DYNAWORKS TRAINING PROGRAM 2026

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AIRBUS DYNAWORKS TRAINING SCHOOL

To meet the expectations of DynaWorks® users, AIRBUS Defence & Space has set up a **TRAINING SCHOOL**.

Training organization approval number : 11 78 82581 78

This school is for all types of DynaWorks® users :

- Beginner users
- Advanced users
- Administrators
- Developers

Teachers

AIRBUS Defence & Space teachers have many years of experience as product users and developers. Over the years, they have trained numerous professionals within Airbus Defence & Space training school or on site. In addition, all our teachers assist, on a daily basis, our worldwide customers with their expertise through our **DynaWorks® customer support team.**

Training Program

Ref.	Title of training	Duration (in days)
DW.01	Basics	1
DW.02.1	Configuration	1
DW.02.2	Advanced Tools	1
DW.03	Administration	2
DW.04	Advanced use of Analysis workbench	2
DW.05.1	Analysis C++ User Functions	1
DW.05.2	Analysis and External Python Scripts	1
DW.06	Analysis Signal Processing Toolbox	1
DW.07	Database C++ API	2
DW.08	Modal Analysis	1
DW.09	Vibrations, Shocks and Test Tailoring	2

For any question regarding the DynaWorks® Training Center contact us at support.dynaworks@airbus.com

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BASICS

DW.01 – Duration: 1 day

Goals

This class is designed for the **beginner user** of DynaWorks®. It provides a first approach to the core data management and processing functions of the software.

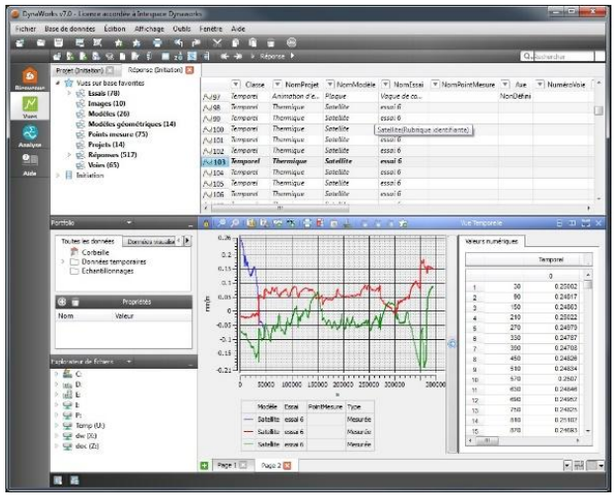
Students will also get a **broad overview** of all the peripheral capabilities of the software.

You will learn to:

- Use the different workbenches
- Manage data
- Import and export data in spreadsheet format
- Display, process and print data from the database

Class Program

- General workbenches presentation
- Data management using the DynaWorks® database (open, close, filter, sort, create, modify and delete)
- Import and export data in spreadsheet format
- Data visualization, layout and management
- Display presentation options
- Handling of curves and points
- Cursors and legends management
- Processing functions
- Print and PDF export



Who is this class for ?

- Beginner users
- Partners

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CONFIGURATION
DW.02.1 – Duration: 1 day

Goals

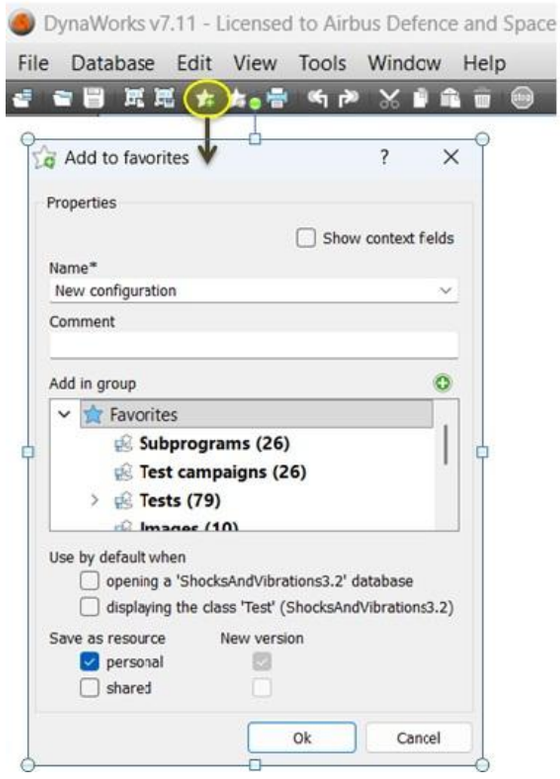
This **intermediate class** is designed for DynaWorks® users who have already attended the basics class. It builds on the knowledge acquired in the basics class and allows users to **customize their experience**.

You will learn to:

- Manage your data using specific criteria
- Design data visualizations
- Manage display tools
- Customize user menus
- Manage scripts
- Save your working environment

Class Program

- Introduction to workbenches
- Data management in DynaWorks® database (open/close, filter, sort, create, modify and delete)
- Import and export data in spreadsheet format
- Data visualization, layout and management
- Customizing display presentation options
- Working with curves and points
- Managing cursors and legends
- Utilizing processing functions
- Print and export to PDF



Who is this class for ?

- Beginner users
- Partners

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ADVANCED TOOLS

DW.02.2 – Duration: 1 day

Goals

This intermediate class is designed for DynaWorks® users who have already mastered the basics. It builds on the knowledge acquired in the basics class by learning how to use specific software utilities.
As an **"à la carte" training**, you will select **4 utilities from the available options** before the course begins.

You will learn to:

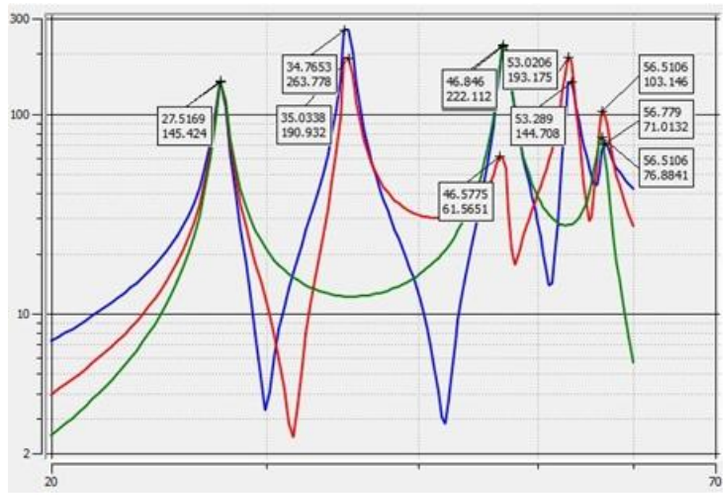
- Utilize the selected utility
- Configure the selected utility

Proposed utilities

- **Alarm Tool**: monitor alarms in real time during tests
- **Dydgets**: graphical tool for defining data processing sequences
- **Import-Export tools**: focus on importing and exporting data
- **Dispatch and Pairing Tool**: automatically generate frames and pages
- **Spectrogram View and Peak Extraction**: analyze frequency domain data
- **Advanced Data Extraction tool**: extract and research data efficiently
- **Advanced Real-Time Display**: monitor events, phases, objectives, limits, uncertainties and synoptics in real time
- **Calibration Management**: manage and display calibration options

Who is this class for ?

- Users who have attended the DynaWorks® Basics class
- Partners
- Technicians or test engineers seeking to expand their product knowledge



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ADMINISTRATION

DW.03 – Duration: 2 days

Goals

This class is designed for the DynaWorks® system administrator. It provides comprehensive training on **software installation, license management, database administration and user access management.**
Additionally, the course presents the essential techniques and tools for **effective database operation**.

You will learn to:

- Install the software
- Manage user access and permissions
- Configure the software to meet user needs
- Administer the database and implement the tools to ensure its proper functioning and maintain data integrity

Class Program

- **Introduction to DynaWorks® database**: overview and key concepts
- **Software architecture and organization**: general software structure and components
- **Software installation**: installation process
- **License management**: license activation and management procedures
- **User management**: user accounts, roles and permissions
- **Database model**: database structure and schema
- **Database access management**: controlling and securing database access
- AdminTools, database administration application: interface and functionality overview
- **Database monitoring parameters**
- **Database administration parameters**: configuration and tuning settings
- **Database administration policy**: best practices and guidelines
- **Application customization**: modifying and extending functionality using the common resources database

Who is this class for ?

- Users with extensive knowledge of operating systems responsible for ensuring database integrity and availability, managing the DynaWorks® installation and managing user access
- Advanced DynaWorks® users

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ADVANCED USE OF ANALYSIS WORKBENCH
DW.04 – Duration: 2 days

Goals

This training course enables users to take advantage of the **open-ended programming capabilities** of DynaWorks®. It introduces the **analysis workbench and macro-language elements**, enabling users to write scripts for automating complex processing operations.

You will learn to:

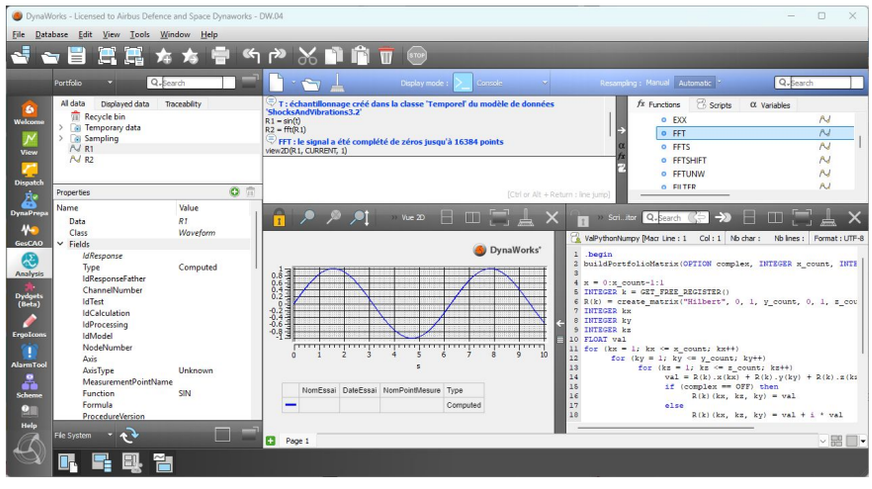
- Use various features of the analysis workbench
- Apply analysis language
- Manage processing scripts
- Integrate scripts into the DynaWorks® GUI

Class Program

- Introduction to of the analysis workbench
- Command area, variables and functions
- General settings and sampling parameters
- Useful functions and variables
- Script management : creation, writing and opening of processing scripts, loading and executing scripts
- Managing script resource
- Best practices
- Customization : design of user menus, calculated fields, object-action association

Who is this class for ?

- Technicians and Test or Design office Engineers
- Advanced DynaWorks® users



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ANALYSIS C++ USER FUNCTIONS

DW.05.1 – Duration: 1 day

Goals

This course is designed for developers looking to **develop C++ user functions** and **integrate them into the DynaWorks® environment**.

You will learn to:

- Create and implement user functions
- Add and use user functions symbols in analysis language

Class Program

- Review of DynaWorks® language elements
- Configuring Visual Studio C++ 2019
- Consulting Doxygen documentation
- Best practices for user function implementation
- Integrating user function into DynaWorks®
- Hands-on practice with a on a simple, evolving example

Who is this class for ?

- Technicians and Test or Design office Engineers
- Advanced DynaWorks® users

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ANALYSIS AND EXTERNAL PYTHON SCRIPTS
DW.05.2 – Duration: 1 day

Goals

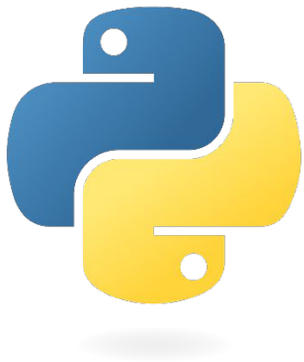
This course is designed for **developers** looking to **create Python user scripts** and **integrate them into the DynaWorks® environment**.

You will learn to:

- Create and implement Python user scripts
- Add and use Python symbols in analysis language

Class Program

- Review of DynaWorks® basic commands
- Configuring DynaWorks® for Python integration
- Developing Python user scripts
- Introduction to DynaWorks® Python API and modules
- Consulting Doxygen documentation
- Integrating Python scripts into DynaWorks®
- Hands-on practice through example analysis



Who is this class for ?

- Users looking to enhance their DynaWorks® processing capabilities
- Users skilled in the Python language
- Advanced DynaWorks® users

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ANALYSIS SIGNAL PROCESSING TOOLBOX
DW.06 – Duration: 1 day

Goals

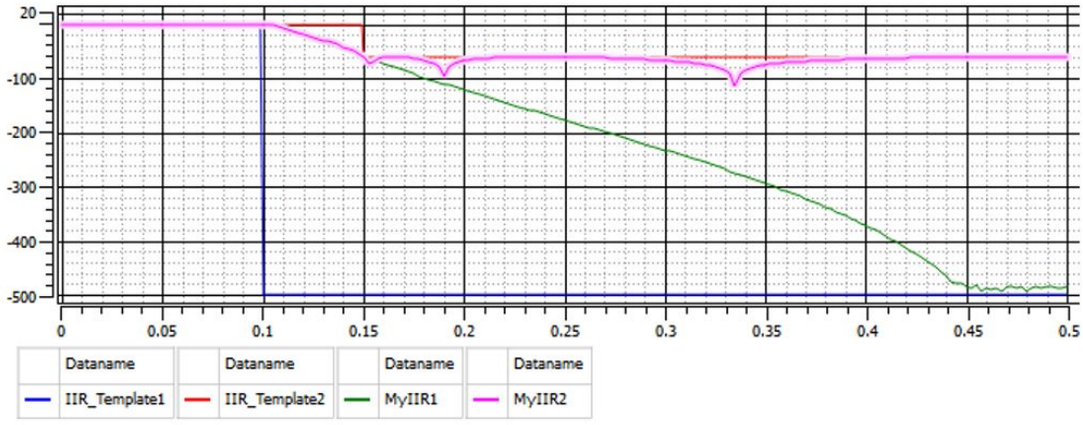
This training class provides a practical approach to **signal processing** using the DynaWorks® toolbox.

You will learn to:

- Understand the organization of DynaWorks® signal processing functions
- Apply them to signals through practical use cases

Class Program

- Brief theoretical introduction
- DynaWorks® signal processing toolbox overview
- Sampling and signal synthesis techniques
- Filtering methods
- Spectral analysis
- Statistics analysis



Who is this class for ?

- Users who attended the “Advanced use of Analysis workbench” class
- Engineers or Technicians working in an industrial context faced to signal analysis problems in mechanics and acoustics

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DATABASE C++ API

DW.07 – Duration: 2 days

Goals

This course is designed for software program developers who need to integrate the DynaWorks® database into their process.

You will learn to:

- Programmatically interact with the DynaWorks® database
- Develop an interface programming approach with DynaWorks®
- Create and execute search query requests
- Read and write data efficiently

Class Program

Refresher on the DynaWorks® database

- Schema of a sample database (files, compiling...)
- Class, categories, fields, types ...

DBMS functions

- Communication with a database (opening, closing, ...)
- Categories and fields information, ...
- Defining a Tuple
- Tuples management
- Reading and writing pointers (curves, tables, documents, ...)
- Requests, selection and navigation
- Functions for the « Real -time » module

Practical work

- Working with the development API main functions
- Creating an interface using DBMS functions

Who is this class for ?

- Users wanting to develop DynaWorks® database applications
- Users skilled in C++ programming who have already completed the Basics DynaWorks® course

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MODAL ANALYSIS

DW.08 – Duration: 1 day

Goals

This course focuses on performing modal identification using test results collected and stored in DynaWorks®.

You will learn to:

- Determine and characterize the dynamic behavior of a structure through its modal modes
- Select the test data required to identify these modes
- Master the various methods for acquiring and extracting modal parameters
- Apply the RTMVI method available in DynaWorks®

Class Program

Fundamentals on structural dynamics

- The 1-DoF system
- Modal parameters
- Transfer functions

Tests methods

- Modal survey tests
- Shaker testing
- Interpretation of results

Modal identification methods

- Classification
- Advantages and drawbacks
- Algorithms
- Hands-on training using DynaWorks®: the RTMVI method
- The Geometry window (mode animation)

Who is this class for ?

- Technicians and test engineers, design office engineers
- Advanced DynaWorks® users

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VIBRATIONS, SHOCKS AND TEST TAILORING

DW.09 – Duration: 2 days

Goals

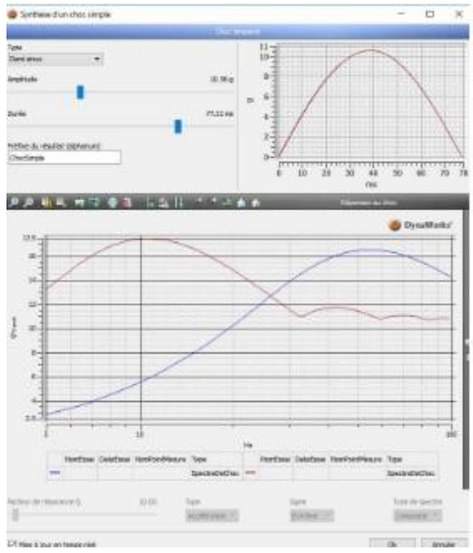
This training is designed for test experts to draft mechanical test specifications based on real environment data according to the method of equivalence in terms of fatigue damage or extreme response.

You will learn to:

- Analyze vibrations to derive test specifications
- Use the DynaWorks® dedicated toolboxes

Class Program

- Analysis of the nature of the measured accelerations (from time histories or power spectral densities)
- Identification of specific events (shock, random, harmonic ...)
- Checking the quality of the signal
- « Standard » filtering
- Calculation of response spectra
- Spectra synthesis
- Application of safety factors (guarantee coefficient, test factor)
- Calculation of equivalent PSD of reduced duration
- Validation criterion for test duration reduction
- Hands-on training using DynaWorks® toolboxes



Who is this class for ?

- Technicians and test engineers, design office engineers
- Users who attended the DynaWorks® Basics class

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