25Statement of Work

IUMPR Data Collection Tool.

August 25, 2016

List of Tasks

1. The provider shall execute a detailed design document starting with the IUMPR process document and data collection tool report mockup using a method of their own choice. This detailed design document shall complete all design elements not defined in the process document and report design. The detailed design shall include the necessary calls to an industry standard communications interface such as TMC RP1210C or SAE J2534. The detailed design shall include a user interface concept prototype and draft user documentation. The prototype shall be executable on a Windows™ 7 through 10 operating system PC or laptop. The user interface design prototype shall model all user interaction, including the user's ability to interrupt the data collection process at the end of day without shutting the engine down. The user interface design artifact shall define the program initiation and shall implement the file management functions required to assess the file management capability needed to append new data collection content onto prior data collection files while checking required data quality assurance checks including VIN and CAL ID. The provider shall define and generate the test data to be used to evaluate the completed CSCI in conjunction with provider's test plan developed under Task 2.

   [The IUMPR team will provide example HD OBD system responses to the queries shown in the process document to allow provider to analyze their detail design and subsequently create test data based on real vehicle data].

2. The provider shall prepare a test plan in provider's choice of format that summarizes their approach to testing and defines the individual tests to be undertaken for the prototype software and the initial release. The test plan shall define:
   a. What steps will be taken to assure that the operating system support requirements of Windows™ 7 – 10 are satisfied.
   b. How the file system service calls will be tested to assure that the data processing of the work file is reliable and does not create lost file fragments on the storage device or other file system errors and media artifacts.
   c. How the work file rendering process will be evaluated, where the work file does not use a clear text format or .pdf format
   d. The identification of the individual software units and their unit test plans.
   e. The integration test steps that the provider shall undertake to test the software, and qualify the software for testing on a vehicle.
   f. How the key elements SAE J1939-21 like query retry attempts, query timeouts, and control byte values other than (and including) zero (ACK) shall be validated prior to use of the software on a vehicle.
   g. How the individual J1939 queries listed in the IUMPR process document will be modeled for testing, and what measures are planned to exercise the alternation in the process logic and shown on user interface displays based on the returned data.
   h. How the integrated software will be tested using the chosen industry standard communications interface.
   i. The format to be used for the test reports of the identified tests, and incident reporting.

3. The provider shall support a software design review to affirm the content of the detailed design, user interface concept and prototype, test plan and CSCI integration test procedures. The IUMPR users will comment upon the detailed design and user interface concept prior to the coding of the software.

4. The provider shall implement the detailed design provided in Task 1 as commented upon in Task 3. The implementation shall use the MISRA C++ guidelines and lint tool, or an equivalent programming language standard with its own "lint" tool, and provider's proposed industry standard communications interface. The software shall be tested using the example responses provided for Task 1, provider's test plan created in Task 2, and synthetic data created by the provider. [The implementation language and lint tool must be declared in the provider's proposal]. Full scale testing of the CSCI shall employ queries and response messages provided through the standardized communications interface.

5. The provider shall support the analysis of user complaints and provide for their redress for a period of not less than 90 days. The improved software and software test plan resulting from this time period shall be provided as defined in item 6 below.

List of Deliverables

1. Implementation issues list in provider's standard format with running status and progress report (letter form), weekly. The issue list shall clearly identify those elements for which the provider requests guidance from the IUMPR team.
2. User interface prototype for Microsoft Windows™ 7 through 10 operating systems. This artifact shall be delivered to a SourceForge project site.
3. Software Detail Design Documentation using methods chosen by provider (and disclosed in provider's proposal). The artifact shall be delivered to the IUMPR team and the SourceForge project site. The detail design shall include draft user documentation on the use of the software, and shall be representative of the user interface prototype. Where electronic design means are used to create the software detailed design, a commonly available document type, such a PDF, shall be also be provided to provide a reviewable document without purchase of the design [means] tool.
4. Software test plan as described by task 2 in provider's standard format. Test plan elements shall describe the inputs and expected outcomes to be used in provider's development test process and release process.
5. Design review agenda, presentation of key issues in provider's standard format, and design review meeting (teleconference). Design review minutes in letter form.
6. Tested software and final user documentation for user testing using a SourceForge project site. The revised test plan, test scripts and test data for the software and as built detail design documentation shall also be delivered at the same time.
7. Final software [resulting from the support period], final test scripts and test data, final (as-built) detail design documentation and (as-built) user documentation to the SourceForge Project site.

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Request For Proposal

Contact Information

The Equipment Tool Institute is pleased to accept offers to sell the software products described in the attached documents:

- Statement of Work
- List of Deliverables
- IUMPR Data Collection Tool Report Mockup
- IUMPR Data Collection Process
- Terms of Service for IUMPR Data Collection Tool

Offers shall be delivered to ETI at 37899 W. 12 Mile Rd. Suite 220, Farmington Hills, MI 48331 using normal business means or electronic means at rmatz@etools.org. Offerors may contact Rick Matz (734 673 9605, rmatz@etools.org) with their questions. Offers shall arrive no later than September 16, 2016.

Proposal Content

Proposals shall consist of two sections, at a minimum. The first section shall be provider's business proposal. The second section shall be the provider's technical proposal.

Business Proposal Content

The business proposal section shall provide a price schedule for the statement of work and list of deliverables. The price list shall be supported with a model work schedule which discloses provider's basis of estimate for each task and deliverable. The model work schedule shall be scaled in weeks after receipt of order (ARO).

The business proposal section shall also pledge key personnel for the execution of the work. The qualifications for the key personnel as they relate to the IUMPR Data Collection Tool Report Mockup and Data Collection Process shall be summarized along with their relevant training and education. At least two key personnel shall be named. One must be the principal business contact. The second must be the technical lead responsible the design and development work.

Deliverable prices shall only include the publication and distribution costs. Deliverable price costs must not include technical effort attributable to statement of work tasks. The technical effort attributable to work task shall be priced separately. The deliverables provide evidence as schedule milestones; technical task invoices will not be paid until after the accompanying deliverables have been accepted. The provider may propose no more than two progress or interim payments (e.g. for the design review completion, software delivery) prior to the end of the project. The business proposal is subject to the attached purchasing terms and conditions <Cite terms and conditions here>.

Technical Proposal Content

The technical proposal section shall identify provider's approach for the IUMPR Data Collection tool as described in the Statement of Work, IUMPR Data Collection Process and Data Collection Tool Report Mockup. Each statement of work task shall be discussed in provider's proposal. The description of the approach for tasks 1, 3 and 4 shall identify provider's intended design process, software development environment including configuration management process, intended programming language for implementation, naming and coding standard, "lint" tool, and anticipated artifacts generated by the environment. Ideally, examples showing the provider's intended formats for design documentation will be included in the proposal.

Provider's description for tasks 1 and 3 must disclose the intended software implementation language(s), analysis tools, and software development environment, including provider's standard method for configuration management of software programs. The provider shall identify the any user interface development tool that they intend to use to create the user interface design and the user interface prototype. The provider shall disclose the work file format they intend to employ. If the provider intends to employ a work file format other than a clear text file [whether UTC or ASCII], the provider shall describe the report rendering process for the selected work file format as part of their technical approach. The provider shall also provide their opinion on the need to create copies of work files to protect data content in the work file before appending data onto it.

The technical proposal section shall define provider's test approach to integrate and evaluate the IUMPR Data Collection Tool CSCI before its release and use. This test approach must relate to the test elements identified for task 2. The proposal shall discuss how test data and drivers are coordinated with delivered items within the provider's software configuration management methods. Finally, the technical proposal section shall define the anticipated communication procedures for the 90 day support period for task 5.

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