

BUILDER™ Sustainment Management Services

RESULTS

- >> *BUILDER™ SMS allows managers to gather the right data, at the right time, at the right level to make informed engineering and resource decisions.*
- >> *CALIBRE successfully provides BUILDER™ SMS program set-up, training, and data collection services to the Department of Defense (DoD), federal and state agencies, and the private sector, including medical facilities. BUILDER™ SMS is a U.S. Army developed software available free to federal agencies.*
- >> *Having completed BUILDER™ SMS on over 60 million square feet of facilities, we work with organizations to tailor the BUILDER™ SMS program to best fit customer requirements and to ensure the proper level of data collection to meet customer needs.*

To assist facility portfolio managers and public works departments in their facility investment decisions. BUILDER™ SMS provides a support tool for sustainment, restoration, and modernization decisions. The BUILDER™ SMS results can be used to support facility sustainment, restoration, and modernization resource allocations based on sound unbiased decision support tools.

BUILDER™ SMS projects 10-year capital planning requirements based on tested engineering algorithms that adjust facility condition indices based on funding scenarios and elapsed time without the requirement to fully re-inspect facilities. It provides an objective list of requirements based on observation rather than subjective engineering judgment.

>> *What is BUILDER™?*

The BUILDER™ SMS is a product in the family of SMS tools developed by the U.S. Army Corps of Engineers at its Engineer Research and Development Center, Construction Engineering Research Laboratory (ERDC-CERL) in Champaign, IL. BUILDER™ SMS is a web-based software application scientifically developed to help engineers, and managers decide when, where, and how to best maintain building infrastructure and avoid unnecessary cost. Key factors to the SMS concept are the structured techniques, procedures, and processes necessary for effective maintenance management. Included in this concept is the fundamental need for facility or component condition assessment information that supports the infrastructure investment decision making process.

BUILDER™ SMS provides automated procedures and tools to support the planning, programming, and budgeting of infrastructure facilities maintenance and repair that improves sustainment; identifies timely repairs or replacements based on expected service life; and avoids untimely and excessive recapitalization costs. BUILDER™ SMS technologies and methods include a comprehensive set of building component features such as:

- Quantified budget planning tools
- Prioritized long-range work-planning procedures
- BUILDER RAPID ENTRY DATABASE (BRED) uses checklist-style, menu-based inspections
- Facility Condition Index
- Condition prediction capabilities
- Revised remaining service life based on condition

- Seismic and other building compliance ratings
- Presentation graphics and photo imaging
- Capable of linking to IBM Maximo Asset Management software and other Computerized Maintenance Management Software (CMMS)
- Built-in Geographical Information System (GIS) viewing capability

>> **The BUILDER™ SMS Approach**

BUILDER™ SMS provides building asset managers with a support tool for sustainment, restoration, and modernization (SRM) decisions. The system gives functional managers and decision makers timely access to data about their building inventory, the current condition of individual buildings, a fact-based prediction of future condition, and current potential regulatory compliance issues. BUILDER™ SMS integrates information about condition, functionality, and remaining service life to develop prioritized short and long-range (multi-year) Maintenance & Repair work plans based on sound investment strategies, repeatable quantified criteria, and budget constraints. BUILDER™ SMS consolidates a variety of building-related management issues into a single, proactive decision-support package that helps manage assets and allocate resources, lowers the cost of re-inspections, and provides meaningful SRM decision support metrics.

The BUILDER™ SMS decision support tool allows users to manage buildings individually or in groups, enabling effective management of historic, housing, health / environment, and safety / code issues. Projects can be BUILDER™ SMS generated or initiated externally from customer requests.

In keeping with the SMS design philosophy, BUILDER™ SMS 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 level of each distress found. Deterioration curves were developed from lengthy study and experience with a broad range of industry standards and experts to predict the optimal point at which work should be done to avoid later more costly rehabilitation projects. BUILDER™ SMS also includes a Functionality Index (FI) that uses a 0-to-100 point scale consistent with the SMS design philosophy. The FI is computed from assessment data that records the functionality issues present in the building and the impact on operations. Building modernization requirements can be identified using the FI. With the assistance of the IMPACT simulation engine included with BUILDER™ SMS, managers can develop long-range work plans based on a sound investment strategy. By providing an objective description of condition and an automated means of exploring various options under different budget scenarios, BUILDER™ SMS and IMPACT make quantified multi-year work plans easier to formulate and justify. The goal is optimal facility performance for the dollars invested.

>> **How it Works for You**

BUILDER™ SMS will more effectively manage diverse building assets through a knowledge-based process. BUILDER™ SMS is configured to support automated download of real property data. The program uses templates to model a basic system inventory for each building type. The computer model data can be enhanced by a variety of methods to identify components and their key life cycle attributes, such as the age and material. The system uses this inventory to predict Condition Index (CI) measures for each component based on its life cycle stage. A Knowledge Based Inspection (KBI) tool identifies those components requiring visual observation based on policies and triggers set by the user.

Objective, repeatable inspections can then be performed on various components to verify their condition with respect to the expected life cycle deterioration. These knowledge based inspections focus attention on the most critical components. The system tailors inspection schedules to unique asset management requirements, drastically reduces inspection costs, and ensures asset performance to meet mission needs. BUILDER™ SMS can also be used to perform functionality assessments to evaluate compliance and obsolescence issues, and user requirement changes. These functionality assessments are used to identify modernization requirements. Together with condition assessments, they provide a comprehensive picture of the overall performance of building assets and their key components to allow the most effective investment of critical resources.

ABOUT CALIBRE

CALIBRE Systems, Inc. is an employee-owned management consulting and information technology solutions company supporting government and industry. CALIBRE is committed to the success of our clients and delivers enduring solutions that solve management, technology, and program challenges.

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