# Operating Procedures Manual
for the MTConnect® Institute

## Table of Contents

1. Definitions ........................................................................................................................................... 3
2. Organization .......................................................................................................................................... 6
   2.1 Board of Trustees ............................................................................................................................. 6
      2.1.1 Areas of Responsibility ............................................................................................................. 6
   2.2 Secretariat ......................................................................................................................................... 6
      2.2.1 President ....................................................................................................................................... 6
      2.2.2 Administrator (or Executive Director) ...................................................................................... 7
      2.2.3 Financial Representative ............................................................................................................. 7
   2.3 Membership ...................................................................................................................................... 7
      2.3.1 MTConnect Institute ................................................................................................................ 7
      2.3.2 Standards Committee ................................................................................................................ 8
      2.3.3 Other Committees ..................................................................................................................... 8
   2.4 Membership Procedures ................................................................................................................ 8
      2.4.1 Initiation ....................................................................................................................................... 8
      2.4.2 Termination – Member other than self ..................................................................................... 9
      2.4.3 Termination – Self ...................................................................................................................... 9
3. Meetings ................................................................................................................................................ 10
   3.1 Standard Committee Meetings .................................................................................................... 10
   3.2 Working Group Meetings .............................................................................................................. 10
4. Work Procedures .............................................................................................................................. 10
   4.1 Initiating Materials Development ................................................................................................. 10
      4.1.1 Development Requests ............................................................................................................. 10
      4.1.2 Unsolicited Public Proposals ................................................................................................... 10
      4.1.3 Drafting ...................................................................................................................................... 10
   4.2 Review and Editing ......................................................................................................................... 10
      4.2.1 Editorial Reviews ...................................................................................................................... 10
      4.2.2 Technical Reviews .................................................................................................................... 11
      4.2.3 Intellectual Property Review Period ......................................................................................... 11
      4.2.4 Resolution .................................................................................................................................. 11
      4.2.5 Public Comment .......................................................................................................................... 11
   4.3 Voting ................................................................................................................................................ 11
4.3.1 New Members During Review or Vote
# Definitions

| **Affiliate** | means any entity (except an Excluded Affiliate) that is directly or indirectly controlled by, under common control with, or that controls another entity, so long as such control exists. As used herein, “control” means direct or indirect ownership of, or the right to exercise, greater than 50% of the voting power, or greater than 50% of the ownership interest representing the right to make the decisions for the entity. Refer to IP Policy. |
| **Antitrust Statement** | means the rules of compliance with the letter and spirit of the antitrust law, to be reviewed at the start of any meeting with new Participants and at the start of all Standard Committee meetings. |
| **Confidentiality Statement** | means the policy defining permissions to share information with particular parties. To be reviewed at the start of any meeting with new Participants and at the start of all Standard Committee meetings. |
| **Contribution** | means any technical submission, material, comment, idea, or suggestion made at any time, including such submissions made prior to the effective date of this IP Policy, to or for MTConnect and/or the MTConnect Standards Committee, the Technical Steering Committee or any Working Group, for incorporation into or modification of the content of a Specification, draft Specification, or other MTConnect Materials, provided that the submission is either (a) submitted in writing (including in electronic media); or (b) stated orally, and memorialized with specificity in written documentation (such as approved meeting minutes) that attributes the oral Contribution to the contributor(s), provided that the contributing Participant does not object or withdraw such oral submission in writing within forty-five (45) days after the contributing Participant’s receipt of such written documentation. Refer to IP Policy. |
| **Excluded Affiliate** | means an entity otherwise meeting the definition of Affiliate but designated for exclusion by a prospective Participant at the time of application and approved as an Excluded Affiliate by the MTConnect Board of Directors. Refer to IP Policy. |
| **Excluded Claims** | means Necessary Claims that (a) the Participant has timely disclosed with all the information |
specified in Sections 4.2 and 4.3 and declared to be subject to the patent licensing obligations defined in Section 5.2, and (b) are not covered by any Contribution made or submitted by the Participant. For the avoidance of doubt, any Necessary Claims that are covered by any Contribution made or submitted by a Participant may not be declared or designated as Excluded Claims.

Refer to IP Policy.

<table>
<thead>
<tr>
<th>IP Policy</th>
<th>The Intellectual Property Policy and Agreement (“IP Policy”) states the intellectual property policies for the Standards Committee and for all Participants and others developing, contributing to and using Specifications and Materials.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Materials</td>
<td>means MTConnect Specifications, draft versions of Specifications and works-in-progress, schema, prototype software examples, technical reports, and related documentation or guides, and any materials, updates or modifications related to any of the foregoing.</td>
</tr>
</tbody>
</table>
| Necessary Claims | means those claims of all patents and patent applications that an entity owns or controls that would necessarily be infringed by implementation of an MTConnect Specification. A claim is “necessarily infringed” when there is no reasonable non-infringing alternative for implementing the required portions of the Specification. Notwithstanding the foregoing, Necessary Claims do not include the following:

(a) claims other than those set forth above even if contained in the same patent or patent application as Necessary Claims;

(b) claims that are necessarily infringed only by portions of a product or implementation that are not required for compliance with the Specification;

(c) claims covering any enabling technologies that may be necessary to make or use any product or portion thereof that complies with a Specification, but are not themselves expressly set forth in a Specification;

(d) claims covering reference implementations or other implementation examples (i.e., examples that may be included in the text of a Specification and which illustrate how the Specification could be properly implemented); or

(e) claims covering the implementation of other published specifications not developed by or
| **Participant** | means an entity, company, organization or individual that (a) formally joins MTConnect as a participant; (b) makes a Contribution; (c) participates in the technical work of, or observes and assists the work of the MTConnect Standards Committee, Technical Steering Committee, a Working Group, or any other committee or group created to make Contributions and otherwise assist in technical work to develop MTConnect Materials; or (d) attends one (1) or more meeting(s)/teleconference(s) of MTConnect (in person or by telephone) within a one-year period. Refer to IP Policy. |
| **Projects Site** | means the shared online project management tool for discussion, file sharing, meeting management, and issue creation and tracking. Accessible at http://projects.mtconnect.org. A username and password is required and will be provided by the Secretariat or a designated administrator. |
| **Review Period** | means the period for editorial, technical, or intellectual property review of a proposed Specification, prior to approval by the Standards Committee. Refer to IP Policy. Refer to Section 4.2.1. |
| **Specification** | means a final technical specification document that defines specifications, schemas, standard interfaces, objects, and methods for exchange of dynamic or measurement data, configuration data, and data representation among machines, software applications and controllers. Specifications shall include or incorporate software code only as reference implementations, optional examples, or other code that will be used for illustrative purposes only and will not be a required portion of the Specification. |
| **Standards Committee (“SC”)** | means the committee responsible for developing MTConnect materials including drafting, review, and approval by voting. Refer to Section 2.3.1.1. |
Standards Committee Member | means the members of the Standards Committee and may refer to a company or an individual. Refer to Section 2.3.1.1.

Voting Representative | means the single representative identified to have the right of representation and the authority to cast the Member's one (1) vote. Also serves as primary point of contact unless otherwise specified by the Member.

2 Organization

2.1 Board of Trustees
The Institute's Board of Trustees shall provide oversight to the activities and finances of the Institute in accordance with the Institute’s By-Laws.

2.1.1 Officers
As specified in the Institute By-Laws, officers are Chairman, President, Secretary, and Treasurer. Refer to the By-Laws for officers’ duties.

2.1.2 Areas of Responsibility
In addition to those responsibilities specified in the Institute’s By-Laws, the Board of Trustees are also responsible for setting operational guidelines related to:

- Institute finances, budget, and resource allocation
- Institute personnel management
- Timelines and work priorities
- Driving adoption of the Materials

The Board of Trustees votes on:

- Final approval of all Materials prior to publication
- Entering into any agreement with other entities (e.g. MOU)

2.2 Secretariat
The Secretariat is responsible for administering standard development activities and may include MTConnect Institute employees, volunteers, or in-kind contributions.

2.2.1 MTConnect Institute President
The President shall direct all functions of the Institute.

The President shall:
• Provide guidance on the direction of the Institute with Board approval,
• Preside over management meetings of the organization,
• Call special meetings of the organization,
• Assist in the facilitation of board meetings,
• Authorize, sign, and file all legal documents,
• Represent and serve as a spokesperson for the organization,
• Perform other duties as directed by the Board of Trustees, and

2.2.2 Administrator (or Executive Director)
The Administrator (or Executive Director) shall assist in handling the day-to-day activities of the Institute and:
• Provide oversight for the SC, working groups, committees, compliance with Institute procedures;
• Maintain a current and accurate roster of the SC, and a list of MTConnect Materials;
• Maintain all MTConnect policies, agreements, and licenses;
• Enforce antitrust regulations at SC meetings or other activities.
• Develop revisions to MTConnect Procedures as needed or required, and coordinate their approval; and
• Conduct SC Reviews and Voting for MTConnect Materials.

2.2.3 Financial Representative
With or on behalf of the Treasurer of the MTConnect Institute, the Financial Representative shall:
• Maintain the originals of all legal documents,
• Maintain the financial and budgetary matters of the Institute,
• Serve as the primary signatory on financial accounts, and
• Pay organizational bills

2.3 Membership
Membership is administered by the Secretariat.

2.3.1 MTConnect Institute
Companies may become members of the MTConnect Institute to:
• Advertise MTConnect compliant device(s)
• Be listed on MTConnect.org and in MTConnect marketing and promotional materials.

Individuals with no organizational affiliation may also join on their own behalf. Individuals should not join on their own behalf if they are affiliated with a manufacturer, university, government agency, or other relevant organization.
2.3.2 Standards Committee

The MTConnect Institute will develop standards through the Standards Committee (SC) as described in the “Operating Procedures Manual for the MTConnect Institute Standards Committee.”

2.3.2.1 Working Groups

The SC will use Working Groups for developing Materials as described in the “Operating Procedures Manual for the MTConnect Institute Standards Committee.”

2.3.2.2 Review Board

A Review Board consisting of SC members will assess proposed Materials for accuracy and consistency with respect to information modelling, vocabulary, semantics, terms and definitions, protocol, information management, communication, and security.

2.3.2.3 Executive Committee

An Executive Committee consisting of Working Group chairs will assess proposed Materials for accuracy, consistency, and completeness prior to circulation of the Materials to the wider SC.

2.3.3 Other Committees

Additional committees, task groups, review boards, etc. may be established to address other areas of concern, including:

- Technical leadership and/or oversight for developing Materials
- Maintaining architectural integrity and coherence of Materials
- Assuring soundness and applicability of the Materials
- Assessing strategic priorities
- Information modelling and architecture
- Coordinating efforts across or between Working Groups
- Creating or maintaining reference implementation(s)
- Harmonization with other standards bodies
- Garnering community interest and input
- Articulating needs of the standard development organization

2.4 Membership Procedures

2.4.1 Initiation

<table>
<thead>
<tr>
<th>Responsibility</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prospective SC Member</td>
<td>Apply to join the MTConnect Institute. Submit a membership form to designate a Voting Representative. Specify if joining the SC. Indicate interest in Working Groups if applicable. Review and agree to the IP Policy.</td>
</tr>
</tbody>
</table>
2.4.2 Termination – Member other than self

<table>
<thead>
<tr>
<th>Responsibility</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>--</td>
<td>Submit in writing to the Secretariat a request to terminate a member.</td>
</tr>
<tr>
<td>Secretariat</td>
<td>Notify the Board of Trustees</td>
</tr>
<tr>
<td>Board of Trustees</td>
<td>Review request for termination. Identify reason for termination, if any, and inform Secretariat.</td>
</tr>
<tr>
<td>Secretariat</td>
<td>Inform member of intent to terminate and reason(s) for termination. Inform the member of right to appeal and describe appeal process.</td>
</tr>
</tbody>
</table>

A member facing termination may appeal as follows:

<table>
<thead>
<tr>
<th>Responsibility</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Member</td>
<td>Submit in writing to the Secretariat a request for appeal and justification for continued membership.</td>
</tr>
<tr>
<td>Secretariat</td>
<td>Notify the Board of Trustees of a request for appeal.</td>
</tr>
<tr>
<td>Board of Trustees</td>
<td>Review request for appeal in the next Board meeting. Approve or deny the request for appeal and inform Secretariat.</td>
</tr>
<tr>
<td>Secretariat</td>
<td>Inform member of Board of Trustees decision. Inform other relevant parties. Update roster and administrative records.</td>
</tr>
</tbody>
</table>

2.4.3 Termination – Self

<table>
<thead>
<tr>
<th>Responsibility</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Member</td>
<td>Inform the Secretariat in writing of intent to terminate membership.</td>
</tr>
<tr>
<td>Secretariat</td>
<td>Confirm termination to member. Update roster and administrative records.</td>
</tr>
</tbody>
</table>
3 Meetings

3.1 Standard Committee Meetings
The Secretariat and SC Chair will facilitate and organize SC meetings. Participants must sign and agree to the IP Policy and adhere to the Antitrust and Confidentiality Statements. Signed IP Policies for each Participant will be retained by the Secretariat.

3.2 Working Group Meetings
Working Group Chairs and Co-Chairs facilitate and organize Working Group meetings per the requirements and objectives of each group. Participants must sign and agree to the IP Policy and adhere to the Antitrust and Confidentiality Statements. Signed IP Policies for each Participant will be retained by the Secretariat.

4 Work Procedures

4.1 Initiating Materials Development

4.1.1 Development Requests
The “Operating Procedures Manual for the MTConnect Institute Standards Committee” describes the process for recommending new Materials.

Any SC member can recommend development of new Material. Anyone recommending material is required to sign the IP Policy.

Requests for development must be documented in writing for example in meeting minutes or through electronic issue tracking on the Projects Site.

Development requests without documentation in issue tracking on the Projects Site will not be scheduled for inclusion in a specific Material release, although reasonable effort will be made to consolidate and document all requests appropriately.

4.1.2 Unsolicited Public Proposals
The Institute will accept unsolicited public proposals for development subject to the normal development procedures.

All contributions to Materials are governed by the IP Policy and anyone recommending Material is required to sign the IP Policy. Likewise, public proposals will not be considered unless the proposing party agrees to and signs the IP Policy.

By contributing to Materials, anyone submitting a proposal becomes a Participant and will be bound by the terms of the IP Policy.

4.1.3 Drafting
Working Groups will provide drafts of new or revised portions of Materials to the appropriate party.

4.2 Review and Editing
The Secretariat will circulate draft Specifications for review by the SC and in accordance with the review procedures specified here. Other Materials may be reviewed and edited at the advice and discretion of Working Group chairs.

4.2.1 Editorial Reviews
The Secretariat will circulate draft Specifications for editorial review by the SC as follows:
• If there are no outstanding issues other than editorial.
• For a minimum of 30 days.

4.2.2 Technical Reviews

The Secretariat will circulate draft Specifications for technical review by the SC as follows:

• If there are technical issues that have been resolved or otherwise addressed.
• For a minimum of 30 days.

Technical reviews should coincide with the Intellectual Property Review Period, as non-editorial changes must be reviewed for IP considerations.

4.2.3 Intellectual Property Review Period

The Secretariat will circulate draft Specifications to the SC for intellectual property and technical review for a minimum of 90 days. Refer to the IP Policy for details of 90-day IP reviews.

4.2.4 Resolution

The Secretariat will, re-circulate draft Specifications as needed until all issues are resolved or otherwise addressed.

4.2.5 Public Comment

Draft specifications will be released for public comment as required by ANSI, the accrediting body governing the MTConnect Institute’s standard development procedures.

Public comments will be addressed in accordance with the Materials development procedures outlined in Section 4.1 and Review and Editing procedures outlined in this Section 4.

4.3 Voting

The Secretariat is responsible for balloting and voting. Balloting is to remain open for at least 30 days.

Each SC member company gets one vote, cast by its voting member. The Secretariat will keep records of all voting members and share that information with the SC as needed. An SC member can change the voting member at any time including during a vote.

The Secretariat will administer voting and perform relevant record keeping as required by ANSI. The MTConnect Institute, via the Secretariat, has submitted procedures to ANSI to gain status as an Accredited Standards Developer and those procedures dictate additional specifics of voting on Specifications.

4.3.1 New Members During Review or Vote

Members joining the SC during a review or vote will be informed upon joining the SC of the review or vote in progress and the procedures for participating.