



CIM University

November 7, 2017

Bob Evans Center
8111 Smith's Mill Road
New Albany, OH 43054

	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>		
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:	Power System Modeling Basics <i>Pat Brown (Electric Power Research Institute), Jay Britton (Britton Consulting, LLC)</i> CIM and network models: - Anatomy of power flow data (through the eyes of the CIM) - Partitioning into profiles	CIMTool – A CIM Profiling Tool <i>Margaret Goodrich (Project Consultants, LLC)</i> Learn about the open-source tool for managing CIM-derived models, profiles, and schemas.
9:45		ERCOT's NMMS - Network Model Management In Action <i>John Moseley (ERCOT)</i> Overview of the history and functionality of ERCOT's CIM-based Network Model Management System (NMMS).	
10:15		ENTSO-E's Common Grid Model Exchange Standard (CGMES) <i>Jay Britton (Britton Consulting)</i> Report on Europe's CIM-based standardization and ENTSO-E's pan-European data exchange implementation.	
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>Alan McMorran (Open Grid Systems)</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	UML Philosophy <i>Pat Brown (Electric Power Research Institute)</i> We will discuss the philosophies and methodologies for UML modeling.
11:00			Introduction to Enterprise Architect <i>Henry Dotson (Mandla Solutions)</i> Introduction to Sparx Systems and how to download Enterprise Architect.
11:15			Basic Modeling Concepts <i>Henry Dotson (Mandla Solutions)</i> Learn about the basic types of UML models and model architecture.
11:30		Network Model - EQ Profile <i>Charles DuBose (Siemens PTI)</i> More complex parts of the physical network model profile: - Transformers - HVDC - Short circuit	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.
11:45			
12:15	LUNCH		

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.	Enterprise Architect – Lab #1B <i>Henry Dotson (Mandla Solutions)</i> Learn how to create various diagrams in Enterprise Architect.
1:30	Network Operations (IEC 61968-PART 3) & Assets (IEC 61968-PART 4) <i>Margaret Goodrich (Project Consultants, LLC)</i> Learn about Part 3 of IEC 61968: Network Operations and Assets and Asset Health in Part 4	Network Model - Dynamics <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 a standard enterprise architecture framework.
1:45		Network Model - DL Profile <i>Alan McMorran (Open Grid Systems)</i> The DL (schematic layout) profile.	Enterprise Architect – Lab #2 <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.
2:00	DER (IEC 61968-PART 5) <i>Gerald Gray (Electric Power Research Institute)</i> Learn about Part 5 of IEC 61968: Distributed Energy Resources.	Network Model - SSH Profile <i>Charles DuBose (Siemens PTI)</i> Power flow case inputs. SSH – Steady State Hypothesis profile - SSH – Status - SSH – Controls - SSH – Limits - SSH – Energy distribution	
2:15	Maintenance & Construction (IEC 61968-PART 6), Customer Support Interfaces (IEC 61968-PART 8) and Meter Reading & Control (IEC 61968-Part 9)		
2:30	<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.	Network Model - TP, SV Profiles <i>Alan McMorran (Open Grid Systems)</i> Power flow case outputs. TP – Topology profile SV – State Variables profile	
3:00		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).	
3:30	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> 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	Advanced Modeling Concepts <i>Henry Dotson (Mandla Solutions)</i> Learn about the documentation and presentation features of Enterprise Architect.
4:00			Cimphony® Profiling Tool <i>Alan McMorran (Open Grid Systems)</i> Cimphony® is a model-driven, multi-platform power system data management and analysis application. It can be used to generate CIM compliant schemas.
4:15	Interface Specification Documentation <i>Margaret Goodrich (Project Consultants, LLC)</i> Interface Specification Documentation details.		CIM Tools Wrap-Up – Q&A
4:30	Environmental Data (IEC 62325-45x) <i>Pat Brown (Electric Power Research Institute)</i> Learn about IEC 62325-45x: Environmental Data.		
4:45	Panel Session - CIM In Practice Come to a panel discussion about CIM in the real world.		
5:15	RECEPTION		