

Agenda

CIM Users Group 2018 Spring European Meeting

Using CIM for DSO/TSO Integration and Information Exchange

5-7 June 2018

Ljubljana, Slovenia

CIM University Agenda

Tuesday, 5 June 2018

Time	Track 1 CIM Basics and Enterprise Integration	Track 2 CIM and Network Analysis	Track 3 CIM Tools
9:00 – 9:15	Introduction and Logistics <i>Terry Saxton (Xtensible)</i>		
9:15 – 9:45	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:	Power System Modeling Basics <i>Pat Brown (Electric Power Research Institute); Jay Britton (Britton Consulting)</i> CIM and network models: - Anatomy of power flow data (through the eyes of the CIM) - Partitioning into profiles	Modсарus <i>Eric Lambert (EDF)</i> Learn about the tool for managing CIM Riseclipse <i>Eric Lambert (EDF)</i> Learn about the tool for managing CIM
9:45 – 10:00	What is “the CIM?” - Role of the CIM in the Smart Grid architecture - Importance of CIM as a semantic model	ERCOT’s NMMS - Network Model Management In Action <i>Margaret Goodrich (Project Consultants)</i> Overview of the history and functionality of ERCOT’s CIM-based Network Model Management System (NMMS).	
10:00 – 10:15	- 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 - CIM UML information model and contents - IEC 61970 and 61968 standards - Example: Substation model using CIM - Demo of UML modeling Tool – Sparx	AEP’s T-Nexus – Update on NMM Implementation <i>Sutton Sutherin (American Electric Power)</i> Report on Europe’s CIM-based standardization and ENTSO-E’s pan-European data exchange implementation.	CIM UML <i>Margaret Goodrich (Project Consultants, LLC)</i> Learn about the UML that is used to define the Common Information Model (CIM) and describe the utility domain information.

10:15 – 10:30		Network Model - EQ Profile (Foundation) <i>Alan McMorran (Open Grid Systems)</i> The basics of the physical network model profile for steady state: <ul style="list-style-type: none"> - Modeling a substation with CIM objects - Connectivity in bus-branch or nodebreaker - Containment - Energy input and output This session continues after break.	CIMTool – A CIM Profiling Tool <i>Margaret Goodrich (Project Consultants)</i> Learn about the open-source tool for managing CIM-derived models, profiles, and schemas.
10:30 – 10:45	BREAK		
10:45 – 11:15	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, (Cont'd)) <i>Alan McMorran (Open Grid Systems)</i>	CIMTool – A CIM Profiling Tool (Continued) <i>Margaret Goodrich (Project Consultants, LLC)</i> Learn about the open-source tool for managing CIM-derived models, profiles, and schemas.
11:15 – 11:30			Introduction to Enterprise Architect <i>Henry Dotson (Mandla Solutions)</i> Introduction to Sparx Systems and how to download Enterprise Architect.
11:30 – 11:45		Network Model - EQ Profile <i>Charles DuBose (Project Consultants)</i> More complex parts of the physical network model profile: <ul style="list-style-type: none"> - Transformers - HVDC - Short circuit - Unbalanced This session continues after lunch.	Basic Modeling Concepts <i>Henry Dotson (Mandla Solutions)</i> Learn about the basic types of UML models and model architecture.
11:45 – 12:15			Enterprise Architect – Lab #1a <i>Henry Dotson (Mandla Solutions)</i> Learn how to navigate in Enterprise Architect and how to build a model from scratch.
12:15 - 13:15	LUNCH		
13:15 – 13:30	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) <i>Chuck DuBose (Project Consultants)</i>	Enterprise Architect – Lab #1B <i>Henry Dotson (Mandla Solutions)</i> Learn how to create various diagrams in Enterprise Architect.
13:30 – 13:45	Network Operations (IEC 61968-PART 3) Margaret Goodrich (Project Consultants, LLC) & Assets (IEC 61968-PART 4) Pat Brown (EPRI)	Network Model – DY Profile (special topics) <i>Pat Brown (EPRI)</i> The CIM approach to standard dynamics model exchange.	Core Modeling Concepts <i>Henry Dotson (Mandla Solutions)</i> Learn about the core UML models used in architecting a software intensive system and

	Learn about Part 3 of IEC 61968: Network Operations and Assets and Asset Health in Part 4		a standard enterprise architecture framework.
13:45 – 14:00		Network Model - DL Profile <i>Alan McMorran (Open Grid Systems)</i> The DL (schematic layout) profile.	Enterprise Architect – Lab #2 (45 Minutes) <i>Henry Dotson (Mandla Solutions)</i> Learn how to build a standard enterprise architecture model in Enterprise Architect and how to create CIM compliant schemas using Enterprise Architect's Schema Composer tool.
14:00 – 14:15	DER (IEC 61968-PART 5) <i>Stephan Amsbary (Electric Power Research Institute)</i> Learn about Part 5 of IEC 61968: Distributed Energy Resources.	Network Model - SSH Profile <i>Charles DuBose (Project Consultants)</i> Power flow case inputs. - SSH – Steady State Hypothesis profile – Status – Controls – Limits – Energy distribution	
14:15 – 14:45	Maintenance & Construction (IEC 61968-PART 6) <i>Margaret Goodrich (Project Consultants, LLC),</i>		
14:45 – 15:15	Customer Support Interfaces (IEC 61968-PART 8) <i>Stephan Amsbary (Electric Power Research Institute)</i> and Meter Reading & Control (IEC 61968- Part 9)	Network Model - TP, SV Profiles <i>Alan McMorran (Open Grid Systems)</i> Power flow case outputs. TP – Topology profile SV – State Variables profile	
15:15 – 15:30	<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 and Part 9 of IEC 61968: Meter Reading and Control.	Variations (Changes) <i>Pat Brown (Electric Power Research Institute)</i> Modeling of change over time. Prospective changes to the network model (projects).	
15:30 – 15:45	BREAK		
15:45 – 16:15	Interface Specification Documentation <i>Margaret Goodrich (Project Consultants, LLC)</i> Interface Specification Documentation details.	Network Model Parts and Assembly <i>Jay Britton (Britton Consulting)</i> Approaches to model maintenance and case assembly activities. Modularization by instances: - Division into MAS with boundaries - Frameworks - Recursion Model Assemblies: - Datasets - Functions - Scripts - Audit Trails	Core CIM Integration Concepts & Lab 3 – Schema Modeling 2: (60 Minutes) Lab 3 Learning Objectives <ul style="list-style-type: none"> • Learn best practices for creating a schema model • Introduction to Schema Composer • Create a message profile with Schema Composer
16:15 – 16:45	CIM-Based Integration – A Deep Dive <i>Margaret Goodrich (Project Consultants, LLC)</i> A deep dive into CIM-based integration.		
16:45 – 17:15	Panel Session - CIM In Practice Come to a panel discussion about CIM in the real world		
20:00	DINNER Best Western Premier Hotel Slon, Slovenska cesta 34 - Hosted by EIMV		

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CIM Plenary Session

Wednesday, 6 June 2018

Time	Topic	Presenter
8:30 – 9:00	Registration and Coffee/Tea	
	Session 1, Introduction and Sponsor Presentations	
9:00 – 9:30	Welcome and Introductions	<i>Eric Hatter (AEP)</i> <i>Terry Saxton (Xtensible)</i>
9:30 – 10:00	ELES Role in the Energy Transition	<i>Uroš Salobir, M. Sc (ELES)</i>
10:00 – 10:15	How Siemens is Driving CIM-based Commitment and Innovation for DSOs / TSOs	<i>Bob Beckett (Siemens PTI)</i>
10:15 – 10:30	IPS-NMM™ - Full Network Model Management Implementation	<i>Zoltan Solga (IPS Intelligent Process Solutions GmbH)</i>
10:30 – 11:00	BREAK	
	Session 2, Enterprise Integration with CIM Case Stories	
11:00 – 12:00	CIM Based Systems Integration Projects in the Scope of the Slovenian-Japanese "Nedo" Project	<i>Andrej Souvent (EIMV)</i>
	Open Source CIM Based Integration: Elektro Celje DNO Experience and Lessons Learned	<i>Nikola Risteski (Bintegra d.o.o.)</i> <i>Rene Benassi (Iskratel d.d.)</i>
	Integrating GIS and CIM Repository with CIM-GIS Adapter	<i>Viki Petrovič (GDI d.o.o.)</i>
	CIM Based Integration for Demand Response Pilot Project	<i>Gašper Lakota (Solvera Lynx d.d.)</i>
	NEDO Project - Discussion	<i>Andrej Souvent (EIMV)</i>
12:00 – 13:00	LUNCH	
	Session 3, TSO-DSO Information Exchange Using CIM	
13:00 – 13:30	Design and Development of Enhanced Data Exchange to Enable Future TSO-DSO Interoperability	<i>Mohammed Radi (Brunel University London)</i> <i>Eric Lambert (EDF)</i>
13:30 – 14:00	Realizing a Standardized Open-Source DSO Integration Platform - Lessons Learned	<i>Christoph Kondzialka, (University of Applied Science Ulm, Smart Grid Research Group),</i> <i>Markus König (SEKAS GmbH)</i>
14:00 – 14:30	Using 61850 and CIM to Enable Condition Based Analytics of Substation Equipment. A Review of a Pilot Project.	<i>Vincent Gliniewicz (Vattenfall R&D)</i> <i>David Erol (Vattenfall R&D)</i>
14:30 – 15:00	BREAK	
	Session 4, Enterprise Integration with CIM Case Stories (cont'd)	
15:00 – 15:30	CIM For Network Model Management, Analysis and Simulation	<i>Eric Hatter (AEP)</i> <i>Margaret Goodrich (Project Consultants, LLC)</i>

15:30 – 16:00	Implementation Details and Real-Life Benefits of CIM Integration Project	<i>Boštjan Rožič (GDB d.o.o.) Nejc Petrovič (Elektro Gorenjska)</i>
16:00 – 17:00	Vendor Presentations <i>(Equal time allocated to vendor sponsors)</i> <ol style="list-style-type: none"> 1. GDB d.o.o. 2. Iskratel - The Role of CIM Repo in the CIM Integration – Experiences and Future Challenges 3. I.P.S. d.o.o.- IPS-NMM™ - CIM Repository with Mapped Asset Management Data 4. Siemens - Siemens CIM based tools and applications – customer deployment scenarios 5. SISCO, Inc. 6. Xtensible 	<ol style="list-style-type: none"> 1. <i>Matija Gruden (GDB d.o.o.)</i> 2. <i>Peter Metljak, Darko Vidinikj (Iskratel)</i> 3. <i>Zoltan Solga (IPS Intelligent Process Solutions GmbH)</i> 4. <i>Bob Beckett (Siemens PTI)</i> 5. <i>Ralph Mackiewicz (SISCO)</i> 6. <i>Terry Saxton (Xtensible)</i>
17:00 – 19:00	Evening Reception Hospitality & Vendor Demonstrations	
19:00	Reception Ends	

CIM Plenary Session

Thursday, 7 June 2018

Time	Topic	Presenter
8:30 – 9:00	Registration and Coffee/Tea	
	Session 5, Using the CIM for Power System Network Model Management, Analysis and Simulation	
9:00 – 9:30	ENTSO-E Implementation of the CIM	<i>Olivier Aine (ENTSO-E)</i>
9:30 – 10:00	Developing a CIM-Based Architecture for Distribution Grid Model Data Management	<i>Pat Brown (EPRI)</i>
10:00 – 10:30	BREAK	
	Session 6, New Developments in the Use of CIM Standards	
10:30 – 11:00	Linked Energy Data, Merging Information Standards in the Web Ontology Language	<i>Joep van Genuchten (Alliander) Marcel Olij (Enexis)</i>
11:00 – 11:30	Leveraging Blockchain for Network Model Management	<i>Svein Harald Olsen (Statnett SF) Alan McMorran B.Eng Ph.D (Open Grid Systems Ltd)</i>
11:30 – 12:00	An Alternative CIM Modeling Approach using JSON-LD	<i>Milan Gavrić, Ph.D. (Schneider Electric DMS NS)</i>
12:00 – 13:00	LUNCH	
	Session 7, How the CIM is being extended and used to manage Distributed Energy Resources (DER)	
13:00 – 13:30	RESTful CIM Using the Open Data Protocol	<i>Alan McMorran B.Eng Ph.D (Open Grid Systems Ltd)</i>
13:30 – 14:00	How the OpenFMB Uses CIM and 61850 to Support DER	<i>Terry Saxton (Xtensible) Ralph Mackiewicz (SISCO)</i>
14:00 – 14:30	What's New in the Latest CIM UML Model Release (Model Managers Report)	<i>Margaret Goodrich (Project Consultants, LLC)</i>
14:30 – 15:00	Ask The Experts: Panel Session	<i>Moderator: Ralph Mackiewicz (SISCO, Inc.)</i>
15:00 – 15:30	Closing Comments & Two \$100 Amazon Gift Card Drawing <i>(must be present to win)</i>	<i>Eric Hatter (AEP) Terry Saxton (Xtensible)</i>
15:30	Adjourn	