

**Department of the Army
Brand Name Justification
For Purchases below the Simplified Acquisition Threshold**

Purchase Request #: [REDACTED]

1. **Contracting Activity:** The Army Contracting Command-Detroit Arsenal (ACC-DTA), is the procuring activity for this action.

2. **Description of the Supply or Service Purchased:** This action is to support the Ground Vehicle System Center (GVSC) for the procurement of ETAS EHANDBOOK software licenses for its existing EHANDBOOK Container-Build and Navigator software applications for controls software development and testing. These software programs are utilized to develop engine controller software documentation for Army tanks and support vehicles.

The specific items to be purchased are:

- 1) 1 EHANDBOOK Container-Build (EHB-CB) base framework with converters for directory-based sources
- 2) 1 EHANDBOOK model converter for C-code
- 3) 1 EHANDBOOK PDF generator
- 4) 17 EHANDBOOK – Navigator “FULL” version

Suggested Vendor:

ETAS, Inc.

15800 North Haggerty Rd

Plymouth, MI 48170

CAGE Code: 31TV4

Unique Entity ID: KJT1SC18E836

3. **Dollar Amount:** The estimated total purchase price is \$58,919.00. The type of funds is Fiscal Year 2022 Research, Development, Test and Evaluation (RDT&E).

4. **Authority Cited:** The authority permitting other than full and open competition for this procurement is FAR 13.106-1(b)(1)(i), “Soliciting from a Single Source”, pursuant to which contracting officers may solicit from one source upon determining that only one source is reasonably available based on the circumstances of the procurement to include brand-name acquisitions.

5. **Reason for Authority Cited:** The EHANDBOOK Container-Build and Navigator software are proprietary to ETAS, Inc. ETAS is the only supplier of the EHANDBOOK software licenses necessary for use on the GVSC Real-Time Control Systems (RTCS) software applications for controls development and testing. The software will allow GVSC to efficiently and automatically generate software documentation (software requirements, interfaces, data dictionary, and models the Government’s hand-coded C

software) with interactive, graphical models of the C code that seamlessly interacts/interplays with the RTCS team's software build environment and software and calibration tool, INCA, for efficient software and calibration development. Since all software development and validation are performed in an ETAS development environment, there is only one source for this action.

The EHANDBOOK software is currently being used for all of GVSC RTCS control systems development. The combined cost of the previously purchased compatible software and hardware for control systems development runs [REDACTED]. In addition, the cost of purchasing new/different software applications and tools that would be compatible with an alternate set of hardware, plus the cost and time required for training personnel on new software (which could take three to six months), would make switching to a different platform impractical. The software being purchased under this contract is the only software available that works with the tools and equipment currently in use. Switching to a different vendor's software such as MSC software, Ansys or Autodesk would require additional training costs associated with developing proficiency in the use of new tools and equipment. The estimated total cost of such a redundant system would be between [REDACTED]. GVSC engineering has determined that ETAS is the only qualified contractor who can provide the software applications for controls in GVSC's technical development and testing for engine controller software for Army tanks and support vehicles

6. Market Research: Pursuant to FAR Part 10, market research was performed in May 2022 by GVSC engineer Joseph Stempnik. The market research included comparison of software applications and tools from MSC Software, Ansys, Autodesk, and Matlab Simulink utilizing internet searches. Product literature published online by potential vendors is listed below. The commercially available software applications and tools included:

MSC Software – EASY5: EASY5 provides easy to use and interactive modeling environment that allows users to create system models by selecting from an extensive library of pre-defined components representing complex physical elements like gears, pumps, valves, and heat exchangers. These simulation techniques can be applied to an extremely broad spectrum of complex systems such as engine/vehicle controls systems to HVAC systems and robotics and flight control systems.

Ansys – SCADE Suite: Ansys SCADE Suite drastically reduces safety certification costs by simplifying critical control application design and automating verification, qualifiable/certified code generation, and documentation generation. Ansys SCADE Suite integrates seamlessly in the user flow, thanks to its support of interoperability standards, and its Python-based customization capabilities.

Autodesk – Fusion 360: Fusion 360 is a cloud-based 3D modeling, CAD, CAM, CAE, and PCB software platform for professional product design and manufacturing.

- Design and engineer products how you want to ensure aesthetics, form, fit, and function
- Engineer, design, and create anything with comprehensive electronics and PCB design tools
- Save time and money and get quality parts out the door faster

Matlab Simulink: GVSC also looked at Matlab Simulink which is used to develop a model of the control algorithms, and then auto-generates the source code. This is a model based tool that doesn't auto-generate the model, in a useful format, from the hand-coded source code along with the other required software documentation.

While all the above vendors provide similar software capabilities for modeling controls systems and vehicles, they do not autogenerate all the software documentation (requirements, interfaces, data dictionary, and modeled view of the source code). Each one has its unique functionality requiring additional training, as well as requirement for redevelopment of existing data models from the Government's hand-coded C and do not integrate with the Government's software build environment nor the Government's software and calibration development tool, INCA. The training would require both comprehensive beginner and advanced instruction (which is not provided free of charge) in usage of any new tools. As a result, the Government has determined that the ETAS HANDBOOK software licenses provide the richest and fullest feature framework to fulfill the requirements of the GVSC RTCS, and the commercial support provided exclusively by ETAS is required to address technical issues and software maintainability related to the EHANDBOOK software.

7. Other Facts:

a. Procurement History:

In 2020, W56HZV-20-P-L245 was awarded in the amount of \$41,367.00 to ETAS, Inc., with a period of performance of 10 July 2020 to 09 July 2021. Other than full and open competition. Contract type: Firm Fixed Price (FFP). No socioeconomic category. NAICS: 511210. Size standard: \$41.5M.

8. The **POC** for this action is Ms. Jessica Moody, Contract Specialist, jessica.r.moody.civ@army.mil, 614-965-0552.

9. Technical Certification: I certify this justification is accurate and complete to the best of my knowledge and belief.

Name: Raymond A. Samul

Title: IT Procurement Team Lead, GVSC

Signature: ///ras/// Raymond Samul

Date: 28 July 2022

10. Contracting Officer Certification: I certify this justification is accurate and complete to the best of my knowledge and belief.

Jeffrey B Yeager //jby// 7/28/2022

Contracting Officer