Paladin DesignBase 6.2
DB-103 Training Brochure

March 1-3, 2022
Live Web-Based Training

Description

This 3-day course covers the fundamental DesignBase programs needed for the safe design, operation and analysis of power systems. These main programs are: The Main User Interface, AC Short Circuit Program, AC Protective Device Coordination (PDC) Program and the Arc Flash Program. Participants, led by experienced instructors, will learn step-by-step how to create accurate models, analyze & discuss every aspect of the process and conduct meaningful studies using the latest tools available in the Paladin DesignBase platform.

Itemized Objectives

The Modelling Interface:	Learn how to define projects in Paladin DesignBase.
	Learn how to build a single line diagram.
	Learn how to enter and edit system component data.
	Learn how to interconnect networks that span multiple pages.
	Learn how to use scenarios to analyze different network configurations.
	Learn how to check network for errors.
The AC Short Circuit Program:	Basic review of the topology of a short circuit current.
	Review the objectives of a short circuit study.
	Learn how to model sources of short circuit current.
	Learn how to model interrupting and non-interrupting equipment.
	Learn how to run a short circuit analysis.
	Learn how to evaluate equipment adequacy.
The PDC Program:	Learn how to add/edit equipment behavioral curves.
	Learn how to add/edit Protective Devices Curves (Phase & Ground Protection).
	Learn how to create Protective Device Coordination Studies.
	Learn how generate PDC output reports (Text & Graphic).
The Arc Flash Program:	Review of the standards used by the DesignBase program
	Learn how to properly assign equipment categories.
	How to define Arc Flash relevant scenarios.
	How to analyze worst case scenarios.
	How to run the Arc Flash program using IEEE1584, NFPA-70E and CSA-Z462
	How to add Arc Flash equal energy line to a PDC study
	How to generate output reports, work permits and warning labels

Pre-Requisites

- Knowledge of Power Systems Analysis.
- Technical exposure to the subject matter covered in the training.
- PE or working as a consultant is a plus.
- Participants should have their own laptop computers with the latest version of Paladin DesignBase

Course Contents

1.0   The PALADIN DesignBase Modeling Interface – Day 1

- Defining a New Project File
- Building the Single Line Diagram
- Layer Management
- Multiple Page Networks
- Labelling Pages
- Connecting & Hyperlinking Pages
- Copying & Pasting Devices & Data
- Adding Operating Scenarios
- Importing/Exporting Data Using Excel
- Error Checking
- Data Navigation
- Packing & Shipping Projects

2.0   AC Short Circuit Analysis – Day 2

- Topology of an AC Short Circuit Current
- Objectives of a Short Circuit Analysis
- References and Standards
- Editing/Modelling Short Circuit Sources
- The Short Circuit Program Menu
- Three-Phase, Line-Ground, Line-Line, Line-Line-Ground Faults
- Running Short Circuit Analysis using Back Annotation and Report Outputs
- Global and Single Bus Fault Simulation
- The Options and ANSI Settings Interface

3.0   ANSI - AC Protective Device Evaluation & Reactor Sizing – Day 2

- Data requirements for Low Voltage Equipment
- Data requirements for Medium & High Voltage Equipment
- Data entry into the model
- Running the Protective Device Evaluation Analysis
- Creating Output Reports and Network Color/Text Annotation
- The Reactor Sizing Application

4.0   AC Protective Device Coordination – Day 2/3

- The AC PDC Program Menu.
- Classification of PDC Curves
- Adding Equipment Curves
- Adding Phase Protective Device Curves
- Adding Ground Fault Protective Device Curves
- Single Page and Multiple Page Spanning PDC Paths
- Creating Phase Coordination Studies
- Creating Ground Coordination Studies
- Output Reports Text & Graphical
- Protective Device Sequence of Operation Reports
- Injection of Fault Currents and Tripping Time Evaluation
- Creating Output Reports (Graphical and Text Based)
- Interlocking Protective Devices

5.0   AC Arc Flash Hazard Assessment – Day 3

- The AC Arc Flash Hazard Program Interface
- Equipment Topology& Categories
- Single and Multiple Bus Analysis
- Analyzing Suppressed Nodes
- Maximum Tripping Time Settings
- Worst Case Scenario Analysis
- Standards used in Paladin Designbase (NFPA-70E, CSA-Z462 and IEEE 1584)
- Single vs. Multiple Path Analysis (Definition of Controlling Branch)
- Inserting Arc Flash Equal Energy Lines to a PDC Study
- Graphical Outputs and Network Back Annotation
- Creation of Arc Flash Warning Labels
- Report Generation

Daily Agenda

7:30 – 9:30   DesignBase Training
9:30 - 9:45   Break
9:45 – 11:30   DesignBase Training
11:30 – 12:30   Lunch & Break
12:30 - 3:00   DesignBase Training
3:00 - 3:15   Break
3:15 – 4:30   DesignBase Training

Eastern Standard Time

EasyPower Training Contact Information
Contact our training department at 503-678-9792 between 8 a.m. and 4 p.m. PST with your training questions, or email training@easypower.com.