

## **JOB DESCRIPTION – LABVIEW DEVELOPER / ENGINEERING SPECIALIST**

### **Summary**

The LabVIEW Developer / Engineering Specialist works primarily in DSM's Research Division, composing and debugging computer programs. The developer also needs electromechanical expertise and should be able to perform higher level tasks such as specifying hardware and troubleshooting system-level problems. DSM does not intend for this to be a full-time programming job, so the willingness and ability to support other engineering tasks is highly desirable. Areas other than LabVIEW where the Developer can contribute include electrical/mechanical assembly/test, data analysis, and CAD operation and design. Contributing to the composition of written reports and proposals may also be required. DSM provides services to external as well as internal customers, so representing the company professionally is an important part of this job.

### **Essential Functions**

- Efficiently develop software in the LabVIEW programming environment. Familiarity with higher-level concepts such as classes will be needed.
- Distill system-level requirements into individual specifications for mechanical, electrical, and software components of a system and select appropriate hardware.
- Accurately project the time required to develop LabVIEW programs, given a scope.
- Practice effective revision control of programs that are developed.
- Effectively troubleshoot the systems associated with the LabVIEW program, including not only the software but other aspects such as the host PC, sensors, electrical junctions, etc.
- Adhere to company directives and best practices related to interfacing with customers, protecting company intellectual property, purchasing and receiving materials, etc.
- Test prototypes and/or production systems. Analyze test results by making Excel spreadsheets or more advanced techniques.
- Without oversight, reliably document test results, design configurations, and similar data. Documentation may be in a log book, spreadsheet, formal report, or other method.
- Assist more senior staff, as directed.
- Work on assigned tasks diligently and in a safe manner that protects yourself and others.

### **Preferred Qualifications**

- At least 1500 hours of experience programming in LabVIEW.
- Minimum certification of National Instruments CLAD, Certified LabVIEW Developer or higher credential preferred.
- Understanding of good programming practices and higher level concepts such as classes.
- Completion of an Electrical or Mechanical Engineering program is desirable but not required. Completion of some form of a technical degree is expected.
- Some electrical and mechanical troubleshooting experience.
- Experience with common laboratory sensors and instrumentation such as encoders, LVDTs, multimeters, digital oscilloscopes, micrometers, and capacitive probes.
- Experience with solid modeling or electrical CAD is desirable but not required.

### **Work Environment**

Generally works in climate controlled office or laboratory environment but may occasionally be required to perform duties outside the typical office setting. May at times work in a loud environment with nuisance noise. Limited overnight travel may be required.

### **Behavioral Expectations**

- Internally motivated, “self starter” type personality.
- Reliable, can be trusted to work consistently on tasks without close supervision.
- Able to work on tasks individually or as part of a small team.
- A “life-long learner” that is willing to develop new skills and proficiencies.

### **Physical Demands**

- Can assemble small (e.g. 3 x 3 x 4 mm) delicate components by hand and can manipulate small hand tools.
- Able to carry up to 25 pounds frequently.

**Overtime Status:** Exempt (Not eligible for “time and a half” or similar increased overtime wage)

Employees may be required to work with ITAR-restricted information, so applicants will be required to acknowledge their eligibility and acceptance of responsibility relative to ITAR before beginning employment. All employees must execute an employee non-disclosure agreement before beginning work at DSM.