Information & Control NA TC Chapter

Meeting Summary and Minutes

NA Spring Meetings
Wednesday, March 27, 2024
9:00-12:00 PM, 1:00-4:00 PM Pacific

TC Chapter Announcements

Next TC Chapter Meeting

Wednesday, July 10, 2024

9:00-12:00 PM, 1:00-4:00 PM Pacific

SEMICON West

Table 1 Meeting Attendees

Italics indicate virtual participants

Co-Chairs: James Moyne (Applied Materials / University of Michigan), Brian Rubow (Cimetrix), Jack Ghiselli (Ghiselli Consulting)

SEMI Staff: Michelle Sun

Company	*Last*	*First*	*Company*	*Last*	*First*
Arlington Laboratory	*Judd*	*Daniel*	PDF Solutions	*Tracey*	*Tami*
Doople	*Kim*	*Hyungsu*	PDF Solutions	*Howard*	*Richard*
Ghiselli Consulting	Ghiselli	Jack	PDF Solutions	Rubow	Brian
Hitachi	*Toyoshima*	*Yuko*	SCREEN Semiconductor Solutions	*Nishimura*	*Takayuki*
Intel	*Maloney*	*Chris*	SEMI	Sun	Michelle
Intel	*Bond*	*Ryan*	PEER Group	Fuchigami	Albert
Intel	*Viswanath*	*Shuba*	AMAT / University of Michigan	*Moyne*	*James*

Table 2 Leadership Changes

WG/TF/SC/TC Name	*Previous Leader*	*New Leader*
I&C Co-Chair		Albert Fuchigami (PEER Group)

Table 3 Committee Structure Changes

Previous WG/TF/SC Name	*New WG/TF/SC Name or Status Change*
None	

Table 4 Ballot Results

Document #	*Document Title*	*Committee Action*
6836A	Line Item Revision to SEMI E87-0921, Specification for Carrier Management (CMS) and SEMI E87.1-0921, Specification for SECS-II Protocol for Carrier Management (CMS) and SEMI E90-0921, Specification for Substrate Tracking and E90.1-0312 (Reapproved 0921), Specification for SECS-II Protocol Substrate Tracking	[redacted]

Table 4 Ballot Results

Document #	*Document Title*	*Committee Action*
LI-1	Add name-value pair attributes to SEMI E90 substrate and SEMI E87 carrier objects for additional information.	**Passed**
7067	Line Item Revision to SEMI E133-1218, Specification for Automated Process Control Systems Interface and SEMI E133.1-0318, Specification for XML Messaging for Process Control System (PCS)	
LI-1	Replace biased terminology	**Passed**
7068	New Standard: Specification for Equipment Data Publication	**Failed**
7069	Revision to Add a New Subordinate Standard: Specification for Common Data for Etch Components to Specification for Equipment Data Publication	**Failed**
7174	Line Item Revision to SEMI E128-0414 (Reapproved 0519), Specification for XML Message Structures	
LI-1	Replace reference to depreciated SSL Protocol 3	**Passed**
7175	Line Item Revision to SEMI E132-0923 Specification for Equipment Client Authentication and Authorization and SEMI E132.2-0923 Specification for Protocol Buffers for Equipment Client Authentication and Authorization (ECA)	
LI-1	Address issues in the primary and subordinate standards and .proto files.	**Failed**
LI-2	Define configuration switch to treat operational message delivery error as SEMI E132 Communication Errors.	**Passed**
7176	Line Item Revision to SEMI E134-0923 Specification for Data Collection Management and SEMI E134.2-0923 Specification for Protocol Buffers of Data Collection Management	
LI-1	Address issues in the primary and subordinate standards and .proto files.	**Passed**
LI-2	Remove configuration switch to treat NewData message delivery error as SEMI E132 Communication Errors.	**Passed**
7177	Line Item Revision to SEMI E54.20-0316 Specification for Sensor/Actuator Network Communications for EtherCAT	
LI-1	Replace Biased Terms	**Passed**
LI-2	Add Mappings for Specific Device Models	**Passed**
LI-3	Updates to References, Trademarks and Other Editorial Changes	**Passed**
7188	Withdrawal of SEMI E54.15-1107 Sensor/Actuator Network Communication Specification for SafetyBUS p	**Passed**
7189	Withdrawal of SEMI E54.16-1106 (Reapproved 1211) Specification for Sensor/Actuator Network Communications for Lonworks	**Passed**
7191	Line Item Revision to SEMI E179-0623 Specification for Protocol Buffers Common Components	
LI-1	Performance improvements and clarifications.	**Passed**
R6924A	PCR to editorially change 'confirm' to 'conform' in multiple locations	**Passed**

#1 **Passed** ballots and line items will be submitted to the ISC Audit & Review Subcommittee for procedural review.

#2 **Failed** ballots and line items were returned to the originating task forces for re-work and re-balloting or abandoning.

Table 5 Ratification Ballot Results

Document #	*Document Title*	*ISC A&R Action*
R7116	Line Item Revision to SEMI E87-0921, Specification for Carrier Management (CMS) and SEMI E87.1-0921, Specification for SECS-II Protocol for Carrier Management (CMS)	
LI-1	E87, E87.1 Technical Improvements and Clarifications	**Passed**
R7117	Line Item Revision to SEMI E90-0921, Specification for Substrate Tracking and SEMI E90.1-0312 (Reapproved 0921), Specification for SECS-II Protocol Substrate Tracking	
LI-1	Well-Known Names for E90	**Passed**

Table 6 Activities Approved by the GCS between meetings of the TC Chapter

#	*Type*	*SC/TF/WG*	*Details*
7068	Ballot Authorization	EDP TF	New Standard: Specification for Equipment Data Publication
7069	Ballot Authorization	EDP TF	Revision to Add a New Subordinate Standard: Specification for Common Data for Etch Components to Specification for Equipment Data Publication
7187	SNARF Approval	ESEC TF	Revision to SEMI E167-1213 - Specification for Equipment Energy Saving Mode Communications (EESM) and SEMI E167.1-1213 - Specification for SECS-II Protocol for Equipment Energy Saving Mode Communications
7213	SNARF Approval	ABFI TF	Line Item Revision to SEMI E142-1022 - Specification for Substrate Mapping, SEMI E142.1-0921E — Specification for XML Schema for Substrate Mapping, SEMI E142.2-1016 — Specification for SECS II Protocol for Substrate Mapping, SEMI E142.3-1016 — Specification for Web Services for Substrate Mapping, SEMI E142.4-1022 — Specification for SECS II Protocol for Substrate Mapping Using Item Transfer

Table 7 Authorized Activities

Listing of all revised or new SNARF(s) approved by the Originating TC Chapter.

#	*Type*	*SC/TF/WG*	*Details*
7226	SNARF	Sensor Bus	Line Item Revision to E54.13-1011 Specification for Sensor/Actuator Network Communications for Ethernet/IP™
7227	SNARF	DDA	Line Item Revision to SEMI E125-0923 Specification for Equipment Self Description (EqSD) and SEMI E125.2-0923 Specification for Protocol Buffers for Equipment Self Description (EqSD)
7228	SNARF	DDA	Line Item Revision to SEMI E134-0923 Specification for Data Collection Management and SEMI E134.2-0923 Specification for Protocol Buffers of Data Collection Management
7229	SNARF	DDA	Line Item Revision to SEMI E179-0623 Specification for Protocol Buffers Common Components
7230	SNARF	CDS	New Standard: Specification for Computing Device Cybersecurity Status Reporting
7231	SNARF	CDS	Revision to Add a New Subordinate Standard: Specification for Protocol Buffers for Computing Device Cybersecurity Status Reporting to Specification for Computing Device Cybersecurity Status Reporting
7232	SNARF	CDS	Revision to Add a New Subordinate Standard: Specification for SECS-II Protocol for Computing Device Cybersecurity Status Reporting to Specification for Computing Device Cybersecurity Status Reporting

Table 7 Authorized Activities

Listing of all revised or new SNARF(s) approved by the Originating TC Chapter.

#	*Type*	*SC/TF/WG*	*Details*
7236	SNARF	ABFI	Line Item Revision to E90-0921 Specification for Substrate Tracking and SEMI E90.1-0312 (Reapproved 0921) - Specification for SECS-II Protocol Substrate Tracking

#1 SNARFs and TFOFs are available for review on the SEMI Web site at:

http://downloads.semi.org/web/wstdsbal.nsf/TFOFSNARF

Table 8 Authorized Ballots

#	*When*	*TF*	*Details*
6743C	Cycle 5-2024	GUI	Revision to SEMI E95-1101, Specification for Human Interface for Semiconductor Manufacturing Equipment
6926A	Cycle 5-2024	CDS	New Standard: Specification for Equipment Operator Access Management and Monitoring
7068A	Cycle 5-2024	EDP	New Standard: Specification for Equipment Data Publication
7069A	Cycle 5-2024	EDP	Revision to Add a New Subordinate Standard: Specification for Common Data for Etch Components to Specification for Equipment Data Publication
7175A	Cycle 5-2024	DDA	Line Item Revision to SEMI E132-0923 Specification for Equipment Client Authentication and Authorization and SEMI E132.2-0923
7178	Cycle 5-2024	DDA	Revision to SEMI E164-0414 (Reapproved 0721), Specification for EDA Common Metadata
7179	Cycle 5-2024	DDA	Revision to Add a New Subordinate Standard: Specification for EDA Common Metadata for Generic Model for Communication and Control of Manufacturing Equipment (GEM) to SEMI E164-0414 (Reapproved 0721), Specification for EDA Common Metadata
7180	Cycle 5-2024	DDA	Revision to Add a New Subordinate Standard: Specification for EDA Common Metadata for Processing Management to SEMI E164-0414 (Reapproved 0721), Specification for EDA Common Metadata
7226	Cycle 5-2024	Sensor Bus	Line Item Revision to E54.13-1011 Specification for Sensor/Actuator Network Communications for Ethernet/IP™
7227	Cycle 5-2024	DDA	Line Item Revision to SEMI E125-0923 Specification for Equipment Self Description (EqSD) and SEMI E125.2-0923 Specification for Protocol Buffers for Equipment Self Description (EqSD)
7228	Cycle 5-2024	DDA	Line Item Revision to SEMI E134-0923 Specification for Data Collection Management and SEMI E134.2-0923 Specification for Protocol Buffers of Data Collection Management
7229	Cycle 5-2024	DDA	Line Item Revision to SEMI E179-0623 Specification for Protocol Buffers Common Components
7230	Cycle 5-2024	CDS	New Standard: Specification for Computing Device Cybersecurity Status Reporting
7231	Cycle 5-2024	CDS	Revision to Add a New Subordinate Standard: Specification for Protocol Buffers for Computing Device Cybersecurity Status Reporting to Specification for Computing Device Cybersecurity Status Reporting
7232	Cycle 5-2024	CDS	Revision to Add a New Subordinate Standard: Specification for SECS-II Protocol for Computing Device Cybersecurity Status Reporting to Specification for Computing Device Cybersecurity Status Reporting

Table 8 Authorized Ballots

#	*When*	*TF*	*Details*
7236	Cycle 5-2024	ABFI	Line Item Revision to E90-0921 Specification for Substrate Tracking and SEMI E90.1-0312 (Reapproved 0921) - Specification for SECS-II Protocol Substrate Tracking

Table 9 SNARF(s) Granted a One-Year Extension

#	*TF*	*Title*	*Expiration Date*
None			

Table 10 SNARF(s) Cancelled

#	*TF*	*Title*
6840	DDA	New Standard: Specification for Equipment Adoption Criteria for GEM And GEM-Based Standards
6930	DDA	Revision to SEMI E164-0414 (Reapproved 0721): Specification for EDA Common Metadata

Table 11 Standard(s) to receive Inactive Status

Standard Designation	*Title*
None	

Table 12 New Action Items

Item #	*Assigned to*	*Details*
1	Michelle Sun	Confirm with Martin Rostan that new EtherCAT patent (CN CN116455833B 张宇 杭州禾芯半导体有限公司) does not have any relevance to the EtherCAT Standard SEMI E45.20 - **DONE**
2	Michelle Sun	Send data quality documents (SEMI E151 and E160) to James Moyne - **DONE**
3	Michelle Sun	Ask if Microsoft document can be shared in Connect? – **ONGOING**
4	Michelle Sun	Check with Andreas Neuber (AMAT) if ESEC TF should continue meeting - **ONGOING**

Table 13 Previous Meeting Action Items

Item #	*Assigned to*	*Details*
1	Thai Nguyen (SEMI)	In SVM, move IP Check to the bottom center of the screen. Add timer. - **OPEN**

1 Welcome, Reminders, and Introductions

Jack Ghiselli (Ghiselli Consulting) called the meeting to order at 9:07. The meeting reminders on antitrust issues, intellectual property issues and holding meetings with international attendance were reviewed. Attendees introduced themselves.

Attachment: Required Meeting Elements March 2024

2 Review of Previous Meeting Minutes

The TC Chapter reviewed the minutes of the previous meeting.

Motion:	Approve the minutes as modified
By / 2nd:	By: Brian Rubow / Cimetrix Incorporated Second: Chris Maloney / Intel Corporation
Discussion:	None
Vote:	14-Y 0-N

Attachment: NA-IC-TC-Chapter-Minutes-Nov2023

3 Liaison Reports

3.1 *I&C Japan TC Chapter*

Takayuki Nishimura (SCREEN) reported for the I&C Japan TC Chapter. Of note:

- Authorized Ballot 7173, Line Item Revision to SEMI E30 - Specification for the Generic Model for Communications and Control of Manufacturing Equipment (GEM)

Attachment: JA_I&C_Liaison_20240322_v1.2

3.2 *I&C Korea TC Chapter*

Michelle Sun (SEMI) reported for the I&C Korea TC Chapter. Of note:

- Autonomous Fab Standardization
  - Preliminary talks commenced on February 3, 2024, coinciding with SEMICON Korea 2024.
    - Brainstorming and initial discussions on the necessary preparations for Autonomous Fab standardization took place.
  - Follow up discussion on Mach 15, 2024.
    - Agreement was reached to prioritize near-term items such as PM. However, further discussion is required to achieve consensus and establish a clear vision.

Attachment: Liaison report_InC_KR__Mar2024

3.3 *I&C Taiwan TC Chapter*

Michelle Sun (SEMI) reported for the I&C Taiwan TC Chapter. Of note:

- Ballot 6938A, New Standards: Guide for Equipment Edge Data Governance (EEDG), authorized to ballot Cycle 9 or later

Attachment: I&C Taiwan Liasion report_Dec_2023

3.4 *I&C China TC Chapter*

Michelle Sun (SEMI) reported for the I&C China TC Chapter. Of note:

- Ballot 7018, Line Item Revision to SEMI E87-0921, Specification for Carrier Management (CMS) and E87.1-0921, Specification for SECS-II Protocol for Carrier Management (CMS), LI 1-6 passed
- New SNARFs

- Line Item Revision to SEMI E40-1218, Specification for Processing Management and E40.1-1218, Specification For SECS-II Protocol for Processing Management
- Line Item Revision to SEMI E94-0819R, Specification for Control Job Management and E94.1-0819R, Specification For SECS-II Protocol for Control Job Management (CJM)

Attachment: China I&C Committee Chapter Liaison Report -v3

3.5 *SEMI Staff Report*

Michelle Sun (SEMI) gave the SEMI Staff Report. Of note:

Calendar of Events

- SEMICON SEA
  - May 28-30
  - Kuala Lumpur, Malaysia
- SEMICON West
  - July 9-11
  - San Francisco, CA
- SEMICON Taiwan
  - September 4-6
  - Taipei
- SEMICON Europa
  - November 12-15
  - Munich, Germany
- SEMICON Japan
  - December 11-13
  - Tokyo Big Sight

Upcoming NA Meetings

- SEMICON West
  - July 8-11, 2024
  - Moscone Center, San Francisco
  - California/USA
- NA Standards Fall Meetings
  - Nov 4-7, 2024 (tentative)
  - SEMI HQ, Milpitas
  - California/USA

SEMI Standards discounted rate or complimentary (Expo Pass) link:

- https://bit.ly/SW_Standards_24

Standards Online Voting System Updated

- New system went live for Cycle 3, 2024
  - https://www.semi.org/standards/ballots or https://portal.semi.org
- The new voting system:
  - Integrates and streamlines sign-in process with various SEMI/Standards member services
  - Aims to bring updated user interface while maintaining functionality that’s familiar to voters

  - Improves data management for SEMI internal database

Critical Dates for SEMI Standards Ballots

2024	Ballot Submission Deadline	Voting Opens	Voting Closes
Cycle 3	March 6	March 20	April 19
Cycle 4	April 24	May 8	June 7
Cycle 5	May 7	May 21	June 20

Regulations & Procedure Manual Updates

- Regulations (Feb 20, 2024)
  - New definition of "Standards Document"
  - Clarification of confidential presentation materials
    - https://www.semi.org/sites/semi.org/files/2024-02/Standards%20Regulations%20February%2020%202024.pdf
- Procedure Manual (Feb 20, 2024)
  - The use of Connect@SEMI for TF management and document development depository
  - Clarification on meeting quorum
  - TC Chapter Committee Express Report (CER) timing
  - Deletion of Appendix 4 - Nonconforming Standards Titles
    - https://www.semi.org/sites/semi.org/files/2024-02/Procedure%20Manual%20February%2020%2C%202024.pdf

The Use of Connect@SEMI for TF Management and Document Development Depository

- Refer to PM § 6.4.5 Operation of TFs
  - Task Forces have one year from 02/20/24 to implement use of Connect@SEMI. (https://connect.semi.org)
  - Once TFs have implemented use of Connect@SEMI, they shall use it to:
    - Maintain the TF member roster up to date.
    - Share the working drafts.
      - The default format for working Draft Document sharing shall be Adobe Acrobat PDF.
    - Distribute the Draft Document at least one week before ballot submission to SEMI.

New Meeting Required Elements

- The update is on slide 6.
  - New 3rd bullet below.
    - *Confidential information, whether marked or unmarked, shall not be presented and/or discussed in any Standards meetings.*
  - Download the latest version at
  - www.semi.org/standards (under *Tools for Developing Standards*) or direct link below
    - https://www.semi.org/sites/semi.org/files/2024-03/Required%20Meeting%20Elements%20March%202024.pptx

SEMI Standards Publications

- Total SEMI Standards in portfolio: 1,086
  - Includes 335 Inactive Standards

Cycle	**New**	**Revised**	**Reapproved**	**Withdrawn**
November 2023	0	4	6	0
December 2023	0	6	0	0
January 2024	0	1	14	0
February 2024	1	12	9	0

New Standards

Cycle	Designation	Title	**Committee**
February 2024	SEMI FH3	Guide for Salt Mist and Washability Test Flow for Control Module Connector of Wearables	Flexible Hybrid Electronics

SNARF 3-Year Status

- 6563, Reapproval for SEMI E54.18-0914: Specification for Sensor/Actuator Network Specific Device Model for Vacuum Pump Device
- 6564, Reapproval for SEMI E54.22-0914: Specification for Sensor/Actuator Network Specific Device Model for Vacuum Pressure Gauges
- 6722, Reapproval of SEMI E54.11 - Specification for Sensor/Actuator Network Specific Device Model for Endpoint Devices
- 6724, Reapproval of SEMI E54.3 - Specification for Sensor/Actuator Network Specific Device Model for Mass Flow Device

Attachment: IC Staff Report March 2024 v4

4 Ballot Review

NOTE 1: TC Chapter adjudication on ballots reviewed is detailed in the Audits & Review (A&R) Subcommittee Forms for procedural review. The A&R forms are available as attachments to these minutes. The attachment number for each balloted document is provided under each ballot review section below.

4.1 Document #6836A, Line Item Revision to SEMI E87-0921, Specification for Carrier Management (CMS) and SEMI E87.1-0921, Specification for SECS-II Protocol for Carrier Management (CMS) and SEMI E90-0921, Specification for Substrate Tracking and E90.1-0312 (Reapproved 0921), Specification for SECS-II Protocol Substrate Tracking

4.1.1 Line Item #1: Add name-value pair attributes to SEMI E90 substrate and SEMI E87 carrier objects for additional information.

Attachment: AR – 6836A

4.2 Document #7067, Line Item Revision to SEMI E133-1218, Specification for Automated Process Control Systems Interface and SEMI E133.1-0318, Specification for XML Messaging for Process Control System (PCS)

4.2.1 Line Item #1: Replace biased terminology

Attachment: AR – 7067

4.3 Document #7068, New Standard: Specification for Equipment Data Publication

Motion:	Negative is related and persuasive.
Reason:	The ballot uses passive voice for requirements, and this is prohibited per the SEMI Style Manual.
By / 2nd:	By: Shuba Viswanath / Intel Corporation Second: Brian Rubow / Cimetrix Incorporated
Discussion:	None
Vote:	10-Y 0-N.

Motion:	Final Action
Reason:	This Document failed TC Chapter review and will be returned to the TF for rework.
By / 2nd:	By: Shuba Viswanath / Intel Corporation Second: Jack Ghiselli / Ghiselli Consulting
Discussion:	Some content was found to be similar to the EEDG ballot. Task Force leaders to align and discuss the differences.
Vote:	10-Y 0-N.

4.4 Document #7069, Revision to Add a New Subordinate Standard: Specification for Common Data for Etch Components to Specification for Equipment Data Publication

Motion:	Negative is related and persuasive.
Reason:	Since Ballot 7068 failed, there is no primary standard. Ballot 7069 cannot proceed since it is creating a new subordinate standard.
By / 2nd:	By: Shuba Viswanath / Intel Corporation Second: James Moyne / Applied Materials, Inc.
Discussion:	None
Vote:	12-Y 0-N.

Motion:	Final Action
By / 2nd:	By: Shuba Viswanath / Intel Corporation Second: Jack Ghiselli / Ghiselli Consulting
Discussion:	None
Vote:	12-Y 0-N.

4.5 Document #7174, Line Item Revision to SEMI E128-0414 (Reapproved 0519), Specification for XML Message Structures

4.6 Line Item #1: Replace reference to depreciated SSL Protocol 3

Attachment: AR – 7174

4.7 Document #7175, Line Item Revision to SEMI E132-0923 Specification for Equipment Client Authentication and Authorization and SEMI E132.2-0923 Specification for Protocol Buffers for Equipment Client Authentication and Authorization (ECA)

4.8 Line Item #1: Address issues in the primary and subordinate standards and .proto files.

4.9 Line Item #2: Define configuration switch to treat operational message delivery error as SEMI E132 Communication Errors.

Title:	Final Line Action
Motion:	Line item(s) [1] failed TC Chapter review and will be returned to the TF for rework.

	Line item(s) [2] passed TC Chapter review as balloted and will be forwarded to the ISC A&R SC for procedural review.
By / 2nd:	By: Albert Fuchigami / PEER Group Inc. Second: Jack Ghiselli / Ghiselli Consulting
Discussion:	None
Vote:	12-Y 0-N.

Attachment: AR – 7175

4.10 Document #7176, Line Item Revision to SEMI E134-0923 Specification for Data Collection Management and SEMI E134.2-0923 Specification for Protocol Buffers of Data Collection Management

4.11 Line Item #1: Address issues in the primary and subordinate standards and .proto files.

4.12 Line Item #2: Remove configuration switch to treat NewData message delivery error as SEMI E132 Communication Errors.

Title:	Final Line Action
Motion:	Line item(s) [1],[2] passed TC Chapter review as balloted and will be forwarded to the ISC A&R SC for procedural review.
By / 2nd:	By: Albert Fuchigami / PEER Group Inc. Second: Daniel Judd / Arlington Laboratory
Discussion:	None
Vote:	11-Y 0-N.

Attachment: AR – 7176

4.13 Document #7177, Line Item Revision to SEMI E54.20-0316 Specification for Sensor/Actuator Network Communications for EtherCAT

4.14 Line Item #1: Replace Biased Terms

4.15 Line Item #2: Add Mappings for Specific Device Models

4.16 Line Item #3: Updates to References, Trademarks and Other Editorial Changes

Title:	Final Line Action
Motion:	Line item(s) [1],[2],[3] passed TC Chapter review as balloted and will be forwarded to the ISC A&R SC for procedural review.
By / 2nd:	By: Daniel Judd / Arlington Laboratory Second: Jack Ghiselli / Ghiselli Consulting
Discussion:	None
Vote:	10-Y 0-N.

Attachment: AR – 7177

4.17 Document #7188, Withdrawal of SEMI E54.15-1107 Sensor/Actuator Network Communication Specification for SafetyBUS p

Title:	Final Action
Motion:	This Document passed TC Chapter review as balloted and will be forwarded to the ISC A&R SC for procedural review.
By / 2nd:	By: Daniel Judd / Arlington Laboratory Second: Jack Ghiselli / Ghiselli Consulting

Discussion:	None
Vote:	10-Y 0-N.

Attachment: AR – 7188

4.18 Document #7189, Withdrawal of SEMI E54.16-1106 (Reapproved 1211) Specification for Sensor/Actuator Network Communications for Lonworks

Title:	Final Action
Motion:	This Document passed TC Chapter review as balloted and will be forwarded to the ISC A&R SC for procedural review.
By / 2nd:	By: Daniel Judd / Arlington Laboratory Second: Jack Ghiselli / Ghiselli Consulting
Discussion:	None
Vote:	11-Y 0-N.

Attachment: AR – 7189

4.19 PCR for R6924A to editorially change ‘confirm’ to ‘conform’ in multiple locations

Title:	Final Action
Motion:	This Document passed TC Chapter review as balloted and will be forwarded to the ISC A&R SC for procedural review.
By / 2nd:	By: Brian Rubow / Cimetrix Incorporated Second: Jack Ghiselli / Ghiselli Consulting
Discussion:	None
Vote:	11-Y 0-N.

Attachment: PCR – R6924A

5 Subcommittee and Task Force Reports

5.1 *ABFI Task Force*

Brian Rubow (Cimetrix) reported for the ABFI Task Force. Of note:

- 6924A (Consumables and Durables standard) Editorial Change
    - Discovered during publication review
    - Need I&CC vote to approve
- New SNARF reviews
    - Guide for Equipment Adoption Criteria for GEM And GEM-Based Standards
    - E90 Line-Item Revision Multiple Substrate Id Reader Support
    - Substrate Process Tracking (like E157)
    - Line-Item revision to Durable/Consumable Spontaneous ID Verification
        - Waiting for consumable/durable specification publication and more requirement study.
- New activity
    - Handling of top-side/bottom-side substrate identification

Motion:	Cancel SNARF Document 6840, New Standard: Specification for Equipment Adoption Criteria for GEM And GEM-Based Standards
By / 2nd:	By: Brian Rubow / Cimetrix Incorporated Second: Albert Fuchigami / PEER Group Inc.
Discussion:	Plan to introduce a Guide instead of a Specification
Vote:	9-Y 0-N

Attachment: NA-ICC-ABFI-TF Report Spring 2024

5.2 *DDA Task Force Report*

Albert Fuchigami (PEER Group) reported for the DDA Task Force. Of note:

- EDA Software Vendor Tests
  - Test Session #2 (March 28, 2024) - Focus on interoperability with updated SEMI E132 functionality and SEMI E125.
  - Test Session #3 – Decide by April 11, 2024 if it will be still scheduled for SEMICON West 2024 – Focus on interoperability with SEMI E134 functionality.
- SEMI E164
  - Discussed using Well-Known Names defined in content standards as EDA names in new SEMI E164 subordinate standards.
  - Looking for help revising SEMI E164 and writing new subordinate standards.
- Discussed issues identified by Task Force members and some proposals on how they could be addressed in future ballots.

Attachment: DDA TF Report - Mar 2024_Rev 1.0

5.3 *CDS Task Force Report*

Albert Fuchigami (PEER Group) reported for the CDS Task Force. Of note:

- Background
  - The Semiconductor Manufacturing Cybersecurity Consortium (SMCC) is a SEMI Technology Community working on strengthening cyber resilience and protection of the global semiconductor supply chain.
  - Part of their work is figuring out how to operationalize SEMI Cybersecurity Standards (SEMI E187, E188) on the factory floor, and identify gaps that need to be addressed. (Either through updates to those SEMI Standards, or identify areas where new SEMI Standards can be developed)
  - One such area identified is getting cybersecurity status information from computing devices.
    - More than just reporting information about the equipment through the SECS/GEM interface.
    - Include information about the operating system, Software Bill of Materials (SBOM) and other information that can impact a computing device’s cybersecurity status.
    - Focus on computing devices that are equipment supplier-provided and factory network-facing. (Priority isn’t a PC controlling a robot that is only accessible on the internal equipment network)
- SNARF Proposal

- SNARF Proposals to create three new Standards in the primary-subordinate standard structure.
  - New Primary Standard – define what Computing Device Cybersecurity Status information to report.
  - New Subordinate Standard to specify how to report the CyS Status information through a SECS-II interface.
  - New Subordinate Standard to specify how to report the CyS Status information through a gRPC/Protocol Buffers interface.
- SNARF Scope identify what the Standards are envisioned to be.
  - First step is to provide a fast, automated way of getting operating system details about a computing device. (Rather than someone walking around in a clean room with a clipboard.) SMCC members are very interested in getting this quickly, using the SECS interface since the factory hosts already talk SECS.

Attachment: CDS TF Meeting - CyS Status Reporting_Rev 1.1

5.4 *EDP Task Force Report*

Shuba Viswanath (Intel) reported for the EDP Task Force. Of note:

- The Task Force discussed feedback on ballots and decided to recommend failing both ballots.
- For more information on each of the comments, please refer to the slides below.

Attachment: EDP Discussion -20240326_Rev 2

5.5 *GUI Task Force Report*

Tami Tracey (Cimetrix) reported for the GUI Task Force. Of note:

- Reviewed 6743C draft revision 3.0
- Three discussion topics were selected for review in the meeting
  - SSD Figures and Recommendations
    - Members made comments on new figures and text
    - Took a poll for the use of certain shapes/indicators in figures used for navigation, or commands
    - Action taken to review Style manual for use of color in figures
  - Salience on Alarms
  - Compliance Statement
- Future improvements to Related Information 1 were described
  - Member made a recommendation to add a scenario
- Task Force Plan
  - To continue development work on document 6743C draft
  - To edit document with revisions and additions
  - Anticipate a next draft available in May-June 2024
  - Do not expect to be ready to submit draft for Cycle 5-2024 voting
  - Could consider Cycle 7-2024
- Next Task Force Meetings

- SEMI NA Summer 2024 – Tuesday July 9, 2024, 8am-10am Pacific Time
    - In person at SEMICON West (San Francisco) and online in RingCentral
    - Review 6743C draft development

Attachment: GUI TF Report - 2024-03-26

5.6 *PCS Task Force Report*

James Moyne (AMAT / University of Michigan) reported for the PCS Task Force. Of note:

- Date and Event
    - # of attendees in person: 5 (including staff)
    - # of attendees remote/online: 3
- TF Leadership & changes (if any): None
- New SNARFs: None
- Ballot Adjudication: 7067, LI update to E133 for removal of restricted bias terms.
    - See next few slides
- Old and New business
    - Meeting with ABFI TF on metrology for fault analysis which could leverage E133 for common input / output structure for data
    - Reviewed SEMI paper on Digital Twins and made comments, many of which were accepted
        - Need to continue to seek SEMI - I&CC – International Roadmap for Devices and Systems alignment
    - APCSM 2024 is Oct 7-10, 2024, at the Marriott Markham, Toronto, Canada.
        - www.apcsmconference.com
    - Many activities in play related to future PCS TF work
        - NIST AI in semiconductor activity
        - NSF seed funding for Center for Digital Twins in Manufacturing: https://robotics.umich.edu/dtcenter

Attachment: PCS-TF-report20240326

5.7 *GEM 300 Task Force Report*

Brian Rubow (Cimetrix) reported for the GEM 300 Task Force. Of note:

- Adjudicated 6836A
- Reviewed SNARF Substrate Process Tracking
- Reviewed Feedback on the Well Known ballots which are in the publication queue.
    - Plan for a ballot to update, but can't submit until they are published.
- Discussed ballot 7173 E30 ballot from Japan
    - Encourage members to review and submit feedback

Attachment: SEMI NA-ICC-GEM300-TF Report Spring 2024

5.8 *Sensor Bus Task Force Report*

Dan Judd (Arlington Lab) reported for the Sensor Bus Task Force. Of note:

- New SNARFs
    - Line Item Revision to E54.13 – SAN CS for EtherNet/IP (1011)
    - Revise for Restricted Biased Terms (RBT)
    - Add models E54.22 & E54.24;
    - SEMI E54.13 is currently an inactive standard. As part of this work, the document will be checked to ensure it meets the requirements to be an active standard. (E.g., comply with Style Manual, etc.)
    - Ballot Target: 2024 Cycle 5

Attachment: SEMI-NA-IC-TC_SB-TF-Report_240327 - v1.1

6 Old Business

None.

7 New Business

7.1 *I&C Co-Chair Leadership Change*

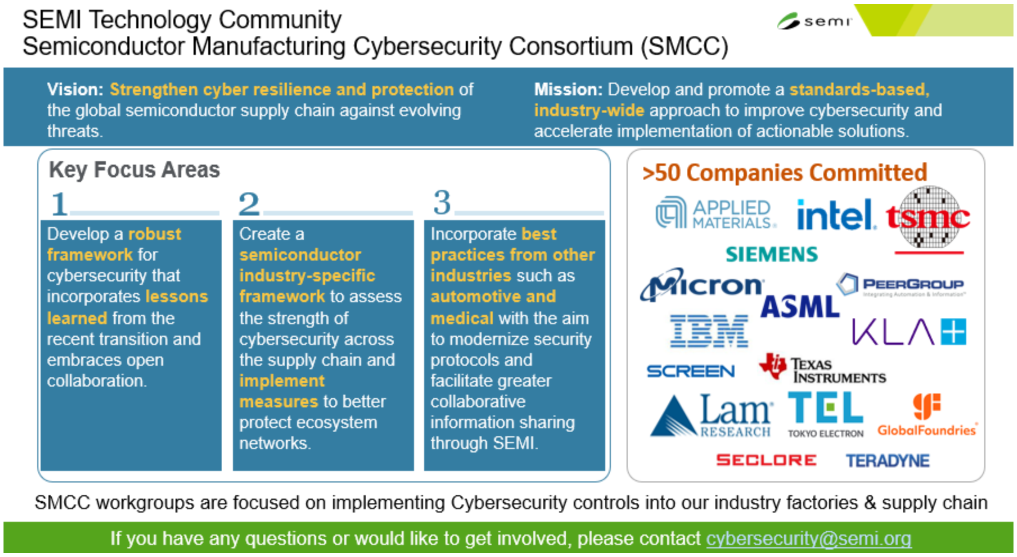
James Moyne (AMAT/University of Michigan) addressed the committee on this topic.

- After the NA I&C TC Meeting at SEMICON West 2024, Jack Ghiselli will be stepping down as NA I&C Co-chair.
- On behalf of the I&C Committee, we would like to thank Jack for his 20+ years of service to the community.

7.2 *Semiconductor Manufacturing Cybersecurity Consortium (SMCC)*

Albert Fuchigami (PEER Group) addressed the committee on this topic.

- The SMCC has been meeting regularly and would like to welcome any new Standards members who are interested in improving cybersecurity efforts in the semiconductor industry.



SEMI Technology Community
Semiconductor Manufacturing Cybersecurity Consortium (SMCC)

Vision: **Strengthen cyber resilience and protection** of the global semiconductor supply chain against evolving threats.

Mission: Develop and promote a **standards-based, industry-wide** approach to improve cybersecurity and accelerate implementation of actionable solutions.

Key Focus Areas

1. Develop a **robust framework** for cybersecurity that incorporates **lessons learned** from the recent transition and embraces open collaboration.
2. Create a **semiconductor industry-specific framework** to assess the strength of cybersecurity across the supply chain and **implement measures** to better protect ecosystem networks.
3. Incorporate **best practices from other industries** such as **automotive and medical** with the aim to modernize security protocols and facilitate greater collaborative information sharing through SEMI.

>50 Companies Committed

SMCC workgroups are focused on implementing Cybersecurity controls into our industry factories & supply chain

If you have any questions or would like to get involved, please contact cybersecurity@semi.org

Attachment: SMCC Overview - IC TC

8 Next Meeting and Adjournment

The next meeting is scheduled for July 10, 2024, at SEMICON West. See http://www.semi.org/standards-events for the current list of events.

Monday, July 8, 2024

- 9:00-10:00 – NA I&C Leadership Meeting
- 10:00-12:00 – ABFI Task Force
- 13:00-14:00 – PCS Task Force
- 14:00-15:30 – GEM300 Task Force
- 15:30-17:30 – EDP Task Force

Tuesday, July 9, 2024

- 8:00-10:00 – GUI Task Force
- 10:00-11:00 – ESEC Task Force
- 11:00-12:00 – Sensor Bus Task Force
- 13:00-16:00 – DDA Task Force
- 16:00-17:30 – CDS Task Force

Wednesday, July 10, 2024

- 9:00-12:00, 13:00-16:00 – I&C NA TC Chapter Meeting

Adjournment: 3:10.

Respectfully submitted by:

Michelle Sun
Coordinator
SEMI North America
Phone: 408.943.7982
Email: msun@semi.org

Minutes tentatively approved by:

<Name> (<Company>), Co-chair	<Date approved>
<Name> (<Company>), Co-chair	<Date approved>

Table 14 Index of Available Attachments[#1]

Title	*Title*
Required Meeting Elements March 2024	AR – 6836A
NA-IC-TC-Chapter-Minutes-Nov2023	AR – 7067
JA_I&C_Liaison_20240322_v1.2	AR – 7174
Liaison report_InC_KR__Mar2024	AR – 7175
I&C Taiwan Liasion report_Dec_2023	AR – 7176
China I&C Committee Chapter Liaison Report -v3	AR – 7177
IC Staff Report March 2024 v4	AR – 7188
PCR – R6924A	AR – 7189
AR – R7116	AR – R7117
NA-ICC-ABFI-TF Report Spring 2024	DDA TF Report - Mar 2024_Rev 1.0
CDS TF Meeting - CyS Status Reporting_Rev 1.1	EDP Discussion -20240326_Rev 2
GUI TF Report - 2024-03-26	PCS-TF-report20240326
SEMI-NA-IC-TC_SB-TF-Report_240327 - v1.1	SMCC Overview - IC TC

#1 Due to file size and delivery issues, attachments must be downloaded separately. A .zip file containing all attachments for these minutes is available at www.semi.org. For additional information or to obtain individual attachments, please contact Michelle Sun at the contact information above.