Get Connected!

April 20 - 22 • 2015

Irvine, California, USA

Welcome

Welcome to the 2015 ETAP Users Conference in Irvine, California

Farrokh Shokooh
CEO & President

Our conference committee has put together an electrifying program that includes presentations, case studies, and technology demonstrations by users and experts of ETAP software from around the world. The conference will also showcase the much anticipated release of ETAP 14.

This year's conference will focus on Model-Driven Engineering Design & Operation. In my keynote, I will introduce how ETAP's predictive model foundation provides insights to guide decision-making in all stages of a system's life cycle and how advanced power system analytics supports real-time data-driven decision making and planning.

I hope that by sharing our experiences, ideas, challenges, and successes we will continue to inspire ETAP in the development and innovation of the leading power system design and operation solutions.

Thank you for attending the User Conference.

Sincerely,

Farrokh Shokooh, PhD, PE
IEEE Life Fellow
CEO & President

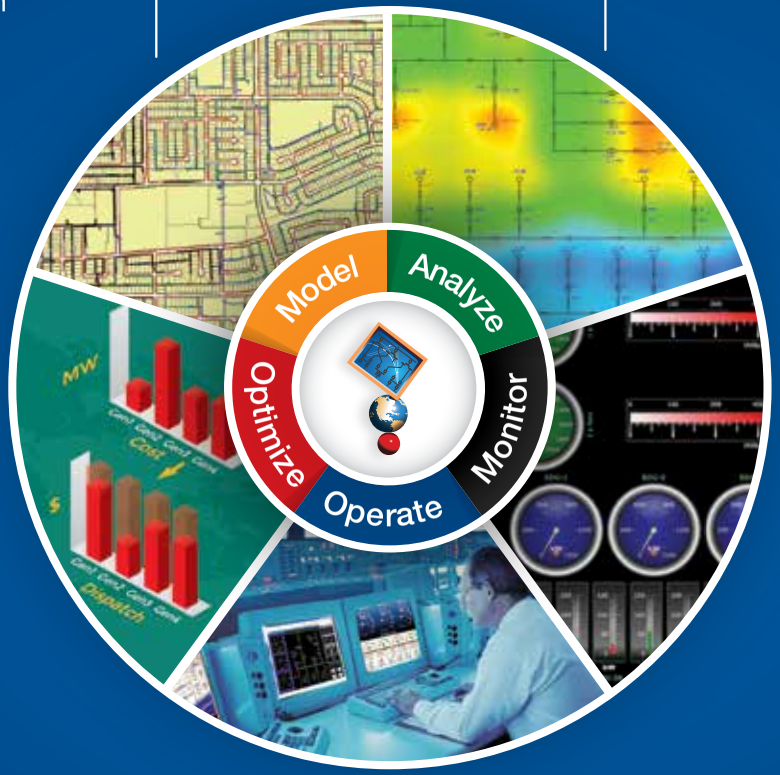
Modeling to Operation

Model

- One-Line Diagram
- Intelligent Geospatial Diagram
- Protection & Coordination
- Control Circuit Schematics
- Logic Diagram
- Underground Cable Raceway
- Cable Pulling
- Substation Grounding

Analyze

- AC & DC Network Analysis
- Arc Flash & Safety Systems
- Protection & Coordination
- Dynamics & Transients
- Renewable Energy
- Equipment Sizing & Capacity
- System Grounding
- Power Quality
- Transmission & Distribution Analysis
- Rail Traction Systems



Optimize

- Energy & Power Management
- Distribution Management
- Outage Management
- Intelligent Load Shedding
- Generation Management
- Smart Grid & Microgrid

Monitor

- eSCADA
- Power Management System
- State Estimation & Load Allocation
- Energy Accounting
- Native System Communication Protocols
- Desktop, Web & Mobile Platforms

Operate

- Predictive Simulation
- Event Playback
- Switching Management
- Load Management
- Intelligent Substation Automation

Agenda

Sunday, April 19

15:00 - 18:00	**Welcome Reception** Garden Pavilion

Day 1 - Monday, April 20

General Session
Salon B / C

8:45 - 10:00	The CEO Keynote: Model-driven engineering solutions: From Modeling to Operation Farrokh Shokooh, ETAP Advances in Intelligent Modeling and Simulation - ETAP 14 Tanuj Khandelwal, ETAP
10:00 - 10:30	Networking Break and Technology Exhibition
10:30 - 12:30	Modeling a complex electrical network: Rumaila oil field ETAP electrical model - Case Study Jeff Glasgow, WorleyParsons Cloud platform for power system modeling and analysis Ali Halimi, ETAP Beyond TCC Curves: Automated protection & coordination evaluation using Star Auto-Evaluation Pirooz Barkhordar, ETAP
12:00 - 14:00	Lunch and Technology Exhibition
14:00 - 15:30	Protective Coordination and Arc Flash Analysis in Mission Critical Facilities - Case Study Yigit Bulut, EYP Mission Critical Facilities, A Hewlett-Packard Company The latest standards and methodologies in AC and DC Arc Flash Analyses John Francis, ETAP Arc flash analysis done right! - Case Study Sohrab, Eaton Low Voltage arc flash hazard assessment using ETAP - Case Study Peter Beaulieu, Delta Systems Engineering
15:30 - 16:00	Networking Break and Technology Exhibition
16:00 - 17:30	Power Management System: Realizing the power of (your) data Hossain Shaikh, ETAP ETAP Real-Time system integration at Nobeoka Chemical Plant - Case Study Kikuya Dan, Asahi Kasei Engineering Benefits of State Estimation & Load Allocation - Industrial, Transmission & Distribution Hugo Castro, ETAP
17:30 - 18:00	Networking Break and Technology Exhibition
18:00 - Closing	Tower of Power Lounge and Dinner - *Garden Pavilion*

Day 2 - Tuesday, April 21

	Industry Session Salon C	T & D Session Salon B
8:30 - 10:30	Open-Phase Fault Analysis advances safety, reliability, cost-savings for the nuclear industry - Special Report Mark Bowman, TVA - Nuclear Power Group Paul Colaianni, Duke Energy ETAP partnership with ITER for Nuclear fusion power management - Case Study Miguel Tenor, ITER Organization Maintaining reliability and optimizing power from modeling to operation - Case Studies John Francis, ETAP	ETAP GRID™ - Integrated Transmission, Distribution & Microgrid Solutions Tanuj Khandelwal, ETAP Put yourself on the map: The technology fusion of ETAP and ESRI ArcGIS Bill Meehan, ESR Using ETAP GIS for electrical analysis - Case Study User Case Study ETAP partnership with ITER for Nuclear fusion power management - Case Study David Renfro, OXY USA
10:00 - 10:30	Networking Break and Technology Exhibition	
10:30 - 12:00	ETAP Transient Stability Studies for Industrial Plants Albert Maroquin, ETAP ElectroMagnetic Transient Program (EMTP) studies via ETAP Kaykhusru Lawyer, ETAP Unified platform for power plant engineering and design Takuo Echigoya, Toshiba Model-based integrated solutions for oil & gas production fields. Nahed Al-Hajeri, Kuwait Oil Company	ETAP Microgrid Master Controller: a new hub in energy infrastructure Frank Kling, ETAP ETAP GRID™ - Linking government, industry, and academia Scott Samuelsen, UC Irvine Microgrids at Work: Real-World business case examples Chris Evanich, S&C Electric
12:00 - 13:30	Lunch and Technology Exhibition	
13:30 - 15:00	Proactive Intelligent Load Shedding (ILS) system Farrokh Shokooh, ETAP Revisiting ILS benefits at PT Newmont after a decade in service - Case Study Ilyas Yamin, PT Newmont How Holcim Cement improved system reliability and reduced unplanned power outages - Case Study Douglas Aviles, Holcim	Switching Sequence Management and Switching Interlock Enforcer Victor Andrade, ETAP Fault Management and Service Restoration Ahmed Saber, ETAP ADMS: Integrated SCADA, DMS, OMS, and Workforce Management. Michel Gilles, Intergraph SG&I
15:00 - 15:45	Networking Break and Technology Exhibition	
15:45 - 17:00	Low Voltage system design and analysis - Case Study Tahir Ayub, Network Rail Model-Based Integrated Solutions for Traction Power Systems Kelvin Zan, Los Angeles Metropolitan Transportation Authority Cable sizing and capacity calculation using industry standards - ETAP 14 Haijun Liu, ETAP Motor Acceleration analysis for floating platform with gas turbine generators - Case Study Ronan Besrest, CAPSIM	Powering the smart cities with big data and predictive analytics Dave Roberts, OSIsoft Simulation and Setting Verification of Distance Protection Element - StarZ Mohammad Zadeh, ETAP ETAP Automatic Generation Control - Case Study Robert Analco, ETAP
17:00 - 17:30	Networking Break and Technology Exhibition	
17:30 - Closing	Monte Carlo Night and Dinner - *Garden Pavilion*	

Agenda

Day 3 - Wednesday, April 22

	Partner & Tutorial Session Salon B / C	Academic Session Trabuco
9:00 - 10:30	Dynamic Parameter Estimation and Tuning Albert Maroquin, ETAP Railway Systems - eTrax™ Tanuj Khandelwal, ETAP Third party data and project conversion Ali Halimi, ETAP	Collaboration and networking with educational institutes and ETAP Graduate / Undergraduate ETAP course materials and examples Research grants and thesis topics Academic User Group
10:30 - 11:00	Networking Break and Technology Exhibition	
11:00 - 12:30	ETAP - SmartPlant Electrical™ Interface: Lower risk through design validation Frank Joop, Intergraph PP&M ETAP - PSCAD Interface Dr. Dharshana Muthumuni, Manitoba HVDC Research Centre AVEVA Electrical – Producing detailed design deliverables from an ETAP integrated Project Julien de Beer, AVEVA Ross N. Kilmurray, AVEVA	ETAP center for advanced studies Educational licensing Scholarship program Academic User Group
12:00 - 13:30	Lunch and Technology Exhibition	
13:30 - 14:30	ETAP - EMTP-RV Interface Henry Gras, Powersys ETAP - PI System Steve Kwan, OSIsoft ETAP - OPAL-RT Interface Ravinder Venugopal, OPAL-RT Technologies	
14:30 - 15:00	Networking Break and Technology Exhibition	
15:00 - 15:30	Future of ETAP technologies Closing comments	

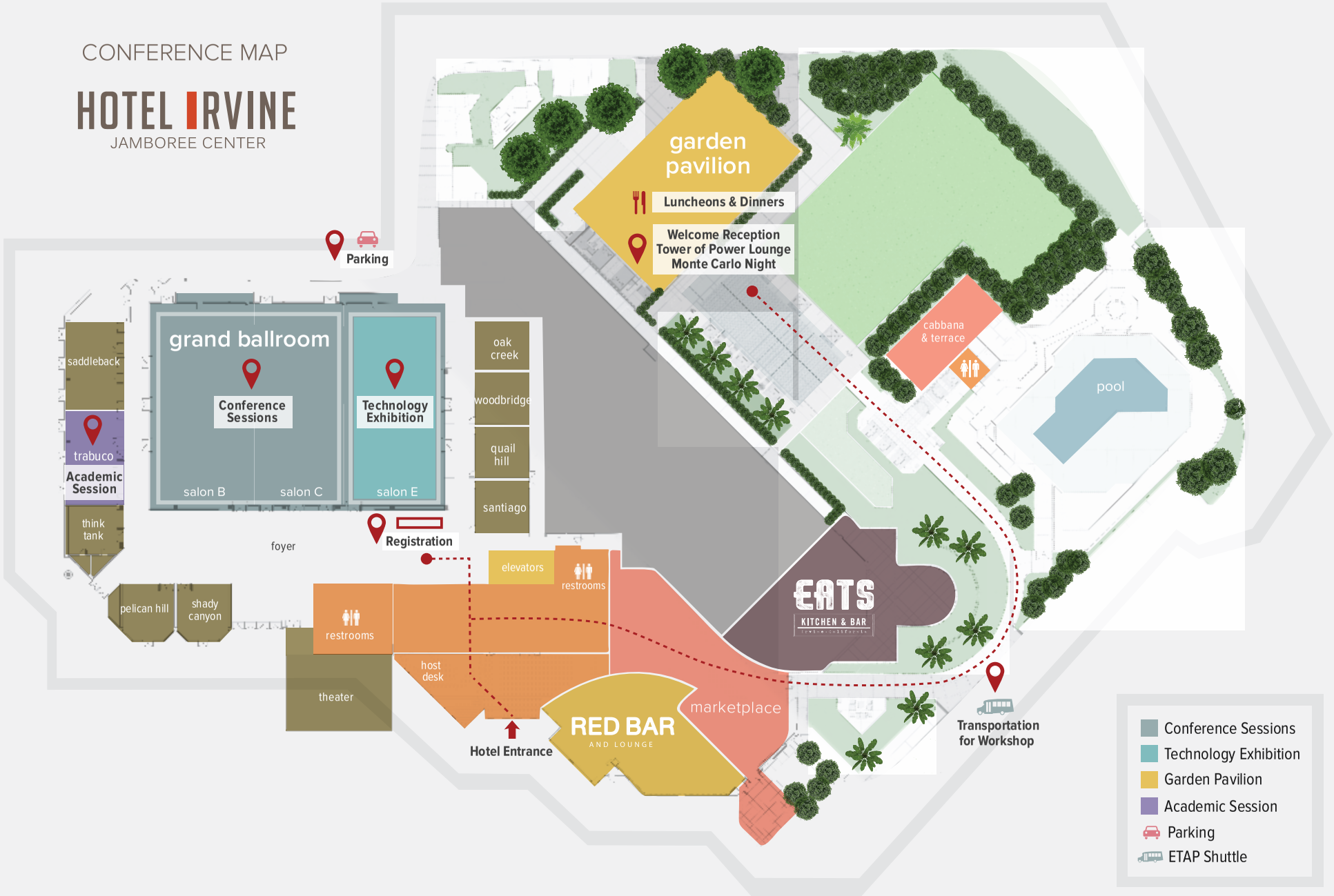
Day 3 - ETAP 351 Workshop

	Protection & Safety: Arc Flash, Device Protection and Coordination ETAP Learning Center - Irvine, California
8:30 - 12:30	Star Auto-Evaluation: Automated Protection & Coordination Evaluation
12:30 - 13:30	Lunch
13:30 - 16:30	AC & DC Arc Flash Hazard Analysis

CONFERENCE MAP

HOTEL IRVINE

JAMBOREE CENTER



Technology Exhibit

Partner Exhibits

OSIsoft

OSIsoft will showcase its PI System and its integration with ETAP Power Management System.

PSCAD

Manitoba HVDC Research Centre (MHRC) will demonstrate PSCAD™ software and the new interface between ETAP and PSCAD for performing electromagnetic transient analyses.

Integraph PP&M

Intergraph's Process, Power & Marine division will demonstrate SmartPlant® Electrical (SPEL) for engineering and design that offers a bi-directional interface with ETAP.

Integraph SG&I

Intergraph's Security, Government & Infrastructure (SG&I) division will demonstrate its InService Outage Management System including mobile workforce management and its interface with ETAP's SCADA system and Distribution Management System (DMS) to offer a fully-integrated ADMS.

AVEVA

AVEVA will demonstrates its AVEVA Electrical™ software and its new bi-directional interface with ETAP.

EMTP-RV

EMPT-RV™ software will be demonstrated for performing specialty power system transient studies and its interface with ETAP.

OPAL-RT

OPAL-RT will demonstrate its interface with ETAP for Hardware-in-the-Loop Testing Technology.

Your ETAP UC Contact:

Melissa Augustine
Conference Coordinator
949.231.6710
melissa.augustine@etap.com

ETAP Exhibit

ETAP Real-Time™

ETAP Enterprise Solution for real-time power management systems is a fully integrated suite of software products that provides intelligent power SCADA, monitoring, energy management, optimization and automation, and real-time prediction applications.

ETAP GRID™ - Transmission & Distribution

Integrated and interactive solutions for design, simulation, operation, control, optimization, and automation of generation, transmission, distribution, and microgrid systems.

- Model-Driven Enterprise Solution
- Intelligent Geospatial Diagrams
- Adaptive Planning & Analytical Applications
- Real-Time Network Applications
- Intelligent PMS, EMS, DMS

ETAP 14

Gain a competitive edge and accelerate system design and analysis with ETAP 14. The new graphical foundations deliver unmatched speed, intelligence and reliability to increase productivity by at least 50%. ETAP 14 offers powerful rule-books, result analyzers, sizing, and automated evaluation tools to reduce engineering time, enforce standards, ensure design integrity, and optimize system operation.

Star Auto-Evaluation

Star Auto-Evaluation feature offers another level of engineering intelligence to ETAP Star by providing automatic detection and evaluation of system protection and coordination based on customized design criteria and rules of ETAP Star RuleBook™. The results of evaluation are displayed in tabular and graphical format which highlights detected violations and concerns of equipment protection and device coordination for possible correction and adjustment of protective device settings.

Arc Flash Analysis

ETAP Arc Flash Analysis software brings you new and enhanced capabilities which allow for faster and easier assessment of arc flash hazards and incident analysis. Identify and analyze high risk arc flash areas in your electrical power system with greater flexibility by simulating and evaluating various mitigation methods in your arc flash study.

eTraX™

ETAP Rail Traction Power software includes the most accurate, user-friendly and flexible software tools for analyzing and managing Low and Medium Voltage rail power systems. eTraX allows for the modeling, simulation, prediction and optimization of rail infrastructure.

Learning Day - April 22

Academic User Group Meeting

This inaugural meeting will include presentations by ETAP Academic User Community members as well as follow-up discussions about ETAP university programs, educational licenses, research licenses, and future releases & enhancements that will benefit our Educational Partners.

The presentations will include topics such as:

- Using ETAP in Course Material, Examples & Assignments, Graduate & Undergraduate Levels
- Collaboration and Networking among Educational Institutes and ETAP
- ETAP Educational License/Power Lab Applications
- Research Grants and Thesis Topics with ETAP
- Research Centers and Advanced Studies

Following the presentations, we will host round-table discussions to get your feedback on how our university program can be enhanced to better address the demands from the educational institutes. ETAP users from both industry and academia are welcome to participate in the discussions and share ideas.

ETAP 351 Workshop

This workshop presentation will focus on the application of Arc Flash hazard analysis standards and guidelines (NFPA 70E 2015 Annex D.8, IEEE1584b-2011 and IEEE 1584.1-2013) using ETAP 14. The new Star Auto-Evaluation module will be presented to provide the skills needed to perform rule-based protection and coordination evaluation to gain insight to potential miscoordination and protection issues. This workshop will also cover how to configure ETAP 14 to analyze future changes to IEEE and NFPA arc flash analysis methods for additional configurations not included in IEEE 1584-2002.

Shuttle Transportation

Shuttle transportation will be provided to and from ETAP Learning Center on Wednesday, April 22.

Morning transport to ETAP Learning Center @ 7:15.
Pick up location at Red Bar / Marketplace Valet

Afternoon transport back to Hotel Irvine @ 17:00.
Pick up location in front of ETAP Learning Center

ETAP Learning Center
17 Goodyear, Suite 100
Irvine, CA 92618

Social Events

Welcome Reception

Sunday, April 19 @ 15:00

We welcome you to Irvine at our Sunday afternoon reception. The reception provides an opportunity to relax and enjoy an afternoon of networking with conference attendees and ETAP staff .

Tower of Power Lounge

Monday, April 20 @ 18:00

Wind-down at our Tower of Power lounge setting while dining and listening to your favorite music.

Monte Carlo Night and Dinner

Tuesday, April 21 @ 17:30

You don't have to travel to Las Vegas to test your luck! Enjoy an evening of innocent fun at the gaming tables followed by dinner, dancing, and raffle prizes.

Things to do in Orange County

BEACHES / HIKING

Laguna Coast Wilderness Park
www.ocparks.com/lagunacoast

Laguna Beach
www.lagunabeachcity.net

SHOPPING

Fashion Island
http://www.fashionisland.ca

South Coast Plaza
http://www.southcoastplaza.com

Irvine Spectrum Center
www.shopirvinespectrumcenter.com

SITE SEEING

Mission of San Juan Capistrano.
http://www.missionsjc.com

Balboa Island
www.balboaisland.com

Dana Point Harbor
www.danapointharbor.com

Catalina Island
www.catalinachamber.com

MUSEUMS / GARDENS

The J. Paul Getty Museum
www.getty.edu/museum

The Huntington
www.huntington.org

Richard Nixon Library
www.nixonlibrary.gov

Rogers Garden
http://www.rogersgardens.com

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MHRC is the world leader in power system simulation, applied engineering services, and products. Evolving from a pure research organization focused on HVDC, MHRC provides practical innovative solutionns by bridging today's power system challenges with practical technically-innovative solutions. Clients have depended on PSCAD simulation software since 1993, making it the industry's leading transient study tool demanded by a growing complexity of power systems. Additional innovative technologies to improve transmission system efficiency are offered by MHRC, including the dcLFL line fault locator and Ice Vision systems. Clients are offered an experienced team of engineering professionals that have a wide range of experience providing solutions to the global power industry, including engineering studies, equipment specifications, and maintenance and system operation.
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POWERSYS is the publisher of EMTP-RV which is the reference simulation software for Power System Transient. EMTP-RV is used worldwide as a reference tool by the main actors oof the Power System Industry. It is suited for a wide variety of Power System Studies such as insulation coordination, switching, ferroresonnance, HVDC, wind generation studies, etc. We offer through our associated staff a wide range of consulting services using state of the art technologies to assist you addressing new and emerging problems related to the fields of applications of EMTP-RV. This global involvement in the industry is an important component of our up to date awareness of the most relevant problems and the means to deal with them.
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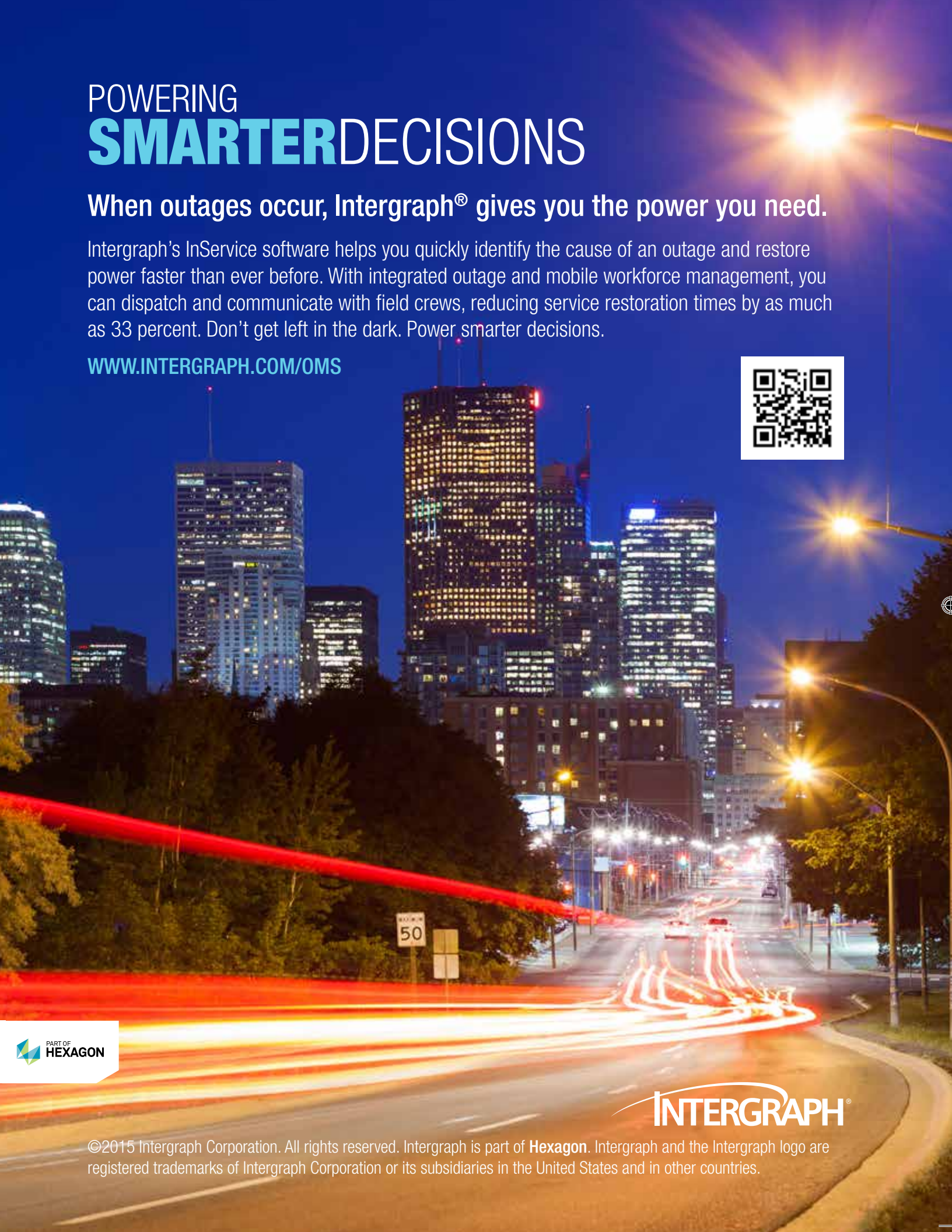
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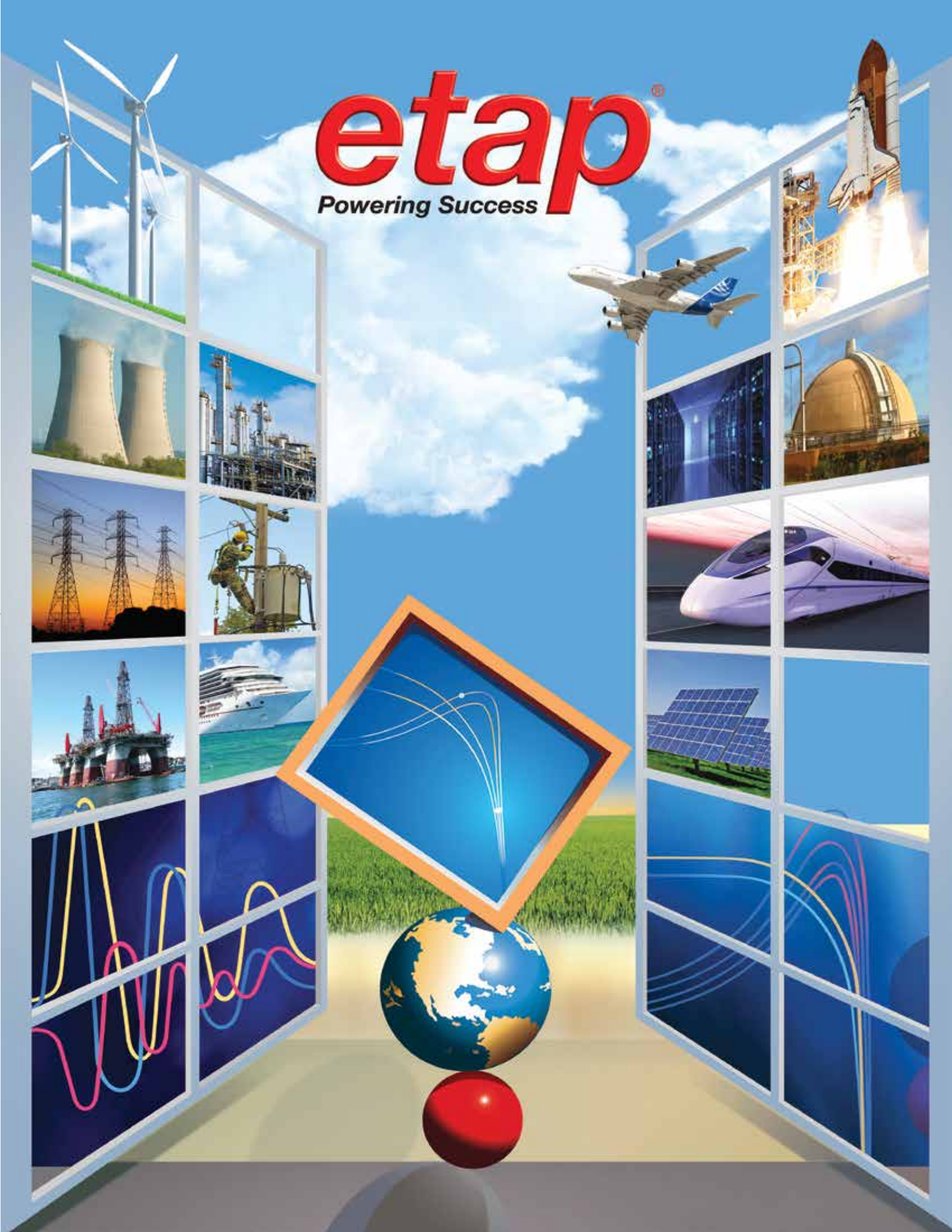
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