

US ARMY CORPS
of ENGINEERS

ELECTRONIC TECHNOLOGY SYSTEMS CENTER

Unmatched experience
and technical expertise
make Huntsville Center
the recognized leader
for electronic systems

Volume 5, Issue 1

ETSC Offers Full Range of Contract Support



The Electronic Technology System Center (ETSC) continues to offer a full range of contractor support for electronic security, utility monitoring control, and related systems. These families of contracts provide ready access to industry experts to perform the full range of studies, site investigations, analyses, design, installation, maintenance and monitoring.

The ETSC maintains three contract families. The first contract family consists of architect/engineer (A/E) contracts. These contracts are typically used to investigate site conditions, prepare designs, create criteria documents (such as design guidance and guide specifications), and other engineering efforts.

The second contract family consists of procurement and installation contracts which are typically used to buy and install electronic security systems, utility monitoring and control systems, fire alarm systems, and other electronic systems. These contracts are also presently used to perform maintenance and monitoring services.

The third contract family consists of engineering services contracts which are used to provide engineering and project/program support.

A fourth contract family is planned for the near the future. That family of contracts will provide electronic systems maintenance, service, and monitoring capability worldwide.

All of these contract families provide many advantages to ETSC customers. **First**, these families of indefinite delivery indefinite quantity (IDIQ) contracts provide for a long-term partnership between the ETSC, the customers, and the contractor community. **Second**, the ETSC has multiple contractors available in each family to provide for competitive acquisition of either study, design, engineering support, procurement, installation, maintenance, or monitoring services. The intra-family competition provides a high degree of assurance to the ETSC customers that they are receiving the highest quality services at a fair, competitive price. **Third**, the availability of multiple contractors provides ETSC and their customers a great deal of flexibility in choosing specific pieces of equipment and the supplying vendor. The flexibility in equipment selection is especially important on projects that require the expansion of or interconnection to an existing system. Finally, through the project management structure at the ETSC, lessons learned on a project with one contractor can be easily and

SEE CONTRACTS PAGE 2

CONTRACTS continued

effectively communicated to all the other contractors. This fosters the concept of "*continuous improvement*" in the level of performance of the entire delivery system, over time.

Accessing any one of these contracts is straightforward and efficient. The initial contact is with one of the ETSC project managers to discuss scope (including whether contract assistance will be required), schedule, and funding requirements. In conjunction with the customer, the ETSC team develops a contract statement of work and an independent government estimate. This scope of work is then distributed to the appropriate group of contractors depending on the type of systems involved (i.e., UMCS or ESS) and the nature of the work to be performed (study, analysis, design, equipment procurement and installation, maintenance or monitoring). The contractors are typically requested to provide a firm fixed price proposal for the work described in the statement of work. For some projects, a site visit will be required by the proposing contractors in order to review specific site conditions and understand the requirements of the statement of work.

Once the firm fixed price proposals are received from the interested contractors, ETSC staff will evaluate the proposals and select the contractor that is best suited for the particular project.

Maintaining contracts with multiple service providers with particular expertise in either UMCS or ESS provides the ETSC customer with an extraordinary amount of contract capacity and supplier selection to meet specific requirements, complexity, and magnitude of specific projects.

Currently, the ETSC has the following firms under contract for electronic system studies, surveys and designs: DMJM Holmes & Narver, Black and Veatch, Professional Systems Engineering, EMC Engineers, Kling, Shearer & Associates, and Facility Dynamics.

Similarly, the firms currently holding procure and install contracts are Adesta LLC, Johnson Controls Inc., Lockheed Martin, Williams Electric Co, Vindicator Technologies, Siemens, TAC, Select Energy, EMC Engineers, and Alabama Client Controls. A new family of ESS procure and install contracts are currently in the contractor selection phase.

Firms holding engineering services contracts with ETSC are SEI Group, Alutiiq, Shearer & Associates, SIM-G Technologies LLC, and EMC Engineers.

To initiate support or to inquire further about the contract capabilities of the ETSC, contact one of the ETSC project managers at **256-895-1756**.

For more information contact one of
the ETSC project managers at

256-895-1756.

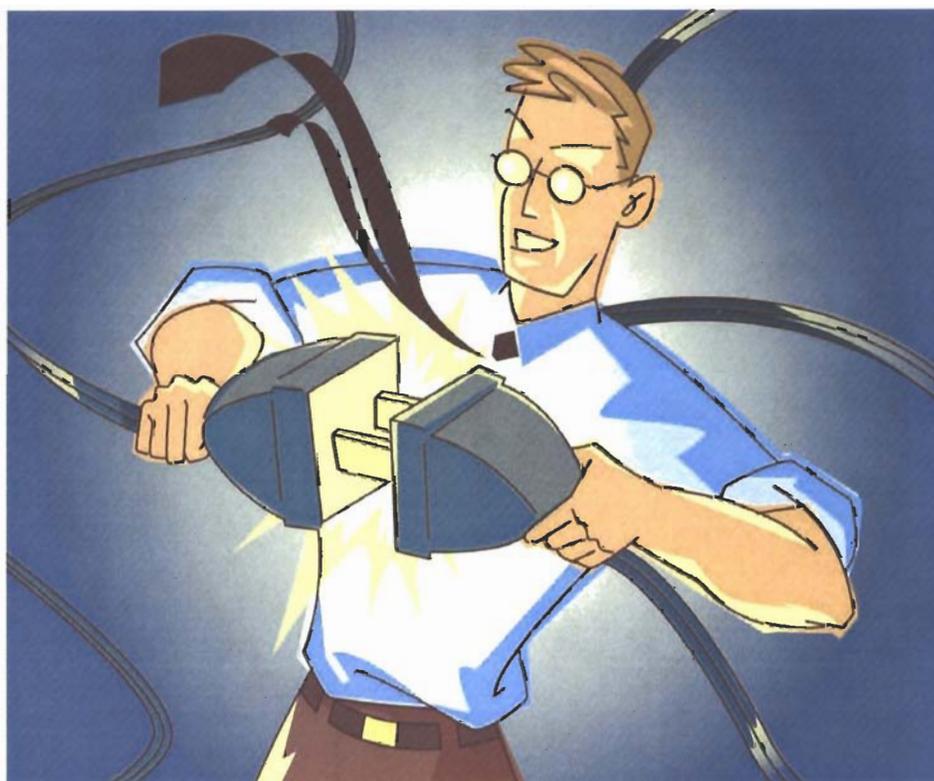
Corps of Engineer's Releases New UMCS and DDC Specifications



The U.S. Army Corps of Engineers recently released two new specifications enabling designers to specify open, non-proprietary building automation systems. With the release of Unified Facilities Guide Specifications (UFGS) 13801, "Utility Monitoring and Control Systems," and UFGS-15951, "Direct Digital Controls for HVAC and Other Local Building Systems," inconsistencies and incompatibilities between new and existing building systems can be eliminated.

Previous specifications (UFGS-15950A, UFGS-13801A, UFGS-15951A, and UFGS-13814A), which have since been rescinded, often led to non-integrated systems from multiple vendors being installed at a single location, resulting in inefficient, complex, and non-functioning systems. These systems tended to be designed and implemented on a system-by-system basis with multiple vendors winning individual installation contracts. Generally, these vendor specific systems could not interoperate with each other or could do so only after considerable effort and expense. Buildings that utilize automation systems based on the new specifications should realize savings due to lower installation and maintenance costs, reduced energy costs, supplier independence, and a more competitive bidding process.

The new specifications are based on LonWorks® technology with ANSI/EIA 709.1 open communications protocol. This technology was originally developed by Echelon Corporation and includes



use of LonWorks certified products and independent systems integrators. A LonWorks based system enables key building sub-systems such as security, lighting, elevator, and HVAC controls from multiple manufacturers to be integrated into a single smart building system. Currently, over 560 products from more than 70 different vendors have been certified as LonWorks compliant. The large number of systems and manufacturers supporting the open protocol will give designers and specifiers considerable flexibility in control system selection.

The two new specifications should be used together, and details on their use are described in UFC 3-401-01 and UFC 3-401-02. In general, UFGS 15951 is tailored to building level control systems while UFGS 13801 is tied to integration of the building

level systems with the system wide UMCS. In practice, a UFGS 13801 specified UMCS should be outlined in the initial project along with any applicable UFGS 15951 specified building level control systems. This approach will lead to the establishment of LonWorks compliant head end workstations and databases. Subsequent building level control systems can then be added as needed and can be interfaced via the ANSI/EIA 709.1 communications protocol. Existing systems can be interfaced to the new UMCS using a gateway. Yet another benefit to the open communications protocol is that customers unsatisfied with the front-end software will have the ability to simply replace the software with that of another vendor without replacing the remainder of the system.

[SEE NEW SPECIFICATIONS PAGE 4](#)

UPCOMING ELECTRONIC SECURITY SYSTEM DESIGN COURSES

- 6-10 June 2005
ESS Design Course (OPMG)
To enroll, contact Mr. Ed Parsons, at (703) 693-9070
or e-mail Edward.Parsons@us.army.mil
- 15-19 August 2005
ESS Design Course (PROSPECT)

for more information about the courses,
<http://pdsc.usace.army.mil/CourseListDetails1.asp>

ETSC POINT OF CONTACT

PHONE: (256) 895-1740

Contact-ESC@hnd01.usace.army.mil

NEW SPECIFICATIONS continued

For truly stand-alone building systems, designers can revert back to UFGS 15910N or modify the new specifications. When modifying the new specifications for a stand-alone system, the designer will be required to either add requirements to UFGS 15951 from UFGS 13801 or just use an edited version of UFGS 13801. Either approach is acceptable as long as a building level operator interface and a network configuration software tool are accomplished.

Although the new specifications are a bold step towards truly open building automation systems, simply specifying LonWorks technology and the ANSI/EIA 709.1 communications protocol does not ensure a non-proprietary system. Fortunately, appendices in both UFGS 15951 and UFGS 13801 provide quality control checklists that should be consulted to determine whether or not a proposed system is in fact non-proprietary.

Several PROSPECT courses on the new specifications are available for guidance, including UMCS LonWorks (Course 094), HVAC Control Systems Design (Course 340), and HVAC Control Systems Quality Verification (Course 382). Course descriptions and availability can be found at the USACE Professional Development Support Center website at <http://pdsc.usace.army.mil>

