

IO1173 CODAC Programmer CHD-084

General information

Job category	Standard
Status	Published
Department	DIP/Directorate for CODAC, Heating & Diagnostics
Division	CHD / Control System Division
Section	CHD / CSD / CODAC Section

Job description

Main job	Engineering - Control system
Title of the position	CODAC Programmer CHD-084
Job family	Project engineering
Grade	G4
Direct employment	Required
Purpose	<p>To take an active part in the development of a software tool kit, entitled CODAC Core System, which is used by the external developers of local plant control system. This tool kit, based on EPICS and which includes configuration tools, communication middleware, device drivers and human machine interface tools, is continuously being developed, and released at regular intervals.</p> <p>To take an active part in the testing and support, with emphasis on low-level software, real-time and device drivers.</p> <p>The CODAC Section is one of two sections in the Control System Division. This Section is responsible for the development of the central supervising control system of ITER, including interfaces to all local plant control systems developed by the ITER Members.</p> <ul style="list-style-type: none">- Develops Linux, RT Linux (MRG-R) and EPICS device drivers for ITER standardized I/O boards as part of CODAC Core System distribution;- Develops other low-level software in the area of real-time control and high performance networking;- Supervises and monitors similar work by external contractors and take over maintenance after delivery; <p>Implement, execute and document test procedures to ensure quality of all low-level software products in the CODAC Core System distribution;</p>
Main duties / Responsibilities	<ul style="list-style-type: none">- Contributes to external plant control system developers' activity in the use of the CODAC Core System distribution;- Supports development of Input Output Controllers (IOC) in the EPICS environment;- Promotes the standards;- Performs other duties in support of the project schedule as described in the Detailed Work Breakdown Structure Schedule or Strategic Management Plan;- Performs other duties linked to the above purpose upon management request, as necessary;- Maintains a strong commitment to the implementation and perpetuation of the ITER Safety Program, values and ethics.
Measures of effectiveness	<p>Reports to the CODAC Section Leader.</p> <p>In response to requests from the Director-General and/Director for CODAC, Heating and Diagnostics Directorate, or proactively, informs the DG/ Director for CODAC, Heating and Diagnostics Directorate of any important and urgent issues that cannot be handled by the concerned line management and may jeopardize the achievement of the Project's objectives.</p> <p>Develops the assigned device drivers, real-time and low-level software products;</p> <p>Implements the test and quality assurance procedures for those products;</p> <p>Maintains the assigned products in the CODAC Core System distribution;</p> <p>Supports the external users of those products.</p>

Applicant criteria

Level of study	Bachelor or higher degree
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Diploma	Computer Sce, electronics or related discipline
Level of experience	At least 5 years
Technical experience	<p>Proficient in using Linux and real-time operating systems;</p> <p>Good knowledge in digital electronics and FPGA;</p> <p>Proficient in using oscilloscopes and other electronics instruments;</p> <p>Good knowledge in developing device drivers;</p> <p>Experience in real-time control;</p> <p>Experience in software engineering and quality assurance;</p> <p>Experience in using EPICS considered an advantage;</p> <p>Knowledge of control system development project considered an advantage.</p>
Project experience	1 to 2 years
Social skills	Ability to work effectively in a multi-cultural environment , Ability to work in a team and to promote team spirit
General skills	Excellent computer and IT skills, consistent with a complex developmental project, are mandatory.
Languages	English (Working)