CYME Users Group Meeting 2017

Agenda

Tuesday June 13, 2017 – Delta Montreal, Opus 2

7:30 am – 8:30 am  Registration – Room: Opus 2
8:30 am – 9:00 am  Full breakfast buffet – Room: Aroma
9:00 am – 10:15 am CYME – Demonstration of new features
10:15 am – 10:30 am Refreshment break
10:30 am – 12:00 pm CYME – Demonstration of new features
12:00 pm – 1:15 pm Lunch – Room: Aroma
1:15 pm – 2:45 pm CYME – Demonstration of new features
2:45 pm – 3:00 pm Refreshment break
3:00 pm – 4:30 pm CYME – Demonstration of new features
5:00 pm  Happy hour at the Delta terrace

Wednesday June 14, 2017 – Delta Montreal, Opus 2

7:30 am – 9:00 am  Full breakfast buffet – Room: Aroma
9:00 am – 10:15 am Open Forum & Requests Discussion (part 1)
10:15 am – 10:30 am Refreshment break
10:30 am – 12:00 pm Open Forum & Requests Discussion (part 2)
12:00 pm – 1:15 pm Lunch – Room: Aroma

Special Presentations and One-on-One meeting will run in parallel. Book your meeting Tuesday AM, right after registration.

Special presentations

1:00 pm – 1:40 pm  The Automated Distribution Engineer
James Tucillo, Pacific Gas & Electric
1:45 pm – 2:25 pm  Contingency Planning using CYME
Evgeniy Gorelov, Fortis Alberta
2:25 pm – 2:45 pm  Refreshment break
2:45 pm – 3:25 pm  SCE’s Grid Modernization and ICA
Nery Navarro, Southern California Edison
3:30 pm – 4:10 pm  Operation insights for Low Voltage Secondary Networks
Jean-Sébastien Lacroix, CYME
4:15 pm – 4:55 pm  Automated Load Processing and Modeling: How PG&E is Achieving Consistency between Planning and Operations with LoadSEER and CYME
Scott Smith, Integral Analytics and Tom Huynh, PG&E
4:55 pm – 5:00 pm  Closing Remarks
6:30 pm –  Dinner at Gibby’s (see attached map)

One-on-one meetings

Times:  1:15 pm to 2:00 pm
        2:00 pm to 2:45 pm
        3:00 pm to 3:45 pm
        3:45 pm to 4:30 pm

Rooms: Vivaldi and Tchaikowsky
See the schedules posted in Opus 2 room.
<table>
<thead>
<tr>
<th>Time</th>
<th>Presentation</th>
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| 1:00 pm – 1:40 pm | **The Automated Distribution Engineer**  
**Presenter:** James Tucillo, Pacific Gas and Electric |
| 1:45 pm – 2:25 pm | **Contingency Planning using CYME**  
**Presenter:** Evgeniy Gorelov, Fortis Alberta |
| 2:25 pm – 2:45 pm | *Refreshment break*                                                           |
| 2:45 pm – 3:25 pm | **SCE’s Grid Modernization and ICA**  
**Presenter:** Nery Navarro, Southern California Edison |
| 3:30 pm – 4:10 pm | **Operational Insights for Low Voltage Secondary Networks**  
**Presenter:** Jean-Sébastien Lacroix, CYME |
| 4:15 pm – 4:55 pm | **Automated Load Processing and Modeling: How PG&E is Achieving Consistency between Planning and Operations with LoadSEER and CYME**  
**Presenter:** Scott Smith, Integral Analytics and Tom Huynh, PG&E |

The Automated Distribution Engineer (ADE) is really a euphemism for automating distribution circuit analysis. With such powerful computing platforms at our disposal today, simply running all of a utility’s power flows in an automated fashion becomes a routine task. However, running a power flow is quite different than analyzing and acting upon the results. We need to go beyond simple execution and move to the next step of automated analytics. That is, program the logic of a distribution engineer into the power flow analysis in order to automatically interpret the validity of the model, make necessary corrections, apply the area’s load growth, and identify areas of immediate concern as well as potential issues in the years ahead. This presentation focuses on PG&E’s efforts to automate the analysis of its approximately 3,000 distribution circuits utilizing Python scripting in conjunction with the CYME distribution power flow and LoadSEER load growth analytics software. Case studies are presented that will cover the overall process including: data requirements, software, lessons learned, and how the Automated Distribution Engineer’s analysis compares to the utility’s actual distribution engineer’s analysis.

In 2015, FortisAlberta in cooperation with CYME/EATON introduced modified “Contingency Assessment and Restoration” module to assist with a resolution of a number of internal operational and planning needs. The presentation covers the requirements that encouraged FortisAlberta to seek out what eventually became a CYME based solution, challenges encountered during the implementation, current use, learnings, and the future outlook/plans for the module.

Utilities in North America serve end-use customers typically with radial distribution feeders that provide high level of reliability at a moderate cost. In areas of high load density, such as large urban cities, Low Voltage Secondary Networks (LVSN) are built to serve end-use customers with a very high level of reliability. The cost of this design is substantially higher than radial type systems. An operational insight of the network grid is crucial to utility operators and network engineers to prevent catastrophic failures of the grid. Situational awareness maintains safe operations and provides data for predictive maintenance to prevent vaults and manholes explosions. This presentation focuses on a proof of concept project conducted with a North American utility that demonstrates the benefits and use cases of the distribution state estimator (DSE) on LVSN.

PG&E is evolving to benefit from LoadSEER and CYME's advanced network modeling, forecasting and analysis engines to test different network conditions under different scenarios allowing for better network optimization, infrastructure planning and positioning of distributed energy resources. This presentation will discuss how PG&E is leading the Industry by using a Service Oriented Architecture (SOA) solution that integrates CYME with LoadSEER, building an explicit tie between the system operators and planning engineers.
**Thursday June 15, 2017 – UQAM (see attached map)**

<table>
<thead>
<tr>
<th>Time</th>
<th>Activity</th>
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<tbody>
<tr>
<td>8:00 am – 8:30 am</td>
<td>Continental breakfast – UQAM</td>
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| 8:30 am – 10:00 am | **Session 1**  
| Room 1 – Workshop   | CYME 8 Series – Get the Most Out of the New GUI  
| Room 2 – Workshop  | Hosting and Integration Capacity of Distribution Systems  
| Room 3 – Workshop  | Load Estimation: Load Allocation, State Estimation or Load Flow with Profiles?  
| Instructor: Marco Andrade |  
| Instructor: Patrick Jacques |  
| Instructor: Camilo Apraez |  
| Instructor: Jonathan Giraldeau |  |
| 10:00 am – 10:30 am | **Refreshment break**                                                  |
| 10:30 am – 12:00 pm | **Session 2**  
| Room 1 – Workshop   | New Features – An Overview of the Last Development Cycle  
| Room 2 – Workshop  | Protective Device Analysis: Tips and Tricks to Avoid Blowing a Fuse  
| Room 3 – Workshop  | Load Flow Analysis – Essential Skills to Become an Expert  
| Room 4 – Presentation | CYME Gateway – Beyond the Creation and Update of Your Network Model  
| Instructor: Jonathan Giraldeau |  
| Instructor: Nathalie Ardaya |  
| Instructor: Camilo Apraez |  
| Instructor: Philippe Boucher-Gagné and René Séguing |  |
| 12:00 pm – 1:00 pm | Lunch buffet at La Boîte à Lunch (see attached map)                    |
| 1:00 pm – 2:30 pm | **Session 3**  
| Room 1 – Workshop   | Long-Term Planning: Tools to Tackle the Challenges Ahead  
| Room 2 – Workshop  | The ABC’s of DG Impact Studies  
| Room 4 – Presentation | Powered by CYME – Innovative Solutions Using the CYME Server  
| Instructor: Jonathan Giraldeau |  
| Instructor: Alexey Suslov |  
| Instructor: Nathalie Ardaya |  
| Instructor: Philippe Boucher-Gagné and Étienne Noël |  |
| 2:30 pm – 3:00 pm | **Refreshment break**                                                  |
| 3:00 am – 4:30 pm | **Session 4**  
| Room 1 – Workshop   | Scripting Tool with Python – Don’t Fear Being Bitten  
| Room 3 – Workshop  | Application Customization – Taylor CYME to Your Reality  
| Room 4 – Discussion Group | CYME at the heart of Distribution Automation applications  
| Instructor: Patrick Jacques |  
| Instructor: Camilo Apraez |  
| Instructor: Marco Andrade |  
| Instructor: Jean-Sébastien Lacroix |  |
## Workshop details

### Session 1 – 8:30 am to 10:00 am

| Room 1 | CYME 8 Series – Get the Most Out of the New GUI  
*Instructor: Marco Andrade* |
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<tbody>
<tr>
<td>Software version:</td>
<td>CYME 8.0</td>
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<tr>
<td>Workshop level:</td>
<td>Beginner</td>
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<tr>
<td></td>
<td>The CYME 8 Series is equipped with a brand new user interface featuring several functional and ergonomic enhancements. Get acquainted with the new technology and discover all these innovative features designed to make your life simpler.</td>
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| Room 2 | Hosting and Integration Capacity of Distribution Systems  
*Instructor: Patrick Jacques* |
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<td>In the context of the ever-increasing DER penetration level and general popularity, discover how new CYME analysis modules help assessing the hosting or integration capacity of your system considering reliability and power quality.</td>
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| Room 3 | Load Estimation: Load Allocation, State Estimation or Load Flow with Profiles?  
*Instructor: Camilo Apraez* |
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<td>Various load estimation techniques are possible depending on the available data: field measurements, transformer size, AMR data, etc. Which one(s) to use and how? Is a primary model still sufficient nowadays? How to handle DG beyond the meter?</td>
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| Room 4 | How new technologies and emerging trends impact distribution planning  
*Instructor: Jonathan Giraldeau* |
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<tr>
<td>Discussion Group</td>
<td>Smart Inverters, energy storage, EVs, demand response, microgrids, DERMS, etc. New technologies are changing the face of the grid at an unprecedented pace. Come share your perspective on this rapid evolution and help shape the next generation of analysis tools.</td>
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# Agenda

## Session 2 – 10:30 am to 12:00 pm

| Room 1 | New Features – An Overview of the Last Development Cycle  
Instructor – Jonathan Giraldeau |
|--------|---------------------------------------------------------------|
| Software version: CYME DEV  
Workshop level: Beginner | As a guided tour of the upcoming CYME version, this workshop covers new features developed for you as well as novelties in the analysis department. A chance to try the enhancements before their release! |

| Room 2 | Protective Device Analysis: Tips and Tricks to Avoid Blowing a Fuse  
Instructor – Nathalie Ardaya |
|--------|----------------------------------------------------------------|
| Software version: CYME 8.0  
Workshop level: Intermediate | Protection is an inherent component of distribution system planning and operation. Get up-to-date with the many enhancements CYME has brought to its Protective Device Analysis module through its continuous improvement process. |

| Room 3 | Load Flow Analysis – Essential Skills to Become an Expert  
Instructor – Camilo Apraez |
|--------|-------------------------------------------------------------|
| Software version: CYME 8.0  
Workshop level: Beginner | The load flow is the main analysis tool for the design, planning and operation of electrical power systems. Together, we will explore how simulation parameters, calculation options and equipment modeling will impact your results. |

| Room 4 | CYME Gateway – Beyond the Creation and Update of Your Network Model  
Instructor – Philippe Boucher-Gagné and René Séguin |
|--------|-------------------------------------------------------------|
| Software version: N/A  
Presentation | Electrical network model accuracy is crucial to system analysis and optimization. The CYME Gateway solution enables utilities to automatically create and maintain this model up-to-date. Learn about additional features offered by the CYME Gateway, such as integration with multiple enterprise systems, automated CYME calculations, advanced validation, etc. |
### Session 3 – 1:00 pm to 2:30 pm

| Room 1 | Long-Term Planning: Tools to Tackle the Challenges Ahead  
**Instructor** – Jonathan Giraldeau |
| --- | --- |
| Software version: CYME 8.0  
Workshop level: Beginner/Intermediate | The analyses of the CYME software lie at the hearth of the long-term planning process. Discover how the Advanced Project Manager and the Automated Network Forecast can help you better plan the evolution of your distribution network. |

| Room 2 | The ABC’s of DG Impact Studies  
**Instructor** – Alexey Suslov |
| --- | --- |
| Software version: CYME 8.0  
Workshop level: Beginner/Intermediate | This workshop is a screening assessment of small distributed generation applications in distribution systems. Learn how the DER Impact Evaluation module and other tools can be used to validate the interconnection of DER on your network. |

**Instructor** – Nathalie Ardaya |
| --- | --- |
| Software version: CYME 8.0  
Workshop level: Beginner | Building an accurate electrical system model can be a challenging endeavor. This workshop will equip you with key knowledge about the required data, some common pitfalls and the several modeling options the CYME software offers. |

| Room 4 | Powered by CYME – Innovative Solutions Using the CYME Server  
**Instructor** – Philippe Boucher-Gagné with Étienne Noël |
| --- | --- |
| Software version: N/A  
Presentation | Based on the same proven, robust CYME network model and analysis engines of the CYME software, the CYME Server solution offers real-time network analysis and automated batch analysis capabilities. Learn more about this solution, and various use cases such as CYME calculations embedded in OMS, support for a web application or the automation of the Integration Capacity Analysis (ICA) for a major California utility. |
# CYME Users Group Meeting 2017

## Agenda

### Session 4 – 3:00 pm to 4:30 pm

| Room 1 | Scripting Tool with Python – Don’t Fear Being Bitten  
*Instructor – Patrick Jacques* |
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<td>Software version: CYME 8.0</td>
<td>The objective of this course is to introduce the CYME Scripting Tool with Python through simple keyword, filter and control scripts. It reviews the basics of Python programming, and focuses on useful examples CYME users can easily relate to.</td>
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<td>Workshop level: Intermediate</td>
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| Room 2 | Secondary Network Distribution Systems: What CYME Can Do for Your Downtown Grid  
*Instructor – Camilo Apraez* |
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<td>Explore the capabilities of the Secondary Grid Network Analysis module. Network modeling, analysis and result visualization as well as advanced tools are on the agenda to help you with efficient low-voltage network design, planning and operation.</td>
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| Room 3 | Application Customization – Taylor CYME to Your Reality  
*Instructor – Marco Andrade* |
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<td>The CYME software UI is renowned for its versatility, but rare are the opportunities to explore its realm of possibilities. Learn to master the tools enabling you to adapt the software to your reality and get the most out of what it has to offer.</td>
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| Room 4 | CYME at the heart of Distribution Automation applications  
*Instructor – Jean-Sébastien Lacroix* |
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<td>Main applications for Distribution Automation (DA) are Fault Location, Isolation and Service Restoration (FLISR) and Volt/var Optimization (VVO). Learn about Eaton’s road map to leverage CYME’s network model and model based optimization capabilities in Eaton’s DA product to gain efficiency and maximum benefits.</td>
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<tr>
<td>Discussion Group</td>
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June 13 and 14, 2017 – Delta Montreal

HOTEL DELTA MONTREAL
475 Avenue President Kennedy
Montreal, Quebec
H3A 1J7
Tel: 514-286-1986
Toll-Free: 1-877-286-1986

Wednesday 6:30pm
Gibbys
298, Place D’Youville
Montreal
Tel.: 514-282-1837
(Valet parking available)
20 minute walk from the Delta, via: Bleury St and St.Pierre St.
June 15, 2017 – UQAM

J.-A. De Sève Pavilion
Université du Québec à Montréal (UQAM)
320, Ste.Catherine East
Montreal

15 minute walk from the Delta
CYME Users Group Meeting 2017

Agenda

Lunch
La Boîte à Lunch
400, Ste.Catherine East
Montreal
(3 minute walk)