Setting the Standard for Automation™

How ISA Technical Divisions Benefited my Career

…also known as….
Introduction to ISA Technical Divisions

Speaker:
Graham Nasby
Vice-President of Industries & Sciences
& Past-Director of Water/Wastewater Division

Standards

Certification

Education & Training

Publishing

Conferences & Exhibits

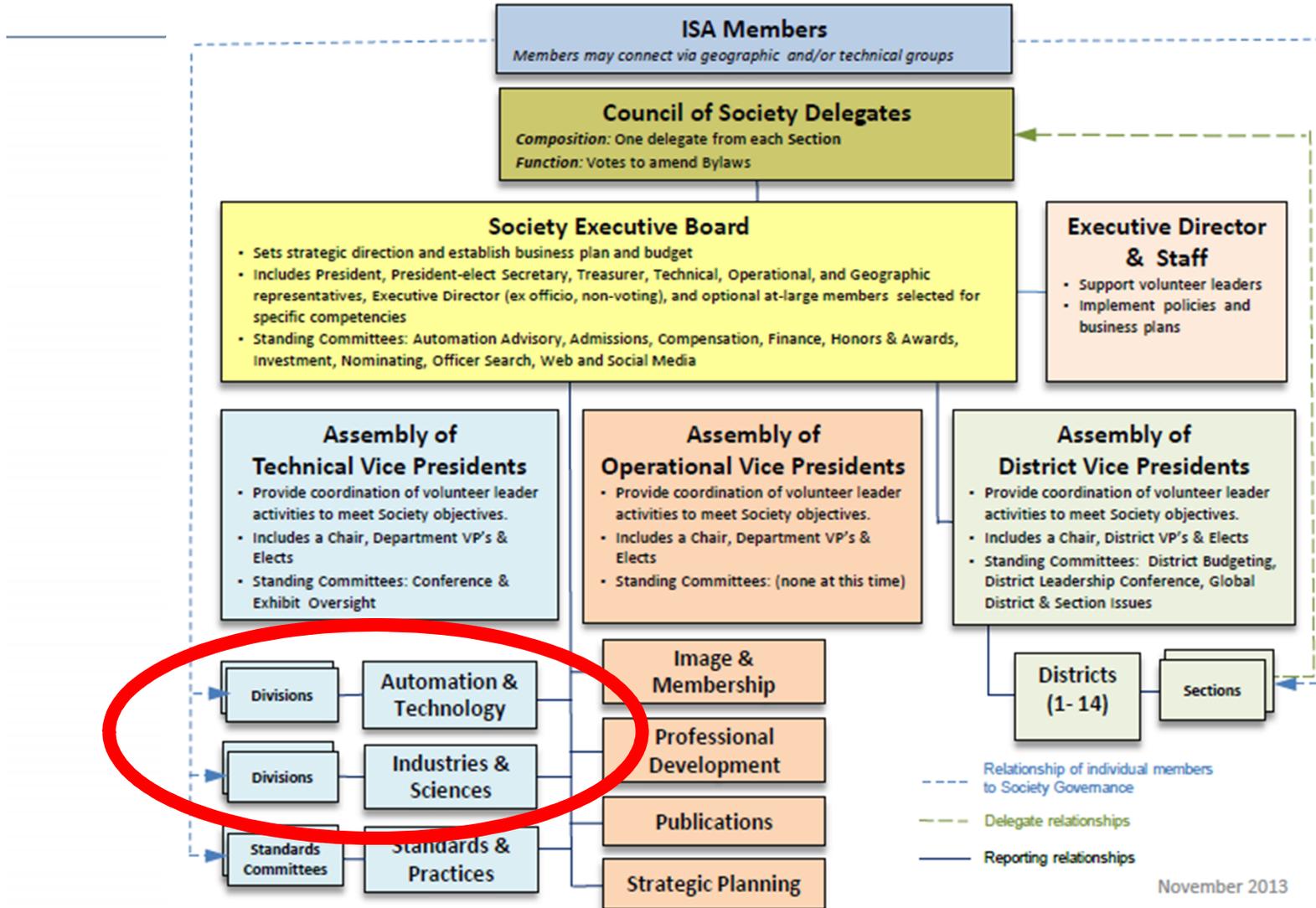**District 6 & 8 DLC – Denver, Colorado, USA – Apr 21-22, 2018**

What are technical divisions?

- Focused around specific technology or industry
- Global in scope
- Groups within ISA that members can join for an interest area
- More "technically focused" than geographic in nature

For Example

- ISA Water/Wastewater Industries Division
- Graham joined the municipal water sector in 2010 (job change)
- Became active in the WWID to make contacts and learn the sector
- Attended ISA Water/Wastewater symposium in 2011
- Became symposium chair in 2012-2013
- Director of WWID 2013-2015
- Platform for presenting papers, publishing articles, and making a name
- Graham now has contacts around the world in the water sector

What are Technical Divisions?

List of ISA Technical Divisions – I&S

BAS	Building Automation
CHEMPID	Chemicals & Petroleum
CONDES	Construction & Design
EDD	Education / Academia
FPID	Food & Pharma
MMID	Mining & Metals
POWID	Power Industry
PUPID	Pulp & Paper
WWID	Water/Wastewater

List of ISA Technical Divisions – A&T

AD	Analysis
ACOS	Automatic Control & Robotics
COMDIV	Communications Division
MGMT	Management
PMCD	Process Measurement & Control
SAFE	Safety and Security
TMD	Test & Measurement

Plus Technical Interest Group (TIG):

LDAR – Leak Detection & Repairs (Symposium only)

What do Technical Divisions do?

- Organize Technical Symposia

- Speaking Tracks at Conferences (Solicit, Review & Approve Papers)

- Host Technical Webinars

- Publish Newsletters (2, 3 or 4 times a year)

- Facilitate online discussion communities (Listserv, email, LinkedIn, etc.)

- Participate in Industry Events

- Network & Collaborate with other organizations

Structure of Divisions

- ISA Members can belong to 2 divisions for free (as part of membership)
- ISA Members can join additional divisions for $10/division per year

- Divisions are part of the ISA society-level organization
- Run by volunteers, but with staff looking after some aspects (e.g. money)
- Divisions plan out their activities annual basis, backed by business plans

- Each Division has the following volunteer leaders (at a minimum):
  - Director & Director-elect
  - Membership Chair
  - Program Chair and/or Symposium Chair
  - WebMaster
  - Plus other positions as needed

- Divisions are global & geographically spread out: Most division boards meet monthly via conference calls to organize events and programming

Structure of Divisions (vs Sections)

	Division	*Section*
Leader	Director	President
Overseen by	VP of Industries & Sciences, or VP of Automation & Technology	District VP
Organized As	Society-Level	Separately Incorporated, with ISA Section Charter
Terms of Reference	MOP	Section Constitution, MOP
Span	Global	Geographic Area
Board Meetings	Conference Calls, FLM, SLM, Symposium	Local Exec Meetings
Major Events	Symposium, Webinars	Member Meetings, Plant Tours, Local Expo, Local Golf Tourney
Reporting	Quarterly Reports to VPs of IS/AT, Annual end of year report	Quarterly reports to District VP
Planning	Annual Business Plan & Budget in July for (a) Division, if applicable: (b) symposium	Budget Summary sent to RTP each Fall
Funding	Allocation from Member Dues, Symposiums run for profit	Local Events (Expo, Golf), Member Dues Rebate

Division Technical Symposiums

AD	Analysis Division Symposium
FPID	Food & Pharmaceutical
LDAR	Leak Detection & Repair
POWID	Power Industry Symposium
IIS	International Instrumentation Symposium
PCS	Process Control & Safety Symposium
WWAC	Water/Wastewater & Automatic Controls Symposium

International

AWI	Automation Week International - Qatar
AD UAE	Analysis Division - United Arab Emirates
PCS UAE	Process Control Symposium – United Arab Emirates

ISA LDAR – Fugitive Emissions Symposium (March)

- Get the latest news and technical updates on best practices in air compliance, air emission reduction, lead detection and repair

- Learn about real-world applications, success stories, and lessons learned from industry experts

- Topics covered include:
  - LDAR design and validation
  - Consent decree updates
  - MACT cooling tower rule
  - Low-leak technologies
  - Upstream and Mid-stream technology
  - Applications for petroleum refineries, chemical processing plants, pharmaceutical manufacturing plants, and more

ISA AD - Analysis Division Symposium (April)

- Discover the latest developments and innovations in the analytical sciences

- Enjoy peer-reviewed technical presentations showcasing best practices in sampling, chromatography, spectroscopy, chemiluminescence, and other analytical instrumentation techniques

- Begin your experience with a comprehensive training course covering analytical fundamentals; continue the learning with multiple advanced courses

- Topics covered include gas chromatography, spectroscopy, discrete gas analysis, system design, sample conditioning systems, communications networking, and more

ISA POWID - Power Industries Division Symposium (June)

- Attend the largest event of its kind – power generation with a specific focus on instrumentation and controls
- Peer-reviewed technical sessions focused on fossil, nuclear, and renewables in addition to traditional energy
- Topics covered include:
    - Controls
    - Instrumentation
    - Cybersecurity
    - SmartGrid
    - Regulatory issues
    - Variable energy technologies
    - Impact of latest technologies on power generation delivery systems

- Understand how instrumentation, SCADA, and automatic control applications impact the collection and treatment of wastewater

- Peer-reviewed technical sessions focused on new control system technologies, process optimization, SCADA, alarm management, and data collection and usage

- Topics covered include:
  - ISA99 and mitigating security risks
  - Control system redundancy and robust design
  - Alarm rationalization and HMI design for operator effectiveness
  - Human factors and control room design
  - Data management, reporting, historians, and data retrieval
  - Asset management and enterprise integration

- Explore solutions to critical automation challenges in food processing and pharmaceutical manufacturing
- Discover strategies and best practices for improving quality, safety, reliability, profitability, and production
- Key topics covered include these and many more:
  - Measuring business value of automation
  - Implementing electronic record systems
  - Automating a flexible facility
  - MES and Batch Execution Systems
  - Using data to optimize product life cycles
  - Serialization
  - Effects of regulation on plant practices and performance
  - Mitigating cybersecurity risks
  - Alarm management and visualizing alarms

- Jointly sponsored and programmed by the Aerospace Industries, Test Measurement, and Process Measurement and Control Divisions of ISA

- Forum for discussion of new and innovative instrumentation techniques, developments, and applications

- Topics covered include:
  - Simplifying manufacturing problems with machine learning
  - Nanotechnology
  - Diagnostics
  - Control system instrumentation; test and measurement
  - Communication networks and sensors
  - Signal analysis; failure analysis
  - Condition-based maintenance
  - Structural life management

- Jointly sponsored and programmed by ISA's Process Measurement and Control, Safety and Security, Chemical and Petroleum, Communications, Education, Pulp and Paper, and Management Divisions

- Peer-reviewed technical sessions focused on instrumentation, communications, control systems, safety and security

- Topics covered include:
  - SCADA
  - Data management
  - Instrumentation, sensors, and peripherals
  - Process and functional safety
  - Systems integration
  - Cybersecurity

What do Technical Divisions do?

AD, ACRD, COMDIV, PMCD, SAFE/SEC, TMD, LDAR
BASDIV, CHEMPID, CONDES, EDD, FPID, MMID, POWID, PUPID, WWID

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