



Information & Control NA TC Chapter Meeting Summary and Minutes

SEMICON West
Wednesday, July 13, 2022
9:00 AM-3:00 PM (Pacific Time)

TC Chapter Announcements

Next TC Chapter Meeting

Wednesday, November 9, 2022

9:00-3:00 PM Pacific

Milpitas, SEMI HQ

Table 1 Meeting Attendees

Italics indicate virtual participants

Co-Chairs: Name (Company)

SEMI Staff: John Doe

<i>Company</i>	<i>Last</i>	<i>First</i>	<i>Company</i>	<i>Last</i>	<i>First</i>
Applied Materials, Inc.	<i>Moyne</i>	<i>James</i>	Hitachi High-Tech Corporation	<i>Toyoshima</i>	<i>Yuko</i>
Bosch Silicon Trading GmbH	<i>Georgi</i>	<i>Ralf</i>	Intel Corp.	<i>Bond</i>	<i>Ryan</i>
Cimetrix Incorporated	Howard	Richard	Intel Corporation	<i>Maloney</i>	<i>Chris</i>
Cimetrix Incorporated	Tracey	Tami	Omron Electronics, Inc	Infelise	Nick
Cimetrix Incorporated	Rubow	Brian	PEER Group Inc.	Fuchigami	Albert
Doople	Kim	Hyungsu	SCREEN Semiconductor Solution Co., Ltd.	Nishimura	Takayuki
Edwards	<i>Shelley</i>	<i>Gerald</i>	SEMI	Sun	Michelle
EtherCAT Technology Group	<i>Rostan</i>	<i>Martin</i>	Tokyo Electron Korea Ltd.	Min Im	Byoung
Ghiselli Consulting	Ghiselli	Jack			

Table 2 Leadership Changes

<i>WG/TF/SC/TC Name</i>	<i>Previous Leader</i>	<i>New Leader</i>
None		

Table 3 Committee Structure Changes

<i>Previous WG/TF/SC Name</i>	<i>New WG/TF/SC Name or Status Change</i>
None	



Table 4 Ballot Results

<i>Document #</i>	<i>Document Title</i>	<i>Committee Action</i>
6572B	Revision to SEMI E30-0418: Specification for The Generic Model for Communications and Control of Manufacturing Equipment (GEM)	Failed
6859	Revision to SEMI E116-0518 Specification for Equipment Performance Tracking (EPT) and E116.1-0707 (Reapproved 0518) Specification for SECS-II Protocol for Equipment Performance Tracking (EPT)	Failed
6916	Line Item Revision to SEMI E5-0821: Specification for SEMI Equipment Communications Standard 2 Message Content (SECS-II)	
LI-1	New Format Code for OperatorCommand	Passed
LI-2	Errata Corrections	Passed
6927	Line Item Revision to SEMI E125-XXYY: Specification for Equipment Self Description (EqSD) and SEMI E125.2-WWZZ Specification for Protocol Buffers for Equipment Self Description (EqSD)	
LI-1	Change 'Session' to 'Entity' for Client Session and Consumer Session terminology.	Failed
LI-2	Clarify UnitConfig usage	Failed
LI-3	Correct issues in SEMI E125.<AA> .proto files reported by Task Force Members.	Failed
LI-4	Clean up spelling errors and clarify how .proto files are used.	Failed
6928	Line Item Revision TO SEMI E132-XXYY Specification for Equipment Client Authentication and Authorization and SEMI E132.2-WWZZ Specification for Protocol Buffers for Equipment Client Authentication and Authorization (ECA)	
LI-1	Change 'Session' to 'Entity' for Client Session and Consumer Session terminology.	Failed
LI-2	Clarify definition and concepts.	Failed
LI-3	Clarify secure communication usage with SEMI E132.2	Failed
LI-4	Clean up spelling errors and clarify how .proto files are used.	Failed
6929	Line Item Revision TO SEMI E134-XXYY Specification for Data Collection Management and SEMI E134.2-WWZZ Specification for Protocol Buffers of Data Collection Management	
LI-1	Change 'Session' to 'Entity' for Client Session and Consumer Session terminology.	Failed
LI-2	Correct issues with GetObjTypeInstanceIds() operation.	Failed
LI-3	Address issues with Exception Report and Event Reports sent as collected data.	Failed
LI-4	Clean up spelling errors and clarify how .proto files are used.	Failed

#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 Activities Approved by the GCS between meetings of the TC Chapter

<i>#</i>	<i>Type</i>	<i>SC/TF/WG</i>	<i>Details</i>
6916	SNARF Approval	GEM300 TF	Line Item Revision to SEMI E5-0821: Specification for SEMI Equipment Communications Standard 2 Message Content (SECS-II)
6930	SNARF Approval	DDA TF	Revision to SEMI E164-0414 (Reapproved 0721): Specification for EDA Common Metadata



Table 6 Authorized Activities

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

#	Type	SC/TF/WG	Details
6947	Cycle 7-2022	DDA	SNARF of Line Item Revision to SEMI E179: Specification for Protocol Buffers Common Components
6945	Cycle 7-2022	DDA	SNARF of Line Item Revision to SEMI E125-XXYY: Specification for Equipment Self Description (EqSD) and SEMI E125.2-WWZZ: Specification for Protocol Buffers for Equipment Self Description (EqSD)
6946	Cycle 7-2022	DDA	Line Item Revision to SEMI E132-XXYY: Specification for Equipment Client Authentication and Authorization and SEMI E132.2-WWZZ: Specification for Protocol Buffers for Equipment Client Authentication and Authorization (ECA)
6949	Cycle 7-2022	Sensor Bus	Line Item Revisions to E54, SEMI E54.1, SEMI E54.10, SEMI E54.11, SEMI E54.12, SEMI E54.13, SEMI E54.14, SEMI E54.15, SEMI E54.16, SEMI E54.17, SEMI E54.18, SEMI E54.19, SEMI E54.2, SEMI E54.20, SEMI E54.21, SEMI E54.22, SEMI E54.23, SEMI E54.24, SEMI E54.3, SEMI E54.4, SEMI E54.7, SEMI E54.8, SEMI E54.9
6948	Cycle 7-2022	ABFI	Line Item Revisions to SEMI E142-0921 - Specification for Substrate Mapping, SEMI E142.1-0921 - Specification for XML Schema for Substrate Mapping, Line Item Revision to SEMI E142.2-0921 - Specification for SECS II Protocol For Substrate Mapping, Line Item Revision to SEMI E142.3-0921 - Specification for Web Services Protocol for Substrate Mapping, Line Item Revision to SEMI E142.4-0921 - Specification for Secs II Protocol For Substrate Mapping Using Item Transfer

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

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

Table 7 Authorized Ballots

#	When	TF	Details
6572C	Cycle 7-2022	GEM300	Revision to SEMI E30-0418: Specification for The Generic Model for Communications and Control of Manufacturing Equipment (GEM)
6859A	Cycle 7-2022	GEM300	Revision to SEMI E116-0518: Specification for Equipment Performance Tracking (EPT) and E116.1-0707 (Reapproved 0518) Specification for SECS-II Protocol for Equipment Performance Tracking (EPT)
6835	Cycle 7-2022	GEM300	Line Item Revision to SEMI E87-XXXX: Specification for Carrier Management (CMS) and SEMI E87.1-XXXX: Specification for SECS-II Protocol for Carrier Management (CMS)
6836	Cycle 7-2022	GEM300	Line Item Revision to SEMI E87-0619: Specification for Carrier Management (CMS) and SEMI E87.1-0619: Specification for SECS-II Protocol for Carrier Management (CMS) and SEMI E90-1218: Specification for Substrate Tracking and SEMI E90.1-0312, Specification for SECS-II Protocol for Substrate Tracking
6743A	Cycle 7-2022	GUI	Revision to SEMI E95-1101: Specification for Human Interface for Semiconductor Manufacturing Equipment
6945	Cycle 7-2022	DDA	Line Item Revision to SEMI E125-XXYY: Specification for Equipment Self Description (EqSD) and SEMI E125.2-WWZZ: Specification for Protocol Buffers for Equipment Self Description (EqSD)
6946	Cycle 7-2022	DDA	Line Item Revision to SEMI E132-XXYY: Specification for Equipment Client Authentication and Authorization and SEMI E132.2-WWZZ: Specification for Protocol Buffers for Equipment Client Authentication and Authorization (ECA)
6947	Cycle 7-2022	DDA	Line Item Revision to SEMI E179: Specification for Protocol Buffers Common Components
6929A	Cycle 7-2022	DDA	Line Item Revision TO SEMI E134-XXYY: Specification for Data Collection Management and SEMI E134.2-WWZZ: Specification for Protocol Buffers of Data Collection Management
6951	Cycle 7-2022	PCS	Reapproval of SEMI E126: Specification for Equipment Quality Information Parameters (EQIP)



Table 7 Authorized Ballots

#	When	TF	Details
6932	Cycle 7-2022	DDA	Reapproval of SEMI E121: Guide for Style and Usage of XML for Semiconductor Manufacturing Applications
6948	Cycle 7-2022	ABFI	Line Item Revisions to SEMI E142-0921 - Specification for Substrate Mapping, SEMI E142.1-0921 - Specification for XML Schema for Substrate Mapping, Line Item Revision to SEMI E142.2-0921 - Specification for SECS II Protocol For Substrate Mapping, Line Item Revision to SEMI E142.3-0921 - Specification for Web Services Protocol for Substrate Mapping, Line Item Revision to SEMI E142.4-0921 - Specification for Secs II Protocol For Substrate Mapping Using Item Transfer
6930	Cycle 7-2022	DDA	Revision to SEMI E164-0414 (Reapproved 0721): Specification for EDA Common Metadata

Table 8 SNARF(s) Granted a One-Year Extension

#	TF	Title	Expiration Date
6563	Sensor Bus	Reapproval for SEMI E54.18-0914: Specification for Sensor/Actuator Network Specific Device Model for Vacuum Pump Device	7/13/2023
6564	Sensor Bus	Reapproval for SEMI E54.22-0914: Specification for Sensor/Actuator Network Specific Device Model for Vacuum Pressure Gauges	7/13/2023
6565	CDS	New Standard: Specification for Application Accesslisting	7/13/2023
6572	GEM300	Revision to SEMI E30-0418: Specification for The Generic Model for Communications and Control of Manufacturing Equipment (GEM)	7/13/2023

Table 9 SNARF(s) Abolished

#	TF	Title
6927	DDA	Line Item Revision to SEMI E125-XXYY: Specification for Equipment Self Description (EqSD) and SEMI E125.2-WWZZ Specification for Protocol Buffers for Equipment Self Description (EqSD)
6928	DDA	Line Item Revision to SEMI E132-XXYY Specification for Equipment Client Authentication and Authorization and SEMI E132.2-WWZZ Specification for Protocol Buffers for Equipment Client Authentication and Authorization (ECA)

Table 10 Standard(s) to receive Inactive Status

Standard Designation	Title
None	

Table 11 New Action Items

Item #	Assigned to	Details
1	Michelle Sun (SEMI)	Confirm Fall and Spring meeting dates - OPEN
2	Thai Nguyen (SEMI)	Double instances of voter when manual add/self add, and cannot remove someone you've added manually - OPEN

Table 12 Previous Meeting Action Items

<i>Item #</i>	<i>Assigned to</i>	<i>Details</i>
1	Michelle Sun (SEMI), James Moyne (AMAT/University of Michigan)	Create procedure for updating E54 series with biased terms. Lots of them have master/slave terms, making it difficult to do all at once. - OPEN
2	Thai Nguyen (SEMI)	Request to IT: - Move timer the screen so it doesn't jump during voting - OPEN Make the timer visible for the presiding chair - DONE

1 Welcome, Reminders, and Introductions

Jack Ghiselli (Ghiselli Consulting) called the meeting to order at 9:03. The meeting reminders on antitrust issues, intellectual property issues and holding meetings with international attendance were reviewed. Attendees introduced themselves.

Attachment: Required Meeting Elements Nov 2022

2 Review of Previous Meeting Minutes

The TC Chapter reviewed the minutes of the previous meeting.

Motion: Approve the minutes as written
By / 2nd: Brian Rubow / Cimatrix Incorporated
Discussion:
Vote: 12-Y 0-N. Motion **passed**.
Attachment: TCMinutes_IC_Mar2022

3 Liaison Reports

3.1 I&C Japan TC Chapter

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

- Meeting Information
 - o Last meeting: April 19, 2022, 9:30-12:00 noon JST
 - o Next meeting: September 9, 2022, 9:30-12:00 noon JST
- Leadership Changes
 - o GEM300 TF
 - Motoki Miyamoto (Yokogawa Solution Service Corporation) has replaced Masaya Nagata (Tokyo Electron Limited) as a new co-leader
 - o Backend Factory Integration TF has been discharged
- Authorized Activities
 - o 6920, Revision of SEMI E171-0916 Specification for Predictive Carrier Logistics (PCL) and SEMI E171.1-0216: Specification for SECS-II Protocol for Predictive Carrier Logistics
- Authorized Ballots for Cycle 7-2022
 - o 6770, Line-Item revision to E169-0615, Guide for Equipment Information System Security



- 6861, Line Item Revision of E99-0317 Specification for Carrier ID Reader/Writer
- 6862, Line Item Revision of E99.1-0317 Specification for SECS-I and SECS-II Protocol for Carrier ID Reader/Writer
- 6920, Revision of SEMI E171-0916 Specification for Predictive Carrier Logistics (PCL) and SEMI E171.1-0216, Specification for SECS-II Protocol for Predictive Carrier Logistics

Attachment: 20220708_JA_IC_LiaisonR_v1.0

3.2 I&C China TC Chapter

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

- Committee Structure Changes
 - New Task Force: GEM300
- Authorized Activities
 - 6914, 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), and SEMI E5-0821 Specification for SEMI Equipment Communications STANDARD 2 Message Content (SECS-II)

Attachment: China I&C Committee Chapter Liaison Report -v4

3.3 I&C Taiwan TC Chapter

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

- Meeting Information
 - Last meeting: June 10, 2022
 - Next meeting: TBD
- Authorized Activities
 - 6938, New Standard: Guide for Equipment Edge Data Governance (EEDG)

Attachment: I&C Taiwan Liaison report_20220610

3.4 SEMI Staff Report

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

- 2022 Calendar of Events
 - SEMICON Taiwan
 - Sept 14-16
 - Taipei, Taiwan
 - SEMICON Europa
 - Nov 15-18
 - Munich, Germany
 - SEMICON Japan
 - Dec 14- 16
 - Tokyo, Japan
- Upcoming NA Meetings
 - NA Standards Fall Meetings
 - November 7-10, 2022 (Tentative)



- SEMI HQ, Milpitas, California/USA
- Critical Dates for SEMI Standards Ballots

2022	Ballot Submission Deadline	Voting Opens	Voting Closes
Cycle 6	July 26	August 9	September 8
Cycle 7	August 30	September 13	October 13
Cycle 8	October 4	October 18	November 17
Cycle 9	November 15	November 29	December 29

- SEMI Standards Publications
 - New Standards
 - SEMI E132.2, Specification for 300 mm Tape Frame FOUP Load Port
 - SEMI MS14, Guide for Critical Parameters of Gas Sensors
 - SEMI C104, Guide for Reporting Performance Parameters of the Polymer Windows for Chemical Mechanical Planarization (CMP) Pads Used in Semiconductor Manufacturing
 - SEMI M91, Guide for Reporting Performance Parameters of the Polymer Windows for Chemical Mechanical Planarization (CMP) Pads Used in Semiconductor Manufacturing
- SNARF 3-Year Status

Doc #	Description	Date Created
6174	Line Item Revision to SEMI E54.9, Specification for Sensor/Actuator Network Communication Specification for Modbus/TCP over TCP/IP	4/5/2017 Inactive Standard, Expire
6562	Line-item Revision to SEMI E54.23: Specification for Sensor/Actuator Network Communications for CC-Link IE Field Network	7/10/2019 – Expire
6563	Reapproval for SEMI E54.18-0914: Specification for Sensor/Actuator Network Specific Device Model for Vacuum Pump Device	7/10/2019 – Extend, Reapprove
6564	Reapproval for SEMI E54.22-0914: Specification for Sensor/Actuator Network Specific Device Model for Vacuum Pressure Gauges	7/10/2019 – Extend, Reapprove
6565	New Standard: Specification for Application Accesslisting	7/10/2019 - Extend
6572	Revision to SEMI E30-0418: Specification for The Generic Model for Communications and Control of Manufacturing Equipment (GEM)	7/31/2019 - Extend

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5-Year Review

Display Name	Description	Date Available	Disposition
SEMI E109-1017	Specification for Reticle and Pod Management (RPMS)	10/6/2017	LI update by GEM300
SEMI E116-0518	Specification for Equipment Performance Tracking	5/17/2018	Balloting now
SEMI E121-1017	Guide for Style and Usage of XML for Semiconductor Manufacturing Applications	10/6/2017	reapproval
SEMI E122-0217	Specification for Tester Equipment Specific Equipment Model (TSEM)	2/10/2017	LI update by GEM300
SEMI E123-0217	Specification for Handler Equipment Specific Equipment Model (HSEM)	2/10/2017	LI update by GEM300



SEMI E126-0708 (Reapproved 0518)	Specification for Equipment Quality Information Parameters (EQIP)	5/25/2018	Reapprove
SEMI E138-0217	Specification for XML Semiconductor Common Components	2/10/2017	2019 updated; check
SEMI E151-1211 (Reapproved 0517)	Guide for Understanding Data Quality	5/26/2017	LI biased terminology update
SEMI E157-0611 (Reapproved 0616)	Specification for Module Process Tracking	6/30/2016	LI update by GEM300
SEMI E160-1211 (Reapproved 0317)	Specification for Communication of Data Quality	3/31/2017	LI biased terminology update
SEMI E167-1213	Specification for Equipment Energy Saving Mode Communications (EESM)	12/13/2013	Revision Planned
SEMI E168-0915	Specification for Product Time Measurement	9/18/2015	Ask Metrics
SEMI E175-1116	Specification for Subsystem Energy Saving Mode Communication (SESMC)	11/18/2016	Revision Planned
SEMI E30.1-0217	Specification for Inspection and Review Specific Equipment Model (ISEM)	2/10/2017	LI update by GEM300
SEMI E30.5-0302 (Reapproved 0217)	Specification for Metrology Specific Equipment Model (MSEM)	2/24/2017	LI update by GEM300
SEMI E4-0418	Specification for SEMI Equipment Communications Standard 1 Message Transfer (SECS-I)	4/13/2018	GEM300 update
SEMI E54.10-0600 (Reapproved 1017)	Specification for Sensor/Actuator Network Specific Device Model for an In-Situ Particle Monitor Device	10/27/2017	LI biased terminology update; Cochair review
SEMI E54.20-0316	Specification for Sensor/Actuator Network Communications for EtherCAT	3/25/2016	LI revision
SEMI E54.24-1116	Specification for Sensor/Actuator Network Specific Device Model of a Generic Equipment Networked Sensor (GENsen)	11/25/2016	Reapproval
SEMI E54-0316	Specification for Sensor/Actuator Network	3/25/2016	reapproval
SEMI E82-1106 (Reapproved 0318)	Specification for Interbay/Intrabay AMHS SEM (IBSEM)	3/23/2018	GEM300 update
SEMI E88-0307 (Reapproved 0318)	Specification for AMHS Storage SEM (Stocker SEM)	3/23/2018	GEM300 update

Attachment: Staff Report July 2022 v7

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 # 6572B, Revision to SEMI E30-0418: Specification for The Generic Model for Communications and Control of Manufacturing Equipment (GEM)

Negative: Reject Name: Tadashi Mochizuki (TEL)
 Negative Reference: Modification of Figure 11 Spooling State Model Diagram
 Negative Text: The base document E30-0520 is “PURGE SPOOL” instead of “SPOOL OUTPUT”. This state shall not change. Please see the green frame in the figure below.

Motion: Negative is related and persuasive.

By / 2nd: By: Brian Rubow / Cimatrix Incorporated
 Second: Nick Infelise / Omron Electronics, Inc

Discussion: None

Vote: 13-Y 0-N. Motion **passed**.

Motion: This Document failed TC Chapter review and will be returned to the TF for rework.



By / 2nd: By: Brian Rubow / Cimetric Incorporated
Second: Nick Infelise / Omron Electronics, Inc

Discussion: None

Vote: 12-Y 0-N. Motion **passed**.

4.2 Document #6859, Revision to SEMI E116-0518 Specification for Equipment Performance Tracking (EPT) and E116.1-0707 (Reapproved 0518) Specification for SECS-II Protocol for Equipment Performance Tracking (EPT)

Negative: Reject Name: Takashi Nakagawa (Yokogawa)
Negative Reference: Table 7 Status Variable Definitions Representing Object Attributes for Consumables
Negative Text: The correct type of TrackerEventID_i shall be "Unsigned Integer" because the TrackerEventID of EPTTracker Objects has been changed to "Unsigned Integer".

Motion: Negative is related and persuasive.

By / 2nd: By: Brian Rubow / Cimetric Incorporated
Second: Takayuki Nishimura / SCREEN Semiconductor Solution Co., Ltd.

Discussion: None

Vote: 13-Y 0-N. Motion **passed**.

Motion: This Document failed TC Chapter review and will be returned to the TF for rework.

By / 2nd: By: Brian Rubow / Cimetric Incorporated
Second: Takayuki Nishimura / SCREEN Semiconductor Solution Co., Ltd.

Discussion: None

Vote: 12-Y 0-N. Motion **passed**.

4.3 Document # 6916, Line Item Revision to SEMI E5-0821: Specification for SEMI Equipment Communications Standard 2 Message Content (SECS-II)

- Line Item #1: New Format Code for OperatorCommand
- Line Item #2: Errata Corrections

Motion: This is not a Safety Document, when all safety-related information is removed, the Document is still technically sound and complete. (Regulations ¶ 8.7.1)

By / 2nd: By: Brian Rubow / Cimetric Incorporated
Second: Takayuki Nishimura / SCREEN Semiconductor Solution Co., Ltd.

Discussion: None

Vote: 12-Y 0-N. Motion **passed**.

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: Brian Rubow / Cimetric Incorporated
Second: Albert Fuchigami / PEER Group Inc.

Discussion: None

Vote: Result: 12-Y 0-N. Motion **passed**.

Attachment: Ballot Line-Item report - 6916



4.4 Document # 6927, Line Item Revision to SEMI E125-XXYY: Specification for Equipment Self Description (EqSD) and SEMI E125.2-WWZZ Specification for Protocol Buffers for Equipment Self Description (EqSD)

- Line Item #1: Change 'Session' to 'Entity' for Client Session and Consumer Session terminology.
- Line Item #2: Clarify UnitConfig usage
- Line Item #3: Correct issues in SEMI E125.<AA> .proto files reported by Task Force Members.
- Line Item #4: Clean up spelling errors and clarify how .proto files are used

Negative: Reject Name: Hartsough, Larry (UAA)
Negative Text: Procedure Manual 3.5.2.1 limits Line Item ballots to published standards. Therefore, this ballot is invalid

Motion: Negative is related and persuasive.

By / 2nd: By: Albert Fuchigami / PEER Group Inc.
Second: Takayuki Nishimura / SCREEN Semiconductor Solution Co., Ltd.

Discussion: None

Vote: 12-Y 0-N. Motion **passed**.

Note: The same reject was logged for 4 Line Items. The Task Force decided to use this reject to fail all Line Items.

Motion: Line item(s) 1, 2, 3, 4 failed TC Chapter review and will be returned to the TF for rework

By / 2nd: By: Albert Fuchigami / PEER Group Inc.
Second: Takayuki Nishimura / SCREEN Semiconductor Solution Co., Ltd.

Discussion: None

Vote: 13-Y 0-N. Motion **passed**.

4.5 Document # 6928, Line Item Revision TO SEMI E132-XXYY Specification for Equipment Client Authentication and Authorization and SEMI E132.2-WWZZ Specification for Protocol Buffers for Equipment Client Authentication and Authorization (ECA)

- Line Item #1: Change 'Session' to 'Entity' for Client Session and Consumer Session terminology.
- Line Item #2: Clarify definition and concepts.
- Line Item #3: Clarify secure communication usage with SEMI E132.2
- Line Item #4: Clean up spelling errors and clarify how .proto files are used.

Negative: Reject Name: Hartsough, Larry (UAA)
Negative Text: Procedure Manual 3.5.2.1 limits Line Item ballots to published standards. Therefore, this ballot is invalid

Motion: Negative is related and persuasive.

By / 2nd: By: Albert Fuchigami / PEER Group Inc.
Second: Takayuki Nishimura / SCREEN Semiconductor Solution Co., Ltd.

Discussion: None

Vote: 12-Y 0-N. Motion **passed**.

Note: The same reject was logged for 4 Line Items. The Task Force decided to use this reject to fail all Line Items.



Motion: Line item(s) 1, 2, 3, 4 failed TC Chapter review and will be returned to the TF for rework
By / 2nd: By: Albert Fuchigami / PEER Group Inc.
Second: Takayuki Nishimura / SCREEN Semiconductor Solution Co., Ltd.
Discussion: None
Vote: 10-Y 0-N. Motion **passed**.

4.6 Document # 6929, LINE ITEM REVISION TO SEMI E134-XXYY Specification for Data Collection Management and SEMI E134.2-WWZZ Specification for Protocol Buffers of Data Collection Management

- Line Item #1: Change 'Session' to 'Entity' for Client Session and Consumer Session terminology.
- Line Item #2: Correct issues with GetObjTypeInstanceIds() operation.
- Line Item #3: Address issues with Exception Report and Event Reports sent as collected data.
- Line Item #4: Clean up spelling errors and clarify how .proto files are used.

Negative: Reject Name: Hartsough, Larry (UAA)
Negative Text: Procedure Manual 3.5.2.1 limits Line Item ballots to published standards. Therefore, this ballot is invalid

Motion: Negative is related and persuasive.
By / 2nd: By: Albert Fuchigami / PEER Group Inc.
Second: Takayuki Nishimura / SCREEN Semiconductor Solution Co., Ltd.
Discussion: None
Vote: 12-Y 0-N. Motion **passed**.

Note: The same reject was logged for 4 Line Items. The Task Force decided to use this reject to fail all Line Items.

Motion: Line item(s) 1, 2, 3, 4 failed TC Chapter review and will be returned to the TF for rework
By / 2nd: By: Albert Fuchigami / PEER Group Inc.
Second: Takayuki Nishimura / SCREEN Semiconductor Solution Co., Ltd.
Discussion: None
Vote: 10-Y 0-N. Motion **passed**.

5 Subcommittee and Task Force Reports

5.1 GEM300 Task Force

Brian Rubow (Cimetrix) reported for the GEM300 Task Force. Of note:

- 6572C (E30) ballot development
 - o Control state OFF-LINE collection events on transitions 6 and especially 10
 - o Decided to leave feature this as is for backward compatibility. A new SNARF can be proposed if someone wishes to change this rather than hold up the ballot.
- GEM Compliance Statement: Process Program Management
 - o Decided to combine the compliance statement and the Section Reference table. Also decided to allow Process Program Management its own yes/no options.
 - o Spooling



- Decided to leave as an Additional Capability, rather than as a Legacy Capability
- 6859A (E116) ballot development
 - Considered whether to abolish the current collection event implementation over the ballot's new collection event implementation.
 - Decided to keep both collection event implementations simultaneously.
 - Decided not to introduce equipment constants to configure collection event handling, and also to clarify how attribute DisableEventOnTransition should affect both collection event implementations.
- Ballot Plans for Cycle 7-2022
 - 6572C (E30 major revision)
 - 6859A (E116 major revision)
 - 6835 E87
 - 6836 E87/E90

Attachment: SEMI NA-ICC-GEM300-TF Report Summer 2022

5.2 PCS Task Force

- New SNARFs
 - Reapproval of E126, Equipment Quality Information Parameters (EQIP)
- New Ballots and ballot plans
 - Nothing near term
 - Longer term: Working on optimized maintenance addition to E133
 - Definitions completed; successfully balloted by E-RAMP TF
 - Will work to align the Intel. Roadmap for Devices and Systems (IRDS) with these definitions
 - Consensus: Go into holding pattern until we have resources which is expected early next year
 - Potential resources from proposals into government for CHIPS act
 - Considering using the APC-SM Conference “APC Council Meeting” to have a working session on this topic (www.apcsmconference.com). Need to be clear that it is a mental exercise but might not result in a standard ballot.
 - James to pursue with conference
 - Other items
 - Follow-up on Action Item: Smart Manufacturing SEMI Group, sub-committee on advanced manufacturing (SAM); improving interaction with I&CC on “Next Generation FDC”
 - We had a meeting in April (see next slide). There has been a change in leadership in the SAM; Paul Trio taking over temporary leadership. Agreed that we should liaison between I&CC and SAM. SAM is not really a technical group or standards developer. SAM agrees to interface with I&CC if any Smart Manufacturing standards (such as Next Gen FDC) are to be pursued. They would be pursued in I&CC.
- SEMI Smart Manufacturing - Fabs Subcommittee meeting
 - Meeting Date: April 28, 2022
 - Attendees: Dinesh Saigal, James Moyne (Applied Materials); Gautham Unni (AWS); Shankar Ranganathan (HCL); Jason Komorowski (Intel); Mike Rendon (NXP); Dan Iakob (onsemi); Surya Iyer (Polar Semi); Anuj Mahendru (Rockwell); Geoff Downing (ThermoFisher); Brian Coppa (ULVAC); Paul Trio, Mark da Silva, Nishita Rao (SEMI)
- Review of Draft FDC Roadmap Document [see attachment]
 - Presented by Surya on behalf of the FDC core team members



- Structure:
 - Different areas of consideration are captured in rows (e.g., Data Sources, Data Types, Data Collection, Analytics, Skill Sets Needed)
 - Different levels, from No FDC to FD Control, are captured in respective columns
- Discussion
 - Existing parallel efforts: Advanced Process Control (APC) Council, Integrated Measurement Association, IRDS Factory Integration
- Topics discussed:
 - context management, dynamics management, model management
 - also, transfer learning (i.e., bringing data from multiple instances)
 - how to 'automate' subject matter experts vs SME fading out (i.e., no knowledge left behind)
 - Suggestion for SEMI to align with other groups, identify lead group to drive discussions (and for other teams to provide info to)
 - Are there considerations in the roadmap for computing infrastructure? Edge vs centralized
 - Core team has discussed various topics such as this in greater detail, but at what level of detail should this roadmap provide?
- What is the end goal for this roadmap? This will dictate level of detail provided
 - This roadmap would be very useful for the standards developing committees
 - Suggestion to present this working roadmap draft at upcoming SEMI Information & Control Standards Meeting
 - There is also a request to schedule future Fabs SC meetings at a more convenient time for international participants
- Action Items
 - SEMI and FDC leads to connect with other FDC groups and determine best path forward for aligning discussions
 - SEMI to schedule future Fabs SC meetings accommodating international participants
- Next Steps
 - SEMI and FDC leads will align with other parallel groups and will identify next steps for this effort. Next meeting date will be announced as soon as finalized.

Attachment: PCS-TF-report20220712

5.3 ESEC Task Force

Gerald Shelley (Edwards) reported for the ESEC Task Force. The Task Force continued its discussion of the revisions of E167, E167.1, and E175.

Attachment: Overview diagram for E175

5.4 GUI Task Force

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

- Summary
 - Reviewed 6743A draft revision 1.7
 - Discussed GUI Layout examples and Dialog Boxes
 - Will integrate suggestions made by members

- Plan
 - Continue work on 6743A
 - Request I&CC approval to submit ballot in Cycle 7 - 2022
 - Next TF meeting Fall 2022

Attachment: GUI TF Report - 2022-07-12

5.5 ABFI Task Force

Dave Huntley (PDF Solutions) reported for the ABFI Task Force.

- New SNARF: Adding new SubstrateTypes to E142 schema
- New SNARF will be drafted to revise E142 as follows:
 - Add TnR, Panel, PCB to SubstrateTypeEnum in schema
 - Add TnR, PCB to acronyms
 - Correct capitalization for all substrate types
 - Add a DeviceData map example
 - Add diagrams to help clarify how E142 usage for all substrate types

Attachment: ABFI TF Meeting_07112022

5.6 CDS Task Force

Ryan Bond (Intel) reported for the CDS Task Force.

- Ballot 6926
 - Discussed recent edits to draft between June and July 2022
 - Discussed recommendations for differentiating account types
 - Human vs. Service account holders
 - Statements about the differing requirements due to service account criticality for operations
 - Discussed changes to authentication data authentication requirements
 - Discussed removal or rewording of inactivity period requirement

Attachment: CDS TF Report - 2022-07-12 Meeting Template

5.7 DDA Task Force

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

- New SNARF proposals
 - Line Item Revision – SEMI E132, E132.2
 - Line Item Revision – SEMI E125, E125.2
 - Line Item Revision – SEMI E179
 - Reapproval – SEMI E121 (handled by SEMI Staff)
- Ballot Summary
 - Failed:
 - Ballot #6927 - LINE ITEM REVISION TO SEMI E125-XXYY: SPECIFICATION FOR EQUIPMENT SELF DESCRIPTION (EqSD) and SEMI E125.2-WWZZ Specification for Protocol Buffers for Equipment Self Description (EqSD)

- Ballot #6928 - LINE ITEM REVISION TO SEMI E132-XXYY SPECIFICATION FOR EQUIPMENT CLIENT AUTHENTICATION AND AUTHORIZATION and SEMI E132.2-WWZZ Specification for Protocol Buffers for Equipment Client Authentication and Authorization (ECA)
- Ballot #6929 - LINE ITEM REVISION TO SEMI E134-XXYY Specification for Data Collection Management and SEMI E134.2-WWZZ Specification for Protocol Buffers of Data Collection Management
- DDA TF's Cycle 5 Ballots and Procedure Manual
 - An appeal was filed with SEMI that DDA TF's Cycle 5 ballots violated the Procedure Manual and the ballots are invalid. Procedure Manual 3.5.2.1 limits Line Item ballots to published standards.
 - 3.5.2 *Limitations on Line-Item Ballots*
 - 3.5.2.1 *New Standards or Safety Guidelines* — New (i.e., unpublished) Standards or Safety Guidelines are not eligible for submission as Line-Item Ballots. Line-Item Ballots are only permitted on revisions to Standards or Safety Guidelines that are already published by SEMI.
 - Our understanding was that this limitation was in place so that ballot voters had access to the starting point for the ballot, and could understand the changes that are being proposed in context of the entire standard.
 - Attempted to handle this by making the authorized ballots in the publication queue available to ballot voters so they have the relevant material, and standards development is not held up.
 - Worked with SEMI Staff (MichelleS, KevinN) on including text in the ballot background statements to explain this to ballot voters, and that they could get a copy from SEMI Staff.
 - A&R agrees with the appeal – Procedure Manual violations are related and technically persuasive reasons to fail the ballot.
 - The long delay between TC Review and publication is impacting ballot development. (Most recently published DDA ballots were in the publication queue 8-9 months, some are still in the queue > 12mths).
 - SEMI is working on increasing staff headcount to assist with publishing backlog, but this is will not be resolved near-term.
 - Issue has been brought to NARSC, who asked Regulations SC to see if there is a way to address this through Regulations and Procedure Manual changes. Also see if there are ways to help SEMI Staff make things easier to publish. (Format ballots properly, write content that comply with Style Manual, etc..)
 - Will work with SEMI Publication to prioritize all pending ballots for one standard at a time. (For example, get everything related to SEMI E132 published first, rather than order they were added to the publication queue.) This will allow DDA TF to continue ballot development momentum as standards are published.
- Meeting Results (Technical Summary)
 - Software Vendor Test Sessions (Test Session #1 – July 14, 2022. 9-12pm, 1-4pm)
 - Opportunity For Implementers To Test Against Each Other's EDA Applications To Work Out Inter-Operability Issues And Clarify Conflicting Assumptions.
 - SEMI E164 Complementary Files
 - Planning To Use JSON File Format With Comments – Look At JSONC Or JSON5.
 - ACL Passwords
 - Investigate New Approach Of Using Unique Salt Per ACL Entry And Onetime Token With ACL Passwords (Rather Than Storing Plaintext ACL Password In Equipment Server Or Use A Salt Value Shared For All ACL Entries)
 - Transactionids
 - Investigate If We Should Add Transactionids (Incrementing Value) To Track If There Are Lost Messages Or Attempts To Send Bad/Duplicate Messages.

- Freeze 3 Ballot Status

Standard (Ballot)	Ballot Status	Lead
E138 (6336)	Published - 03/15/2019	Brian Rubow (Cimatrix)
E120 (6434)	Published – 05/30/2019	Inna Skvortsova (SEMI)
E145 (6436)	Published – 05/31/2019	Inna Skvortsova (SEMI)
E178 (6300)	Published – 01/10/2020	Mitch Sakamoto (ZAMA)
E179 (6803)	Published – 03/11/2022	Albert Fuchigami (PEER)
E132 (6719A)	Published – 04/29/2022	Mitch Sakamoto (ZAMA) Albert Fuchigami (PEER)
E132.2 (6346F)	Published – 04/29/2022	Albert Fuchigami (PEER)
E125 (6718A)	Published – 04/22/2022	Hyungsu Kim (Doople) Brian Rubow (Cimatrix)
E134 (6720A)	Approved - In Publication Queue	Brian Rubow (Cimatrix)
E134.2 (6347A)	Approved - In Publication Queue	Albert Fuchigami (PEER)

Standard (Ballot)	Ballot Status	Lead
E179 (6837)	Approved - In Publication Queue	Albert Fuchigami (PEER)
E125.2 (6345A)	Approved - In Publication Queue	Albert Fuchigami (PEER)
E125 (6891)	Approved - In Publication Queue	Albert Fuchigami (PEER)
E179 (6892)	Approved - In Publication Queue	Albert Fuchigami (PEER)
E120.2 (6908)	Approved - In Publication Queue	Albert Fuchigami (PEER)
E164 (6930)	In Development	Alan Weber (Cimatrix)
E132, E132.2 (6928)	Adjudication	Albert Fuchigami (PEER) / Brian Rubow (Cimatrix)
E134, E134.2 (6929)	Adjudication	Albert Fuchigami (PEER) / Brian Rubow (Cimatrix)
E125, E125.2 (6927)	Adjudication	Albert Fuchigami (PEER) / Brian Rubow (Cimatrix)
E121 (6932)	Reapproval	Michelle Sun (SEMI)

- Meeting Schedule

- Meeting to discuss Cycle 7 Ballot proposals.
(Same agenda - one Asia-friendly, one Europe-friendly)
- August 16, 2022 - 3-5pm PDT (12pm-2am CEST, 7-9am JST)
- August 17, 2022 - 8-10am PDT (5-7pm CEST, 12am-1am JST)

Motion: Abolish SNARF Documents #6927, 6928

By / 2nd: By: Albert Fuchigami / PEER Group Inc.
Second: Hyungsu Kim / Doople

Discussion: None.

Vote: 12-Y 0-N. Motion passed.

Attachment: DDA TF Report - SEMICON West 2022 Meeting_Rev 1.1

6 Next Meeting and Adjournment

The next meeting is scheduled for Wednesday, November 9, 2022 at SEMI HQ in Milpitas, California. See <http://www.semi.org/standards-events> for the current list of events.



Monday, November 7, 2022

- 11:00-12:00 – NA I&C Leadership Meeting
- 13:00-15:00 – ABFI Task Force
- 15:00-18:00 – GEM300 Task Force

Tuesday, November 8, 2022

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

Wednesday, November 9, 2022

- 9:00-15:00 – I&C NA TC Chapter Meeting

Adjournment: 2:40.

Respectfully submitted by:

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

Minutes tentatively approved by:

Jack Ghiselli (Ghiselli Consulting), Co-chair	8/5/2022
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Table 13 Index of Available Attachments^{#1}

<i>Title</i>	<i>Title</i>
Required Meeting Elements Nov 2022	I&C Taiwan Liaison report_20220610
TCMinutes_IC_Mar2022	Staff Report July 2022 v7
20220708_JA_IC_LiaisonR_v1.0	Ballot Line-Item report - 6916
China I&C Committee Chapter Liaison Report -v4	SEMI NA-ICC-GEM300-TF Report Summer 2022
PCS-TF-report20220712	Overview diagram for E175
GUI TF Report - 2022-07-12	CDS TF Report - 2022-07-12 Meeting Template
ABFI TF Meeting_07112022	DDA TF Report - SEMICON West 2022 Meeting_Rev 1.1

#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 [SEMI Staff Name] at the contact information above.