



**Information and Control Global Technical Committee**

**North America (NA) Chapter**

**Meeting Summary and Minutes**

Spring 2018 Meeting

April 11, 2018 8:00 – 14:00

Milpitas, CA

**TC Chapter Announcements**

Next TC Chapter Meeting

July 11, 2018 at 8:00 – 12:00 (noon)

San Francisco, CA

**Table 1 Meeting Attendees**

*Italics indicate virtual participants*

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

**SEMI Staff:** Inna Skvortsova

<i>Company</i>	<i>Last</i>	<i>First</i>	<i>Company</i>	<i>Last</i>	<i>First</i>
Cimetrix	Rubow	Brian	<i>AMAT/University of Michigan</i>	<i>Moyne</i>	<i>James</i>
Ghiselli Consulting	Ghiselli	Jack	<i>Veeco</i>	<i>Lawrence</i>	<i>Elena</i>
PEER Group	Fuchigami	Albert	Yokogawa Solutions Service	Nakagawa	Takashi
Omron	Infelise	Nick	SEMI	Skvortsova	Inna
Intel	Maloney	Chris			
SCREEN	Nishimura	Takayuki			

**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>
6114 A	Line-item Revision to SEMI E5-0813, <i>SEMI Equipment Communications Standard 2 Message Content (SECS-II)</i>	<b>Failed</b>
Line Item 1 6336	Line-Item Revision to SEMI E138, <i>Specification for XML Semiconductor Common Components</i>	<b>Passed</b>
Line Item 2 6336	Line-Item Revision to SEMI E138, <i>Specification for XML Semiconductor Common Components</i>	<b>Failed</b>
Line Item 1 6337	Line Item Revision to SEMI E132, <i>Specification for Client Authentication and Authorization</i>	<b>Failed</b>
Line Item 2 6337	Line Item Revision to SEMI E132, <i>Specification for Client Authentication and Authorization</i>	<b>Passed</b>
Line Item 3 6337	Line Item Revision to SEMI E132, <i>Specification for Client Authentication and Authorization</i>	<b>Passed</b>
6349	Revision to E37.1, <i>High-Speed SECS Message Services Single Selected-Session Mode (HSMS-SS OR HSMS-SSS)</i>	<b>Failed</b>
6350	Revision to E37, <i>High-Speed SECS Message Services (HSMS) Generic Services</i>	<b>Passed</b>

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

Note 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 prior to the Originating TC Chapter meeting**

<i>#</i>	<i>Type</i>	<i>SC/TF/WG</i>	<i>Details</i>
6350	SNARF	GEM 300 TF	Revision to E37: <i>High Speed SECS Message Services (HSMS) Generic Services</i>
6349	SNARF	GEM 300 TF	Revision to E37.1: <i>High Speed SECS Message Services Single-Selected Session Mode (HSMS-SS or HSMS-SSS)</i>
6343	SNARF	DDA TF	Line-item Revision to E138: XML Semiconductor Common Components

**Table 6 Authorized Activities**

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

<i>#</i>	<i>Type</i>	<i>SC/TF/WG</i>	<i>Details</i>
TBD	SNARF	GEM300 TF	Revision to SEMI E30, <i>Specification for the Generic Model For Communications and Control of Manufacturing Equipment (GEM)</i> <b>New SNARF distributed to TC members in advance and approved by TC.</b>
TBD	SNARF	PCS TF	Line-item Revision to SEMI E133, <i>Specification for Automated Process Control Systems Interface</i> and E133.1 <i>Specification for XML messaging for Process Control Systems (PCS)</i> <b>New SNARF approved by TC</b>
TBD	SNARF	GEM300 TF	Reapproval to SEMI E90-0312, <i>Specification for Substrate Tracking</i> <b>New SNARF approved by TC</b>
TBD	SNARF	GEM300 TF	Line-item Revision to SEMI E40-0813, <i>Standard for Processing Management</i> , to correct nonconforming title. <b>New SNARF approved by TC</b>
TBD	SNARF	GEM300 TF	Line-item Revision to SEMI E40.1-0813, <i>SECS-II Support for Processing Management Standard</i> , to correct nonconforming title



#	Type	SC/TF/WG	Details
			<b>New SNARF approved by TC</b>
TBD	SNARF	GEM300 TF	Line-item Revision to SEMI E39-0703, <i>Object Services Standard: Concepts, Behavior, And Services</i> , to correct nonconforming title. <b>New SNARF approved by TC</b>
TBD	SNARF	GEM300 TF	Line-item Revision to SEMI E39.1-0703, <i>SECS-II Protocol for Object Services Standard (OSS)</i> , to correct nonconforming title. <b>New SNARF approved by TC</b>

Note 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
TBD	Cycle 5-2018	GEM300	Revision to SEMI E30, <i>Specification for the Generic Model For Communications and Control of Manufacturing Equipment (GEM)</i>
TBD	Cycle 5-2018	GEM300	Reapproval to SEMI E90-0312, <i>Specification for Substrate Tracking</i>
TBD	Cycle 5-2018	GEM300	Line-item Revision to SEMI E40-0813, <i>Standard for Processing Management</i> , to correct nonconforming title.
TBD	Cycle 5-2018	GEM300	Line-item Revision to SEMI E40.1-0813, <i>SECS-II Support for Processing Management Standard</i> , to correct nonconforming title
TBD	Cycle 5-2018	GEM300	Line-item Revision to SEMI E39-0703, <i>Object Services Standard: Concepts, Behavior, And Services</i> , to correct nonconforming title.
TBD	Cycle 5-2018	GEM300	Line-item Revision to SEMI E39.1-0703, <i>SECS-II Protocol for Object Services Standard (OSS)</i> , to correct nonconforming title.
6349A	Cycle 5-2018	GEM300	Revision to E37.1, <i>High-Speed SECS Message Services Single Selected-Session Mode (HSMS-SS OR HSMS-SSS)</i>
6114B	Cycle 5-2018	GEM300	Line-item Revision to SEMI E5-0813, <i>SEMI Equipment Communications Standard 2 Message Content (SECS-II)</i>
TBD	Cycle 5-2018	PSC TF	Line-item Revision to SEMI E133, <i>Specification for Automated Process Control Systems Interface and E133.1 Specification for XML messaging for Process Control Systems (PCS)</i>
6333	Cycle 5-2018	SB TF	Line-item Revision to SEMI E54.23-0513, <i>Specification for Sensor/Actuator Network Communications for CC-Link IE Field Network</i>
6334	Cycle 5-2018	DDA TF	Line-Item Revision to SEMI E125, <i>Specification for Equipment Self Description (EqSD)</i>
6335	Cycle 5-2018	DDA TF	Line-Item Revision to SEMI E134, <i>Specification for Data Collection Management</i>
6336A	Cycle 5-2018	DDA TF	Line-Item Revision to SEMI E138, <i>Specification for XML Semiconductor Common Components</i>
6337A	Cycle 5-2018	DDA TF	Line Item Revision to SEMI E132, <i>Specification for Client Authentication and Authorization</i>

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

#	TF	Title	Expiration Date
NONE			

**Table 9 SNARF(s) Abolished**

#	TF	Title
6234	GEM300 TF	Line-item Revision to SEMI E37-0413, <i>High-Speed SECS Message Services (HSMS) Generic Services</i> , to correct nonconforming title
6235	GEM300 TF	Line-item Revision to SEMI E37.1-0702 (Reapproved 0413), <i>High-Speed SECS Message Services Single Selected-Session Mode (HSMS-SS)</i> , to correct nonconforming title

**Table 10 Standard(s) to receive Inactive Status**

Standard Designation	Title
NONE	

**Table 11 New Action Items**

Item #	Assigned to	Details
2018Apr#01	Inna S., Brian R.	Follow up with SEMI Publishing on E172 Complementary files online – to post most recent schema files as balloted.
2018Apr#02	Inna S.	Delay publishing Doc. #6336-L1 and #6337 LI2 & LI3 till all line-items pass I&C TC.
2018Apr#03		
2018Apr#04		

**Table 12 Previous Meeting Open Action Items**

Item #	Assigned to	Details
2017July#01	Dean Chang	Dave Huntley (NA I&C TC) would like to participate in TW activity for development of Doc#6147, Specification of Backend Die Traceability. Dean to share TF leaders contact information to facilitate Dave’s participation in the Backend Die Traceability activity in TW.

**1 Welcome, Reminders, and Introductions**

Jack Ghiselli (Ghiselli Consulting) called the meeting to order at 08:05AM. The meeting reminders on antitrust issues, intellectual property issues and holding meetings with international attendance were reviewed. Attendees introduced themselves.

**Attachment 01: SEMI Standards Required Elements.ppt**

**2 Review of Previous Meeting Minutes**

2.1 The TC Chapter reviewed and approved the minutes of the previous NA FALL 2017 Standards meeting.

- Motion:** To approve minutes as written
- By / 2<sup>nd</sup>:** Chris Maloney (Intel) / Brian Rubow (Cimetrix)
- Discussion:** None
- Vote:** 6/0. Motion passed.

**Attachment 02: NA Information & Control TC Meeting Minutes (Nov 2017).pdf**



### 3 SEMI Standards Staff Report

Inna Skvortsova (SEMI) gave the SEMI Staff Report. Of note:

#### *SEMI Global 2018 Calendar of Events*

- SEMICON China (March 14-16, 2018, Shanghai, China)
- SEMICON Southeast Asia (May 9-10, 2018, Kuala Lumpur, Malaysia)
- SEMICON West (July 10-12, 2018, San Francisco, California)
- SEMICON Taiwan (September 5-7, 2018, Taipei, Taiwan)
- SEMICON Europa (November 13-16, 2018, Munich, Germany)
- SEMICON Japan (December 12-14, 2017, Tokyo, Japan)

#### *Upcoming North America Meetings 2017*

- SEMICON West 2018 Meetings (July 9-12, 2018, San Francisco, California)
- NA Standards Fall 2018 Meetings (November 5-8, 2018 <tentative>, SEMI HQ, Milpitas, California)
- NA Standards Spring 2019 Meetings (April 1-4, 2019 <tentative>, SEMI HQ, Milpitas, California)

#### *Letter Ballot Critical Dates for NA Standards Spring 2017 meetings*

- Cycle 3-18: due Mar 9 / Voting Period: Mar 23 – Apr 23
- Cycle 4-18: due Apr 20 / Voting Period: Apr 30 – May 30
- Cycle 5-18: due May 11 / Voting Period: May 25 – June 25
- Cycle 6-18: due July 20 / Voting Period: Aug 1 – Aug 31
- Cycle 7-18: due Aug 22 / Voting Period: Sep 5 – Oct 5
- Cycle 8-18: due Oct 22 / Voting Period: Oct 26 – Nov 26
- Cycle 9-18: due Nov 14/ Voting Period: Nov 28 – Dec 28

<http://www.semi.org/en/Standards/Ballots>

- SEMI Standards Publications

Cycle	New	Revised	Reapproved	Withdrawn
November 2017	0	4	0	0
December 2017	1	6	1	0
January 2018	0	6	4	0
February 2018	1	7	5	0
March 2018	5	10	22	0



Total SEMI Standards in portfolio: 985. Includes 225 Inactive Standards

Cycle	Designation	Title	Committee	Region
December 2017	SEMI 3D17	Specification for Reference Material for Bonded Wafer Stack Void Metrology	3D-IC	NA
February 2018	SEMI PV80	Specification of Indoor Lighting Simulator Requirements for Emerging Photovoltaic	Photovoltaic	CH
March 2018	SEMI PV81	Guide for Specifying Low Pressure Horizontal Diffusion Furnace	Photovoltaic	CH
March 2018	SEMI PV82	Specification for Terrestrial Dual-Glass Module with Crystalline Silicon Solar Cell	Photovoltaic	CH
March 2018	SEMI PV83	Guide for Sample Preparation Method for Photovoltaic Backsheet Performance Tests	Photovoltaic	CH
March 2018	SEMI D76	Test Method for Viewing Angle Characteristic Using Reference Color on Visual Displays	FPD	KO
March 2018	SEMI MS11	Specification for Microfluidic Port and Pitch Dimensions	MEMS/NEMS	NA

- SNARF(s) and TFOF Approved by GCS in between TC Chapter Meetings
  - **SNARF # 6350** for Revision to E37: High Speed SECS Message Services (HSMS) Generic Services
    - SNARF and authorize ballot for Cycle 2-2018
    - GCS approval 02/06/2018
  - **SNARF # 6349** for Revision to E37.1: High Speed SECS Message Services Single-Selected Session Mode (HSMS-SS or HSMS-SSS)
    - SNARF and authorize ballot for Cycle 2-2018
    - GCS approval 2/6/2018
  - **SNARF # 6343** for Line-item Revision to E138: XML Semiconductor Common Components
    - SNARF and authorize ballot for Cycle 2-2018
    - GCS approval 2/6/2018



- **SNARF # 6345** for Revision to Add a New Subordinate Standard: Specification for Protocol Buffers for Equipment Self Description (EqSD) to SEMI E125-0414, Specification for Equipment Self Description (EqSD)
  - GCS approval 02/20/2018
- **SNARF # 6346** for Revision to Add a New Subordinate Standard: Specification for Protocol Buffers for Equipment Client Authentication and Authorization (ECA) to SEMI E132-1015 Specification for Equipment Client Authentication and Authorization
  - GCS approval 02/20/2018
- **SNARF # 6347** for Revision to Add a New Subordinate Standard: Specification for Protocol Buffers of Data Collection Management to SEMI E134-0414, Specification for Data Collection Management
  - GCS approval 02/20/2018
- **SNARF # 6338** for New Standard, Specification for Protocol Buffer Semiconductor Common Components
  - GCS approval 02/20/2018
- *SNARF 3 year status TC Chapter may grant a one-year extension:*
  - **SNARF # 5966**, Line Item Revision to E90, Specification for Substrate Tracking, and E90.1, Specification for SECS-II Protocol Substrate Tracking.
    - SNARF issued 11/16/2015
    - Action needed by 11/16/2018
- *SNARFs to abolish at Spring 2018 I&C TC meeting:*

Due to the scope change, the following SNARFs to be abolished:

- **SNARF #6234**, Line-item Revision to SEMI E37-0413, High-Speed SECS Message Services (HSMS) Generic Services, to correct nonconforming title
  - Replaced with SNARF #6350;
- **SNARF #6235**, Line-item Revision to SEMI E37.1-0702 (Reapproved 0413), High-Speed SECS Message Services Single Selected-Session Mode (HSMS-SS), to correct nonconforming title
  - Replaced with SNARF#6349;

**Motion:** To abolish SNARF #6234 and SNARF #6235 due to the SNARF scope change.

**By / 2<sup>nd</sup>:** Chris Maloney (Intel) / Brian Rubow (Cimatrix)

**Discussion:** None.

**Vote:** 6-0. Motion passed.

- *Nonconforming Titles*
  - **SEMI E37-0413** — High-Speed SECS Message Services (HSMS) Generic Services <ballot issued Cycle 2-18>
  - **SEMI E37.1-0702** (Reapproved 0413) — High-Speed SECS Message Services Single Selected-Session Mode (HSMS-SS) <ballot issued Cycle 2-18>
  - **SEMI E39-0703** (Reapproved 0614) — Object Services Standard: Concepts, Behavior, and Services
  - **SEMI E39.1-0703** (Reapproved 0614) — SECS-II Protocol for Object Services Standard (OSS)



- **SEMI E40-0813** — Standard for Processing Management
- **SEMI E40.1-0813** — SECS-II Support for Processing Management Standard

NOTE: Refer to Procedure Manual (PM) Appendix Table A4-1 and A4-2

- *Documents due for 5 Year Review*

<b>Name</b>	<b>Due for Review</b>	<b>Title</b>
SEMI E90-0312	3/1/2017	Specification for Substrate Tracking
<b>**SEMI E4-0699 (Reapproved 0612)</b>	6/18/2017	SEMI Equipment Communications Standard 1 Message Transfer (SECS-I)
<b>**SEMI E37-0413</b>	4/1/2018	High-Speed SECS Message Services (HSMS) Generic Services
<b>**SEMI E37.1-0702 (Reapproved 0413)</b>	4/1/2018	High-Speed SECS Message Services Single Selected-Session Mode (HSMS-SS)
SEMI E54.23-0513	5/1/2018	Specification for Sensor/Actuator Network Communications for CC-Link IE Field Network
<b>*SEMI E40-0813</b>	8/1/2018	Standard for Processing Management
<b>*SEMI E40.1-0813</b>	8/1/2018	SECS-II Support for Processing Management Standard
<b>SEMI E167-1213</b>	12/13/2018	Specification for Equipment Energy Saving Mode Communications (EESM)

**Attachment 03: SEMI Standards Staff Report I&C TC April 2018.ppt**

**4 Liaison Reports**

4.1 *Information & Control Europe TC Chapter*

No changes/ no report presented by EU Chapter.

4.2 *Information & Control Japan TC Chapter*

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

- I&CC Japan TC Chapter Leadership
  - Co-chairs: Takayuki Nishimura / SCREEN Semiconductor Solutions; Mitsuhiro Matsuda / Hitachi Kokusai Electric
    - Advisor: Mitsune Sakamoto / ZAMA Consulting;
  - Technical Architect: Tadashi Mochizuki / Tokyo Electron
  - Technical Editor: TBA
- Current I&CC Japan TC Chapter Structure (changes)
  - Fiducial Mark Interoperability Task Force
    - The TF is under the Japan TC Chapters of Si Wafer, PIC, I&C, Traceability and Assembly & Packaging
      - Task force disbanded.
- Document Review Summary at SEMICON Japan 2017 Meetings





- # 6202 for Revision to SEMI E174-0817: Specification for Wafer Job Management (WJM)
  - Passed as balloted
- # 6287, Line Item Revision to E87-0312: Specification for Carrier Management (CMS)
  - Line-item 1, Add reference/introduction/explanation statements of SEMI E171 Predictive Carrier Logistics (PCL)
    - LI-1 Failed
  - Line-item 2, Add RELATED INFORMATION about SEMI E171 Predictive Carrier Logistics (PCL)
    - LI-2 Passed as balloted.
- SNARFs approved at SEMICON Japan 2017 Meetings
  - SNARF #6319, Line Item Revision to E87-1017: Specification for Carrier Management (CMS)
    - GEM 300 TF
  - SNARF #6324, Line Item Revision to SEMI E170-mmyy: Specification For Secured Foundation Of Recipe Management System (SFORMS) To Change The Model Design
    - GEM 300 TF
  - SNARF #6325, Line Item Revision to SEMI E170-mmyy: Specification For Secured Foundation Of Recipe Management System (SFORMS) To Describe The Relation Of Structure Of Multiple Recipes
    - GEM 300 TF
  - SNARF #6326, Line Item Revision to SEMI E170-mmyy: Specification For Secured Foundation Of Recipe Management System (SFORMS), SEMI E170.1-mmyy: Specification For Secs-Ii Protocol For Secured Foundation Of Recipe Management System and SEMI E5-mmyy: Semi Equipment Communications Standard 2 Message Content (SECS-II)
    - GEM 300 TF
- SNARFs approved BY GCS between SEMICON Japan 2017 Meetings and Japan Spring 2018 Meetings
  - SNARF #6330, Line Item Revisions to E54.17 Specification of Sensor Actuator Network for A-Link
    - Sensor Bus TF
  - SBARF #6331, Line Item Revisions to E54.19 Specification of Sensor Actuator Network for MECHATROLINK
    - Sensor Bus TF
- Ballots to be reviewed at Japan Spring 2018 Meetings
  - #6319, Line Item Revision to E87-1017: Specification for Carrier Management (CMS)
    - GEM300 TF
  - #6300, New Standard: Guide for EDA Freeze Version
    - DDA TFG
  - #6330, Line Item Revisions to E54.17 Specification of Sensor Actuator Network for A-Link
    - Sensor Bus TF
  - #6331, Line Item Revisions to E54.19 Specification of Sensor Actuator Network for MECHATROLINK

- Sensor Bus TF
- *Fiducial Mark Interoperability Task Force Update:*
  - Last TF meeting was held on November 18, 2015
  - Disbandment of this TF
    - TF leaders decided to propose disbanding this TF to each technical committee
    - If this proposal is agreed by all Japan TC Chapters of Assembly & Packaging, I&C, PIC, Silicon Wafers and Traceability, then the TF will be discharged.
      - The Silicon Wafers agreed on March 9, Assembly & Packaging agreed on March 13 and PI&C agreed on April 19. The I&C agreed on April 21. The Traceability agreed on Dec 25, 2017.
      - All of the TC Chapters agreed with the discharge of this task force.
  - Backend alignment issues with introducing fiducial mark wafer is left.
    - Would be discussed in Assembly & Packaging Japan TC Chapter after its disbandment.
- *GEM 300 TF Update:*
  - Last TF meeting was held on January 23, 2018.
  - #5973: Line Item Revision to SEMI E170 & SEMI E170.1
    - Ballot was reviewed at I&C Japan TC Chapter meeting on December 16, 2016.
      - LI 1 & LI 2 passed as balloted and passed A&R in January 2017.
      - LI 3 failed and work will be discontinued.
    - Published as E170-0517.
  - #6089: Line Item Revision to E170, E170.1 and E5
    - According to comment from potential Standards users at GEM300A STEP, TF consider to simplify E170 subordinate standard by using dedicated SECS II message, instead of OSS generic service.
    - Assumed stream number for E170.1 is S20.
    - SNARF was approved at I&C Japan TC Chapter meeting on October 21, 2016.
    - SNARF Revision was approved at I&C Japan TC Chapter meeting on December 16, 2016.
    - Ballot submitted for Cycle 2-2017 and passed at I&C Japan TC Chapter meeting on April 21, 2017.
    - Passed A&R in May, 2017.
    - Published as E5-1217, E170-1217 and E170.1-1217.
  - #6189: Line Item Revision to SEMI E170, E170.1 and E5
    - SNARF was approved at I&C Japan TC Chapter meeting on Apr 21, 2017.
  - E170 application Study Working Group was formed as a subgroup under GEM 300TF with leadership of Koji Kitajima (Toshiba Memory) and Masahide Hirouchi (IBM Japan).
    - Masahide Hirouchi (IBM Japan) was stepped down and Osamu Oishi (IBM Japan) is assigned as a CoLeader.
  - 6091: Line Item Revision to SEMI E174-1116
    - SNARF was approved at I&C Japan TC Chapter meeting on October 21, 2016



- SNARF Revision was approved at I&C Japan TC Chapter meeting on December 16, 2016
- Ballot submitted for Cycle 2-2017 and passed at I&C Japan TC Chapter meeting on April 21, 2017
- Passed A&R in May, 2017
- Published as E174-0817
- #6202: Revision to SEMI E174-0817: Specification for Wafer Job Management (WJM)
  - SNARF was approved at I&C Japan TC Chapter meeting on Sep 21, 2017.
  - Ballot submitted for Cycle 8-2017 and passed at I&C Japan TC Chapter meeting on Dec 15, 2017
  - Passed A&R in January, 2018
- #6092: New standard “CUARAM: Centralized User Authentication & Role Authorization Management”
  - Scope was discussed with EISS TF
  - SNARF was approved at I&C Japan TC Chapter meeting on October 21, 2016
  - Material of explanation for concept of CUARAM is distributed to global I&C TC Members in order to receive response from them.
- #6287: SNARF for Line Item Revision to E87-0312: Specification for Carrier Management (CMS)
  - SNARF was approved at I&C Japan TC Chapter meeting on Sep 21, 2017.
  - Ballot submitted for Cycle 8-2017, and Line Item 2 passed at I&C Japan TC Chapter meeting on December 15, 2017. Line Item 1 failed.
  - Line Item 2 passed A&R in January, 2018
- #6319: Line Item Revision to E87-1017: Specification for Carrier Management (CMS)
  - SNARF was approved at I&C Japan TC Chapter meeting on December 15, 2017
  - Ballot was submitted for Cycle 2-2018
- #6324: Line Item Revision to SEMI E170-mmyy: Specification For Secured Foundation Of Recipe Management System (SFORMS) To Change The Model Design
  - SNARF was approved at I&C Japan TC Chapter meeting on December 15, 2017
- #6325: Line Item Revision to SEMI E170-mmyy: Specification For Secured Foundation Of Recipe Management System (SFORMS) To Describe The Relation Of Structure Of Multiple Recipes
  - SNARF was approved at I&C Japan TC Chapter meeting on December 15, 2017
- #6326: Line Item Revision to SEMI E170-mmyy: Specification For Secured Foundation Of Recipe Management System (SFORMS), SEMI E170.1-mmyy: Specification For Secs-Ii Protocol For Secured Foundation Of Recipe Management System and SEMI E5-mmyy: Semi Equipment Communications Standard 2 Message Content (SECS-II)
  - SNARF was approved at I&C Japan TC Chapter meeting on December 15, 2017
- *JA I&CC Maintenance Task Force Update:*
  - Last TF meeting was held on October 21, 2016.
  - #6090: Line Item Revision to SEMI E91 (PSEM)
    - SNARF was approved at I&C Japan TC Chapter meeting on October 21, 2016.



- Ballot submitted for Cycle 2-2017 and to be reviewed at I&C Japan TC Chapter on April 21, 2017
  - Passed A&R in May, 2017.
  - Published as E91-1217
  - The activity of SEMI E107 “Specification of Electric Failure Link Data Format for Yield Management System”
    - No action to be made.
- *Sensor Bus TF*
  - TFOF for Sensor Bus Task Force was approved at I&C Japan TC Chapter meeting on June 8, 2017
  - Last TF meeting was held on January 18, 2018.
  - #6330: SNARF for Line Item Revisions to E54.17 Specification of Sensor Actuator Network for A-Link
    - SNARF was approved at GCS on January 10, 2018.
    - Ballot was submitted for Cycle 2-2018
  - #6331: SNARF for Line Item Revisions to E54.19 Specification of Sensor Actuator Network for MECHATROLINK
    - SNARF was approved at GCS on January 10, 2018.
    - Ballot was submitted for Cycle 2-2018
- *DDA (Diagnostic Data Acquisition) Task Force*
  - TFOF for DDA TF was approved at I&C Japan Chapter TC chapter meeting on Sep 21, 2017.
  - Last TF meeting was held on December 15, 2017.
  - #6300: SNARF for New Standard: Guide for EDA Freeze Version
    - SNARF was approved at GCS on October 24, 2018.
    - Ballot was submitted for Cycle 2-2018
- 
- Meeting Information – Japan TC
  - Last Meeting – SEMICON Japan Meetings 2017:
    - Friday, December 15, 2017 1:00PM-5:00PM
    - @ Tokyo Big Sight, Tokyo, Japan
  - Next Meeting – Japan Spring 2018 Meetings:
    - Thursday, April 26, 2018 1:30PM-5:00PM
    - @ SEMI Japan Office, Tokyo, Japan
  - Spring on April 26<sup>th</sup>, 2018
  - Summer on June 2018
  - Fall on September 2018
  - Winter on December 14<sup>th</sup>, 2018 (tentative) in conjunction with SEMICON Japan 2018

For more information, please contact Mizue Iwamura at SEMI Japan ([miwamura@semi.org](mailto:miwamura@semi.org))

**Attachment 04: Japan I&C TC Report (April 2018).ppt**



#### 4.3 Information & Control Korea TC Chapter

Inna Skvortsova (SEMI) reported for the Information & Control Korea TC Chapter. Of note:

- Leadership
  - Committee Co-chairs: Chulhong Ahn/ SK Hynix; Hyungsu Kim/ Doople; Gunwoo Lee / Lam Research
- Leadership Change
  - None
- Meeting Information:
  - Last meeting: Thursday, February 1, 2018 at #305, COEX, Seoul in conjunction with SEMICON Korea 2018
  - Next meeting: Friday June 8, 2018 at AICT (Gyeonggi-do)
- Ballot Result
  - None
- Ballots to be Issued for Korea Summer 2018 Meeting
  - 5832B, New Standard, Specification for Equipment Generic Counter Model
    - Cycle 4-2018
  - 6301A, Line Item Revision to E142-0211(Reapproved 1016) Specification for Substrate Mapping: Adding packaging raw materials traceability method
    - Cycle 4-2018
- Task Force Reports:
  - GEM 300 Task Force
    - 4946 (Revision to E87 and E87.1: Adding Carrier Ready to Unload Prediction Feature)
      - As of March 6, Minority report for 4946D has been submitted by Mitch Sakamoto. And the MR was found that it is persuasive via GCS voting.
      - The MR and GCS comments were under review by Korea leaders.
      - Review result will be shared with GCS members.
    - Drafting 5832B for cycle 4, 2018
  - Diagnostic Data Acquisition Task Force
    - None.
  - Advanced Back-end Factory Integration Task Force
    - Drafting 6301A for cycle 4, 2018
- Other Activities:
  - EDA Standards Translation Review TF
  - Not a part of SEMI Standards Program
  - Kicked off on March 13
  - Purpose: To provide technical review on Korean version of E120, E125, E130, and E132
  - Project period: March 19 to Dec 20 (9 months)
  - TF members: ASM, Doople, Lam Research, Linkgenesis, Kornic Automation, SK hynix

For more information, please contact: *Natalie Shim at SEMI ([eshim@semi.org](mailto:eshim@semi.org))*

#### **Attachment 05: Korea I&C TC Liaison Report (April 2018).pdf**

#### 4.4 Information & Control Taiwan TC Chapter

Inna Skvortsova (SEMI) reported on behalf of the Information & Control Taiwan TC Chapter. Of note:

- Leadership: Committee Co-chairs - Robert Chien /TSMC
  - No Leadership Change
- Meeting Information:
  - Last Meeting: 15:00-17:00, March 23, 2018, SEMI office, Hsinchu, Taiwan
  - Next Meeting: (tentative) September 2018 at Hsinchu, Taiwan
- Ballot Results
  - NONE



- Task Force Updates:
  - Equipment Information Integration TF
    - No New Activity.
    - Next Meeting (Tentative)
      - 2018 Q3, in conjunction with eMDC at Hsinch
  - GEM300 TF
    - No New Activity.
    - Next Meeting (Tentative)
      - 2018 Q3, in conjunction with eMDC at Hsinchu
  - Backend Factory Integration TF
    - Continue draft Doc6147
    - Study for Backend new technologies and SEMI standard revision / definition of advanced Backend automation tool including 3D IC tools and generic Backend tools.
    - Next TF Meeting (teleconference): April 27, 2018; from 14:00 to 15:00
- Other Activities:
  - SEMI Taiwan will hold a Smart Manufacturing and Risk Management for High Tech Manufacturing Seminar on May 22, 2018 (Tentative) at Hsinchu.

For more information, please contact: Dean Chang at SEMI: [dchang@semi.org](mailto:dchang@semi.org)

**Attachment 06: Taiwan I&C Liaison Report (April 2018).pdf**

## 5 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.

### 5.1 Ballot #6114A

The TC Chapter reviewed the Document #6114A, Line-item Revision to SEMI E5-0813, *SEMI Equipment Communications Standard 2 Message Content (SECS-II)*.

I&C TC accepted the GEM 300 Task Force recommendation to find Reject #2 Negative #2 submitted by Matsuda Mitsuhiro (Hitachi-Kokusai) to be related and technically persuasive.

The ballot **failed** and will be resubmitted in Cycle 5-2018.

**Motion:** To find Reject # 2 from Matsuda Mitsuhiro (Hitachi-Kokusai), for SEMI Draft Document 6114A to be related and technically persuasive. The Task Force will rework and resubmit the document in Cycle 5-2018

**By / 2<sup>nd</sup>:** Chris Maloney (Intel) / Brian Rubow (Cimatrix)

**Discussion:** None

**Vote:** 6-0. Motion passed.

**Attachment:** NONE

### 5.2 Ballot #6349

The TC Chapter reviewed the Document #6349, Revision to E37.1, *High-Speed SECS Message Services Single Selected-Session Mode (HSMS-SS OR HSMS-SSS)*

I&C TC accepted the GEM 300 Task Force recommendation to find Reject #1 Negative #1 submitted by Matsuda Mitsuhiro (Hitachi-Kokusai) to be related and technically persuasive.

The ballot **failed** and will be resubmitted in Cycle 5-2018.



**Motion:** To find Reject # 1 from Matsuda Mitsuhiro (Hitachi-Kokusai), for SEMI Draft Document 6349 to be related and technically persuasive. The Task Force will rework and resubmit the document in Cycle 5-2018

**By / 2<sup>nd</sup>:** Chris Maloney (Intel) / Brian Rubow (Cimetrix)

**Discussion:** None

**Vote:** 6-0. Motion passed.

**Attachment:** NONE

### 5.3 Ballot #6350

The TC Chapter reviewed the Document #6250 Revision to E37, *High-Speed SECS Message Services (HSMS) Generic Services*

The ballot **passed** TC review as balloted and will be submitted to the ISC A&R for procedural review. Details can be found in the attached Procedural Review file.

**Motion:** Documents # 6350 is not a Safety Document, when all safety-related information is removed, Document is still technically sound and complete.

**By / 2<sup>nd</sup>:** Chris Maloney (Intel) / Brian Rubow (Cimetrix)

**Discussion:** None.

**Vote:** 6-0. Motion passed.

**Motion:** Forward Document # 6238 to the ISC A&R for procedural review as balloted.

**By / 2<sup>nd</sup>:** Chris Maloney (Intel) / Brian Rubow (Cimetrix)

**Discussion:** None.

**Vote:** 6-0. Motion passed.

### Attachment 07: 6350\_Procedural Review

### 5.4 Ballot #6336

The TC Chapter reviewed the Document #6336, Line-Item Revision to SEMI E138, *Specification for XML Semiconductor Common Components*. Ballot includes two (2) line-items.

*The Line – item 1 – “To Modify TypeDefinition Variables”* **passed** TC review as balloted and will be submitted to the ISC A&R for procedural review. Details can be found in the attached Procedural Review file.

*The Line-item 2 – “Add Units to a Structure Field”* – **failed** TC review and will be resubmitted in Cycle 5-2018

I&C TC accepted the DDA Task Force recommendation to find Reject #1 Negative #1 submitted by Jack Downey (GlobalFoundries) for Line-item 2 to be related and technically persuasive.

**Motion:** To find Reject # 1 submitted by Jack Downey (GF), for SEMI Draft Document 6336 Line-item #2 to be related and technically persuasive. The Task Force will rework and resubmit the document in Cycle 5-2018

**By / 2<sup>nd</sup>:** Albert Fuchigami (PEER Group) / Brian Rubow (Cimetrix)

**Discussion:** None

**Vote:** 6-0. Motion passed.



**Motion:** Document # 6336 is not a Safety Document, when all safety-related information is removed, Document is still technically sound and complete.  
**By / 2<sup>nd</sup>:** Chris Maloney (Intel) / Nick Infelise (Omron)  
**Discussion:** None.  
**Vote:** 6-0. Motion passed.

**Motion:** Forward Document # 6336 LI-1 to the ISC A&R for procedural review as balloted.  
**By / 2<sup>nd</sup>:** Albert Fuchigami (PEER Group) / Chris Maloney (Intel)  
**Discussion:** None.  
**Vote:** 6 -0. Motion passed.

#### **Attachment 08: 6336\_Procedural Review**

##### *5.5 Ballot #6337*

The TC Chapter reviewed the Document #6337, Line Item Revision to SEMI E132, *Specification for Client Authentication and Authorization*. Ballot includes three (3) line-items.

*The Line-item 1* – “SessionPing Clarification” – **failed** TC review and will be resubmitted in Cycle 5-2018. I&C TC accepted the DDA Task Force recommendation to find Reject #1 Negative # 1 submitted by Sakamoto, Mitch (Self) for Line-item 1 to be related and technically persuasive. Details can be found in the attached Procedural Review file.

*The Line-item 2* – “New Operation ChangeClientEndPoint” – **passed** TC review and will be forwarded to ISC A&R for procedural review. Details can be found in the attached Procedural Review file.

*The Line – item 3* – “Remove Operation EnhancedEstablishSession” **passed** TC review and will be submitted to the ISC A&R for procedural review. Details can be found in the attached Procedural Review file.

**Motion:** To find Reject # 1-1 submitted by Sakamoto, Mitch (Self), for SEMI Draft Document 6337 Line-item #1 to be related and technically persuasive. The Task Force will rework and resubmit the document in Cycle 5-2018  
**By / 2<sup>nd</sup>:** Albert Fuchigami (PEER Group) / Chris Maloney (Intel)  
**Discussion:** None  
**Vote:** 6-0. Motion passed.

**Motion:** Documents # 6337 is not a Safety Document, when all safety-related information is removed, Document is still technically sound and complete.  
**By / 2<sup>nd</sup>:** Chris Maloney (Intel) / Nick Infelise (Omron)  
**Discussion:** None.  
**Vote:** 6-0. Motion passed.

**Motion:** Forward Document # 6337 Line-items #2 and #3 to the ISC A&R for procedural review as balloted.  
**By / 2<sup>nd</sup>:** Albert Fuchigami (PEER Group) / Chris Maloney (Intel)  
**Discussion:** None.  
**Vote:** 6-0. Motion passed.

#### **Attachment 09: 6337\_Procedural Review**





## 6 Subcommittee and Task Force Reports

### 6.1 DDA Task Force

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

- Leadership Change
  - None
- Ballot Adjudicated
  - Passed:
    - Doc #6336 LI #1 (Reject Overridden)
    - Doc #6337 LI #2 (Reject Overridden)
    - Doc #6337 LI #3 (Reject Withdrawn)
  - Failed:
    - Doc #6336 LI #2 - returned to TF for rework
    - Doc #6337 LI #1 - returned to TF for rework
- Ballot Plans for Cycle 5-2018
  - Doc. #6336A LI #2 – Line-Item Revision to SEMI E138, *Specification for XML Semiconductor Common Components*
  - Doc #6337A LI #1 – Line Item Revision to SEMI E132, *Specification for Client Authentication and Authorization*
  - Doc #6335 (E134) – Line-Item Revision to SEMI E134, *Specification for Data Collection Management*
  - Doc #6334 (E125) – Line-Item Revision to SEMI E125, *Specification for Equipment Self Description (EqSD)*
- Upcoming Activities
  - Submit SNARF for changes to SEMI E164
  - Request SEMI delay publishing approved Line Items for Ballots #6336 and #6337 until other Line Item Ballots are resolved.

**Action Item (Inna S.)** Delay publishing Doc. #6336-L1 and #6337 LI2 & LI3 till all line-items pass I&C TC.

**Attachment 10: DDA-TF Report April 2018.PPT**

### 6.2 GEM300 Task Force Report

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

- Leadership Change
  - None
- Ballot Adjudicated
  - Passed:
    - Doc #6350, SEMI E37 (superclean)
  - Failed:
    - Doc #6349, SEMI E37.1
    - Doc #6114A, SEMI E5
- New SNARFs
  - Revision to SEMI E30, *Specification for the Generic Model for Communications and Control of Manufacturing Equipment (GEM)*
    - To fix general compliance with SEMI regulations. There are a lot of small violations since this was written before the current regulations existed.
- Ballot Plans for Cycle 5-2018



- Doc #6349A, Revision to SEMI E37.1 *High-Speed SECS Message Services Single Selected-Session Mode (HSMS-SS OR HSMS-SSS)*
- Doc #6114B, Line Item Revision to SEMI E5-0813, *SEMI Equipment Communications Standard 2 Message Content (SECS-II)*
- Doc # TBD, Revision to SEMI E30, *Specification for the Generic Model for Communications and Control of Manufacturing Equipment (GEM)*
- Meeting Discussion (Technical Summary)
  - Reviewed ballot 6114A
    - Proposed additional messages for simple large recipe transfer
    - Established basic requirements for the new messages
    - A few corrections in the existing proposed messages
  - No update on the E90 Ballot 5966
  - Review of ballots 6349A, 6114B and new E30 major revision ballot prior to submission

**Attachment 11: GEM300TF Report April 2018.PPT**

**Motion:** Approve SNARF for Revision to SEMI E30. Draft SNARF was distributed to I&C GTC for mandatory 2 week review prior to Spring TC Meeting.

**By / 2<sup>nd</sup>:** Brian Rubow (Cimetrix) / Nick Infelice (Omron)

**Discussion:** No feedback/corrections to technical content of the SNARF received after SNARF distribution to GTC members.

**Vote:** 6-0. Motion passed.

### 6.3 PSC Task Force Report

Chris Maloney reported for the PCS Task Force. Of note:

- Leadership
  - No changes
- Ballot Adjudicated
  - None
- New SNARF
  - Line-item Revision to SEMI E133, *Specification for Automated Process Control Systems Interface and SEMI E133.1, Provisional Specification for XML Messaging for Process Control Systems (PCS)*
    - Correct references to XML Schema files
- New Ballots in Cycle 5 2018
  - Doc # TBD, Line-item Revision to SEMI E133, *Specification for Automated Process Control Systems Interface and SEMI E133.1, Provisional Specification for XML Messaging for Process Control Systems (PCS)*
- Upcoming Activities
  - Expand E133/E133.1 to support prediction capabilities such as Virtual Metrology and Predictive Maintenance

**Motion:** To approve new SNARFs for Line-item Revision to SEMI E133, *Specification for Automated Process Control Systems Interface and SEMI E133.1, Specification for XML Messaging for Process Control Systems (PCS)*

**By / 2<sup>nd</sup>:** Nick Infelice (Omron) / Albert Fuchigami (PEER)



**Discussion:** None

**Vote:** 6-0. Motion passed.

**Attachment 12: PSC TF Report April 2018.PPT**

6.4 *Sensor Bus (SB) Task Force Report*

James Moyne reported for the SB Task Force. Of note:

- Leadership
  - No changes
    - Task Force is looking for co-Leader
- Ballot Adjudicated
  - None
- New Ballots in Cycle 5 2018
  - Doc # 6333, Line Item Revision to SEMI E54.23, *Specification for Sensor/Actuator Network communications for CC-Link IE Field Network*

**Attachment 13: SB TF Report April 2018.PPT**

6.5 *ESEC Task Force Report*

No report presented during Spring TC meeting. Activities will resume during SEMICON West 2018.

6.6 *GUI Task Force Report*

No report presented during Spring TC meeting. Activities will resume during SEMICON West 2018.

**7 Old Business**

7.1 *Standards due for Five-Year Review.*

Inna Skvortsova addressed the TC Chapter on this topic. Of note:

Name	Due for Review	Title	Status
SEMI E90-0312	3/1/2017	Specification for Substrate Tracking	Reapproval ballot to be issued
<b>**SEMI E37.1-0702 (Reapproved 0413)</b>	4/1/2018	High-Speed SECS Message Services Single Selected-Session Mode (HSMS-SS)	GEM 300 TF
SEMI E54.23-0513	5/1/2018	Specification for Sensor/Actuator Network Communications for CC-Link IE Field Network	NA SB TF
<b>*SEMI E40-0813</b>	8/1/2018	Standard for Processing Management	Line-item ballot to correct title to be issued in Cycle 5-18
<b>*SEMI E40.1-0813</b>	8/1/2018	SECS-II Support for Processing Management Standard	Line-item ballot to correct title to be issued in Cycle 5-18



SEMI E167-1213	12/13/2018	Specification for Equipment Energy Saving Mode Communications (EESM)	ESEC TF
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\* Due for Reapproval within 6 years from publication date. Issue "Revision Ballot" beginning of the 5th year.

\*\* Subject for "Nonconforming Title" review. Please refer to the Procedure Manual Appendix 4 (page 76)

## 7.2 SNARFs Approaching 3-Year Review

The TC Chapter reviewed SNARFs approaching 3-year project period.

- No SNARFs received extended period.

## 8 New Business

### 8.1 New TFOFs Approval

- None

### 8.2 New SNARFs Approval

In addition to SNARF(s) approved as part of respective Task Force reports, the Technical Committee reviewed and approved new SNARF for the following documents:

- SNARF for Reapproval to SEMI E90-0312, *Specification for Substrate Tracking*
- SNARF for Line-item Revision to SEMI E40-0813, *Standard for Processing Management*, to correct nonconforming title.
- SNARF for Line-item Revision to SEMI E40.1-0813, *SECS-II Support for Processing Management Standard*, to correct nonconforming title
- SNARF for Line-item Revision to SEMI E39-0703, *Object Services Standard: Concepts, Behavior, And Services*, to correct nonconforming title.
- SNARF for Line-item Revision to SEMI E39.1-0703, *SECS-II Protocol for Object Services Standard (OSS)*, to correct nonconforming title.

**Motion:** Move to approve SNARF for SEMI E90; E39/39.1; E40/40.1

**By / 2<sup>nd</sup>:** Mitch Sakamoto (ZAMA Consulting) / Chris Maloney (Intel)

**Discussion:** None.

**Vote:** 6/0. Motion passed.

### 8.3 New Ballots Authorization:

- Ballot #TBD submitted by GEM 300 TF Revision to SEMI E30, *Specification for the Generic Model For Communications and Control of Manufacturing Equipment (GEM)*
- Ballot# TBD submitted by GEM 300 Task Force for Reapproval to SEMI E90-0312, *Specification for Substrate Tracking*
- Ballot # TBD submitted by GEM 300 TF for Line-item Revision to SEMI E40-0813, *Standard for Processing Management, to correct nonconforming title*
- Ballot # TBD submitted by GEM 300 TF for Line-item Revision to SEMI E40.1-0813, *SECS-II Support for Processing Management Standard, to correct nonconforming title*
- Ballot # TBD submitted by GEM 300 TF for Line-item Revision to SEMI E39-0703, *Object Services Standard: Concepts, Behavior, And Services*, to correct nonconforming title.
- Ballot # TBD submitted by GEM 300 TF for Line-item Revision to SEMI E39.1-0703, *SECS-II Protocol for Object Services Standard (OSS)*, to correct nonconforming title.



- Ballot # 6349A submitted by GEM 300 TF for Revision to E37.1, *High-Speed SECS Message Services Single Selected-Session Mode (HSMS-SS OR HSMS-SSS)*
- Ballot # 6114B submitted by GEM 300 TF for Line-item Revision to SEMI E5-0813, *SEMI Equipment Communications Standard 2 Message Content (SECS-II)*
- Ballot # TBD submitted by PCS TF Task Force for Line-item Revision to SEMI E133, *Specification for Automated Process Control Systems Interface* and E133.1 *Specification for XML messaging for Process Control Systems (PCS)*
- Ballot #6333 submitted by SB TF for Line-item Revision to SEMI E54.23-0513, *Specification for Sensor/Actuator Network Communications for CC-Link IE Field Network*
- Ballot #6334 submitted by DDA TF for Line-Item Revision to SEMI E125, *Specification for Equipment Self Description (EqSD)*
- Ballot #6335 submitted by DDA TF for Line-Item Revision to SEMI E134, *Specification for Data Collection Management*
- Ballot # 6336A submitted by DDA TF for Line-Item Revision to SEMI E138, *Specification for XML Semiconductor Common Components*
- Ballot #6337A submitted by DDA TF for Line Item Revision to SEMI E132, *Specification for Client Authentication and Authorization*

**Motion:** To approve letter ballots submission for Cycle 5-2018 for the following documents:  
#6336A LI-2; 6337A LI-1; 6335; 6334; 6349A; 6114B; 6333;  
As well as for Revision to E30; LI Rev. to E39/39.1 and E40/40.1 to correct the title; Reapproval to E90, and LI Revision to E133-133.1 (Doc #'s TBD)

**By / 2<sup>nd</sup>:** Jack Ghiselli (Ghiselli Consulting) / Albert Fuchigami (PEER)

**Discussion:** Task Force leaders to distribute ballots drafts for review to respective Task Force members at least one week prior balloting cycle opens.

**Vote:** 6-0. Motion passed.

#### 8.4 Smart Manufacturing Advisory Council, IRDS and APC Conference Updates

James Moyne presented IRDS activities update, SEMI Smart Manufacturing Advisory Council update and introduced the APC 2018 Conference. Detailed report is attached. For additional information, please contact: James Moyne (AMAT): [moyne@umich.edu](mailto:moyne@umich.edu)

##### 8.4.1 SMEI Smart Manufacturing Advisory Council. Of note:

- Enable smart manufacturing across microelectronics supply chain
- Facilitate increasingly holistic view of product flow
  - Materials  Equipment  Device  Packaging & Test  PCB & Assembly  Systems
- Events
  - Semicon/West
  - Smart Manufacturing Pavilion: Meet the Experts Theater (Day 1 Morning & Afternoon)
    - Moscone South, Smart Manufacturing Pavilion, Meet the Experts Theater, Tue-Thurs July 10-12th, 10:30am to 12:30pm And 1:30pm to 4:30pm
- SEMI contact - Tom Salmon <[tsalmon@semi.org](mailto:tsalmon@semi.org)>



#### 8.4.2 IRDS Factory Integration Thrust

- International Roadmap for Devices and Systems (IRDS)
  - [www.irds.ieee.org](http://www.irds.ieee.org)
  - Next Generation of International Technology Roadmap for Semiconductors (ITRS)
- IRDS Factory Integration Thrust
  - Focuses on challenges and potential solutions for tools and processes necessary to produce items at affordable cost in high volume
  - **2017 roadmap now available:** <https://irds.ieee.org/roadmap-2017>
  - 2018 Efforts
    - Security
      - Balancing IP Security with data access
    - Smart Manufacturing
    - Sustainability
  - Contact information: James Moyne (AMAT): [moyne@umich.edu](mailto:moyne@umich.edu) Supika Mashiro (TEL): [supika.mashiro@tel.com](mailto:supika.mashiro@tel.com)

#### 8.4.3 Integrated measurement Association(IMA) Advanced Process Control (APC) Conference

- [www.apconference.com](http://www.apconference.com)
  - Abstracts due July 6<sup>th</sup>
  - Variety of I&C topics including fault detection, process control, equipment productivity tracking, data collection, energy savings, sensors, communications at tool and factory-wide level, etc.
  - Contact James Moyne: moyne@umich.edu

#### Attachment 14: Smart-IRDS-APC Council 2018 Report.PPT

### 9 Action Items Review

#### 9.1 Previous Meeting(s) Action Items

Inna Skvortsova (SEMI) reviewed open action items. These can be found in the Previous Meeting(s) Action Items table at the beginning of these minutes.

#### 9.2 New Action Items

Inna Skvortsova (SEMI) reviewed the new action items. These can be found in the New Action Items table at the beginning of these minutes.

### 10 Next Meeting and Adjournment

The next meeting is scheduled for July 11, 2018 at San Francisco, CA. See <http://www.semi.org/en/events> for the current list of meeting schedules.

Having no further business, a motion was made to adjourn. Adjournment was at 11:08 AM.

Respectfully submitted by:

Inna Skvortsova

Sr. Standards Coordinator



SEMI North America

Phone: 408-9436996

Email: iskvortsova@semi.org

Minutes tentatively approved by:

Brian Rubow (Cimetrix) Co-chair	6/8/2018
Jack Ghiselli (Ghiselli Consulting) Co-chair	6/8/2018
James Moyne (AMAT/University of Michigan) Co-chair	

**Table 13 Index of Available Attachments<sup>#1</sup>**

<i>Title</i>	<i>Title</i>
Attachment 01: SEMI Standards Required Elements.ppt	Attachment 10: DDA TF Report (April 2018).ppt
Attachment 02: NA I&C TC Meeting Minutes (Fall 2017).pdf	Attachment 11: GEM 300 TF Report (April 2018) ppt
Attachment 03: SEMI Standards Staff Report (April 2018).ppt	Attachment 12: PCS TF Report (April 2018).ppt
Attachment 04: Japan Liaison Report (April 2018).pdf	Attachment 13: SB TF Report (April 2018).ppt
Attachment 05: Korea Liaison Report (April 2018).pdf	Attachment 14: SMAC-IRDS-APC Report (April 2018).ppt
Attachment 06: Taiwan Liaison Report (April 2018).pdf	
Attachment 07: 6350_Procedural Review	
Attachment 08: 6336_Procedural Review	
Attachment 09: 6337_Procedural Review	

#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](http://www.semi.org). For additional information or to obtain individual attachments, please contact Inna Skvortsova at the contact information above.