Using VAPS XT 661 Course Syllabus

Session duration: **Classroom** **1.5 days**

Main Objective

In this course, you will learn the basics of VAPS XT and leverage the 661 module to build ARINC 661 applications including how to create and add new widgets or objects with the tool. The course also covers how to build the VAPS XT 661 definition files, UA layers and widget sets.

Upon completion of the course, the participant should be able to create formats and objects and be able to generate executables from these formats. You will understand how to use the major predefined objects in VAPS XT and will be able to create your own.

Target Audience

This is an ideal course for individuals to use the VAPS XT 661 module to design graphic applications.

Prerequisites

This course assumes basic PC knowledge and basic knowledge of VAPS XT regular mode.

Format

This Instructor-led course is taught through a series of lectures and hands-on exercises in which you learn how to use the ARINC 661 components of the tool.

Topics Covered

- Explanation of the ARINC 661 Standard
- Using VAPS XT in the A661 mode
- Using the displays and windows
- Creating a graphical widget
- Creating a coded widget

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Daily Outline for Classroom “Using VAPS XT 661” Course

Day 1

- Lesson 1: Explanation of the ARINC 661 Standard
- Lesson 2: Using VAPS XT in the A661 mode
- Lesson 3: Using the displays and windows
- Lesson 4: Creating a graphical widget

Day 2

- Lesson 5: Creating a coded widget
- Recap of the 5 lessons
- Questions and Answers specific from trainees
- Closing the course

Detailed Description

Lesson 1: Explanation of the ARINC 661 Standard

- VAPS XT with 661 module
- Definition of ARINC 661
- What is ARINC
- Purpose of ARINC 661
- Basic CDS architecture
- ARINC 661 widgets
- ARINC 661 display execution
- Windows and layers

Lesson 2: Using VAPS XT in A661 mode

- Creator/Composer modes and style guides
- EXERCISE 2-1: Opening VAPS XT in Creator mode
- Changes in the VAPS XT Editor for A661 mode
- Basic design
- Adding widgets to a layer
- EXERCISE 2-2: Making a Widget Set
- EXERCISE 2-3: Making a layer
- EXERCISE 2-4: Putting the layer into a Definition File
- Generating a binary file
- EXERCISE 2-5: Save the Definition File as binary
- EXERCISE 2-6: Making a complex Widget Set
- EXERCISE 2-7: Making a dial display Widget Set
- EXERCISE 2-8: Making a complex layer
- EXERCISE 2-9: Making a Definition File

Lesson 3: Using the displays and windows

- Example of a Super Layer
- EXERCISE 3-1: Making a new Toolbox tab
- EXERCISE 3-2: Making an engine display layer
- EXERCISE 3-3: Making a MenuButton layer
- EXERCISE 3-4: Creating a Definition File
- EXERCISE 3-5: Making a Super Layer

Lesson 4: Creating a graphical widget

- ARINC Specification 661
- Two ways of making a widget
- Removing a widget from the project
- EXERCISE 4-1: Removing a widget from the project
- EXERCISE 4-2: Making a ToggleButton widget
- EXERCISE 4-3: Adding supplementary logic

Lesson 5: Creating a coded widget

- Coding new widgets
- Removing a widget from the project
- EXERCISE 5-1: Removing a widget from the project
- EXERCISE 5-2: Creating a new class for a widget
- EXERCISE 5-3: Creating the coded implementation