Welcome to the Sustainment Management System

The Sustainment Management System (SMS) with BUILDER™ Version 3.3 is the newest product in the SMS under development by the U.S. Army Corps of Engineers at its Engineering Research and Development Center-Construction Engineering Research Laboratory (ERDC-CERL) in Champaign, IL. Depending on a user's needs and licensing, the new SMS framework provides Web-based access to the latest versions of BUILDER and/or ROOFER™, automated tools that support engineering and facility management decisions regarding when, where, and how best to maintain buildings and their key components.

While the Sustainment Management System is being developed for military installations, it is applicable for any organization with facility management responsibilities. License agreements providing access to the SMS technology are available from multiple providers.

BUILDER

BUILDER uses as its primary condition measure a condition index (CI) rating on a 0-to-100 point scale. The condition index for each Component-Section is computed from inspection data that records the type, severity, and density of each distress found. Deterioration curves developed from experience over time show the optimal point at which work should be done to avoid more costly rehabilitation projects later.

A recent addition to the SMS is the functionality index (FI). The FI is the primary functionality measure and uses a 0-to-100 point scale in keeping with the SMS design philosophy. The functionality index is computed from assessment data that records the functionality issues present in the building and the severity and density of those issues. Based on the assessment data, building modernization requirements can be identified.

With the assistance of the Scenarios simulation engine included as part of BUILDER, managers can develop long-range work plans based on a sound investment strategy. By providing an objective description of condition (core BUILDER functionality) and an automated means of exploring various options

under different budget scenarios (Scenarios), BUILDER and Scenarios together make multi-year work plans easier to formulate and funding requests easier to justify. The goal is optimal facility performance for the dollars invested.

As a BUILDER user, your are invited to stop by the SMS Community User's Group Website for the latest information, announcements, links to documents, and discussion forums.

ROOFER

ROOFER uses standard inspection procedures and numerical indexes for assessing condition. A roof's condition is determined based on distress data collected during visual inspections; for insulated membrane roofs, additional information is provided by nondestructive moisture surveys and gravimetric analysis of core cuts.

The inspection data provide the information needed to generate condition indexes for the major roof components and an overall roof condition index (RCI). Component indexes for the membrane (MCI), flashing (FCI) and insulation (ICI) comprise the RCI for low-slope membrane roofs. For asphalt shingle roofs, two component indexes, the shingle condition index and the FCI, comprise the RCI. These indexes provide an objective, consistent measure of roof condition, repairs needed, and waterproof integrity.

ROOFER enables building managers to rate their present roof condition, prioritize projects, and optimally allocate the budget. At the project level, ROOFER can help select repair and replacement strategies and identify work requirements. In the long term, this technology results in maximized roof conditions using available funds.

As a ROOFER user, please stop by the SMS Community User's Group Website for the latest information, announcements, links to documents, and discussion forums.

Developed by U.S. Army ERDC-CERL

10/6/2015