



DESIGN ASSURANCE ENGINEER

Corporate Description

MANNARINO Systems & Software Inc. holds over 20 years experience in designing, developing, verifying, and certifying real-time embedded software for safety critical applications, thanks to a unique combination of services and [COTS products](#).

MANNARINO Systems & Software Inc. customer base is very large, covering traditional aerospace companies as well as new and exciting markets, including electric propulsion, [Urban Air Mobility](#), [Unmanned Aerial Vehicle](#) and autonomous flight.

The MANNARINO culture is focused on high quality, hard work, professionalism, and teamwork within a highly respectful, motivating atmosphere geared towards long-term business growth.

As a member of our team, you will benefit from:

- a comprehensive group insurance and RRSP plan
- a flextime policy with paid overtime
- discretionary bonuses
- a fitness reimbursement program
- other office perks such as catered weekly lunches and free hot beverages (espresso, coffee, hot chocolate, and tea)
- regular company outings

MANNARINO is a privately-held Small & Medium Size Enterprise (SME) and was recently awarded the [AIAC's Innovation Technology Award](#)

Career Opportunity and Primary Roles / Responsibilities

The candidate will be expected to review life-cycle data, perform formal audits, and produce the compliance data for software and/or (Airborne Electronic Hardware) AEH as per DO-178B/C and/or DO-254.

The software/AEH to be assessed may cover a wide range of programming languages and address both low-level operating system software components and higher-level application elements.

The candidate will ensure, by design review, life cycle data reviews and processes audits, that a given of SW/AEH item or equipment follow established industry and regulatory guidelines, and sound engineering practices, in developing airborne embedded software and AEH, such that they are safe and certifiable.

Interfacing with customers, suppliers, certification authorities, application users and other technical and support personnel may also be required. The candidate must be able to work independently and in cooperation with individuals and groups. Excellent communication, organization and flexibility skills will be necessary to perform audits and coordinate action items from SW/AEH audits and reviews.

For **Design Approval Representatives (DARs)**, the candidate will be responsible for making the Finding of Compliance according to the applicable airworthiness manuals and any project specific Method of Compliance and be able to liaise with Transport Canada and other certification authorities.

Required Competencies

Education

- Bachelor's degree in computer science or related engineering disciplines from an accredited institute

Experience (typical)

- Minimum of 5 years experience with DO-178B/DO-254 or equivalent
- Additional experience a definite asset
- For DARs: Letter of Authorization from Transport Canada / delegation in good standing.

Technical Competencies

- Experience in developing or verifying real-time airborne software for aircraft systems using DO-178B/C or equivalent
- Experience in developing or verifying AEH (FPGAs, ASICs, etc) according to DO-254 or equivalent
- Experience in reviewing life cycle data and audit planning, development, and verification processes as per DO-178B/C and/or DO-254
- Experience in generating evidence for finding of compliance according DO-178B/C and/or DO-254 and liaising with certification authorities
- Experience in software or firmware (AEH) requirement and design analysis, involved in peer reviews of life cycle plans, requirements, designs, code, test cases and procedures
- Experience in software coding languages (procedural & object-oriented) or HDL code, in order to understand and review code
- Experience as a Software Quality or Process Assurance Engineer including performing audits as per DO-178B/C and/or DO-254
- Good oral communication and negotiation skills
- Knowledge of development or verification tools, for example MATLAB / Simulink, SCADE, BEACON, IBM Rational Test RealTime (RTRT), IBM Rational DOORS
- Knowledge of RTCA/DO-178B/C and/or DO-254 or equivalent safety-critical software/AEH life cycle process
- Microsoft Office

At MANNARINO, we believe that passion and a desire to learn is crucial. Diversity of thought and experiences leads to innovative solutions and creativity. Therefore, we would like to encourage all those interested to apply.

Please submit your application by

E-mail: rh@mss.ca

*We are an equal opportunity employer.
All applicants will be held in strictest confidence.
Only those selected for interview will be contacted.*
