



STANDARDIZED UXO DEMONSTRATION SITES

UNEXPLODED ORDNANCE (UXO) ELECTRONIC DATA COLLECTION TOOL



The costs associated with UXO recovery are high and the Defense Science Board Task Force (DSBTF) estimates that over 10 million acres of land are contaminated by UXO. Remediation of these sites will involve tens of billions of dollars. These sites include Formerly Used Defense Sites (FUDS) and Base Realignment and Closure (BRAC) installations that must be cleared of UXO for further use.

UXO recovery field data currently exists in a variety of forms, degrees of detail, and completeness. Historically, UXO recovery information has been recorded manually in the field using pen and paper, requiring intermediate steps for manual transcription to capture data electronically for reports. These additional steps may introduce errors when transcribing data and add to labor costs. Population and maintenance of the UXO Recovery Database, a centralized repository for UXO recovery data used to understand the penetration nature of UXO at Munitions Response Areas, could also be costly.

The National Defense Center for Environmental Excellence (NDCEE) has developed a handheld device for recording UXO recovery and removal action data in the field, which can then be uploaded to the UXO Recovery Database System web site. The NDCEE-led project team included representatives from the U.S. Army Corps of Engineers, U.S. Army Environmental Command, Joint UXO Coordination Office, and others. The NDCEE seeks to transition this technology to the Department of Defense (DoD) and other government organizations who participate in UXO recovery and removal operations.

The EDCT complements the UXO Recovery Database System by improving the accuracy of data collection and reducing information management costs. The EDCT utilizes Microsoft Visual C (C Sharp) as the programming language with Microsoft Visual Studio.NET (Microsoft.NET Compact Framework) interface and is optimized for a Microsoft Pocket PC platform. The EDCT is compatible with any handheld unit running Pocket PC 2000 or higher.

The Electronic Data Collection Tool (EDCT)

This Fact Sheet is a reference document only and does not serve as an endorsement of the product by the U.S. Army or the Standardized UXO Technology Sites Program.

For more information

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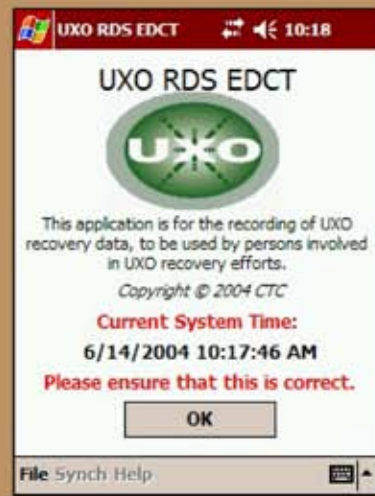
Because of its foundation on commonly used and widely available personal digital assistants (PDAs), collecting data in the field with the EDCT system is easily accomplished with a user-friendly system interface. The interface features various drop-down menus that pertain to desired field data, such as soil type, recovery depth, UXO category, type, size/model, disposition, etc. the field data entered into the EDCT unit can be uploaded directly to the UXO RDS, thus eliminating potential transcription errors and reducing labor costs. Recent enhancements to the EDCT allow expanded data collection including Global Positioning System data and digital photograph capability.

TECHNOLOGY BENEFITS AND ADVANTAGES

- Offers baseline cost savings of \$18,000 per six-month project where data is uploaded to the UXO RDS.
- Eliminates the use of paper records, which reduces supply, wastes, and storage fees and minimizes DoD's environmental footprint.
- Reduces or eliminates labor required for transcription, quality assurance, data reentry, formatting, and manual entry for handwritten field notes.
- Allows users to perform searches and statistical analysis on field data.
- Eliminates the need for tablets/binders in the field, which allows for easier movement.
- EDCT gathers data for the UXO Recovery Database System (RDS).

POTENTIAL FIELD APPLICATIONS

The EDCT is a candidate technology for transition/implementation at any active or inactive DoD range where UXO recovery data must be tracked, logged, and/or documented. In addition, this tool can be customized for data collection attributes according to user needs outside of the UXO community.



NDCEE
National Defense Center for Environmental Excellence

