

Agenda

CIM University

How Innovative Utilities are Deploying CIM Solutions!

November 7, 2017

Columbus, OH

	Track 1 CIM Basics and Enterprise Integration	Track 2 CIM and Network Analysis	Track 3 CIM Tools
Start	Session	Session	Session
9:00	Introduction and Logistics <i>Terry Saxton (Xtensible Solutions, Inc.)</i>	Introduction and Logistics <i>Terry Saxton (Xtensible Solutions, Inc.)</i>	Introduction and Logistics <i>Terry Saxton (Xtensible Solutions, Inc.)</i>
9:15	Introduction to the CIM Standards and Architecture <i>Terry Saxton (Xtensible Solutions, Inc.)</i> This session provides an overview of the CIM standards, how they are organized, and how they are used to exchange information between applications/systems. Topics will include: What is “the CIM?” - Role of the CIM in the Smart Grid architecture - Importance of CIM as a semantic model	Power System Modeling Basics <i>Pat Brown (Electric Power Research Institute)</i> CIM and network models: - Anatomy of power flow data (through the eyes of the CIM) - Partitioning into profiles	Enterprise Architect - the CIM UML Tool <i>Margaret Goodrich (Project Consultants, LLC)</i> Learn about the Sparx Systems Enterprise Architect UML design and analysis-modeling tool.
9:30			
9:45	- Motivation for the coverage of CIM, what can be modeled, how does that save time and money in integration? - Three-layer architecture for organizing CIM standards - Work flow from semantic model to message/file assembly using CIM	ERCOT’s NMMS - Network Model Management In Action <i>Margaret Goodrich (Project Consultants, LLC)</i> Overview of the history and functionality of ERCOT’s CIM-based Network Model Management System (NMMS).	UML Philosophy <i>Instructor TBD</i> We will discuss the philosophies and methodologies for UML modeling.
10:00			
10:15	- CIM UML information model and contents - IEC 61970 and 61968 standards - Example: Substation model using CIM	ENTSO-E’s Common Grid Model Exchange Standard (CGMES) <i>Instructor TBD</i>	Schema Composer - the Sparx Profiling Tool <i>Instructor TBD</i> This session will demonstrate how to generate CIM Profiles from

	- Demo of UML modelling Tool – Sparx EA	Report on Europe’s CIM-based standardization and ENTSO-E’s pan-European data exchange implementation.	the CIM UML using the Sparx EA Tool
10:30	BREAK		
10:45	Introduction to the CIM and Related Standards (Cont’d) <i>Terry Saxton (Xtensible Solutions, Inc.)</i> The session continues the introduction started in the earlier session by exploring information exchange techniques and enterprise semantic modeling.	Network Model - EQ Profile (Foundation) <i>Instructor TBD</i> The basics of the physical network model profile for steady state: - Modeling a substation with CIM objects - Connectivity in bus-branch or node-breaker - Containment - Energy input and output	T3 - Schema Composer - the Sparx Profiling Tool (Cont’d) <i>Instructor TBD</i> The session continues after the morning break.
11:00 AM			
11:15 AM	Topics will include: - Profiles for defining system interfaces - IEC 61970 network model exchange - IEC 61968 message payloads for system integration - Implementation syntax of instance data. CIM expressed in XML and RDF schema		CIMTool - A CIM Profiling Tool <i>Margaret Goodrich (Project Consultants, LLC)</i> Learn about CIMTool. CIMTool is an open-source tool for managing CIM-derived models, profiles, schemas.
11:30	- Value of an Enterprise Semantic Model (ESM) and use of CIM as a Basis for it		
11:45		Network Model - EQ Profile (Special Topics) <i>Charles DuBose (Siemens PTI)</i> More complex parts of the physical network model profile: - Transformers - HVDC - Short circuit - Dynamics - Unbalanced	
12:00	- Case studies		
12:15	LUNCH		
1:00			
1:15	T1 - Information Model & Reference Model <i>Margaret Goodrich (Project Consultants, LLC)</i> Learn about the CIM as an Information Model & as a Reference Model.	Network Model - EQ Profile (Special Topics, (Cont’d)) <i>Charles DuBose (Siemens PTI)</i> The session continues after lunch.	CimConteXtor/CimSyntaxGen Profiling Tools in the EA Environment <i>André Maizener (Zamiren)</i> We will look at CimConteXtor (the Sparx EA product add-in) and CimSyntaxGen. CimConteXtor lets you create and manage UML

1:30	Network Operations (IEC 61968-PART 3) <i>Margaret Goodrich (Project Consultants, LLC)</i> Learn about Part 3 of IEC 61968: Network Operations.	Network Model - DL Profile <i>Instructor TBD</i> This session takes a look at the DL (schematic layout) profile.	models and their based-on UML profiles in the EA UML environment. CimSyntaxGen is a companion add-in tool for generating schemas.
1:45	T1 - Assets (IEC 61968-PART 4) <i>Instructor TBD</i> Learn about Part 4 of IEC 61968: Assets.		
2:00	DER (IEC 61968-PART 5) <i>Instructor TBD</i> Learn about Part 5 of IEC 61968: Distributed Energy Resources.	Network Model - SSH, TP, SV Profiles <i>Charles DuBose (Siemens PTI)</i> The profiles related to power flow analysis cases:	
2:15	Maintenance & Construction (IEC 61968-PART 6) & Customer Support Interfaces (IEC 61968-PART 8) <i>Margaret Goodrich (Project Consultants, LLC)</i> Learn about both Part 6 of IEC 61968: Maintenance & Construction and learn about Part 8: Customer Support Interfaces.	SSH – Steady State Hypothesis - SSH – Status - SSH – Controls - SSH – Limits - SSH – Energy distribution TP – Topology SV – State Variables	Modsarus/Riseclipse Profiling Tools This session will cover use-case modeling methodology of IEC standards with a Modsarus demonstration.
2:30			
2:45	Meter Reading & Control (IEC 61968-Part 9) <i>Instructor TBD</i>		
3:00	Learn about Part 9 of IEC 61968: Meter Reading & Control.	Network Model - Variations (Projects & Outages) <i>Pat Brown (Electric Power Research Institute)</i> Two types of conditional changes to the network model (projects and outages).	
3:15	Best Practices For Enterprise Architecture <i>Instructor TBD</i> Looking to implement a CIM Enterprise Architecture? We show you the best practices.		
3:30	BREAK		
3:45	CIM-Based Integration – A Deep Dive <i>Margaret Goodrich (Project Consultants, LLC)</i> A deep dive into CIM-based integration.	Network Model Parts and Assembly <i>Jay Britton (Britton Consulting LLC)</i> Issues related to the segmented nature of network models and approaches that can be taken for managing maintenance and assembly activities:	
4:00			
4:15	Interface Specification Documentation <i>Margaret Goodrich (Project Consultants, LLC)</i> Interface Specification Documentation details.		
4:30	Environmental Data (IEC 62325-45x) <i>Pat Brown (Electric Power Research Institute)</i> Learn about IEC 62325-45x: Environmental Data.	Modularization by instances: - Division into MAS with boundaries - Frameworks	

		<ul style="list-style-type: none"> - Recursion Model Assemblies: - Datasets - Functions - Scripts Audit Trails. 	
4:45		<p>Panel Session - CIM In Practice Come to a panel discussion about CIM in the real world.</p>	
5:15		<p>RECEPTION</p>	
6:45			