



**US Army Corps
of Engineers.**
Construction Engineering
Research Laboratory

Fact Sheet

U.S. Army CERL
P.O. Box 9005
Champaign, IL 61826-9005

Public Affairs Office
Phone: (217)-352-6511
Fax: (217) 373-7222
<http://www.cecer.army.mil>

March 1999

(CF 25)

BUILDER ENGINEERED MANAGEMENT SYSTEM

The Problem

The Army devotes about 55 percent of its installation real property maintenance funds to the maintenance and repair (M&R) of buildings. It is difficult to allocate these funds optimally because no structured objective condition rating system for work identification exists, and there is no procedure for quickly developing short- and long-range work plans based on a sound investment strategy. Accordingly, key components are not inspected properly, deficiencies are not identified, and work is not planned, programmed, and budgeted efficiently. The large number of buildings on installations increases the difficulty of budgeting effectively and allocating funds to areas that may need them the most. In addition, it is difficult to institute and evaluate the effectiveness of preventive maintenance programs and to set work priorities. Objective work planning is sacrificed. Cost-effective M&R programs cannot be attained, severely straining already limited funds. Mission capabilities, quality of life, and facility investment responsibilities are jeopardized.

The Technology

An Engineered Management System (EMS) provides the engineer/manager with a decision support tool to decide when, where, and how to best maintain facilities and their key components. BUILDER is a WindowsTM-based software application EMS for buildings. It is being developed to perform on a network for multi-users.

BUILDER brings together a variety of technologies and methods. They include an inventory of building major components, video imaging, checklist-style, pen-based inspections, work history, condition indexes, condition prediction, prioritized long-range work planning procedures, presentation graphics, and an interface to a geographical information system (GIS).

BUILDER allows users to manage buildings individually or in groups. Historic, housing, health/environment, and safety/code issues can be effectively managed. Projects can be BUILDER generated and/or initiated externally from customer requests.

Benefits/Savings

BUILDER consolidates a variety of building-related management issues into a single decision-support package. Functional managers and decision-makers will know what building assets they have, what condition they are in and will be in, and what environmental, etc., issues exist. They can develop multi-year M&R strategies and plans based on site-specific information and imposed budget constraints. M&R cost savings will result, mission capabilities will be met, and quality of life will be enhanced. The role of the facility manager will be enhanced because many analysis procedures can be accomplished which were not previously possible.

Status

BUILDER version 1.0 (beta) will be released in FY99. The technologies to be included are complete, and computer programming is undergoing revision based up the field test. Field testing has been accomplished at Ft. Riley, KS and Moody Air Force Base, GA. Additional beta testing will be accomplished in FY99.

Points of Contact

CERL POC is Dr. Don Uzarski, COMM 217-352-6511; toll-free 800-USA-CERL; FAX 217-373-7222; email d-uzarski@cecer.army.mil ; or CERL, ATTN: CECER-CF-F, P.O. Box 9005, Champaign, IL 61826-9005.

Visit the CERL homepage at <http://www.cecer.army.mil>