatiotemporal domain - but this likely encompasses the preponderance of key pragmatic modeling needs.

Process Domain

OMH Data Object
J

schema_ID
uuid
source_creation_date_time
provenance → extend the header 'modality' property (?)
data_sheets → extend this to add optional granularity to facilitate analytics;
it also might be useful to allow for data_sheets in Data Domain

Data Domain

Encapsulating Constraint:
All arrays have in common the same epoch of the timeline, acquired by a single 'device' (or system of sensors)

Timestamp
T

timestamp → *immutable, always remains with the data*
- synch_type
- timebase_accuracy

physio_data_count

Preprocessed **Physio Data**
$P_{0 \to p}(t)$

signal_characterization
preprocessing_characterization
sampling_frequency
value_precison ?
handling → *enumerate no_share and acceptable IANA encoding (default* base64)
latency_seq_count = p_{max}

Latency Sequence
$Q_{0 \to p_{max}}$

latency_characterization
feature_seq_count = q_{max}

Feature Sequence
$R_{0 \to q_{max}}$

feature_label

Accommodating Extensibility & Contextuality

Date and Time on the Internet: Durations

IETF Draft (published Feb 2025)

https://www.ietf.org/archive/id/draft-tsai-duration-00.html

There are many ways that durations might appear in Internet protocols, not all of which can accurately represent an exact duration value. Many implementations disagree about the exact grammar for a duration. Some handle a subset of ISO 8601, while others extend ISO 8601 in non-standard ways.

[RFC3339] specifies a subset of ISO 8601 for representing timetamps; this document does the same for ***durations***.

Date and Time on the Internet: Durations

IETF Draft (published Feb 2025)

https://www.ietf.org/archive/id/draft-tsai-duration-00.html

Our timestamps can be specified to adhere to this draft, if indeed it is accepted as an RFC → in its absence, the 1752.2 standard perhaps explicitly yet should spell out what to allow from ISO 8601, which offers a standard grammar for timestamped intervals.

Summary:

- P format including H, M, S
- Only S permitted to be fractional
- No overflow values permitted except for H
- Disallows zero padding (*except* zero interval → "PT0S")
- Permits negative period values
- Implements *bijectivity* → 1 (and only 1) representation for an interval

Limitation:

- Long durations (extending days to months to years)* ← *discuss*

Use Cases from PHR Council

IEEE P1752.2
Documentation of Survey Schema Use Cases in Japan

General Incorporated Association PHR Council Working Group1
Open mHealth Team

Written by Satoshi Yamashita
Supported by: Mr. Hiroshi Okada, Mr. Takanori Yamashita

Use Case 1: Remote guidance after health checkups

Summary:

In Japan, specific health checkups and specific health guidance have been implemented since 2008 with the aim of preventing the onset and severity of lifestyle-related diseases. About 17% of those who receive the specific health checkups are eligible for the specified health guidance, and of these, about 25% have completed the specific health guidance. In order to further improve the effectiveness of specific health checkups, it is necessary to increase the implementation rate of specific health guidance and to improve the quality of specific health guidance.

Although it is desirable to provide continuous health guidance to persons eligible for specific health guidance, it is difficult to provide continuous guidance due to the time-consuming nature of daily work. Therefore, health guidance is provided in person or remotely for the first time only, after which daily weight, step count, diet, and exercise records are checked by PHR and feedback is provided periodically.

Questionnaire: IPAQ short version, etc.

Setting: Routine clinical care, Medical examinations, Telemedicine

Data Linkage Applications: Evaluation of intervention effectiveness

Use Case 2: PHR utilization for patients with lifestyle-related diseases

Summary:
Patients' own life logs and results of specific health checkups are recorded, and these data are linked to the electronic medical record system and used for outpatient consultations and lifestyle guidance.

The life log includes lifestyle information such as diet (carbohydrate intake, number of snacks, vegetable intake, salt intake), exercise (number of steps, exercise intensity and duration), weight, and self-measurement tests (blood pressure, blood sugar, etc.), with simple question items and response formats based on medical guidelines and food exchange tables to set judgment values. This enables personalized lifestyle suggestions, information sharing, and appropriate advice.

Questionnaire: A simple questionnaire based on the Diabetes care guidelines and the Food exchange chart.

Setting: Routine clinical practice, Telemedicine

Data Linkage Applications: Monitor the user's diet and exercise status

Use Case 3: Use of PHRs for Postoperative Adjuvant Chemotherapy in Cancer Treatment

Summary:
Patients receiving postoperative adjuvant chemotherapy register their daily status regarding daily medication, side effects, etc. This information is linked to the electronic medical record system to evaluate the safety and effectiveness of cancer treatment.

For side effects, evaluation by grading (CTCAE) is used. By adding the patient's subjective evaluation, more accurate conditions can be shared, and appropriate treatment can be provided according to the patient's condition. It is also expected to improve awareness of self-management of treatment, including side effects.

Questionnaire: CTCAE、PRO-CTCAE

Setting: Routine clinical practice, clinical research

Data Linkage Applications: Monitoring side effects, etc.

Use Case 4: Remote Rehabilitation

Summary:
Japan's population is rapidly aging, and there is a growing need for active rehabilitation in the field of orthopedics, both to ensure QOL and to alleviate symptoms. However, mountainous regions and remote island regions, which cover most of Japan's area, are underpopulated with medical care providers. Even if rehabilitation is provided to patients living in these areas, there are often no medical facilities that can provide it, and patients often have difficulty visiting hospitals.

As a solution, a remote rehabilitation system was established. First, exercise therapy is taught to patients with frozen shoulder, etc., using a web conference system, and the patients are asked to perform the therapy every day. Every month, the condition of the shoulder is evaluated using a mobile application, and the rehabilitation program is modified accordingly.

Questionnaire: Shoulder36 Japanese version

Setting: Routine clinical practice, Telemedicine

Data Linkage Applications: Evaluation of intervention effects

Shoulder 36 English version

Shoulder Evaluation Sheet

Date(Y/M/D): 20 / /

Name ( ) Age ( )
Please use the space provided ( ) and use a circle (○) to mark the answer.
Please indicate your gender (Male ・Female)
Please indicate your dominant hand (Left ・ Right)
Please indicate your shoulder/s affected (Left ・ Right ・ or Both).
If both shoulders are affected, please fill in a questionnaire for each of your shoulders. Please indicate a shoulder that you will provide answers for this questionnaire (Left ・ Right)
Diagnosis ( )

A total of thirty-six questions are provided to evaluate your affected shoulders. Please avoid answering these questions in the presence of a doctor or medical personnel nearby.
Answer these questions by choosing level of difficulty from 0-4 shown below:

I have no difficulties	4
I have minor difficulties	3
I have some difficulties but I can manage on my own	2
I have major difficulties and require help from someone	1
I cannot do it (at all)	0

Please circle to choose level of difficulty in the space ( ) provided on the right side of each question. Example: (0,1,②,3,4)

If you come across such situations or activities that you may not have done before, please try to imagine the situation and choose level of difficulty you are most comfortable with. If a question is not clear to you, you may leave it unanswered and move on to complete the questionnaire. An unanswered question may be reviewed with your doctor (or person in charge) afterwards.

	Answer
1. Daily activities at home	(0,1,2,3,4)
2. Reading a newspaper at a shoulder high	(0,1,2,3,4)
3. Reaching a back pocket of your trousers using your affected side	(0,1,2,3,4)
4. Putting your arm through a jacket	(0,1,2,3,4)
5. Wearing a sweater jacket over your head	(0,1,2,3,4)

The Japanese Orthopaedic Association Shoulder 36 V 1.3

6. Taking off clothes	(0,1,2,3,4)
7. Placing a jacket on a hanger	(0,1,2,3,4)
8. Knotting your hands together behind your head	(0,1,2,3,4)
9. Washing your face with hands	(0,1,2,3,4)
10. Combing your hair	(0,1,2,3,4)
11. Washing your armpit opposite to your affected shoulder, using your affected shoulder	(0,1,2,3,4)
12. Rinsing your whole body by holding a shower head with your affected side	(0,1,2,3,4)
13. Washing your back with a towel by holding both ends of the towel with an affected side holding the top of the towel	(0,1,2,3,4)
14. Squeezing out the water from a towel using both hands	(0,1,2,3,4)
15. Carrying a bowl of soup on the tray	(0,1,2,3,4)
16. Reaching into a condiment on a table (soy sauce, salt, pepper, etc.) using your affected shoulder	(0,1,2,3,4)
17. Eating	(0,1,2,3,4)
18. Tying an apron behind your back	(0,1,2,3,4)
19. Washing plates with a sponge	(0,1,2,3,4)
20. Placing plates on a shelf above your head height using the affected shoulder	(0,1,2,3,4)
21. Holding a filled up kettle with your affected side	(0,1,2,3,4)
22. Clapping your hands 10 times	(0,1,2,3,4)
23. Stretching your body with your hands held up	(0,1,2,3,4)
24. Sleeping side ways with your affected shoulder lying on the floor	(0,1,2,3,4)
25. Getting a good sleep	(0,1,2,3,4)
26. Feeling less fatigue than usual getting through the week	(0,1,2,3,4)
27. Keeping both your arms horizontal for a minute	(0,1,2,3,4)
28. Walking with your arms swinging back and forth	(0,1,2,3,4)

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29. Managing daily tasks using your affected shoulder, without help of another shoulder	(0,1,2,3,4)
30. Wiping windows with your affected shoulder at a head high	(0,1,2,3,4)
31. Going shopping close to your house	(0,1,2,3,4)
32. Opening an umbrella (with exception to Push-Button umbrella) with your affected shoulder	(0,1,2,3,4)
33. Getting on a bus or train	(0,1,2,3,4)
34. Holding on a strap in a bus or train with your affected shoulder	(0,1,2,3,4)
35. Moving your shoulders at a recreational level of activities	(0,1,2,3,4)
36. Moving your shoulders at a competitive level of activities	(0,1,2,3,4)

Official use only

Results

Domain	Pain	ROM	Power	General Health	ADL	Ability for Sports
Score						

Memo.

About the use cases in this document

- In Japan, telemedicine is still mostly web conference-based outpatient consultations, and telemedicine using mobile health apps has not yet reached the level of routine care and is still on a research basis.
- With the recent increase in interest in remote clinical trials, there is a great need in Japan for patient and side effect assessments using mobile health apps.
- However, no actual trials have been conducted in Japan yet, and none could be published because they are still in the planning stage.

Summary of Action Items

Future Meetings

Upcoming Meetings

- P1752.2 WG call
  - Tuesday July 8, 2025 at 8 am Pacific
- Cardio-respiratory subgroup:
  - Thursday June 26, 2025 at 5 pm Pacific

Adjournment