

# Free Resources



Sharing resources that many may not know exist





# Available Resources

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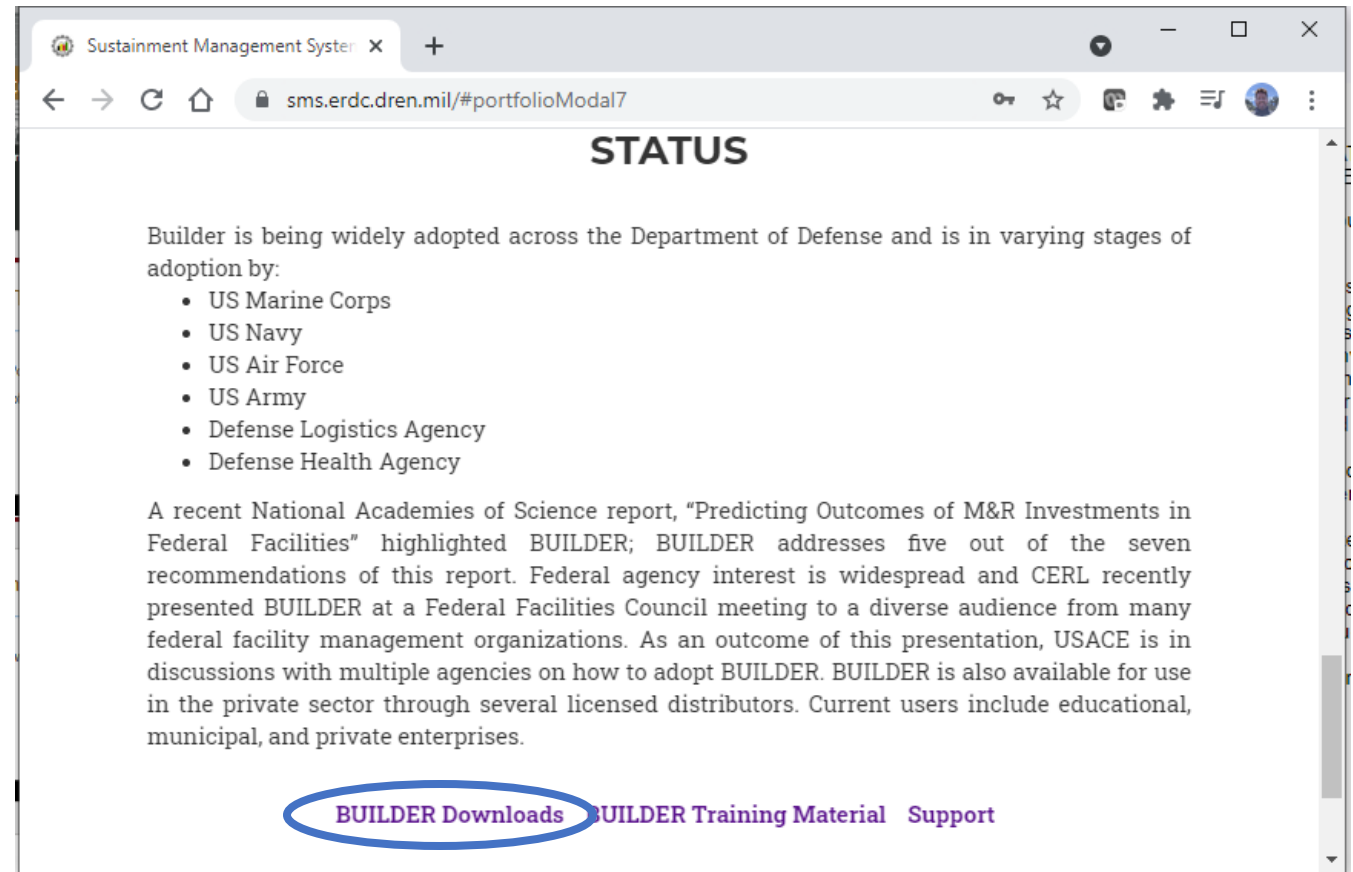
- Tools
- Reference Materials
- Custom Reports
- Training



# Tools

<https://www.sms.erdc.dren.mil/>

- Select BUILDER
- Scroll to bottom










# Tools - Equip Mapper

- Bulk data loading through BRED files
- Past Summit Training:

<https://buildersummit.com/wp-content/uploads/2019/05/WMA-BUILDER-Summit-2019-EquipMapper-Presentation.pptx>

## ↓ Equip Mapper

	Equipment Mapper Application Version 5.3	GM Gershwin Marks   ↓ 151
	Equipment Mapper Application Version 5.0	GM Gershwin Marks   ↓ 70
	Equipment Mapper Application Version 4.0	GM Gershwin Marks   ↓ 72
	Equipment Mapper User Guide	GM Gershwin Marks   ↓ 149
	Map Export Examples	GM Gershwin Marks   ↓ 139



# BRED

<https://support.sms.erd.c.dren.mil/downloads/bred>

Sustainment Management System x

sms.erd.c.dren.mil/#portfolioModal7

## STATUS

Builder is being widely adopted across the Department of Defense and is in varying stages of adoption by:

- US Marine Corps
- US Navy
- US Air Force
- US Army
- Defense Logistics Agency
- Defense Health Agency

A recent National Academies of Science report, "Predicting Outcomes of M&R Investments in Federal Facilities" highlighted BUILDER; BUILDER addresses five out of the seven recommendations of this report. Federal agency interest is widespread and CERL recently presented BUILDER at a Federal Facilities Council meeting to a diverse audience from many federal facility management organizations. As an outcome of this presentation, USACE is in discussions with multiple agencies on how to adopt BUILDER. BUILDER is also available for use in the private sector through several licensed distributors. Current users include educational, municipal, and private enterprises.

[BUILDER Downloads](#) [BUILDER Training Material](#) [Support](#)

USA BRED Lookup file  
PP Paul Paisley | 0

USAF BRED Lookup file  
PP Paul Paisley | 0

BRED Application version 3.3.7.13  
PP Paul Paisley | 451

BRED Certificate of Networthiness Expires 9/27/2021  
GM Gershwin Marks | 112

BRED 3.3.7 User Guide  
GM Gershwin Marks | 187



# Reference Materials

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- BUILDER - Getting Started Guide (<https://training.sms.erdcdren.mil/mod/resource/view.php?id=86>)
- BUILDER - Condition Assessment Guide (<https://training.sms.erdcdren.mil/mod/resource/view.php?id=83>)
- BUILDER - Work Configuration Guide (<https://training.sms.erdcdren.mil/mod/resource/view.php?id=84>)
- BUILDER - Work Planning and Scenarios Guide (<https://training.sms.erdcdren.mil/mod/resource/view.php?id=90>)
- BUILDER - Reference Data Guide (<https://training.sms.erdcdren.mil/mod/resource/view.php?id=85>)
- BUILDER - Permissions Roles (<https://training.sms.erdcdren.mil/mod/resource/view.php?id=89>)
- BUILDER - FCI vs BCI (<https://training.sms.erdcdren.mil/mod/resource/view.php?id=82>)
- BUILDER - Beta-Shift Parameter (<https://training.sms.erdcdren.mil/mod/resource/view.php?id=87>)
- BUILDER - Return on Investment-ROI (<https://training.sms.erdcdren.mil/mod/resource/view.php?id=106>)
- BUILDER RED / BRED - User Guide (<https://training.sms.erdcdren.mil/mod/resource/view.php?id=79>)
- BUILDER - API Guide (<https://training.sms.erdcdren.mil/mod/resource/view.php?id=88>)



# Research Materials

- CERL\_TM-90-1, Facility and Component Inspection Technology Concepts Potential Use in US Army Maintenance Management (<https://training.sms.erdcdren.mil/mod/resource/view.php?id=91>)
- CERL\_TR-95-30, Development of Condition Indexes for Building Exteriors (<https://training.sms.erdcdren.mil/mod/resource/view.php?id=93>)
- CERL\_TR\_M-90-19, Development of the BUILDER Engineered Management System for Building Maintenance (<https://training.sms.erdcdren.mil/mod/resource/view.php?id=92>)
- ERDC\_CERL\_SR-05-40, Engineered Management Systems in War, An In-Theater Application of BUILDER (<https://training.sms.erdcdren.mil/mod/resource/view.php?id=99>)
- ERDC\_CERL\_SR-08-1, Condition Assessment Aspects of an Asset Management Program (<https://training.sms.erdcdren.mil/mod/resource/view.php?id=95>)
- ERDC\_CERL\_SR-18-7\_Knowledge-Based Condition Assessment Reference Manual for Building Component-Sections (<https://training.sms.erdcdren.mil/mod/resource/view.php?id=96>)
- ERDC\_CERL\_TN-06-2, Building-Level Functionality Assessment (<https://training.sms.erdcdren.mil/mod/resource/view.php?id=97>)
- ERDC\_CERL\_TN-06-1, Knowledge-Based Inspection Capabilities (<https://training.sms.erdcdren.mil/mod/resource/view.php?id=100>)
- ERDC\_CERL\_TR-11-38, Integration of Sustainment Management Systems (SMS) with the Army Installation Status Report for Infrastructure (ISR-I) (<https://training.sms.erdcdren.mil/mod/resource/view.php?id=104>)
- ERDC\_CERL\_TR-10-17, Development of Army Facility Functionality Assessment Criteria and Procedures (<https://training.sms.erdcdren.mil/mod/resource/view.php?id=98>)
- ERDC\_CERL\_TR-10-18, Development of the Army Facility Mission Dependency Index for Infrastructure Asset Management (<https://training.sms.erdcdren.mil/mod/resource/view.php?id=105>)
- ERDC\_CERL\_TR-12-13, Facility Degradation and Prediction Models for Sustainment, Restoration, and Modernization (SRM) Planning (<https://training.sms.erdcdren.mil/mod/resource/view.php?id=101>)
- ERDC\_CERL\_TR-18-9, Sustainment management system dams inspection module \_ Department of Defense dams inventory and inspection template (<https://training.sms.erdcdren.mil/mod/resource/view.php?id=102>)
- ERDC\_TR-12-14, Demonstration of a Rapid Energy Audit Procedure for use with an Army Sustainment Management System (SMS) (<https://training.sms.erdcdren.mil/mod/resource/view.php?id=103>)



# Custom Reports

- CERL Created

BUILDER Catalog .....	10
Final 1 – Facility Summary Report .....	11
Final 2 – System Summary Report .....	12
Final 3 – Component Details Report .....	13
Final 4 – Equipment Details Report .....	14
Final 5 – Inspection Summary Report .....	15
Final 6 – Distress Details Report .....	16
Final 7 – Work Action Summary Report .....	17
Final 8 – Work Action Details Report .....	18
Final 9 – Facility System Quick View Report .....	19
Inspection Locks Report .....	20
QA 01 – Missing or Low Inventory Report .....	21
QA 02 – Missing Components Report .....	22
QA 03 – Naming Discrepancies Report .....	23
QA 04 – Suspect Section Inventory Report .....	24
QA 05 – Missing Section Details Report .....	25
QA 06 – Missing Section Detail Images Report .....	26
QA 07 – Sections Without Inspections Report .....	27
QA 08 – Section Details Without Inspections Report .....	28
QA 09 – Section Details Discrepancies Report .....	29
QA 10 – Missing Inspection Comments Report .....	30
QA 11 – Section Condition Analysis Exception .....	31
QA 12A – Inspection Matrix – By Site, System, Inspector .....	32
QA 12B – Inspection Matrix – By Site, System .....	33
QA 12C – Inspection Matrix – By Site, Inspector, System .....	34
QA 12D – Inspection Matrix – By Inspector .....	35
QA 12E – Inspection Matrix – GRAPH – By Site, System .....	36
QC 1 – Facilities Report .....	37
QC 2 – Systems Report .....	38
QC 3 – Components Report .....	39
QC 4 – Component-Sections Report .....	40
QC 5 – Section Details Report .....	41
QC 6 – Inspections Report .....	42

- DIGON Created

DIGON – Audit .....	7
DIGON – Catalog .....	8
DIGON - Cost Modifier Assignments .....	9
DIGON – QA Review .....	10
DIGON – QA Review+Details .....	11
DIGON – Scenario Summary .....	12
DIGON – Site .....	13





# Custom Reports

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- CERL Created

[https://support.sms.erdc.dren.mil/file.php/68GNDRSJTBNS67428D42C02/20160629\\_Prelim-Custom-Reports-Standard-Set\\_Licensees.pdf](https://support.sms.erdc.dren.mil/file.php/68GNDRSJTBNS67428D42C02/20160629_Prelim-Custom-Reports-Standard-Set_Licensees.pdf)

- DIGON Created

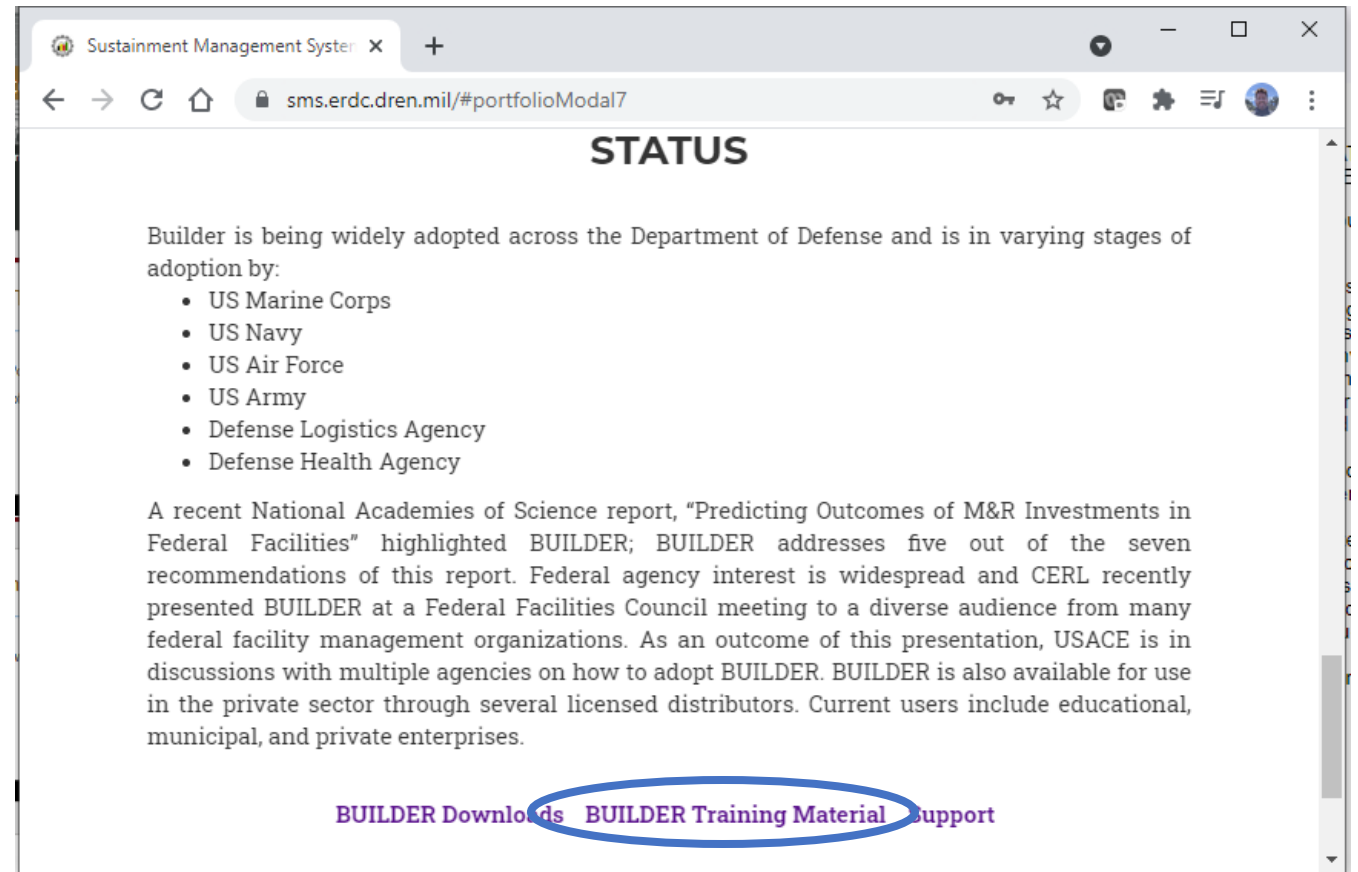
<https://buildersummit.com/wp-content/uploads/2019/08/DIGON-Custom-Reports-Guide-2019.12.04.pdf>



# Online Training

<https://www.sms.erdcdren.mil/>

- Select BUILDER
- Scroll to bottom





# Log In Options

Self-Registration on the LMS is currently restricted to specific email domains for the current SMS user community.

- dren.mil, army.mil, af.mil, navy.mil, mail.mil, uscg.mil, deca.mil, dia.mil, afit.edu, afcent.mil, anl.gov, mda.mil
- [buildersupport@usace.army.mil](mailto:buildersupport@usace.army.mil)

A screenshot of a web browser showing the login page for the Sustainment Management System Learning (SMS LMS). The browser's address bar shows the URL "https://training.sms.erd.c.dren.mil/login/index.php". The page features a header with a circular logo containing a bar chart and the text "Sustainment Management System Learning". Below the header, there are two input fields: "Username / email" and "Password". To the right of these fields, there is a link "Forgotten your username or password?". Below the input fields, there is a checkbox labeled "Remember username" and a blue "Log in" button. To the right of the "Log in" button, there is a message "Cookies must be enabled in your browser" with a question mark icon, and another message "Some courses may allow guest access". At the bottom right, there is a grey "Log in as a guest" button.



# Content Available to Guests

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- SMS Overview
- BUILDER Training
- Army Reassessment Videos



# SMS Overview

- **Description:** Provides a broad overview of the Sustainment Management System (SMS). The participants will be introduced to the basic concepts of Inventory, Assessment, Prediction, Work Planning and Forecasting used by the SMS as well as how these concepts are implemented within the enterprise SMS architecture to meet the engineering and strategic objectives of asset lifecycle management.
- **Learning Objective:** The participants will be able to describe the fundamental concepts of the SMS Process.
- **Prerequisites:** None
- **Length:** 33 minutes
- **Style:** PowerPoint Slides w/ Audio

## Navigation

- ▼ Home
  - > Site pages
- ▼ Courses
  - ▼ Sustainment Management System (SMS)
    - ▼ **SMS Overview**
      - Participants
        - > Course Description:
        - > Introduction to the SMS
      - > BUILDER
      - > Enterprise SMS (ESMS)
      - > SMS - Virtual Summit
      - > U.S. Army
      - > SMS TCX

# SMS Overview


**Sustainment Management System**


Slide Title	Duration	
Introduction to SMS	00:05	✓
Learning Objective	00:41	✓
References	00:48	✓
The Goal	00:38	
SMS Modules / Domains	03:21	✓
SMS History	00:37	✓
OSD Policy Memo	00:38	✓
SMS Usage Scenarios	01:11	✓
<b>SMS Process</b>	<b>23:27</b>	
SMS Process	03:18	✓
Inventory	00:24	
Assessment	00:51	✓
<b>Assessment - Types</b>	<b>01:40</b>	
Deficiency Assessm...	01:04	
Condition Assessment	03:43	

12:40 / 32:46 Minutes

## Assessment - Types

- Deficiency Assessment
- Condition Assessment
  - SMS Condition Assessment Methods
    - Distress Survey
    - Direct Rating
- Functionality Assessment
- Certification Inspection
- Preventive Maintenance Inspection (CMMSs)
- Follow-up diagnosis (Engineering Evaluation)





**BUILDING STRONG®**

\* The SMS uses a combination of assessment approaches, primarily Condition and Functionality Assessments. The use of traditional Deficiency Assessments varies depending on the asset Domain being managed.

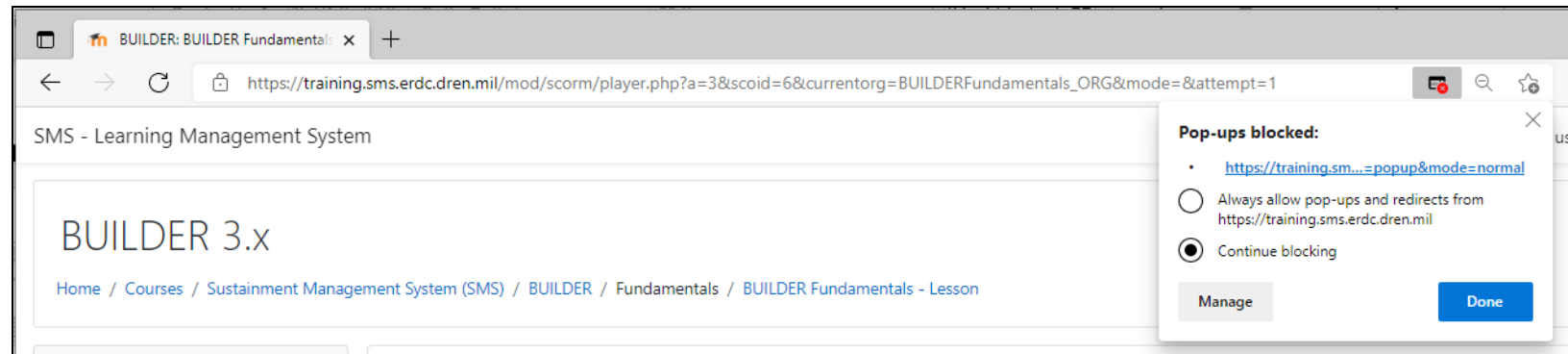


# BUILDER 3 Training

## Navigation

- ▼ Home
  - > Site pages
- ▼ Courses
  - ▼ Sustainment Management System (SMS)
    - > SMS Overview
    - ▼ **BUILDER**
      - Participants
        - > Course Description
        - > Fundamentals
        - > Inventory Overview
        - > Condition Assessment
        - > Data Collection
        - > BUILDER Indices
        - > Reference Books
        - > Work Planning
        - > Scenarios
        - > BUILDER Remote Entry Database (BUILDER RED / BRED)
        - > Additional Resources
  - Enterprise SMS (ESMS)
    - > SMS - Virtual Summit
    - > U.S. Army
    - > SMS TCX

- **Course Description:** Provides a comprehensive overview of BUILDER.
- **Prerequisites:** SMS Overview
- **Length:** 5 Hours 30 Minutes
- **Tip:** Disable Pop-ups





# Content Types

## Lessons

**BUILDER Condition Assessment**

Bruce L. Rives

Slide Title	Duration
Condition Assess...	00:09
Learning Objective	00:31
References	01:00
Inspection	00:50
Approaches	00:25
Deficiency-based	00:37
Example	00:32
Example	00:32
Example	00:27
Distress-based	00:55
Example	00:43
Example	00:21
Example	00:38
Meet Objectives?	03:02
Additional Approa...	01:40
Distress Survey	00:22
Methodology	02:27
Distress Types	00:19
Severity Level	01:20
Densit Ranges or ...	01:07
Distress Definition	00:52
Direct Condition	00:46
Methodology	01:00
Green	00:21

**Distress Type(s): Damaged and Corroded**  
**Severity Level(s): Med and Med**  
**Quantity/Density: 25% and 75%**

**SMS**  
**US Army Corps of Engineers**

## Demo Videos

**SUSTAINMENT MANAGEMENT SYSTEMS**  
with BUILDER

This information system is approved for UNCLASSIFIED//FOUO data

Welcome Bruce Rives | User Preferences | Logout | Help

Work Configuration | Work Plan | Scenarios | Reports | Tools

Inventory

Condition

AI | Search by Name or Number...

Inspection

Attachments (0)

Inspection Date: 2/26/2014  
Inspector: Rives, Bruce

Type: ☐ Direct Rating ☒ Distress Survey  
Method: ☒ Not Sampling ☐ Sampling  
Results: CSC: PASS

☐ Defect Free

Subcomponent	N/A	D/F	Distresses	Insp.
Burner Assembly	<input type="checkbox"/>	<input type="checkbox"/>	Distresses	<input checked="" type="checkbox"/>
Controls	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Distresses	<input checked="" type="checkbox"/>
Firebox/Fire Tubes	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Distresses	<input checked="" type="checkbox"/>
Flue	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Distresses	<input checked="" type="checkbox"/>
Fuel System	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Distresses	<input checked="" type="checkbox"/>
Piping/Fittings/Valves	<input type="checkbox"/>	<input type="checkbox"/>	Distresses	<input checked="" type="checkbox"/>
Pressure Vessel	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Distresses	<input checked="" type="checkbox"/>
Wiring/Connections	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Distresses	<input checked="" type="checkbox"/>





# BUILDER 3 Content

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- **Fundamentals:** 21 Min Lesson – 9 Min Video
- **Inventory:** 29 Min Lesson – 30 Min Video
- **Condition Assessment:** 33 Min Lesson – 39 Min Video
- **Data Collection:** 9 Min Lesson – 11 Min Video
- **BUILDER Indices:** 27 Min Lesson – 4 Min Video
- **Reference Books:** 11 Min Lesson – 12 Min Video
- **Work Planning:** 25 Min Lesson – 29 Min Video
- **Scenarios:** 11 Min Lesson – 29 Min Video
- **BRED:** 6 Min Lesson – 55 Min Video



# Army Reassessment Videos

- **Description:** Provides an overview of Army requirements for BUILDER Reassessments
- **Prerequisites:** None
- **Length:** 3 hours
- **Style:** On-location Video

A screenshot of a web browser displaying the "U.S. Army - BUILDER - Reassessment Training" page. The browser's address bar shows the URL "https://training.sms.erdcdren.mil/mod/resource/view.php...". The page header indicates "SMS - Learning Management System" and "You are currently using guest access (Log in)". The main heading is "U.S. Army - BUILDER - Reassessment Training", with a breadcrumb trail: "Home / Courses / U.S. Army / BUILDER / Reassessment Training / Introduction / Introduction - Video". A left-hand navigation menu lists "Home", "Site pages", "Courses", "U.S. Army", "BUILDER", "Reassessment Training" (circled in blue), "Participants", "General", "Course", "Description", "Introduction", "Introduction - Video", "ARMY BUILDER SMS Manual", and "Manual". The main content area is titled "Introduction - Video" and features a video player showing a man in a white shirt, yellow safety vest, and white hard hat. Below the video player, the "Description" states: "Provides a broad overview of the BUILDER program while also familiarizing users with the Sustainment Management System concepts. The BUILDER software application/interface is explored providing a basic overview for new users." The "Time Requirement" is listed as "29 Minutes".



# Long Video Content

## **Introduction:** 29 Minutes

- Provides a broad overview of the BUILDER program while also familiarizing users with the Sustainment Management System concepts. The BUILDER software application/interface is explored providing a basic overview for new users.

## **Inventory:** 38 Minutes

- Covers inventory basics and Army Guide requirements that allow for consistency within the BUILDER interface. Will familiarize participants with Lifecycle Curves and show participants how to see all inventory. Covers navigating the inventory levels of BUILDER (Organization, Site, Building, System, Component, and Section) and highlights the specific ways inventory is organized for consistency.

## **Inspection:** 36 Minutes

- Discusses the differences and interchangeability between an Inspection and a Re-inspection. Highlights inspections are non-destructive and non-invasive. Also, introduces steps for consistency – BUILDER has rules and definitions while the Army Guide has specific procedures to ensure Condition Index (CI) consistency.

## **Business Rules & Data Quality:** 37 Minutes

- Discusses content within the Army BUILDER SMS Inventory and Assessment Guide and its importance for participants. Defines the business/inspection rules and quality data which allows participants to achieve the primary objectives for BUILDER. Also, covers the BUILDER Remote Entry Database (BUILDER RED / BRED) process and key points of using the application.

<https://youtu.be/kKaxWD7rixM?t=1789>



# UNIFORMAT II - System Videos

## Inventory Rules, Typical Distresses, Safety, Army Scope

(<https://youtu.be/s0zRQ9BgEok?t=63>)

- **A10 Foundations:** 6 Minutes
- **A20 Basement Construction:** 5 Minutes
- **B10 Superstructure:** 4 Minutes
- **B20 Exterior Construction:** 9 Minutes
- **B30 Roofing:** 8 Minutes
- **C10 Interior Construction:** 8 Minutes
- **C20 Staircases:** 8 Minutes
- **C30 Interior Finishes:** 8 Minutes
- **D10 Conveying:** 4 Minutes
- **D20 Plumbing:** 9 Minutes
- **D30 HVAC:** 11 Minutes
- **D40 Fire Protection:** 5 Minutes
- **D50 Electrical:** 10 Minutes
- **E10 Equipment:** 5 Minutes



# Content Requiring Registration

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- SMS Virtual Summit - Fall 2020
- ESMS Training