etap®

Training catalog

2024

Caneco BT

Basic training

CANECO

ref : INST 101 EN

Level
Beginning

Duration
3 days (21h)

Class Size
8 max.

Format
Presentation

Also available
Remote - P. 52

50% Theory

50% Hands-on

Objective

Master the basic functions of Caneco BT software to design standard low-voltage electrical installations.

Target skills

- Describe and navigate menu functions
- Create the source, enter the circuits and size a simple electrical project with Caneco BT
- Edit and customize a complete folder

Who should attend

- Technicians and Engineers
- Engineering Office
- Design draftsmen
- Power & lighting designers
- Business managers
- Electrical project managers/Operator

Prerequisites

- Knowledge of electrical equipment and current region electrical standards. France: NFC15-100+Guide UTE C15-105 and/or INST 100 course
- Proficiency in PC environment and Microsoft Windows tools

Materials required

- Computer room for the session with 1 PC per participant
- Interactive screen or video projector, whiteboard

Means and methods

- Trainers from the electrical industry
- Technical demonstrations and explanations, discussions, tutorials and practice
- Workbook and handouts
- Assessment of acquired knowledge through a final synthesis exercise

Proof of achievement

- Proof of attendance for each half-day
- Certificate of completion
- CACIEC BT1 certificate according to the level of prior learning validated

Follow-up learning

INST 102, BIM 103

Course content

Interface

- Caneco BT concepts, tools and terminology

Starting a project defining a power source

- Transformers
- Generator sets
- Rephrase to ‘Short-circuit analysis table’
- Public network - controlled power connection, monitored power connection

Creating an electrical installation

- Definition of circuit in Caneco BT
- Input in the three workspaces: single-wire general, single-wire table, data spreadsheet

Definition of input data

- Installation method
- Electrical circuit environment (proximity coefficients, temperatures, etc.)
- Define electrical load (consumption)
- Protection type and cable

Results analysis

- Review of basic circuit sizing rules (in accordance with applicable electrical standards)
- Compliance criteria: indirect contact, short-circuit, voltage drop, breaking capacity
- Determining protection and cable sizing
- Optimizing results

Electrical schematic

- Automatic detection of electrical equipment
- Creation of new styles, creation of blocks
- Export electrical schematics in AutoCAD® format

Print

- Create folder and document templates
- Choice and configuration of documentation (calculation notes, single-line diagram, terminology, etc.)
- Print configuration (languages, margins, drawing numbering, etc.)
- Revision index management

Final exercises

- Complete project with deliverables

Caneco BT

Refresher training

CANECO

ref : FAD 110 EN

Level	Duration	Class Size	Format
Skills Review	6h30	7 max.	Remote

50% Theory

50% Hands-on

Objective

Review the essential functions of the Caneco BT software as well as learn the latest features in order to renew the CACIEC BT 1 certification.

Target skills

- Describe functions main menu
- Create the source, enter the circuits and size a simple electrical project with Caneco BT
- Editing and customizing a complete project

Who should attend

- Technicians and Engineers
- Engineering Office
- Design draftsmen
- Power & lighting designers
- Business managers
- Electrical project managers/Operator

Prerequisites

- Knowledge of electrical equipment and electrical standards in force in different countries (France: NFC15-100+Guide UTE C15-105)
- Basic knowledge of Caneco BT or previous training
- Proficiency in PC environment and Microsoft Windows tools

Materials required

- A computer with an audio output, headphones and an Internet connection
  If possible a dual screen monitor
- Prior check of your connection to the virtual classroom tool

Means and methods

- Trainers from the electrical industry
- Technical demonstrations and explanations, discussions, tutorials and practice
- Workbook and handouts
- Assessment of acquired knowledge through a final synthesis exercise

Proof of achievement

- Formative assessment of comprehension and assimilation throughout the virtual classroom
- Track connections and attendance via virtual classroom tool and learning platform
- Certificate of completion of distance learning and CACIEC certificate
- BT1 according to validated prior learning level

Course content

Morning

Data entry review

- Introduction to data entry tools: general one-line, table one-line, data spreadsheet
- Review - the different types of sources

Improve data entry efficiency

- Shortcuts and input tips
- Using styles
- Using circuit blocks
- Create your own circuit block - Example of a variable speed drive

Calculating and analyzing results

- Review of basic circuit sizing rules (in accordance with applicable electrical standards)
- Compliance criteria: indirect contact, short-circuit, voltage drop, breaking capacity
- Determining protection and cable sizing
- Optimizing results
- Understanding the meaning of results and messages

Application exercises - Handling error messages

Selectivity

- The basic principles of selectivity
- Study selectivity by table, by curves
- Differential selectivity
- Association
- Circuit-breaker/switch coordination

Application exercises

IRVE terminal

- Processing and different types of input
- Selecting a terminal from the database
- Choice of RCD protection

Application exercises

Choice of 1 additional topic

- Simple inverter installation
- Power balance

Afternoon

- Q&A and discussion with participants
- CACIEC preparation (instructions, tips, reminders)
- Passing of the CACIEC BT1 assessment: validation of skills acquired through a final synthesis exercise, in the form of the completion of a project.

Caneco BT

Advanced training

CANECO

ref : INST 102 EN

Level	Duration	Class Size	Format	Also available
Advanced	2 days (14 h)	8 max.	Presentation	Remote - P. 52

50% Theory

50% Hands-on

Objective

Master the advanced features of the Caneco BT software for sizing major low-voltage electrical installations.

Target skills

- Configure complex projects in Caneco BT (multi-sources, inverters, special circuits, IT regime)
- Analyzing parentage and selectivity
- Interpret calculation results and understand protection choices

Who should attend

- Engineering office technicians and engineers
- Design draftsmen
- Power & lighting designers
- Business managers
- Electrical project managers/Operator

Prerequisites

- Caneco BT advanced user and/or INST 101 course.
- Pre-requisite assessment by questionnaire

Materials required

- Computer room for the session with 1 PC per participant
- Interactive screen or video projector, whiteboard

Means and methods

- Trainers from the electrical industry
- Technical demonstrations and explanations, discussions, tutorials and practice
- Workbook and handouts

Proof of achievement

- Proof of attendance for each half-day
- Certificate of completion
- CACIEC BT2 certificate according to the level of prior learning validated

Course content

Review

- The different types of sources (transformer, group, array by Ik, array by R and X)
- Entering an electrical installation in Caneco BT
- Calculation and sizing principles
- Taking harmonic currents into account
- Calculation criteria in accordance with current standards

Auxiliary sources

- Connecting a replacement source
- Complex electrical system architecture
- Uninterruptible power supply (UPS) connection

Calculation and sizing

- Thermal stress analysis of conductors
- Specificity of IT, TN grounding diagrams
- Fuse study
- Settings and impact of calculation options
- Impact of an emergency power source on the electrical installation
- Impact of an uninterruptible power supply on the electrical installation
- Analysis of calculation results

Handling special cases

- Smoke extraction circuits
- Prefabricated pipelines
- Riser or crawler columns
- Variable speed drive circuits

Advanced electrical installation design

- Plant power balance
- Distribution phase balancing
- Capacitor bank sizing
- Table and curve selectivity study
- Differential selectivity
- Setting protective devices
- Protective device affiliation
- Circuit breaker/switch coordination

Impressions

- Advanced print engine management
- Document and folder configuration

Import/Export

- Text and graphics data

Final exercises

Caneco Implantation

CANECO

ref : IMPL 101 EN

Level
Advanced

Duration
4 days (28 h)

Class Size
6 max.

Format
Presentation

Also available
Remote - P. 52

40% Theory
60% Hands-on

Objective

Use the software to lay out and wire electrical equipment on an AutoCAD drawing®.

Target skills

- Starting a project on Caneco Implantation from an AutoCAD drawing®
- Dimension the electrical installation (cable cross-section, routing, etc.) based on exchanges with Caneco BT
- Produce deliverables (bill of materials, cable logs)

Who should attend

- Engineering office technicians and engineers
- AutoCAD draftsmen®
- Business managers
- Electrical project managers

Prerequisites

- Proficiency in AutoCAD® and/or ACAD 100 training course
- Experience with Caneco BT software and electrical equipment

Materials required

- Computer room for the session with 1 PC per participant
- Interactive screen or video projector, whiteboard

Means and methods

- Trainers from the electrical industry
- Technical demonstrations and explanations, discussions, tutorials and practice
- Workbook and handouts
- Assessment of acquired knowledge through a final synthesis exercise

Proof of achievement

- Proof of attendance for each half-day
- Certificate of completion
- CACIEC IMPL certificate according to the level of prior learning validated

Follow-up learning

Project support services, RVT 101, BIM 103

Course content

General presentation

- Product philosophy
- Terminology specific to Caneco Implantation

AutoCAD® reminder

- External references (xref)
- 3D visualization
- Views
- Layer management
- Coordinate system
- Template files
- Blocks/fields/cartridge
- Presentations
- Import/export using csv files
- Project management through a set of sheets

Creating a project in Caneco Implantation

From an existing plan

- Project concept (organization, precautions to take, 1ers settings...)
- Conversion (premises, switchboards, LV Caneco receivers, pathways, etc.)
- Circuit concepts
- Wiring/routing controls
- Putting the project into practice and wiring it up
- Use of Caneco Implantation tools (Caneco explorer, selection tools...)
- Exchanges with Caneco BT

From a blank page, importing the structure calculated in Caneco BT

- Creating the structure in Caneco BT
- Advanced project settings
- Creating pathways
- Equipment layout
- Wiring/routing
- Exchanges with Caneco BT
- Creating associated circuits
- Project update
- Pathway sizing
- Verification tools
- Legends and nomenclatures
- Display management and presentations
- Introduction to multi-level
- Import/export CSV files
- Customization (libraries, cartridges, etc.)

Document generation

- Layout of a plan
- Synoptic generation
- Legend generation
- Automated notebook generation

Customization

- Template file creation in conjunction with AutoCAD®
- Customize and create libraries
- Cartouche creation

Final exercises

- Working on a project and producing deliverables

Caneco BIM

and the BIMelec process

CANECO

ref : BIM 103 EN

Level	Duration	Class Size	Format	Also available
Expert	2 days (14 h)	6 max.	Presentation	Remote - P. 52

50% Theory

50% Hands-on

Objective

Model and dimension an electrical project in the digital mock-up with Caneco BIM.

Target skills

- Describe the main functions and navigate the Caneco BIM interface
- Master the interactions between Caneco BIM, Revit and Caneco One software (BIMelec Process)
- Produce the deliverables required for a BIM approach

Who should attend

- Engineering office technicians and engineers
- BIM modelers
- BIM coordinators
- Electrical account managers

Prerequisites

- Software skills: Caneco BT (INST101 internship, ideally INST102), Revit (ideally RVT101 training)

Materials required

- Computer room for the session with 1 PC per participant
- Interactive screen or video projector, whiteboard

Means and methods

- Trainers from the electrical industry
- Technical demonstrations and explanations, discussions, tutorials and practice
- Workbook and handouts
- Assessment of acquired knowledge through a final synthesis exercise

Proof of achievement

- Proof of attendance for each half-day
- Certificate of completion

Follow-up learning

project support services

Course content

Presentation

- BIM review
- Caneco BIM interface
- ETAP's BIMelec process

Creating a new Revit® project

Workshop: Creating views and view templates

Review of equipment layout using Revit® and presentation of Caneco Family

Workshop: Equipment layout

Creating spaces, views and templates

Circuit creation

- With Revit®
- With CanecoBIM ribbon

Workshop: Wiring

Project verification

- With the various Revit® tools
- With BIM Analyze

Exchanges with CanecoBT

- Caneco Explorer
- Opening Caneco, analyzing the project, importing the Caneco BT project (.Afr) into Revit®
- Using the results of Caneco BT
- Overview of cable types

Workshop: Exchange with Caneco BT

Cable tray modeling

- Reminders
- Loading fittings
- **Workshop:** Cable trays

Cable routing

- Creating, displaying and adjusting the Caneco BIM 3D view for routing
- Caneco browser
- Ribbon routing

Workshop: Cable routing

Dimensioning cable trays

- Segment calculation
- View sections and set number of layers
- View CDC in browser

Complementary control tools

- Omniclass classification and analysis
- Electrical network inspection
- Project clean-up

Final exercises

- Working on a project and producing deliverables

PV Integration

by Caneco Electrical

CANECO

ref : INST 109-FAD EN

Level
Beginning

Duration
6h synchronous* + 1h30 asynchronous**

Class Size
6 max.

Format
Hybrid (E-Learning modules + remote session)

***Synchronous**
Real-time animation by our trainers
****Asynchronous**
Access to e-learning modules, videos, quizzes

50% Theory
50% Hands-on

Objective

Master the basic functions of PV Integration by Caneco Electrical to design photovoltaic installations with feed-in to the grid, such as shading systems.

Target skills

- Finding your way around the input interface
- Designing a PV project using Caneco Electrical tools
- Edit calculation notes and design files

Who should attend

- Engineering office technicians and engineers
- Design draftsmen
- Power & lighting designers
- Business managers
- Electrical project managers/Operator

Prerequisites

- Knowledge of electrical equipment and current electrical standards, depending on the country. France: Guide UTE 15-712
- Proficiency in PC environment and Microsoft Windows tools

Materials required

- Users will need a computer with audio output, headphones and an Internet connection. If possible a 2 screen
- First check your connection to the virtual classroom tool

Means and methods

- Trainers from the electrical industry
- Synchronous virtual classroom training (videoconferencing + chat + screen sharing)
- Demonstrative and active teaching methods in a virtual classroom
- Access to a learning platform for asynchronous sessions

Follow-up & development

- Formative assessment of comprehension and assimilation throughout the virtual classroom
- Track connections and attendance via virtual classroom tool and learning platform
- Certificate of completion of distance learning
- Multiple choice quizzes to validate prior learning

Course content

3 E-Learning modules

Distributed 1 week before training, to be carried out before the start of the synchronous session. They remain accessible for 15 days after training

Module 1	Module 2	Module 3
What you need to know about photovoltaics 30 minutes autonomous	Photovoltaics: Sizing 30 minutes autonomous	PV integration by Caneco Electrical - Getting Started 30 minutes autonomous

Debriefing the E-Learning course:

- Feedback and peer exchanges: difficulties encountered, best practices implemented
- Analysis of the exercise in Module 3 and identifying blocking points

Interface

- PV Integration by Caneco Electrical concepts, tools and terminology
- Special features of Caneco Electrical compared to Caneco BT: cloud installation, automatic updates, start-up launcher
- Presentation of interface, menus and tools
- Graphics editor and symbol library
- Project entry using the editor, predefined symbols and connection tools
- Entering circuit properties
- Producing calculations
- Analysis of results and possible adjustments
- Export project data and results to Caneco BT

Impressions

- Editing study files
- Print configuration (business data entry)
- Revision index management

Project sharing

- Using the Project Manager interface
- Sharing a project with one or more users
- Manage access rights levels

Exercises workshop

Production of a PV project from data entry to printing

Goals: Familiarize yourself with the data entry tool, find your way around and navigate the interface, search for and enter information and interpret calculation results.

SEE Electrical Expert

User Level 1

SEE

ref : SEE-1 EN

Level	Duration	Class Size	Format	Also available
Beginning	5 days (35 h)	8 max.	Presentation	Remote - P. 52

40% Theory

60% Hands-on

Objective

Master the basic functions and use the business modules of SEE Electrical Expert software to produce electrical diagrams in a controlled environment

Target skills

- Produce electrical control diagrams, using default settings
- Produce terminal block, summary, bill of materials and print sheets automatically
- Locate and modify data on a schematic

Who should attend

- Engineering office technicians and engineers
- Maintenance and automation technicians

Prerequisites

- Proficiency in Windows environment
- Understanding electrical schematics and equipment

Materials required

- Computer room for the session with 1 PC per participant
- Interactive screen or video projector, whiteboard

Means and methods

- Trainers from the electrical industry
- Technical demonstrations and explanations, discussions, tutorials and practice
- Workbook and handouts
- Assessment of acquired knowledge through a final synthesis exercise

Proof of achievement

- Proof of attendance for each half-day
- Certificate of completion
- **Silver certification**

Follow-up learning

SEE-2FR

Course content

Day 1: Overview and folio design

- Software presentation
- Folder navigation example
- Simple changes to the file example
- Folder explorer
- Report design

Day 2: Report design (continued)

- Operations on reports
- Plan blocks and backgrounds (standard plans)
- Business processes
- Contents
- Print

Day 3: Customization

- Folder explorer
- Environments
- Database
- Simple symbol modifications
- Bill of materials management

Day 4: Level 1 use of terminal strips and parts lists

- Terminal block management
- Cable management
- Generating terminal block sheets
- Bill of materials management

Day 5: Implementation, translations, exchanges, diagram, harnesses

- Cabinet layout management
- Translation
- DWG / DXF exchange format
- Block diagram (if required)
- PLC (PLC input-output assistant). Simplified presentation in SLF mode and report generation

Final exercises

- Administered throughout the course

SEE Electrical Expert

User Level 2

SEE

ref : SEE-2 EN

Level	Duration	Class Size	Format	Also available
Advanced	5 days (35 h)	8 max.	Presentation	Remote - P. 52

40% Theory

60% Hands-on

Objective

Master the advanced functions of SEE Electrical Expert software in a controlled environment to optimize and customize all software parameters.

Target skills

- Customize software environment settings
- Optimize wiring, diagram and documentation

Who should attend

- Engineering office technicians and engineers
- Maintenance and automation technician

Prerequisites

- Proficiency in Windows environment
- Completion of SEE-1, SEE-3, or SEE Electrical Expert software with default settings

Materials required

- Computer room for the session with 1 PC per participant
- Interactive screen or video projector, whiteboard

Means and methods

- Trainers from the electrical industry
- Technical demonstrations and explanations, discussions, tutorials and practice
- Workbook and handouts
- Assessment of learning throughout the course

Proof of achievement

- Proof of attendance for each half-day
- Certificate of completion
- **Gold Certification**

Follow-up learning

SEE-3FR

Course content

Day 1: Environment

- User rights management
- General editor settings (Reminders)
- Environment architecture
- Database
- Symbols
- Cartridges

Day 2: Methods

- Methods management
  - Folder methods
  - Attribute methods
  - Edit methods
  - Symbols methods
  - Connections methods
  - Terminal block methods
- Model folder

Day 3: Wiring and harnesses

- Wiring
- Wiring attributes
- Cables to be inserted in the diagram method

Day 4: Overview

- Insertion of connectors and logic connectors in the schematic
- Connector methods
- Automated wiring
- Links methods
- Methods for boards
- Symbols for generating cable and fitting folios methods
- Terminal block and connector wiring

Day 5: Implementation

- Cabinet layout (User Reminder 1)
- Panel manufacturing
- Implantation methods for drilling and routing
- Thumbnails: Creating, modifying and assigning to a material class

Final exercises

- throughout the course

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