

Standard MAGALI V5



PURPOSE

Training to **Magali software V5**.

The training applies to user who wants to get an in-depth knowledge of both Magali functions and data processing technologies.

METHODOLOGY

Interactive presentation

Exercises

Questions / Answers

Implementation

PROFILE OF PARTICIPANTS

Engineers or technicians prospective users of MAGALI software, or already MAGALI users.

TRAINING PROGRAMME

1ST DAY

Magali Presentation

- **Data architecture**
Data stream – Acquisition zone – Storing unit - Variables – Acquisition manager
- **Test configuration**
Presentation – Implementation with the ASCII formatting command
- **Test set**
Acquisition type – Functions
- **Processing**
Processing modules - Inputs - Outputs – Basic processings – Advanced processings
- **Visualization**
Use frame already defined – Tools – Graphic analysis

2ND DAY

Test development

- **Real time acquisition**
Acquisition - Record
- **Post Processing**
Record processing – Analysis – Replay of sequences.

Practical work

- **Implementation – Case study.**

Participants : 6 max.

Duration : 2 days

Place : Montescot - 66
France

Tools : Projection,
implementation, case
study, literature.

Pre-requisite : Command
of Windows operating
system.

Advanced MAGALI V5



PURPOSE

Training to **Magali software V5** and **related tools**.

The training is intended to provide an in-depth knowledge of Magali software with a good command of both graphic editor and macro-commands.

METHODOLOGY

Interactive presentation

Exercises

Questions / Answers

Implementation

PROFILE OF PARTICIPANTS

Engineers or technicians prospective users of MAGALI software, or already MAGALI users.

TRAINING PROGRAMME

1ST DAY

Magali presentation

- **Data architecture**
Data stream – Acquisition zone – Storing Unit - Variables – Acquisition Manager
- **Test**
Presentation – Implementation with the ASCII formatting command
- **Test set**
Acquisition type – Functions
- **Processing**
Processing modules - Inputs - Outputs – Basic processings – Advanced processings
- **Visualization**
Use frames already defined – Tools – Graphic analysis

2ND DAY

Test development

- **Real time acquisition**
Acquisition - Record
- **Post processing**
Record processings – Analysis – Replay of sequences.
- **Implementation – Case study**

3RD DAY

Tools

- **Graphic editor**
Graphic objects - Creation of new displays
- **Macro-commands**
Principles – Macro-tools (IF - FOR ...)

Participants : 6 max.

Duration : 3 days

Place : Montescot – 66 - France

Tools : Projection, implementation, case study, literature.

Pre-requisite : Command of Windows operating system.

MAGALI V5

Real Time Development Toolkit



PURPOSE

The **Development Toolkit** training is designed to provide both knowledge and command necessary to develop customized functions in Magali environment.

The **Real-Time** version of the development toolkit gives the user the possibility to process test data for its own requirements.

METHODOLOGY

Interactive presentation

Exercises

Questions / Answers

Implementation

PROFIL OF PARTICIPANTS

Engineers or technicians already trained on Magali, or Magali user.

TRAINING PROGRAMME

- **Reminder : Magali functions**
- **Rules of the development toolkit**
- **Presentation of the development environment**
- **Add specific conversion functions for the real time**
- **Add mathematic processing functions for real time**
- **Exercices and solutions**
- **Examples of client functions**

Participants : 6 max.

Duration : 1 day

Place : Montescot – 66
France

Tools : Projection, case
study, literature.

Pre-requisite : Command
of both Windows
operating system and
MAGALI software

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Post Processing Development Toolkit



PURPOSE

The **Development Toolkit** training is designed to provide both knowledge and command necessary to develop customized functions in Magali environment.

The **Post Processing** version of the development toolkit gives the user the possibility to add its own analysis processings in Magali either directly or via macros.

METHODOLOGY

Interactive presentation
Exercises
Questions / Answers
Implementation

PROFILE OF PARTICIPANTS

Engineers or technicians already trained on Magali or Magali user.

TRAINING PROGRAMME

- **Reminder : Magali functions**
- **Rules of the development toolkit**
- **Presentation of the development environment**
- **Detailed description of the function group**
 - PAR, STREAM, ...
- **Exercises et solutions**
- **Examples of client functions**

Participants : 6 max.

Duration : 1 day

Place : Montescot – 66
France

Tools : Projection, case
study, literature.

Pre-requisite : Command
of both Windows
operating system and
MAGALI software

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NDA Development Toolkit



PURPOSE

The **NDA Development Toolkit** is designed to provide the required knowledge to develop external nodes of the network architecture (Network Distributed Architecture) of Magali software.

METHODOLOGY

Interactive presentation
Exercises
Questions / Answers
Implementation

PROFILE OF PARTICIPANTS

Engineers or technicians already trained on Magali or Magali User.

TRAINING PROGRAMME

- **Reminder : Magali functions**
- **Rules of the development toolkit**
- **Rules and context of the NDA toolkit**
- **Description of the configuration functions**
- **Description of the Real Time functions available**
- **Description of the Post Processing functionsavailable**
- **Exercises and solutions**
- **Examples of client functions**

Participants : 6 max.

Duration : 1 day

Lieu : Montescot – 66
France

Tools : Projection, case
study, literature

Pre-requisite : Command
of both Windows operating
system and MAGALI
software

Avionic BUSES ARINC429 - 1553



PURPOSE

Avionic buses training is designed to introduce formats of avionic communication buses : **ARINC429** and **MIL-STD-1553** through the use of **MAGALI** software.

METHODOLOGY

Interactive presentation
Exercises
Questions / Answers
Implementation

PROFILE OF PARTICIPANTS

Engineers or technicians already trained on Magali or Magali User.

TRAINING PROGRAMME

Introduction to avionic buses

ARINC429 Bus

- **Description of the ARINC429 format**
- **Message configuration/analysis**
- **Format of the ARINC429 word**
- **Frame display**
- **Case study**

MIL-STD-1553 Bus

- **Description of the MIL-STD-1553 format**
- **Message configuration/analysis**
- **Format of the MIL-STD-1553 message**
- **Frame display**
- **Case study**

Conclusions

Participants : 6 max.

Duration : 1 day

Lieu : Montescot – 66
France

Tools : Projection, case
study, litterature.

Pre-requisite : Command
of both Windows operating
system and MAGALI
software

General TELEMETRY



PURPOSE

Training **TELEMETRY** is designed to introduce participants to the rules of the telemetry chain and to get used to existing engineering, data formats, and board/ground architectures.

MÉTHODOLOGIE

Interactive presentation

Exercises

Case study

Questions / Answers

PROFILE OF PARTICIPANTS

Engineers or technicians who want to learn telemetry or improve their knowledge in the telemetry field.

TRAINING PROGRAMME

1st DAY

• Introduction

Telemetry evolution and field of use.

• Telemetry rules

Context and problematic : from on board sampling up to ground processing.

• Measures

Sampling and data formatting
Prélèvement et mise en forme des données : components of the on-board chain, sensor features, construction of frames.

• Data communication

HF data transfer : link budget equation, link budget processing, transmission problems.

• Selection of the equipments

Presentation of the equipment range for the telemetry chain.

2nd DAY

• Introduction to standard formats

Introduction to the main telemetry formats : IRIG class II and CE83.

• Format adaptation

How to improve the features of the telemetry chain.

• Telemetry architecture

Introduction to the different possible telemetry architecture, according to context.

• Use telemetry system

Reminder of the major stages to consider when using a telemetry system.

Participants : 6 max.

Duration : 2 days

Place : Montescot – 66
France

Tools : Projection, case study, literature.

Pre-requisite : none, training duration could be adapted according to participants level.