With our training program "MPDV Training & Certification", users of the MES HYDRA are perfectly trained to increase the efficiency of their production.

Whether beginner, advanced or developer: Our training program is optimally tailored to individual needs. Contents and methods of more than 50 courses worldwide are standardized and are offered in German, English or Chinese as required. In addition to the training courses, various certifications are possible.

MPDV

headquartered in Mosbach, Germany, develops innovative production IT and reverts to over 40 years of project experience in the production environment. In addition to MES products and implementation services MPDV offers complete MES solutions. The MPDV group currently employs more than 420 people at 11 sites in Germany, China, Malaysia, Singapore, Switzerland and the USA. Users from different industrial sectors – from metal processing to the plastics industry to medical technology – already benefit from more than 1,250 installations of MPDV’s award-winning MES solutions. Amongst the users are medium sized production companies and also internationally operating groups.
Design your own way to the Smart Factory

The German entrepreneur Philip Rosenthal once said: “Whoever stops getting better, has stopped being good”. True to this idea, we have further developed and redesigned our training program. The result you can see today.

For more than four decades, MPDV has been successfully introducing the MES HYDRA to companies all over the world. During this time we have gained a great deal of valuable experiences, which we have now incorporated into our new, optimized training program “MPDV Training & Certification”. After all, we would like to continue to support you in using HYDRA perfectly and thus increase the efficiency of your production.

Whether beginner, advanced or developer: Our new training program is aimed at HYDRA users, implementation partners and interested parties, and is tailor-made to the specific requirements. We offer more than 40 courses worldwide that have a common standard in terms of content and methods. They are held in German, English or Chinese at one of our locations in the USA, Singapore, China or Germany as required. If you wish, you can also train as a MES HYDRA Certified Specialist or MES HYDRA Certified Developer.

Our training courses are an important factor on your way to the Smart Factory, because they offer the opportunity to learn more about the system from experienced and highly qualified MPDV trainers. Also, in the process you can benefit from their know-how.

We look forward to welcoming you as a participant and to support you actively in your individual MES project.

But for now we hope that you will enjoy browsing through our new training catalogue.

Your MPDV Training & Certification Team
## Become a MES HYDRA User

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### Notes


MPDV Training & Certification

is aimed at users of the MES HYDRA, MPDV implementation partners and people who are generally interested in MES. The “Basic Application Trainings” are suitable for beginners. Those who are well advanced attend the “Extended Application Trainings” and the “Special Trainings”. Developers are best advised to register for the special “Customizing Trainings”. For all training levels there is the option of getting certified.

Make use of the wide offering of MPDV Training & Certification in line with our slogan:

Clever to the Smart Factory: We make you fit for the future!

Our Training Centers

Here we make you fit for the Smart Factory!

At our six training centers worldwide, we offer perfect conditions for a successful training in our modern facilities.

Visit our regular training courses at our locations in Mosbach, Hamm, Munich, Chicago, Shanghai or Singapore in German, English or Chinese.

You can always find the latest dates on our website and in the MPDV webshop.

Contact details of our training centers:

- **MPDV Mikrolab GmbH**
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  - 74821 Mosbach, Germany
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Visit our training centers in Mosbach, Hamm, Munich, Chicago, Shanghai or Singapore.

Clever to the Smart Factory: We make you fit for the future!

Our training levels:

- **Basic Application Trainings**
- **Extended Application Trainings**
- **Special Trainings**
- **Customizing Trainings**
General information about MPDV Training & Certification

Technical requirements
All our standard training courses are based on the current HYDRA release.

Trainer
In our training courses, the experts from MPDV turn you and your employees into real HYDRA specialists.

The trainings are conducted by qualified MPDV trainers who have hands-on experience with the introduction and application of the MES HYDRA.

The participants have the opportunity to consolidate their theoretical knowledge through practical exercises in HYDRA.

Documents and certificates
In addition to the lectures, each participant is given detailed training documents and a certificate of having attended the course.

Language
We offer our training courses in German, English and Chinese. You can check the language of the training course on our website, in the MPDV webshop or by contacting trainings@mpdv.com.

On-site trainings
As an alternative, you can also book the courses from this catalog “on-site”. This may be useful, if you want to be more independent in terms of scheduling and if you want to train your entire team. Please contact us.

In addition to our standard training courses, we offer you tailor-made trainings, the subjects and content of which you can determine yourself. Your sales contact at MPDV will be happy to assist you.

Dates
You can find the dates for training courses in our training centers on our website and in the MPDV webshop.

Training hours
The one-day training start at 9:00 a.m., training courses lasting more than one day start at 10:00 a.m. The training usually ends at 05:00 pm.

Registration
To register for MPDV Training & Certification, the following options are available:
• MPDV webshop: https://shop.mpdv.com
• MPDV website: www.mpdv.com
• or email to: trainings@mpdv.com

We recommend early planning and booking, as the number of participants in our training courses is limited. Registrations are accepted in the order of receipt.

Terms and conditions
You can find the terms & conditions to participate at our training courses at mpdv.info/trainingterms. These terms are accepted when you register for the training course.

Hotels and accommodation
We recommend staying overnight locally for training sessions lasting more than one day or several consecutive training sessions. We are happy to provide you with our hotel recommendations. Hotel costs are not included in the price for the training course.
MES HYDRA Training

Visit the MPDV training courses and become a true HYDRA specialist. No matter whether you are about to introduce the system, have already gained hands-on experience or would like to make your own customizations in HYDRA: We offer the right training for every user and developer.

Our extensive range of standardized training courses is aimed at operators, administrators, MPDV implementation partners, production managers and power users. There are different training levels for the individual product groups depending on the level of skills.

Come and see us at MPDV! We will put together a training program tailored to your specific needs.

MES HYDRA Training

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Basic Application Training HYDRA Manufacturing Processes (BAT-MPR)

Digitize manufacturing processes with HYDRA

Target group:
Employees responsible for implementing HYDRA in the production environment. The course also addresses supervisors, engineers and technicians in manufacturing and staff dealing with work scheduling and shop floor control.

Course objectives:
Training to impart basic knowledge for users who want to use HYDRA to digitize their manufacturing processes. The training also presents functions to collect, use and evaluate order and machine data, material stocks, traceability, resource management and detailed planning.

Requirements:
You do not have to complete other training courses.

Contents of the course:

- Introduction to HYDRA product groups
  - Classify the MES and HYDRA in the manufacturing environment
  - General use cases
  - Synergy of product groups

- HYDRA object structure
  - Which HYDRA objects are available and how do they interact
  - Examples and use cases

- Introduction to the clients and operation
  - How to operate the MOC, AIP and SMA
  - Integrate scanners, RFID chips, batches and labels
  - How to use evaluations/reports

- Data collection and posting
  - Events and posting
  - Uploads to the ERP system
  - KPIs in MOC

- Interfaces
  - How interfaces work and how they are structured
  - HYDRA <> ERP
  - HYDRA <> machines

Become a MES HYDRA User

Are you about to implement the MES HYDRA or specific HYDRA applications? Do you have a new employee who should learn how to operate and use HYDRA?

With our Basic Application Trainings (BAT) you as a beginner and user will receive all the skills as well as tips and tricks for the most effective use of HYDRA.

The BAT trainings enable you to autonomously configure HYDRA, create master data and set up the MES functions in a user-friendly fashion. On top of that, after the training, the key users are able to prepare the information for different internal user groups and instruct them how to use it.
Basic Application Training HYDRA Machine Data and Shopfloor Integration (BAT-SFI)

Increase productivity with collection of machine data

**Target group:**
Employees who are responsible for the implementation of HYDRA in the production environment, supervisors, engineers and staff dealing with machine-related evaluations / reports and overviews.

**Course objectives:**
You become familiar with the functions of the HYDRA product group Machine Data Collection (MDE). Extend your know-how by means of use case oriented introduction of typical digitalization possibilities according collection, usage and evaluation of machine data in the system.

**Requirements:**
- Basic Application Training HYDRA Manufacturing Processes (BAT-MPR)

**Contents of the course:**
- Idea of machine data collection in HYDRA
- Configuration of shop floor (BDE) terminals for machine data collection
  - Automatic collection of quantities
  - Automatic status monitoring
- Machine downtimes and malfunctions
- Using the MOC
- Introduction to application-specific configurations
- Complex status models
- Escalation messages from HDRA MDE
- Central / decentralized machine data collection
- Advanced calculations and configurations
- Detailed best practice methods from the HYDRA machine data environment
- Exercises

You want to monitor your machines continuously, but don’t know how? In our training courses we will show you the various application possibilities of HYDRA.

Senior Product Manager Shop Floor Systems & Trainer

**Duration:** 3 days
**Booking code:** BAT-MPR

**Duration:** 2 days
**Booking code:** BAT-SFI
Basic Application Training HYDRA Detailed Planning and Scheduling (BAT-HPS)

Perfectly plan and control production with HYDRA

**Target group:**
Employees working in production planning, work scheduling and production control

**Course objectives:**
You learn how HYDRA Shop Floor Scheduling generally works and how to use the available information and planning functions. Advanced training to impart specific know-how for users working in production planning and using functions or algorithms for the automatic assignment in the graphic planning board of the HYDRA Shop Floor Scheduling product

**Requirements:**
- Basic Application Training HYDRA Manufacturing Processes (BAT-MPR)

**Contents of the course:**
- Classifying the Shop Floor Scheduling module in the overall HYDRA system
  - Philosophy of detailed planning
  - Interaction of HYDRA functions: BDE, MDE and detailed planning
- Configuration of HYDRA Shop Floor Scheduling
  - Settings
  - Planning profiles/ Authorizations
  - Layout of the planning board
- Graphic planning board
  - Planning board structure
  - Automatic assignment
  - Simulation/ auxiliary functions, helpers, different data views
- Overviews and evaluations / reports
  - Order networks
  - Resource availability
  - Pool of machines and groups
- SMA Touch2Plan
- Introduction to available planning logics
  - Functioning of the rules for priority and capacity selection
  - Automatic assignment – step by step
  - Multiple assignment of resources
  - Material availability check
  - Assignment of secondary resources
  - Overlapping of operations

**Basic Application Training HYDRA Dynamic Manufacturing Control (BAT-DMC)**

Digital process modeling with HYDRA

**Target group:**
HYDRA users involved in the implementation of Dynamic Manufacturing Control (DMC), e.g. in the assembly or the sequence production. The course also addresses process designers, technicians, engineers and developers involved in the processes.

**Course objectives:**
Participants are familiar with HYDRA DMC idea and approach. They are able to classify and digitize the own requirements on implementation with DMC.

**Requirements:**
- Basic Application Training HYDRA Manufacturing Processes (BAT-MPR)
- Basic knowledge of HYDRA applications
- Basic knowledge of C# and .net

**Contents of the course:**
- Structure and process know-how – what’s the typical DMC environment?
  - Overview, content and structure of HYDRA-DMC
  - Components and system architecture, objects
  - Introduction of process modeling and process design
  - Brief overview: engineering process.
  - Overview of documentation and function packages DMC
  - Approach how to create a requirements specification DMC
- DMC Process Modeling
  - ERP interfaces (orders/material)
  - GUI display
  - Collection of order times / personnel times.
  - Identification of personnel
  - Machine-related functions
  - Collection of process data
  - Transfer of process specifications
  - Traceability / one piece flow
  - Process interlocking
  - Real-time data acquisition
  - Offline capability

Duration: 3 days
Booking code: BAT-HPS
Basic Application Training HYDRA Tool & Resource Management (BAT-WRM)

Minimize maintenance and setup costs with HYDRA WRM

Target group:
Employees responsible for tool and resource management.

Course objectives:
You become familiar with the functions of the Tool and Resource Management (WRM). This course communicates knowledge about configuration options and the different fields of application. Consequently, you can perfectly integrate the basic functions of HYDRA WRM into your business processes.

Requirements:
• Basic Application Training HYDRA Manufacturing Processes (BAT-MPR)

Contents of the course:
• Introduction to WRM configuration
  – Resource stock
  – Define characteristics, measures and blocking reasons
• Editing and collection functions of HYDRA MOC
  – Lock/unlock resources
  – Order-related posting of resources
  – Integrate resource posting into existing BDE applications
  – Enter measures for documentation purposes
  – Dealing with documents as part of maintenance
• Overviews and evaluations / reports
  – Overview, information, usage, history and assignment of resources
• Exercises

Duration: 4 days
Booking code: BAT-DMC

Duration: 1 day
Booking code: BAT-WRM
Basic Application Training HYDRA Material & Production Logistics (BAT-MPL)

Control and monitor the material flow with HYDRA MPL

Target group:
Employees responsible for material tracking and production inventory management.

Course objectives:
You become familiar with the HYDRA functions for Material and Production Logistics (MPL) and Tracking & Tracing (TRT). This course communicates knowledge about configuration options and the different fields of application for the HYDRA modules MPL and TRT. This know-how can be directly integrated into your own company.

Requirements:
- Basic Application Training HYDRA Manufacturing Processes (BAT-MPR)

Contents of the course:
- Classification of MPL and TRT in the overall HYDRA system
  - Main features of MPL and TRT
  - Application scenarios of MPL and TRT
  - Which applications are available?
- Master data
  - Configuration of material types
  - Implementation of storage bins in material buffers
  - Further master data for special use cases
- Data collection functions
  - Overview of data collection functions
  - Data collection functions of the terminal
  - Special functions of the office client
- Overviews and evaluations / reports
  - Complete overview in the batch data overview
  - Tracking and tracing in batch tracing
  - Life cycle of a material object in the batch history
  - Further applications
- Posting and uploads to the ERP system
- Exercises

Basic Application Training HYDRA Process Data (BAT-PDV)

Improve process stability with HYDRA PDV

Target group:
Supervisors, engineers and staff responsible for process quality and/or the evaluation of process data.

Course objectives:
You become familiar with the HYDRA functions of process data collection. This course communicates knowledge about the interaction between process-related data collection planning and the options of process monitoring through extended collection options. Consequently, you can perfectly integrate the functions of HYDRA Process Data Collection into your business processes.

Requirements:
- Basic Application Training HYDRA Manufacturing Processes (BAT-MPR)

Contents of the course:
- Introduction to Process Data Collection and system architecture
  - Master data maintenance and basic configurations
  - Inspection planning
  - Configuration and implementation of data collection and machine connection
- Evaluations and reports
  - Online visualization in the terminal and MOC
  - Measurement analysis of recorded data displayed as data table or in graphics
  - Generating samples and evaluations, such as control charts
- Failure mode analysis
- TRT (Tracking and Tracing) basics
- Exercises
Basic Application Training HYDRA Energy Management (BAT-EMG)

Detect energy waste with HYDRA EMG

Target group:
Employees managing, collecting and evaluating energy data.

Course objectives:
You get to know the functions of HYDRA Energy Management. This course communicates knowledge about configuration options and the different fields of application. Consequently, you are in the position to integrate the HYDRA basic functions into your business processes according to DIN EN ISO 50001.

Requirements:
• Basic Application Training HYDRA Manufacturing Processes (BAT-MPR)
• Basic knowledge of the HYDRA architecture and the operation of the HYDRA client

Contents of the course:
• Introduction to EMG configuration and master data
  – Resource stock to manage counters / meters
  – Definition and development of object structures and tree structures for classification purposes
• Editing and collection functions of the HYDRA client
  – Lock / unlock resources
  – Plan the manual and automatic data collection
  – Collect meter readings
  – Billing and selection of periods
  – Corrections
  – Recording of measures
• Overviews and evaluations / reports
  – Tabular / hierarchical energy consumption monitor
  – Graphic energy monitor (layout-defined display)
  – Power monitoring and analysis
  – Hierarchical / tabular energy consumption analysis
  – Order-related material consumption analysis, material movements
  – Measure tracking
• Exercises

Contents of the course:
• Presentation of basic DNC configurations
  – Basic structures
  – Management functions
  – Terminal settings
  – Machine assignment
  – Machine communication
  – DNC processes: alternative processes
• Functions of the shop floor terminal
  – Authorization concept
  – Provision of DNC data records
  – Data transfer to the machine (download)
  – Upload of changed statuses
• HYDRA MOC functions
  – DNC management of resource records
  – Dealing with statuses
  – Visualization and editing
• Evaluations and reports
  – DNC logging, display and archive

Basic Application Training HYDRA DNC & Configuration Data (BAT-DNC)

Optimize and automate setup processes with HYDRA DNC

Target group:
Employees using DNC functions with the terminal and the MOC.

Course objectives:
You get to know the HYDRA functions of DNC Direct Numerical Control. You know how the HYDRA shop floor terminals (AIP) work and which technical requirements are needed. You are in the position to perfectly integrate HYDRA DNC in your company.

Requirements:
• Basic Application Training HYDRA Manufacturing Processes (BAT-MPR)

Contents of the course:
• Presentation of basic DNC configurations
  – Basic structures
  – Management functions
  – Terminal settings
  – Machine assignment
  – Machine communication
  – DNC processes: alternative processes
• Functions of the shop floor terminal
  – Authorization concept
  – Provision of DNC data records
  – Data transfer to the machine (download)
  – Upload of changed statuses
• HYDRA MOC functions
  – DNC management of resource records
  – Dealing with statuses
  – Visualization and editing
• Evaluations and reports
  – DNC logging, display and archive
Basic Application Training HYDRA Human Resources (BAT-HHR)

Design personnel time management with HYDRA efficiently

Target group:
Employees who are responsible for the implementation of HYDRA as system for time & attendance and time management. The course also addresses employees who are in charge of the personnel time management in the Human Resources department.

Course objectives:
You learn how to create and edit master data and configurations. You also learn how to carry out evaluations and how to use overview and list functions. You also learn how to brief other employees on single system functions. Furthermore you can use the personnel planning in an optimal way. Training to impart basic knowledge and to provide an overview of the various functions for users of HYDRA Time & Attendance (PZE) and HYDRA Personnel Time Management (PZW).

Requirements:
You do not have to complete other training courses.

Contents of the course:
- Functions of the PZE terminals
  - Clocking-in / -out
  - Information function
- Create master data and define configurations
  - HR master data, wage types
  - Day types and models for flextime, shift and payment
- Evaluations and data maintenance
  - Editing of clocking records, daily and monthly calculations
  - Listing of messages, keeping accounts
  - Shift and absence planning
- Overview and list functions
  - Attendance / absence overview
  - Account balances, time sheet, absence overview
  - Clocking records, clocking archive
  - Labor time and wage type statistics
- Setup a KPI and information system
  - Clocking-in / -out
  - Actual account balance, balance journal, balance planning, remaining leave
  - Personnel time statistics
- Setup own overviews and evaluations
  - Wage types statistics
  - Time sheet
- Personnel scheduling and absence workflow
  - Basics of working time planning, absence and shift planning
  - Labor time schedule
  - Apply, approve/ decline requests

“Only those who know the complete function range of HYDRA can decide which solution is best for their company. We will help you to find exactly that.”

Product Manager Planning and Scheduling & Trainer

Duration: 4 days
Booking code: BAT-HHR
Basic Application Training HYDRA Personnel Scheduling (BAT-PEP)

Plan personnel deployment with HYDRA PEP

Target group:
Employees working with HYDRA Personnel Scheduling.

Course objectives:
You become familiar with the required setting options to configure the HYDRA Personnel Scheduling module and know how to use these settings.

Requirements:
You do not have to complete other training courses.

Contents of the course:
- How to operate the MOC: basics and tricks
- User administration and authorization concepts
- Edit HR master data and working hours
- Create workplaces, machines and shift models
- Create and assign qualifications (qualification matrix)
- Options to define workforce requirements (workplace, operation)
- Integration of PEP and HLS
- Planning profiles
- Options for the manual and automatic workplace assignment
- Workplace and staff schedules
- SMA solutions for PEP
- Exercises

Basic Application Training HYDRA Premium & Incentive Wages (BAT-LLE)

Digitize your performance-related payroll with HYDRA LLE

Target group:
Key users and administrators of HYDRA Premium & Incentive Wages (LLE).

Course objectives:
You gain insights into the larger context of HYDRA Premium & Incentive Wages (LLE). You can configure HYDRA LLE and understand how the system calculates results and displays data in evaluations / reports. You can maintain and manage the LLE system and brief other employees.

Requirements:
You do not have to complete other training courses.

Contents of the course:
- Basic data of Premium & Incentive Wages (LLE)
  - Relevant postings and master data from Shop Floor Data Collection (BDE / MDE)
  - Relevant data from Time & Attendance (PZE)
  - Relevant data and master data of Premium & Incentive Wages (LLE)
- Settlement of individual persons
  - Piecework
  - Time wage, indirect labor, etc.
- Group allocation
  - Identify group membership
  - Different bonus types
- Editing functions and evaluations / reports
  - Editing and correction options
  - Evaluations and lists
  - PZE / BDE comparison
- Interfaces to third-party systems
  - ERP system
  - Payroll
- Exercises
Basic Application Training HYDRA Access Control (BAT-ZKS)

Protect buildings and systems with HYDRA ZKS

Target group:
Employees who implement HYDRA as an access control system or manage access authorizations.

Course objectives:
You become familiar with the HYDRA configuration options to create and assign access profiles. You learn how to use lists to check access authorizations and to display accesses and access attempts.

Requirements:
You do not have to complete other training courses.

Contents of the course:
- Basic ZKS configuration
  - Create access groups
  - Configure terminals and accesses
  - Define access time models and opening hours
- Master data
  - Create and edit badges
  - Plan public holidays
- Working with access profiles
  - Create access profiles
  - Assign access authorizations
  - Assign access profiles to badges
  - Different data views
- Evaluations and lists
  - List of access authorizations for each badge
  - Display the authorized persons for a specific access group
  - Display accesses and access attempts
- Exercises

Basic Application Training HYDRA Quality Management (BAT-QMG)

Set quality standards with HYDRA

Target group:
Employees implementing HYDRA as CAQ system or who are responsible for inspection planning, measurement recording and test equipment management.

Course objectives:
You learn how to create inspection plans and inspection steps. You also learn how to apply the measurement recording including the HYDRA standard evaluations of production and the goods receipt. This also includes the development of calibration plans and the management and calibration of test equipment in HYDRA.

Requirements:
You do not have to complete other training courses.

Contents of the course:
- Edit basic data
  - Identify and edit required master data (articles, characteristics, failure types, failure locations, measures, etc.)
  - Generate master data groups (e.g. groups of articles and failures) for effective inspection planning and evaluation
  - Dynamic modification
- Inspection planning
  - Create (group) inspection plans for different areas (goods receipt, production, calibration)
  - Optimum use of different characteristic types (variable, attributive, inspection chart, visual defects recording, etc.)
  - Define inspection due dates and inspection documents
- Collect inspection data
  - Collect inspection data, assign failures and take action
  - Correct inspection data
- Evaluations and reports
  - Statistical evaluation and failure mode analysis
  - Print inspection certificates
- Test equipment management
  - Plan and perform calibrations
- Exercises
Basic Application Training HYDRA Complaint Management (BAT-REK)

Automate complaint processes with HYDRA REK

**Target group:**
Employees involved in complaint management.

**Course objectives:**
You get to know the functions of the HYDRA complaint management and the respective configuration options.

**Requirements:**
- Basic Application Training HYDRA Quality Management (BAT-QMG)

**Contents of the course:**
- Master data maintenance
  - Create and / or use the catalog of failures and measures (failure type, location, cause, measure, etc.)
  - Create cost types
  - Define companies, departments, responsible parties, etc.
  - Define complaint workflows
- Complaints
  - Create complaint header data
  - Define complaint details
  - Assign measures, costs and documents
  - Activate workflow steps
  - Failure analysis
- Overviews and evaluations / reports
  - Main failure modes
  - Costs
  - Complaint header / complaint details
  - Track and edit measures
  - Reporting, e.g. generate an 8D report
- Exercises

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Basic Application Training HYDRA as Quality Management Subsystem (BAT-QMS)

Use HYDRA as SAP QM subsystem

**Target group:**
Employees involved in the implementation and configuration of HYDRA as SAP QM subsystem.

**Course objectives:**
You get an overview of the functions that HYDRA provides as a subsystem to SAP QM. This course also communicates the diverse configuration options.

**Requirements:**
- Basic knowledge of the QM IDI interface used with HYDRA.
- Knowledge of measurement recording

**Contents of the course:**
- Master data
  - Contents of QMS catalogs (transferred via QM-IDI)
- Transaction data
  - Inspection requirement / inspection batch
  - Inspection orders / inspection operations
  - Inspection points
  - Characteristics
- Measurement recording
  - Options of generating inspection points
  - Assignment of measured values, attributive decisions based on specified dialogs
  - Control charts, histograms

**Note:**
This course does not include exercises. HYDRA functions are presented by means of a demo version.
Basic Application Training HYDRA FMEA
(BAT-FMEA)

Detect and avoid failures at an early stage with HYDRA FMEA

Target group:
- HYDRA users: QM staff, persons responsible for FMEA, FMEA team members

Course objectives:
- You know how HYDRA FMEA (Failure Mode and Effects Analysis) generally works and can conduct an FMEA.

Requirements:
- You do not have to complete other training courses.

Contents of the course:
- General explanations: what is an FMEA (Failure Mode and Effects Analysis)?
- Create a new FMEA
- Define objectives
- Assemble the FMEA team
- Conduct the FMEA
  - Create system components
  - Create functions
  - Create failures
  - Set up a failure network
  - Analysis of measures
- Create an assessment catalog

Basic Application Training MES-Cockpit
(BAT-MSC)

Develop KPI systems with MES-Cockpit

Target group:
- MES-Cockpit users and administrators and employees implementing the MES-Cockpit.

Course objectives:
- You become familiar with MES-Cockpit and its evaluations / reports.

Requirements:
- You do not have to complete other training courses.

Contents of the course:
- How to operate and use the MES-Cockpit
  - MES-Cockpit evaluation functions
  - Evaluations for the objects workplace, order and operation
  - Evaluation of status information applicable to all systems and to specific systems
- MES-Cockpit administration
  - User configuration
  - Management of KPIs
  - Management of target values
  - Management of authorizations
- Exercises

HYDRA is easy to customize for individual and factory wide analysis.

Product Engineer MES Applications & Trainer
Basic Application Training HYDRA Administration MES Weaver (BAT-MW)

Administer and manage HYDRA and understand the MES Weaver

Target group:
HYDRA system administrators and employees responsible for system maintenance.

Course objectives:
You learn how to administer the HYDRA system. You also learn how to install and implement the HYDRA MOC and the terminals. You become familiar with the relevant functions of the operating system (LINUX / Windows) and the database (ORACLE / SQL server). You learn how to analyze problems.

Requirements:
You do not have to complete other training courses.

Contents of the course:
- HYDRA administration
  - MOC administration tools
  - User and password management
  - Installing the HYDRA MOC
  - Implementation of HYDRA terminals
- Operation of the HYDRA server
  - HYDRA directory structure
  - Start and exit HYDRA
  - Interaction between HYDRA system components
  - Identification of failure causes
- Database systems ORACLE / SQL server
  - Start and stop database
  - Data backup
  - Monitoring database usage
- Exercises

Note:
Please state the platform in use (operating system and database) upon registration.

Duration: 2 days
Booking code: BAT-MW

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With us you will learn how to use the MES HYDRA profitably. This is an important step on the way to the Smart Factory.

Product Engineer MES Applications & Trainer
Become a MES HYDRA Advanced User

You are successfully using HYDRA in your company and want to use the system even more efficiently? Perhaps you have been using HYDRA for many years and are planning to switch to a new HYDRA release or product upgrade?

In our Extended Application Trainings (EAT) or Special Trainings (SAT, SPT) for selected HYDRA applications, we provide in-depth technical and project skills. Intensive and hands-on exercises help you to apply the acquired know-how in your company in the best possible way.
Extended Application Training CAQ Form Design (EAT-FVE)

Creating forms with HYDRA Quality Management

**Target group:**
Employees who change and create forms in quality management.

**Course objectives:**
You learn how to change the design and contents of existing Word forms and how to create new forms based on existing ones. You are in the position to manage existing and new forms, e.g. enable and disable forms, change print options.

**Requirements:**
Knowledge of the respective HYDRA module where you want to change existing forms or create new forms. You should be aware of the data you want to integrate in the form. Basic knowledge of XML data structures is required.

**Contents of the course:**
- Management
  - Enable / disable forms
  - Change display position, name and description
  - Change print destination settings and print options
- Edit existing forms
  - Introduction to form design using XML data files
  - Change contents of headers and footers (e.g. integrate company logos)
  - Change table contents
- Create new forms
  - Copy existing forms to create new ones
  - Work with draft versions
  - Design headers, footers and table panes using XML data files
- Exercises

Duration: 1 day
Booking code: EAT-FVE

Extended Application Training HYDRA Quality Management (EAT-CAQ)

Fully exploit HYDRA as part of Quality Management

**Target group:**
HYDRA CAQ system administrators

**Course objectives:**
You will learn how HYDRACAQ works with regard to statuses, options and areas. You can use your knowledge of system configurations to display or change statuses, options and areas. You will also learn how to configure the AIP inspection process. This also includes the configurations for the expanded view of quality data on the AIP terminal.

**Requirements:**
- Basic Application Training HYDRA Quality Management (BAT-QMG)

**Contents of the course:**
- Introduction how to change system behavior by modifying configurations for statuses, options and areas
- Presentation of the options available if you define options and statuses for specific areas.
- Explanation of the differences between status type and status as well as area and area type
- Optimization of the AIP inspection process by changing configurations
- Introduction how to configure the expanded view of quality data in the AIP
- Exercises

Our training courses are practical and informative. This is exactly what our participants appreciate.

   Senior Product Manager Shop Floor Integration & Trainer
Extended Application Training CAQ Measurement Data Interface (EAT-MDI)

Connect measuring equipment with HYDRA MDI

Target group:
Employees responsible for the connection of various measuring and test systems using the measurement data interface (MDI).

Course objectives:
You learn how to configure different MDIs to design the data collection process including the inspection plan configuration and the creation of master data.

Requirements:
- Basic Application Training HYDRA Quality Management (BAT-QMG)
- Basic technical knowledge is required, e.g. the USB-COM-Port configuration.

Contents of the course:
- Master data
  - Create MDI configurations in quality management master data.
  - Assign test equipment / test equipment groups to MDI configurations
- Administration
  - Install MDI servers
  - Introduction to the configuration options of different MDI servers (e.g. MDI Steinwald, MDI Serial, MDI Measured Value File, MDI Measured Value List)
  - Real connection of measuring equipment via an interface box
  - Process measured value files using MDI servers
  - Collect measured values in HYDRA / AIP from MDI servers
- Exercises

Duration: 1 day
Booking code: EAT-MDI

Extended Application Training Process Communication Controller (EAT-PCC)

Configure and use the Process Communication Controller (PCC)

Target group:
Administrators and employees who are responsible for the maintenance of the technical data acquisition hardware for HYDRA.

Course objectives:
You become familiar with the HYDRA data collection methods. You become familiar with the data acquisition hardware supported by HYDRA (terminal and control types). You also learn how machine communication works in the HYDRA system. In addition, you learn how to connect OPC and specific protocols, such as PCC-DIF.

Requirements:
You do not have to complete other training courses.

Contents of the course:
- Introduction to how data can be collected via terminals
- Introduction to the PCC architecture to collect machine data
  - Basic functionality and channel principle
  - Protocol modules
- Introduction to the different options of machine communication
- Presentation of different scenarios of data collection referring to the
  - HYDRA product groups
  - Type of collected data
- Presentation of the PCC Configuration Manager
  - Create PCC configuration
  - Online browsing of specific connection technologies (OPC-UA)
  - Storage system for PCC configurations
- Introduction to the OPC communication technology
  - OPC server (DA / UA)
  - OPC client
- Introduction to configuration basics and MOC examples
- Exercises and troubleshooting

Duration: 2 days
Booking code: EAT-PCC
Extended Application Training MES (EAT-AIP)

User-friendly configuration of HYDRA shop floor clients

Target group:
HYDRA users responsible for the configuration of the MES terminal.

Course objectives:
You receive an overview of use cases that can be met by configurations and setting options of the HYDRA data acquisition program (AIP = Acquisition and Information Panel). Completing the course, you can make use of the diverse configuration options for dialogs, dialog fields, formats, buttons and you know how to apply them appropriately.

Requirements:
- Basic Application Training HYDRA Manufacturing Processes (BAT-MPR)

Contents of the course:
- Application-related introduction to typical configurations for the MES data acquisition program (AIP 8.2).
- Detailed presentation of technical options for dialog configuration:
  - Dialog structure
  - Dialog fields, labeling and units
  - Data types of dialogs including value ranges
  - Buttons and labeling
  - Displaying and adding columns to lists
- Presentation of practical examples
- Specifications for professional management of modified configurations
- Specifications for safe handling of configurations in the HYDRA system
- Exercises

Duration: 1 day
Booking code: EAT-AIP

Extended Application Training HYDRA Administration (EAT-ADM)

HYDRA administration for advanced users

Target group:
HYDRA users responsible for administration and system maintenance and MPDV implementation partners

Course objectives:
You gain HYDRA insider knowledge. You obtain detailed knowledge of the HYDRA system communication. You also learn how to apply various analysis options in case of problems. This training course also communicates the perfect workflow how to deal with support requests (from the issue to the request).

Requirements:
- Basic Application Training HYDRA Administration MES Weaver (BAT-MW)
- Basic knowledge of HYDRA applications

Contents of the course:
- Becoming familiar with the HYDRA architecture
  - HYDRA communication technologies: MOC server
  - HYDRA communication technologies: terminal server
  - HYDRA server programs
- HYDRA administration tools
  -Logging and analysis of terminals
  -Logging and analysis of the MOC
  -Logging and analysis of servers
  -Logging and analysis of interfaces
  -Update management
- Exercises to assess errors / breakdowns / emergencies
  -Examples for potential problems
  -Interpreting system logs
  -First steps to an independent analysis
- Exercises

Note:
Please state the platform in use (operating system and database) upon registration.

Duration: 1 day
Booking code: EAT-ADM
Extended Application Training HYDRA Escalation Management (EAT-HEM)

Make Escalation Management perfect using HYDRA

Target group:
Employees configuring and applying the HYDRA Escalation Management.

Course objectives:
You become familiar with the general structure of HYDRA Escalation Management. You also learn how to configure escalations for certain incidents and how to deal with evaluations / reports in Escalation Management.

Requirements:
Basic knowledge of HYDRA applications

Contents of the course:
- Overview and introduction to HYDRA Escalation Management
- Structure and functioning of Escalation Management
- Escalations for the different HYDRA modules
- Configuration and setup of escalations in HYDRA
- Tracking of escalations
- Overview of supported escalations
- Exercises

Extended Application Training HYDRA MLE Communication (EAT-MLE)

Configure and manage interfaces to enterprise systems

Target group:
HYDRA administrators, MES project managers and employees responsible for shop floor data collection systems.

Course objectives:
You learn how HYDRA communicates with SAP and / or other PPS systems. You also become familiar with the configuration and system menus of the MLE communication. Using MLE communication, you learn how to manage the interface between PPS systems / SAP and HYDRA.

Requirements:
- Basic Application Training HYDRA Administration MES Weaver (BAT-MW)

Contents of the course:
- Basics of interface technologies (file transfer, RFC / IDoc)
- PPS data exchange via file transfer
- Direct system communication, e.g. SAP IDocs
- Configuration of the HYDRA MLE communication (logical systems, distribution model)
- Monitoring the MLE-controlled data transfer (inbound and outbound transactions)
- Settings for the SAP connection
- HYDRA as HR subsystem
- Exercises

"Quality management is not just a tool for collecting and storing data. Rather, it is a future-oriented guider for Industry 4.0."

Product Engineer MF/QM Applications & Trainer

Duration: 1 day
Booking code: EAT-HEM

Duration: 1 day
Booking code: EAT-MLE
Extended Application Training HYDRA Data Maintenance and Correction (EAT-COR)

Understand, edit and correct collected data, events and postings

Target group:
Personnel responsible for the HYDRA rollout in production, technicians and employees that comprehend recording and postings and edit data in sense of corrections.

Course objectives:
Training to impart with application-related presentation of typical maintenance and correction workflows for data collected in the HYDRA manufacturing environment. As well you can comprehend in how far corrections have an impact on evaluations.

Requirements:
- Basic Application Training HYDRA Manufacturing Processes (BAT-MPR)

Contents of the course:
- Idea of event collection and postings in HYDRA
- Introduction to HYDRA data collection, events and postings
- Structure of evaluations and interfaces
- Edit and/or correct events and postings
- Impact of editing and/or correction on evaluations and interfaces
  - Use cases
  - Learning by doing (exercises)
  - Test the relevant data collection and posting
  - Comprehend postings within the system
- Detailed Best Practice examples
- Further examples

Special Training MES HYDRA Project Management (SPT-PM)

HYDRA Project planning and system management

Target group:
MPDV implementation partners and project managers of our customers who are about to implement or further develop HYDRA in their company.

Course objectives:
The training provides recommendations for project organization to implement HYDRA, further develop HYDRA and operate HYDRA in the company. The training also deals with rollouts across locations. The participants become familiar with the organizational processes to successfully advance system implementation.

Requirements:
We recommend completing the courses Basic Application Training HYDRA Manufacturing Processes (BAT-MPR)

Contents of the course:
- Project organization – organizational structure
  - Tasks and target definition
  - Stakeholder analysis
  - Project team
  - Reporting and communication
  - Change request management
- Project organization – operational structure
  - Project phases
  - Work breakdown structure
  - Scheduling
- System management
  - HYDRA system environment
  - Change management
  - Maintenance and support
Become a MES HYDRA Developer

Are you an experienced MES HYDRA user and want to customize the system yourself? In addition to the necessary licenses, we offer tailor-made training courses for every customizing requirement.

Become a MES HYDRA developer and learn how to independently design, develop and implement customizations for your company in our Customizing Trainings.
Customizing Training Process Communication Controller (CUT-PCC)

Design individual solutions for machine connection

**Target group:**
HYDRA administrators and employees who are responsible for the maintenance of technical data collection hardware, the independent development of machine drivers and the PCC customization.

**Course objectives:**
You become familiar with all PCC customization options in HYDRA.
You learn how to develop individual PCC drivers and PCC ADP scripts.

**Requirements:**
- Extended Application Training Process Communication Controller (EAT-PCC)

**Contents of the course:**
- Basics of the PCC technology
  - HYDRA channel principle
  - Classification in the overall HYDRA system
- Developing individual PCC drivers and PCC ADP scripts to extend the HYDRA Process Communication Controller (PCC). You can connect the PCC to machines, equipment and other peripheral devices.
  - Interface technology
  - Communication interfaces HYDRAPCC and PCC driver
  - Implementation notes for PCC drivers
- This course communicates customization knowledge for users and developers who would like to create PCC drivers and ADP scripts on their own.
- You become familiar with the structures and procedures of HYDRA PCC and PCC ADP
- Introduction to HYDRA PDM dialogs
- Basics of PCC driver programming and ADP scripting
- Exercises for driver development and ADP scripting

**Duration:** 2 days  
**Booking code:** CUT-PCC

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Customizing Training HYDRA Dynamic Manufacturing Control (CUT-DMC)

Develop process-specific components for HYDRA

**Target group:**
Process owners and developers who introduce DMC and develop / integrate modifications in the DMC environment and design further components.

**Course objectives:**
You learn how to customize HYDRA DMC and how to model and develop your own components for HYDRA DMC.

**Requirements:**
- Basic Application Training HYDRA Dynamic Manufacturing Control (BAT-DMC)
- Basic knowledge of HYDRA applications
- Good knowledge of C# and .NET

**Contents of the course:**
- DMC configuration, factory model and templates
- Dynamic Process Interpreter
- Component model and manufacturing instructions for data modeling
- GUI development framework and GUI components
- Use of GUI template library
- Instantiation – Workpiece generator
- Use of driver development framework and driver template library
- Creation of drivers / integration of new components
- Sequence modeling framework

**Note:**
The training will be held in English.
Customizing Training HYDRA Database (CUT-HDB)

Understanding and using the HYDRA database

**Target group:**
HYDRA users who would like to develop their own reports / evaluations by accessing the database.

**Course objectives:**
You become familiar with the data structures and their interrelations in the HYDRA database. This training course represents the basis for individual data selection, which will be explained in more detail during other customization training courses.

**Requirements:**
- Basic knowledge of HYDRA applications, SQL and databases
- Basic knowledge of software development

**Contents of the course:**
- Introduction to the database system
  - Theory of relational databases
  - Terminology of database systems
- SQL query language
  - SQL query tools in the HYDRA environment
  - Exercises based on predefined tasks
  - Optimization of queries
- Becoming familiar with the HYDRA database structure
  - Structure of the MES system’s database tables relevant to applications
  - Meaning of the fields in database tables
  - Logical relations between individual database tables
  - Usage in HYDRA
- Exercises

**Duration:** 1 day
**Booking code:** CUT-HDB

Customizing Training HYDRA Report Design (CUT-RPD)

Creating reports with the HYDRA Report Designer

**Target group:**
HYDRA users who would like to create and design reports via the MOC.

**Course objectives:**
You become familiar with the functions and options provided by the MOC Report Designer.

**Requirements:**
- Customization Training HYDRA Database (CUT-HDB)
- Basic knowledge of HYDRA applications
- Recommended: basic knowledge of design tools and basic concepts of computer science

**Contents of the course:**
- Customizing existing applications search screens:
  - Modify the layout of MOC applications by Drag & Drop
  - Integrate any data sources for selection lists
  - Adapt entries to your company’s internal vocabulary
  - Change / replace icons and graphics
- List & Label basics
- Modify existing MOC reports
- Design new reports and integrate these reports in the MOC
- Integrate your customized applications into the MOC menu.
- System-wide deployment and distribution
- How to use the service documentation
- Exercises

"If you have been wondering how to create your own reports with HYDRA, you should attend our customizing training.

Consultant Solution Development & Trainer"
Customizing Training HYDRA Measuring Equipment Interface (CUT-IMI)

Connect complex measuring systems with HYDRA

Target group:
HYDRA users or MPDV implementation partners who would like to transfer inspection data (e.g., measured values) from third-party systems (measuring machines, or similar) to HYDRA.

Course objectives:
You become familiar with three options to import inspection data from third-party systems (irrespective of MDI) to HYDRA. You can solve complex tasks concerning the inspection data import and customize the processes accordingly. This training also communicates the necessary basic knowledge of alternative inspection data interfaces. This is useful if the options provided by the HYDRA Measurement Data Interface (MDI) do not meet the requirements and/or importing of inspection results cannot be realized with the manual HYDRA inspection results recording process.

Requirements:
- Basic Application Training HYDRA Quality Management (BAT-QMG)

Contents of the course:
- Introduction
  - Distinction from the HYDRA Measurement Data Interface (MDI)
  - Scenarios of inspection data import
- HYDRA Production Data Manager (PDM)
  - Brief overview
  - How to use dialog data
  - Offline batch interface and logging
- Data structures
  - Inspection data collection based on inspection points vs. based on samples
  - Special features of attributive and variable characteristics
    - Important HYDRA objects and their identifiers
    - Using alternative identifiers
- Implementation of individual requirements
  - Overview of the most important QM data structures
  - Customizations with HYDRA Script
- Exercises

Note:
This course does not provide further profound information about the Production Data Manager (online connection, etc.). For further requirements, we recommend completing the Customization Training HYDRA Database (CUT-HDB).
Customizing Training MOC Applications & Services (CUT-MOC)

Develop, upgrade and change MOC applications

Target group:
HYDRA users who would like to make changes to the MOC client.

Course objectives:
You become familiar with the MOC customization options. You learn how to view the required information via the MOC client. You also learn how to change the various MOC display properties. You create your own services for read and write access to the HYDRA database. You also learn how to create MOC editing applications and how to change existing services in Java.

Requirements:
- Customization Training HYDRA Database (CUT-HDB)
- Technological knowledge:
  - Basic knowledge of HYDRA applications
  - Basic knowledge of SQL
  - Basic knowledge of JAVA, Eclipse or IntelliJ IDEA
  - Basic knowledge of .NET development in C# is required if you want to create individual „extensions”

Contents of the course:
- Introduction to the MOC customization options
- Customizing existing applications and search screens:
  - Modify the layout of MOC applications by Drag & Drop
  - Integrate any data sources for selection lists
  - Adapt entries to your company’s internal vocabulary
  - Change / replace icons and graphics
  - Use the „extensions” available by default to change the application
  - Create your individual „extensions” using .NET in C#
- Creating customized applications and evaluations:
  - Create applications based on existing data sources and your SQL queries
  - Integrate detail applications based on tables, detail views and diagrams with master-detail relations
  - Configure graphical components, such as pie charts, bar charts, line graphics and pivot applications
  - Navigation functions and drill-down reports
  - Integrate your customized applications into the MOC menu
- Using the HYDRA repository as service documentation to define and configure services and to define GUI properties:
  - Create your own reading services as data sources for applications
  - Create writing services (insert, update, delete) to edit customer-specific tables using the BAPI Interpreter
  - Define GUI properties of data fields
- Using Java to implement your service requirements:
  - Change existing, interpreted services using user exits
  - Develop your own programmed services for reading and writing access to Java
  - Use the provided JAVA / HYDRA system utilities
- Exercises

Duration: 7 days
Booking code: CUT-MOC
Customizing Training HYDRA Label Design (CUT-ETD)

Configure, apply and exploit label design with HYDRA

Target group:
HYDRA users who design and edit print layouts of labels / accompanying documents as well as MPDV implementation partners.

Course objectives:
You become familiar with the design options supported by HYDRA. You can design your own documents using the HYDRA Label Designer. You can integrate these documents into input dialogs.

Requirements:
- Customization Training HYDRA Database (CUT-HDB)
- Basic knowledge of HYDRA applications
- Basic knowledge of software development

Contents of the course:
- HYDRA Label Designer
  - Basic structure
  - Prepare HYDRA data for the print layout
- Assigning labels to HYDRA input dialogs
  - Label configuration
  - Label assignment
  - Schema configuration
  - Conditional print instructions
  - Exercises based on predefined tasks
- Design techniques
  - Display additional fields from the HYDRA database
  - Introduction to HYDRA Script
- Exercises

Customizing Training HYDRA Workflow Management (CUT-WFM)

Configure, apply and exploit HYDRA Workflow Management

Target group:
HYDRA users responsible for increasing productivity, process automation and quality management.

Course objectives:
You become familiar with HYDRA Workflow Management and know how to use it.

Requirements:
- Basic Application Training HYDRA Manufacturing Processes (BAT-MPR)

Contents of the course:
- Creating and editing:
  - Change existing workflows
  - Create new workflows
  - Becoming familiar with the configuration options supported by workflows (e.g. sending emails and generating tasks for defined users / user groups)
  - Configure the MES Operation Center
  - Automatic creation of documents for defined workflows
- Exercises

Would you like to extend HYDRA to suit your processes and requirements? Then why not attend our Customizing Trainings. Here we provide you with the corresponding know-how.

Consultant HYDRA MF & Trainer
Customizing Training Smart MES Applications (CUT-SMA)

Develop mobile and web-based applications on your own

Target group:
Administrators for mobile HYDRA applications (Smart MES Applications) who would like to make changes to the system.

Course objectives:
You learn the basics of Smart MES Applications and understand the underlying architecture to carry out configurations and customizations.

Requirements:
- Customization Training MOC Applications & Services (CUT-MOC)
- Basic knowledge of software development (recommended: knowledge of HTML5, CSS, JavaScript, JQuery)
- Basic knowledge of HYDRA
- Knowledge of the MPDV Repository Client

Contents of the course:
- Getting to know the basic customization options of SMA applications
- Configure your individual input dialogs and develop your individual applications using examples
- Analysis of sample applications
- Exercises

Customization Training MES Services (Acquisition & Information) (CUT-AIS)

Develop, extend and change MES Services (Acquisition & Information)

Target group:
HYDRA users who would like to change standard processing of data collection.

Course objectives:
You become familiar with the customization options of data collection and data posting. You learn how to develop individual scripts to customize HYDRA processing for data collection and posting. You also get to know the customization options provided by the HYDRA terminal.

Requirements:
- Customization Training HYDRA Database (CUT-HDB)
- Basic knowledge of software development and HYDRA applications.

Contents of the course:
- User exits to change data collection and processing (HYMW). You can create additional plausibility checks or extend the lists displayed via the terminal (e.g. expanded order list).
- Basic knowledge of the Production Data Manager (PDM). Information on used dialog strings to collect and request data.
- Generate individual tables in a customer-specific HYDRA namespace.
- Individual modifications to the HYDRA dialog control by customizing the AIP dialog configuration
- Design new, customized dialogs
- Individual layout design of the GUI
- Use scripts to control HYDRA terminal processing
- Dealing with developments / configurations on the customer’s system
- Exercises
Customizing Training Enterprise Integration Interface (MLE) (CUT-MLE)

Customize interfaces to enterprise systems

Target group:
HYDRA users who would like to change the MLE interface independently.

Course objectives:
You learn how to use and customize MLE communication for the advanced data exchange.

Requirements:
- Customization Training HYDRA Database (CUT-HDB)
- Basic knowledge of HYDRA applications
- Basic knowledge of software development and the MDS-MLE development license

Contents of the course:
- Introduction to the different options of using the MLE communication for the advanced data exchange
- MES Link Enabling, configuration and implementation
- You learn how to process and use MES Link Enabling
- You learn how to customize the MLE interface via the MOC client:
  - Fields
  - Processing
- Develop a separate MLE version for a new data structure (inbound transactions)
- User exits to control processing of the MLE interface (inbound transactions)
- User exits to control processing of the MLE interface (outbound transactions)
- Create a separate, customized MLE outbound segment
- Exercises

Duration: 3 days
Booking code: CUT-MLE

Customizing Training MES-Cockpit (CUT-MSC)

Develop or customize MES-Cockpit functions

Target group:
MES-Cockpit users who would like to create their own objects or change existing objects.

Course objectives:
You become familiar with the structures and larger context of MES-Cockpit 3.1. You learn how to customize the performance analysis, production monitoring and shop floor information in order to use and evaluate additional data.

Requirements:
- Basic Application Training MES Cockpit (BAT-MSC)

Contents of the course:
- Introduction to the technical basics of MES-Cockpit
  - MES-Cockpit structure
  - MES-Cockpit terminology
- Introduction to available editing options
  - Editing options provided by the performance analysis, production monitoring and shop floor information
  - Edit existing objects
  - Define new objects
  - Advanced data supply options for data export
- Exercises

Duration: 2 days
Booking code: CUT-MSC
Customization Training MOC Data Presentation (CUT-MDP)

Win individuality – Design and create applications yourself

**Target group:**
Personnel responsible for the HYDRA rollout in production, technicians and employees that work with machine related overviews or developers, that create evaluations and overviews on their own.

**Course objectives:**
Training to impart customization knowledge for users and developers who would like to customize their own applications and reports in the MES Operation Center (MOC) in order to visualize data of existing data sources or who would like to change or extend existing applications.

**Requirements:**
- Basic Application Training HYDRA Manufacturing Processes (BAT-MPR)
- Application knowledge about HYDRA and MES Operation Center
- Basic knowledge about charts, Pivot tables, and print views

**Contents of the course:**
- Create custom applications to display data
- Use existing MOC data sources
- Display data in table views, charts, pivot tables or print reports
- Integrate customized applications in the MOC menu
- Connect applications with the toolbar
- Change icons and define customized label texts
- Customize existing applications
- System-wide deployment
- Best practice examples and exercises

Version upgrades always entail changes. If you want to be fully prepared for this, you should join us for our Special Trainings. We will familiarize you with all changes and new HYDRA functions.

MES Solution Expert & Trainer
MES HYDRA Certification

Your HYDRA knowledge verified

MPDV Training & Certification offers you different options to get certified in the MES HYDRA fields of manufacturing, quality management and human resources or in specific roles.

During an examination, your acquired knowledge as well as your extensive experience in dealing with MES HYDRA will be tested by MPDV trainers and experts.

Use this offer as proof to your employer, as a calling card to your customers and auditors or watch out for certificates when selecting service providers in the MES environment.

The examinations (MPDV Certification day) take place twice a year at our headquarters in Mosbach and include multiple choice tests with many real-life questions on a variety of issues from manufacturing, quality management and human resources.

As a result, you will receive a special certificate and an assessment of your individual potential with suggestions for further personal training in MES HYDRA.

We offer the following certification program to match the individual training courses:

**MES HYDRA Certified Specialist MF, QM, HR (CER-MHS)**

Through your participation in a number of application trainings in the MES HYDRA fields of manufacturing, quality management and human resources, you will bring with you a wide range of HYDRA knowledge, depending on your level of progress. In addition, you already gained experience from MES HYDRA implementation projects.

Use this trained knowledge and become an MES HYDRA Certified Specialist for Manufacturing, Quality Management or Human Resources.

**Target group:**

MPDV customers and MPDV implementation partners who have a good MES HYDRA know-how and would like to have it assessed.

**Aim and content:**

You take part at the MPDV Certification Day and take an exam. This consists of the following parts: Multiple choice test and a personal potential analysis.

At the end you will receive a certificate.

**Requirements:**

- Certification in **Manufacturing** requires completion of the following training courses
  - Basics: BAT-MPR, BAT-SFI, BAT-MPL, BAT-HPS
  - Advanced: EAT-COR, EAT-AIP, SPT-PM

- Certification in **Quality Management** requires completion of the following training courses
  - Basics: BAT-MPR, BAT-QMG, BAT-REK,
  - Advanced: EAT-CAQ, SPT-PM

- Certification in **Human Resources** requires completion of the following training courses
  - Basics: BAT-MPR, BAT-HHR, BAT-ZKS, BAT-LLE
  - Advanced: SPT-PM

**Duration:** 1 day

**Booking code:** CER-MHS
MES HYDRA Certified Solution Developer MOC, AIP, SMA (CER-MHD)

The qualification as MES HYDRA Certified Solution Developer offers you the basics for an independent system customizing and the expertise to use the HYDRA tools to further develop the HYDRA applications in the company.

This includes the development of individual reports, labels and workflows as well as the customizing of the MOC user interface.

The training profile is geared towards the further development of HYDRA.

**Target group:**
MPDV customers and MPDV implementation partners who independently transpose changes or extensions to the HYDRA processing and who want to develop applications on the basis of the HYDRA tools and thus obtain certification as an MES HYDRA Certified Solution Developer.

**Goal and content:**
You take part at the MPDV Certification Day and take an exam. This consists of the following parts: Multiple choice test and an assessment with personal potential analysis. At the end you will receive a certificate.

**Requirements:**
- Certification as MOC Developer requires completion of the following training courses:
  – BAT-MPR, CUT-HDB, CUT-MOC, CUT-RPD
- Certification as AIP Developer requires completion of the following training courses:
  – BAT-MPR, CUT-HDB, CUT-AIS, CUT-ETD
- Certification as SMA Developer requires completion of the following training courses:
  – BAT-MPR, CUT-HDB, CUT-SMA

**Duration:** 1 day
**Booking code:** CER-MHD

"Increasingly, companies are demanding a certified training program for their employees. Our MPDV Certification days offer the opportunity to be accredited as a MES HYDRA Certified Specialist or Solution Developer."

Executive Manager Product Management & Trainer
Qualify for MES HYDRA Expert – Manufacturing Processes (QFME-MPR)

Become an expert through comprehensive HYDRA system and process knowledge

Target group:
MPDV implementation partners and customers who, as internal process consultants and disseminators, support production during the introduction or further development of HYDRA, can be trained and certified as MES HYDRA experts with a comprehensive program. Participants in the training program acquire the technical expertise and required process know-how to act as MES HYDRA consultants.

The participants of this program subsequently possess the professional expertise and process know-how required for MES consulting in HYDRA. The program „Qualify as MES HYDRA Expert“ focuses on the digital integration of manufacturing processes and provides an outlook to shop floor integration, quality management, human resources and detailed planning and scheduling.

The training course deals with diverse questions, such as „What typical use cases do we encounter?“ and demonstrates valuable best practice examples. The participant learns how to convert requirements into solutions using the appropriate HYDRA functions. The program „Qualify as MES HYDRA Expert“ integrates all HYDRA applications.

Course objectives:
After you have completed the training „Qualify as MES HYDRA Expert“, you go through an assessment. The assessment consists of various practical tasks and a personal potential analysis. Our expert trainers will support you in preparing for the assessment. You get a certificate at the end of the training program.

Requirements:
• Certified MES HYDRA Specialist: Manufacturing (CER-MHS)

Contents of the course:
Consolidation of specialist and process knowledge focusing on:
• Introduction into typical MES processes
• Processes and approaches to:
  – Transfer of order data and ERP/SAP interfaces
  – Order data, order structure and order management
  – Machine integration and machine data
  – Material flow, inventories and tracing
  – In-production inspection and QM integration
  – Order-related staff data
  – KPIs and evaluations/reports in HYDRA and MES Cockpit.
• Realize requirements, how to discuss and document them
• Tips and tricks for implementation processes
• Extended and supervised exercises
• Assessment / potential analysis in fields of Manufacturing

Usually, the participants are:
• Expert members of a HYDRA project or competence team
• Insiders and disseminators of knowledge
• HYDRA coaches
• Internal system consultants and system analysts
• MPDV implementation partners who might act as internal system consultants

Duration: 10 days
Booking code: QFME-MPR
Notes