Panorama
Training catalogue
2025

Training center
CODRA
SOFTWARE LTD

Organize your training

Inter-company training (Face-to-Face or E-Training)

- Face-to-Face:
  The Inter-company training is planned at our head office or in our branch premises.
  The number of attendees is set at a maximum of 8 people.
  Codra provides one PC per person.
  Lunch and tea & coffee breaks are provided by Codra Software Limited for Face-to-Face.

- E-Training:
  The training is delivered remotely, via Microsoft Teams (no need to have a Teams account, we require only an internet connection).
  The number of attendees is set at a maximum of 6 people.
  Each participant:
    o Must have a PC with a webcam and a microphone to allow interaction with the trainer **(mandatory : webcam must be turned on during the whole time of the training session, except breaks)**
    o Should have 2 screens to follow both the presentation and carry out the manipulations
    o Should have a good internet connection
  Codra provides a Panorama remote software infrastructure: each attendee will connect, through our training portal, to a VM of our infrastructure.

Intra-company training (Face-to-Face or E-Training)

- Face-to-Face:
  The Intra-company training is planned at your premises on the agreed date (Contact the training department to set a date).
  The number of attendees is set at a maximum of 5 people.
  The training room is provided by the company and must include:
    o One PC per person (at least one PC for two), see below for software requirements
    o A video projector or a large screen with HDMI connection
    o A whiteboard or paperboard.

- E-Training:
  The training is delivered remotely, via Microsoft Teams (no need to have a Teams account, we require only an internet connection).
  The number of attendees is set at a maximum of 5 people.
  Each participant:
    o Must have a PC with a webcam and a microphone to allow interaction with the trainer **(mandatory : webcam must be turned on during the whole time of the training session, except breaks)**
    o Should have 2 screens to follow both the presentation and carry out the manipulations
    o Should have a good internet connection

- Software requirements for the machine:
    o Windows 10 64-bits
    o Panorama Suite (E2), Please download through our Customer Portal my.codra.net (registration required)
    o Microsoft SQL Server, Express edition is enough (https://www.microsoft.com/en-US/download/details.aspx?id=101064)
    o Microsoft SQL Server Management Studio, Please download through Microsoft website (here). Make sure you can create and configure a database before the training.

- Nota: Codra has a Panorama remote software infrastructure, which can be used for this type of training depending on this infrastructure availability (contact the training department for details).

Prepare your stay

Coming to Codra Software Limited ([Access to CODRA SOFTWARE Limited](#))
Birmingham Blythe Valley Business Park,
Central boulevard, Solihull
Birmingham, B90 8AG
Tel: [+44 (0)204 557 2692](#)

Access to the premises
- Contact reception
- They will bring you to the training room

Staying near Codra Software
Codra has set up a list of Hotels near the office.

Procedure of your registration

- Upon receipt of the order or the registration form, the Company receives an acknowledgement of receipt by email.

- One month before the beginning of the training, the person in charge of the follow-up of the training receives:

  - An invitation to attend the training course, by email, accompanied by:
    - Access map
    - List of hotels near Codra Software

- On the last day of the training, the trainer gives the attendee an evaluation survey. Filling the survey is mandatory.

- At the end of the training course, the company receives the invoice accompanied by the training certificate and the attendance sheet by post.

Our indicators for 2024:

- 587 participants.
- 108 trainings sessions (Inter / Intra).
- 434 trainings days.

- Average of 9,12 / 10 about the satisfaction of participants on the training offer.
- Average of 9,20 / 10 about the organisation of training sessions.
- Average of 9,33 / 10 about the trainers.

Panorama E2 - Basis

OBJECTIVE

This Panorama E2 training provides the basic skills and the development methodology for Panorama E2 monitoring software. Following this training, you will be able to develop and integrate an application using the basic concepts of supervision in a single PC environment.

PROGRAM

Theme 1: Data acquisition

Collect and process your real-time data and ensure the communication is working.

- Implement OPC UA acquisition
- Implement data acquisition with a Modbus TCP PLC
- Keep an eye on data acquisition systems
- Implement processes and corrections on acquired data

Theme 2: Create your HMI

Learn how to develop simple and effective HMIs. Set up management of your operators within the supervision:

- Design custom-made HMI
- Add animation and user controls
- Set up navigation and operation of the HMI
- Integrate operating controls
- Manage app users

Theme 3: Modeling an app

Create components adapted to your app's needs:

- Modeling the equipment to supervised
- Create components
- Automate objects configuration
- Use object library

Theme 4: Enrich an app

Incorporate functions into your app to use your data collection and drive your installation:

- Integrate advanced treatments by scripts
- Manage and display the faults with alarms
- Present the data to be exploited with plots
- Deploy your app on a multi-machine infrastructure

REQUIREMENTS

Participants should be familiar with the Windows environment and associated tools.

TARGET AUDIENCE

Technicians, developers, engineers or automation engineers.

EDUCATIONAL METHOD

Learning, practical exercises, questions/answers.
PowerPoint presentation.
Training manual.

EVALUATION

No evaluation.

EXECUTION AND RESULTS FOLLOW UP

Continuous checking: none.
Registration & training certificate.

DURATION AND SCHEDULES

5 days / 35 hours
INTER
- Monday 9:00 am to Friday 1:00 pm
INTER / INTRA (E-Training)
- Monday 9:00 am to Friday 12:00 am
INTRA
- - Monday 1:00 pm to Friday 1:00 pm

DATES

Visit our website

PRICES

INTER: Contact our sales department
(Lunch and tea & coffee breaks are provided by Codra Software Limited for Face-to-Face).

INTRA: Contact our sales department
(Trainer's expenses not included for Face-to-Face).

Panorama E2 - Advanced

OBJECTIVE
This training will allow you to develop your knowledge and skills regarding corrective or evolutive maintenance for Panorama E2.

PROGRAM

Theme 1: Anticipate your interventions
Anticipate Panorama version update and the integration of new features into the application:
- ➢ Panorama version upgrade methodology
- ➢ Implementing new features

Theme 2: Enhancing your application
Enhance an application with advanced functionalities: full web operation of supervision, integration of geographical data and extended time scheduling.
- ➢ Access SCADA from a web browser
- ➢ Add mapping and geographic data
- ➢ Implement extensive time scheduling

Theme 3: Develop, correct, optimize
Optimize an application to ease its development and maintenance.
- ➢ Use advanced functions of Panorama to facilitate development
- ➢ Use application fine-tuning tools to find out settings errors
- ➢ Use diagnostic tools to fix your Panorama application

Theme 4: Making your application more reliable
Make the application functionality reliable by increasing its availability, improving the infrastructure monitoring, and anticipating application maintenance actions.
- ➢ Increase application availability
- ➢ Monitor the application executive infrastructure
- ➢ Simplify application maintenance

REQUIREMENTS
Participants must, at least, have completed the Panorama E2 version 5 training and be familiar with the Windows environment and associated tools.

TARGET AUDIENCE
Technicians, developers, engineers or automation engineers.

EDUCATIONAL METHOD
Learning, practical exercises, questions/answers.
PowerPoint presentation.

EVALUATION
No evaluation.

EXECUTION AND RESULTS FOLLOW UP
Continuous checking: none.
Registration & training certificate.

DURATION AND SCHEDULES
2 days / 14 hours
9:00 am – 5:00 pm

DATES
Visit our website

PRICES
INTER: Contact our sales department
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INTRA: Contact our sales department
(Trainer's expenses not included for Face-to-Face).

Panorama E2 - Cybersecurity

OBJECTIVE
This course will enable you to learn the basics of securing a Panorama application and implementing the standard recommendations for SCADA.

PROGRAM

Theme 1: Definitions
Basics of Cybersecurity:
- ➤ Aims of Cybersecurity
- ➤ Threats or hackers definition

Theme 2: Be used to the concepts
Understand the concepts of Cybersecurity:
- ➤ Infrastructure prerequisite to implement Panorama application
- ➤ Identify users' roles on the application
- ➤ Define access rights for application folders

Theme 3: Securing the application
Develop a Panorama application with built-in cybersecurity concepts:
- ➤ Methodology to create a secure application
- ➤ Secure the application and object libraries
- ➤ Secure operation from the application (white list, integrated connection to databases, use of an external directory, Panorama communication protocol)

Theme 4: Attack surface & data exchange
Secure your execution infrastructure:
- ➤ Application workstation prerequisites and best practices
- ➤ Reduce the attack surface
  Secure the different workstation profiles: functional servers, Desktop HMI workstation, Web HMI server, database server)

REQUIREMENTS
Participants should be familiar with:
- Panorama E2 environment
- Panorama Studio tool
- Panorama E2 runtime infrastructure and have implemented a running application
- Windows environment and associated tools

TARGET AUDIENCE
Technicians, developers, engineers or automation engineers.

EDUCATIONAL METHOD
Learning, practical exercises, questions/answers.
PowerPoint presentation.

EVALUATION
No evaluation.

EXECUTION AND RESULTS FOLLOW UP
Continuous checking: none.
Registration & training certificate.

DURATION AND SCHEDULES
2 days / 14 hours
9:00 am – 5:00 pm

DATES
On request, please contact the sales department.

PRICES
INTER: Contact our sales department
(Lunch and tea & coffee breaks are provided by Codra Software Limited for Face-to-Face).

INTRA*: Contact our sales department
(Trainer's expenses not included for Face-to-Face).
(*need to use Codra's Panorama remote software infrastructure)

Panorama H2

OBJECTIVE
This training allows the implementation of Panorama's data historian. From installing the Historian server, function to creating your reports: this training covers all steps of Panorama H2 implementation.

PROGRAM

Theme 1: The Historian Server
Install and set up the Historian server to perfectly meet your needs:
- ➢ Advanced installation of the H2 server on an existing database
- ➢ Set up the Historian server for an optimal use
- ➢ Use the Configuration and Administration tool on the Historian Server

Theme 2: Application H2
Collect, process and structure your H2 data:
- ➢ Collect and process data
- ➢ Structure, Identify and Describe your H2 data and Alarms
- ➢ Define the types of H2 treatments to apply to data
- ➢ H2 data from ready-to-use reports

Theme 3: Reporting H2 Clients
Explore, analyse and create your dashboards in H2 reporting:
- ➢ Introducing the various solutions available to view H2 data
- ➢ Create your own dashboards to analyse your data
- ➢ Use publishing and reporting functions

Theme 4: Pairing with Panorama E2
Easily integrate H2 function into an existing E2 application:
- ➢ E2 alarms in H2
- ➢ Exporting data from business objects to H2
- ➢ Display data from the Historian server in the Panorama app
- ➢ Use the Archive transfer to H2 tool

REQUIREMENTS
Participants should be familiar with the Windows environment, associated tools and the SQL Server environment.

TARGET AUDIENCE
Technicians, developers, engineers or automation engineers.

EDUCATIONAL METHOD
Learning, practical exercises, questions/answers.
PowerPoint presentation.

EVALUATION
No evaluation.

EXECUTION AND RESULTS FOLLOW UP
Continuous checking: none.
Registration & training certificate.

DURATION AND SCHEDULES
3 days / 21 hours
9:00 am – 5:00 pm

DATES
Visit our website

PRICES
INTER: Contact our sales department
(Lunch and tea & coffee breaks are provided by Codra Software Limited for Face-to-Face).

INTRA*: Contact our sales department
(Trainer's expenses not included for Face-to-Face).
(*need to use Codra's Panorama remote software infrastructure)

Panorama Edge to Service

OBJECTIVE
This course enables you to implement the Edge to Service feature within the Panorama Suite.

From the installation of functionalities to deployment, application development and maintenance, this course covers all the phases involved in implementing the Panorama Edge to Service solution.

PROGRAMM

Theme 1: Architecture and installation
Understand the Edge to Service architecture and setup its features:
- What is Edge to Service?
- What is the hardware and software architecture?
- How are the features deployed in the infrastructure?

Theme 2: Deployment
Perform a complete deployment of local monitoring and hypervision using Edge to Service tools:
- How to use the Edge Controller client?
- How to create sites?
- How to set up Edge Nodes?
- How to set up Hypervision?

Theme 3: Application development
Design Panorama applications to run in the Edge to Service environment:
- What are the specific features of Panorama Edge to Service applications?
- How to develop reference applications?
- How to develop template applications?
- How to develop site applications?
- How to develop the Hypervision application?

Theme 4: Maintenance and diagnostics
Maintain and upgrade an Edge to Service system once it's running:
- How to declare additional development workstations?
- What are the maintenance operations?
- What should be done in the event of a malfunction?

REQUIREMENTS
Participants must have completed the Panorama E2 training in version 2022 or higher and be familiar with the Windows environment, associated tools, the SQL Server environment and Panorama Suite.

TARGET AUDIENCE
Technicians, developers, engineers or automation engineers.

EDUCATIONAL METHOD
Learning, practical exercises, questions/answers.
PowerPoint presentation.

EVALUATION
No evaluation.

EXECUTION AND RESULTS FOLLOW UP
Continuous checking: none.
Registration & training certificate.

DURATION AND SCHEDULES
2 days / 14 hours
9:00 am – 5:00 pm

DATES
On request, please contact the sales department.

PRICES
INTRA*: Contact our sales department
(Trainer's expenses not included for Face-to-Face).
(*need to use Codra's Panorama remote software infrastructure)

Panorama E2 – User Classes (Plugins)

OBJECTIVE
This training allows you to create your own objects (HMI elements, web services…) to integrate as native elements of Panorama.

PROGRAM

Theme 1: Definitions
Presentation of training concepts:
- ➢ What is a user class?
- ➢ What are the prerequisites?
- ➢ Reminders on C# programming

Theme 2: Develop a user class
Be familiar with development tools:
- ➢ Facilitate user class integration by using descriptor class assistant generator
- ➢ Knowledge to create a simple user object
- ➢ Adjust your user class

Theme 3: Advanced functions
Make full use of the Panorama infrastructure in your user class:
- ➢ Implement proprieties notifications
- ➢ Implement timed-qualified processes
- ➢ Generate external events
- ➢ Follow application proprieties
- ➢ Manage the objects life-cycle

Theme 4: Practice
From specification to user class development:
- ➢ Define treatments for initialization and stop of the class
- ➢ Collect and treat the quality and date of proprieties
- ➢ Dimension Panorama license

REQUIREMENTS
Participants must have completed the Panorama E2 training and be familiar with the Windows environment, associated tools and the C# programming language.

TARGET AUDIENCE
Technicians, developers, engineers or automation engineers.

EDUCATIONAL METHOD
Learning, practical exercises, questions/answers.
PowerPoint presentation.

EVALUATION
No evaluation.

EXECUTION AND RESULTS FOLLOW UP
Continuous checking: none.
Registration & training certificate.

DURATION AND SCHEDULES
2 days / 14 hours
9:00 am – 5:00 pm

DATES
On request, please contact the sales department.

PRICE
INTRA: Contact our sales department
(Trainer's expenses not included for Face-to-Face).

Panorama E2 - Persist (API)

OBJECTIVE

This training course will give you the skills to access a Panorama E2 application via an external program. You will be able to interface with Panorama's 'Persist' engine to create, browse or modify a Panorama application.

PROGRAM

Theme 1: Create a Panorama application

Correctly use Persist interfaces:
- Object model
- Prerequisites
- Create an application using Persist API

Theme 2: Access to objects

Read/write access to units, objects and proprieties in your application:
- Create objects in an application
- Modify object's proprieties values or links
- Access to sub-objects

Theme 3: Export application objects

Export your application structure in a free format:
- Export objects from application
- Browse objects collections
- Get object's proprieties configuration

Theme 4: Graphic objects

Designate your HMIs using an external tool:
- HMICtrl object model
- Create a graphic object
- Create an animation or a command on a graphic object

REQUIREMENTS

Participants must have completed the Panorama E2 training and be familiar with the Windows environment, associated tools and the C# programming language.

TARGET AUDIENCE

Technicians, developers, engineers or automation engineers.

EDUCATIONAL METHOD

Learning, practical exercises, questions/answers.
PowerPoint presentation.

EVALUATION

No evaluation.

EXECUTION AND RESULTS FOLLOW UP

Continuous checking: none.
Registration & training certificate.

DURATION AND SCHEDULES

1 day / 7 hours
9:00 am – 5:00 pm

DATES

On request, please contact the sales department.

PRICE

INTRA: Contact our sales department (Trainer's expenses not included for Face-to-Face).

Panorama P2

OBJECTIVE
This training course provides basic skills in Panorama P2 supervision software. These skills will enable you to develop and/or integrate an industrial supervision application.

PROGRAM

Presentation and concept
- ➢ Microsoft Windows Environment
- ➢ Panorama Concepts

Panorama view editor
- ➢ Fundamental notions of the Panorama view editor
- ➢ Organization of Panorama views

Database
- ➢ Process database
- ➢ Principle of the network setting

Animation of mimics
- ➢ Creating mimics
- ➢ Mimic settings
- ➢ Creating action lists
- ➢ Action calendars
- ➢ Creating internal variables and formula variables
- ➢ Generic objects
- ➢ Using property replacement
- ➢ Using instantiators

Users
- ➢ Creating Panorama users

Alarm management
- ➢ Basic principles
- ➢ Setting up alarms, presentation templates and alarm windows
- ➢ Interactive process control
- ➢ Examples of alarm management
- ➢ Example of logging status in an alarm history window

Archiving - drawing curves
- ➢ On-stream archiving
- ➢ Selective archiving
- ➢ Drawing curves

Recipes
- ➢ Configuring recipes
- ➢ Recipe processing

REQUIREMENTS
Participants should be familiar with the Windows environment and associated tools.

TARGET AUDIENCE
Technicians, developers, engineers or automation engineers.

EDUCATIONAL METHOD
Learning, practical exercises, questions/answers.
PowerPoint presentation.
Training manual.

EVALUATION
No evaluation.

MEANS OF FOLLOWING UP EXECUTION AND RESULTS
Continuous checking: none.
Registration & training certificate.

DURATION AND SCHEDULES
5 days / 35 hours
INTRA Monday 1:00 pm to Friday 2:00 pm

DATES
On request, contact the sales department.

PRICE
INTRA: Contact our sales department (Trainer's expenses not included for Face-to-Face).

CODRA
SOFTWARE LTD

Training course registration form
Your order reference: ....

Training organization	Your company
Codra Software Limited Birmingham Blythe Valley Business Park, Central boulevard, Solihull Birmingham, B90 8AG UNITED KINGDOM Registered in England 5998131 VAT GB 894 0440 15	Company name: .... Address: .... Postal code/City: .... Contact person: .... Phone number: .... E-mail:..
Course title	....
Date – Duration	From .... to .... Week no. ...... - Duration ...... hours
Location **(On site training)**	☐ Inter-company training on Codra premises: Birmingham Blythe Valley Business Park, Central boulevard, Solihull Birmingham, B90 8AG, UNITED KINGDOM ☐ Intra-company training (specify if a different address is used): ....
Training dispensed in	☐ On site ☐ Remotely (Microsoft Teams)
Participant(s)	Last name / First name	E-mail

	Last name / First name	E-mail
	....	....
	....	....
	....	....
	....	....
	....	....

Pricing	Training .... ex VAT ....All included Lunch is provided by Codra when "Codra onsite training" is chosen. Expenses .... ex VAT ....All included Concerning "Company onsite training", trainer's expenses shall be charged to the Company - quote on request

Terms and conditions:

This registration form is an order; by returning the completed the Company accept the terms and conditions mentioned below.

The invoice is due within 30 days following the training. The full amount for the course shall be due immediately for any cancellation, even in the event of force majeure, less than 10 working days prior to the start of the session.

Codra reserves the right to cancel a course if there are not enough participants; in this case, participants will be informed and another date proposed.

This agreement goes into effect upon its signature by the Company, for the duration of the training activity in question.

Any dispute that cannot be settled via an amicable agreement shall be under the jurisdiction of the Evry Commercial Court (91).

For the Company
Name and signature of responsible, date and stamp of the Company

Codra Software Ltd. - Business Office
Birmingham Blythe Valley Business Park
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Codra Software Ltd. is a wholly owned subsidiary of Codra Holding

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Website: Codra.net
Customer portal: my.Codra.net

Qualiopi
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🇫🇷 RÉPUBLIQUE FRANÇAISE

CODRA
SOFTWARE LTD