

WX1 Software Validation

Course Objective

At the end of this course, the participant will be familiar with the new requirements being developed by ICAO to ensure that air navigation software is correctly validated.

Participants

The student must have attended a Wx1 Basic Course or be able to demonstrate familiarity with the system by providing a reference letter from a recognised WX1 user.

Course Description

This course provides guidelines for the validation of procedure design tools. ICAO now considers States and regulation organizations responsible for the actual validation of specific tool(s).

The course has been designed to educate experienced users in the new ICAO recommendations and to illustrate the importance of a rigorous validation process.

Procedure design software tools, while not replacing the procedure designer, constitute a significant step toward ensuring a quality product, by applying the criteria consistently and accurately, allowing for testing of alternative solutions, while saving time in the design process. They can, however, be misleading if they include errors, or if compliance with criteria for procedure design is not ensured for all the functions provided by such tools. Thus, ICAO believes that there is a significant need for some means of validating procedure design tools, and intends to publish a Procedure Design Tool Validation Manual in order to promote this concept.

The course provides detailed information about the facilitation and automation of the procedure design process through the use of software tools. As such, it may be of interest for any person or organization involved in the procedure design domain.

Basic Topics Covered

Introduction to Validation
Functions & Types of Tools
Environment of Tools
Aeronautical Data Validation
Geodetic Data Validation

Intermediate Topics Covered

Basic Data & Parameters
Elementary Validation Methods
Modelling of Criteria

Advanced Topics Covered

Application of Standard Modelling Validation, with a particular overview of utilising both manual and automated methods of validating software.

Exercises

The validation with regards to criteria consists in the verification, through a series of tests, of the compliance of the results obtained with a tool with applicable criteria. The applied tests shall cover all the relevant functions of the tool (including general functions and some input/output functions). These tests should include the comparison between the results obtained with the tool and the ones obtained manually or with a previously validated independent tool. These tests shall be carried out according to a pre-defined list and guidance by the instructor.

Course Duration

5 working days

Minimum Required Attendance:

3

Course Location

Switzerland

Cost

10,000 €

Includes

Tuition fee, hotel, full board

Instructors

Nils Lundstrom M.Sc CS&E

Examination

No

Certificate

Yes

More Information

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The logo consists of the letters 'WX' in a bold, white, sans-serif font, centered within a blue rounded square background.