

# BUILDER™

## Getting Started Guide

Version 3.4.1

*January 11, 2019*

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# Table of Contents

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<b>BUILDER Version Information</b>	<b>3</b>
Welcome to BUILDER™	3
About the Sustainment Management System	4
BRED Impact of Upgrading from Version 3.3.6	4
What's New in BUILDER 3.4	7
<b>BUILDER Account Setup</b>	<b>12</b>
<b>Understanding the BUILDER™ Inventory Hierarchy</b>	<b>13</b>
Icon Colors	13
Levels of Hierarchy	14
<b>How To Navigate BUILDER™ 3.4</b>	<b>16</b>
User Links	17
Main Menu and Toolbar	18
Navigation Pane	19
Content Area	21
<b>User Preferences</b>	<b>23</b>
<b>Recognizing Common BUILDER Icons</b>	<b>25</b>
Inventory Icons	25
Task and Form Icons	26
<b>How to Use Online Help</b>	<b>30</b>
Online Help Table of Contents	30
Context-Sensitive Help	32
Index	32
Glossary	34
Contact the Help Desk	35
See Version Information	36
<b>Remote Inspection and Inventory Entry Using BuilderRED</b>	<b>37</b>
What is BuilderRED?	37
Collecting Inventory Data	37
Performing Inspections	37

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Export Data to BuilderRED .....	38
Import Data from BuilderRED to BUILDER .....	47
<b>About BUILDER Permissions Roles .....</b>	<b>52</b>
Administrator .....	52
Inventorior .....	52
Inspector .....	53
Inspection Supervisor .....	53
Work Planner .....	53
Master Planner .....	54
<b>Glossary .....</b>	<b>55</b>
<b>Index .....</b>	<b>63</b>

# BUILDER Version Information

## Welcome to BUILDER™

BUILDER, part of the Sustainment Management System, provides facility managers with the tools needed to generate the greatest impact from maintenance and rehabilitation activities, and to plan and defend maintenance budgets.

The primary measure used in BUILDER is the *condition index* (CI) rating, using a 0-to-100 point scale. After real property inventory has been subdivided into hierarchical levels of increasing fineness, down to the Component-Section level, the condition index for each Component-Section is computed from inspection data that records the type, severity, and density of each distress found.

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*Deterioration curves, developed from experience over time, show the optimal point at which work should be done to avoid more costly rehabilitation projects later.*

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Another measure available in BUILDER is the *functionality index* (FI), also on a 0-to-100 point scale in keeping with the SMS design philosophy. It is computed from assessment data that records the functionality issues present in a building. Based on the severity and density of those issues, building modernization requirements can be identified.

Based on condition index and/or functionality index scores, BUILDER can generate recommended work items automatically. Using cost books associated with BUILDER, cost estimates are attached to the work items. Managers can then choose which work items to fund. The cost of *not* funding work items can be determined using Scenarios.

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 (a 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.

For information, announcements, links to documents, and discussion forums, visit the SMS community user's group website at <https://www.sms.erdcdren.mil>.



Developed by U.S. Army ERDC-CERL  
8/9/2019

## About the Sustainment Management System

The Sustainment Management System (SMS) Version 3.4.1 was developed 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 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 has been 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.

### BRED Impact of Upgrading from Version 3.3.6

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Upgrading to a BUILDER SMS 3.3.x version higher than 3.3.6 must be performed before advancing to Version 3.4.0 or above. This topic describes the BuilderRED impact of upgrading from Version 3.3.6.

If you (1) use BuilderRED and also (2) have not yet upgraded to a version of BUILDER higher than 3.3.6, it is important to read the information below. This topic documents the impact of upgrading from BUILDER and BuilderRED (BRED) 3.3.6 on the import and export of BRED files.

If you don't use BuilderRED, the impact described here does not apply.

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**Note:** In this explanatory section, "older" BRED files means BRED files created with BUILDER Versions 3.3.0 through 3.3.6. "Older" versions of BUILDER and BuilderRED means Versions 3.3.0 through 3.3.6.

With the first upgrade of BUILDER from Version 3.3.6 to a more recent version, the underlying software formatting of BRED (BuilderRED) files created by BUILDER Versions 3.3.7 and later will change. You will not be able to use older versions of BuilderRED to work on BRED files created by BUILDER Version 3.3.7 or later. Therefore, you should carefully consider (1) the timing of upgrading from BUILDER and BuilderRED Version 3.3.6, and (2) whether your organization wishes to establish any procedures to minimize confusion about compatibilities. See ["An Approach To Consider" on page 6](#) below for an example of such a procedure.

If there will be a need to work with both pre-upgrade and post-upgrade BRED files, contact your BUILDER support representative before upgrading from BuilderRED Version 3.3.6.

**Note:** BUILDER Versions 3.3.7 through 3.4.1 will continue to accept import of BRED files created with older versions of BUILDER. Older BRED files you have outstanding can always be imported back into BUILDER.

### ***Upgrade BUILDER First***

Best practice is to upgrade BUILDER from Version 3.3.6 *before* you upgrade BuilderRED from Version 3.3.6 to a higher version number. The BuilderRED upgrade may either be done immediately after the BUILDER upgrade, or it may be delayed.

### ***What to Expect***

#### **Before Your BuilderRED Upgrade**

Before upgrading from BuilderRED 3.3.6, you will be able to work only on BRED files created with BUILDER versions prior to 3.3.7.

If you have not yet upgraded from BuilderRED Version 3.3.6 and have time for some advance planning, see ["An Approach To Consider" on the next page](#) below.

#### **After Your BuilderRED Upgrade**

Once you have upgraded from BuilderRED 3.3.6, you will be able to work on BRED files created with BUILDER Version 3.3.7 or later. You will *not* be able to work on older BRED files.

After the upgrade, you will still be able to import older BRED files back into BUILDER. Then you can re-export them from your newer version of BUILDER and work on them.

### **What Works**

1. After your system has been upgraded from BUILDER 3.3.6, you will continue to be able to import outstanding BRED files back into BUILDER, regardless of whether they have been created using a post-3.3.6 version of BUILDER or an older version of BUILDER.
2. After you upgrade from BuilderRED 3.3.6, you will continue to be able to import outstanding BRED files back into BUILDER, regardless of whether they have been created using a post-3.3.6 version of BUILDER or an older version of BUILDER.

3. If you delay upgrading from BuilderRED 3.3.6, you will be able to work directly on your outstanding BRED files with BuilderRED. However, you will not be able to use your BuilderRED to work on BRED files created using BUILDER Version 3.3.7 or later, until you upgrade.

### **What Doesn't Work**

1. **Working on Old with the New Won't Work.** After upgrading from BuilderRED Version 3.3.6, you will not be able to use BuilderRED 3.3.7 or later to continue work on older, outstanding BRED files in . *What to do:* First, import the older BRED file back into your newer, updated version of BUILDER. Then re-export the information to BuilderRED, creating a fresh BRED file.
2. **Working on New with the Old Won't Work, Either.** If, after upgrading BUILDER from Version 3.3.6, you delay upgrading your version of BuilderRED, you will not be able to use your older version of BuilderRED to work on BRED files generated by BUILDER Version 3.3.7 or later.

### ***An Approach To Consider***

If you are comfortable delaying creation of new BRED files for a period of time, you can (a) upgrade BUILDER from Version 3.3.6, but (b) delay upgrading BuilderRED for that period, using it as a transition time for Inspectors and inventory takers to complete their in-progress work on older BRED files using the older version of BuilderRED, and to import them into BUILDER. Any older BRED files not completed during the transition period can be handled as follows: import them into the newer, upgraded version of BUILDER; then, after BuilderRED is upgraded from version 3.3.6, re-export them from the newer version of BUILDER to be worked on in the newer version of BuilderRED.



## What's New in BUILDER 3.4

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This topic describes changes made in BUILDER 3.4 versions.

For a listing of updates in BUILDER Version 3.3, download the *BUILDER Version 3.3 Update History* PDF from the SMS Community User's Group Website at <https://www.sms.erdc.dren.mil>. (To access the update history document, navigate the menus **PRODUCTS > BUILDER > Downloads**, and look under the heading **Builder User Guide**.)

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### Notes:

1. Because of extensive changes to the database schema in certain 3.3.release, be extra sure to back up your BUILDER database before performing an upgrade from 3.3 to 3.4.
2. If you upgrade to BUILDER Version 3.4 from a version number less than 3.3.10, note that the definition has changed for the Facility Condition Index (FCI). This is a financially-oriented index, not to be confused with the CI or BCI. The new definition is presented in the online Glossary.
3. Inventory: The "Embedded Building Models" for Rapid Inventory are no longer supported. Please use Building Templates instead. Other Rapid Inventory techniques, such as copying a Building, may still be used.

### New Features Introduced in BUILDER 3.4.0

- **Custom Configuration of Building Templates**

In previous BUILDER versions, a Building template could be used to create a target Building only if the area of the target Building was within 10% (either more or less) of the area of the template. Starting with Version 3.4, that percentage range can be configured by a BUILDER Administrator.

- **New Information and Checkboxes at the Building General Info. Tab**

The following additions have been made at the **General Info.** tab on the Building inventory screen:

1. **Building "Current Status" Suboptions.** The selection procedure for a Building's "Current Status" has been changed to allow more than one status to be selected at one time. (For example, a Building may be both vacant and scheduled for demolition.) To accomplish this, sub-status options have been provided for some, but not all, of the initial options. If a Current Status option is selected (currently, **Active**, **Vacant**, or **Transferred**) that contains substatus options, then a field

for substatus options will appear to the right of the "Current Status" field; suboptions are provided in the field's dropdown.

2. **Building Not Inspectable ("Unable to Inspect").** A checklist has been added for situations where an inspector has been unable to enter a Building to perform a condition assessment. Selectable reasons are shown in the dropdown list:

The screenshot shows a software interface with three tabs: 'General Info', 'Additional Info', and 'Assess. History'. The 'Additional Info' tab is active. It contains several fields: 'Building Use' (55010 - PRIMARY CARE CLINIC), 'Building Type' (empty), 'Current Status' (Active), 'Unable to Inspect' (dropdown menu open with options: Not Accessible, Locked, Secure Building/Escort Required, Under Renovation), 'Construction Type' (empty), 'Area' (empty), 'Year Constructed' (empty), 'Year Renovated' (empty), and 'Number of Floors' (1).

3. **Excluded Systems Checkboxes ("Building Does Not Contain").** A series of checkboxes allows the user to mark that any one or more of the following Systems are not present in the Building:

The screenshot shows a software interface with a 'Building Does Not Contain' dropdown menu open. The dropdown menu lists the following options: Electrical, Fire Suppression, HVAC, Plumbing, and Additional Access. To the left of the dropdown, there is a 'Component Dependency Index' section with an 'MDI' field and a checkbox labeled 'Check box to override automated updates and manually enter MDI:'. The 'MDI' field is empty, and the checkbox is unchecked.

4. **Building Renovation Year ("Year Renovated").** This field should contain the year of the most recent renovation of the Building, if renovation has been performed.
- **Component Importance Index Books**  
BUILDER has long used values of the Component Importance Index (CII) to rank the relative importance of components against one another (used for example, in Work Configuration to hold different Component-Sections to different thresholds, or to prioritize them differently based on relative

importance settings). In BUILDER 3.4, the "Reference Book" design methodology has been applied to the Component Importance Index, allowing users to create custom CII configurations. Individual Organizations or Sites within the same BUILDER tree can have their relative component importance values ranked differently; or "what-if" scenarios can be run with different CII configurations to compare outcomes. This is in contrast to the original CII design, which forced a single determination of CII across the entire BUILDER inventory tree.

- **New "Current Status" Field for Component-Sections**

At the Component-Section screen in Inventory, an optional status field has been added where the user can assign a status to the Component. Current options are shown in the dropdown list:

The screenshot displays the 'Section Details' tab of a software interface. It contains several input fields: 'Quantity' with the value '4,855' and unit 'SF'; 'Year Install/Renewed' with the value '1961' and an 'Estimated' checkbox; 'Age' with the value '57'; and 'RSL' with the value '0'. The 'Current Status' field is a dropdown menu currently showing 'Active'. Below it, the 'Painted' field also shows 'Active'. The dropdown menu for 'Current Status' is open, listing the following options: Active, Archived, De-Activated, De-Commissioned, Missing, and Replaced.

**Technical Note:** The Component-Section "Current Status" value is not set (is null) unless a user selects one of the listed values for it.

- **New Condition Assessment Option: Preventative Maintenance Inspections**

Both the BUILDER and BuilderRED interfaces have been updated to accommodate a new condition assessment option alongside direct ratings and distress surveys. Preventative Maintenance (PM) inspections function in a similar way to direct ratings, using a nine-point scale. However, a PM inspection is performed at the subcomponent level, rather than at the Component-Section level.

## BUILDER 3.4.0 Bug Fixes and Enhancements

- **Display Work Items at Organization Level**

Previously, the top inventory level at which work items could be viewed was at the Site level. Work items can now also be viewed at the Organization level.

**Note:** Although work items can be viewed at the Organization level, they may not be generated above the Site level.

- **Work Plan Prioritization**

1. **Work Plans Prioritized for all Scenario Years.** Previously, work prioritization was enabled only for the current fiscal year and next fiscal year. In contrast, a work plan generated from the Scenarios module can contain up to ten years of work items. *Work Prioritization is now enabled for all years of a scenario.*

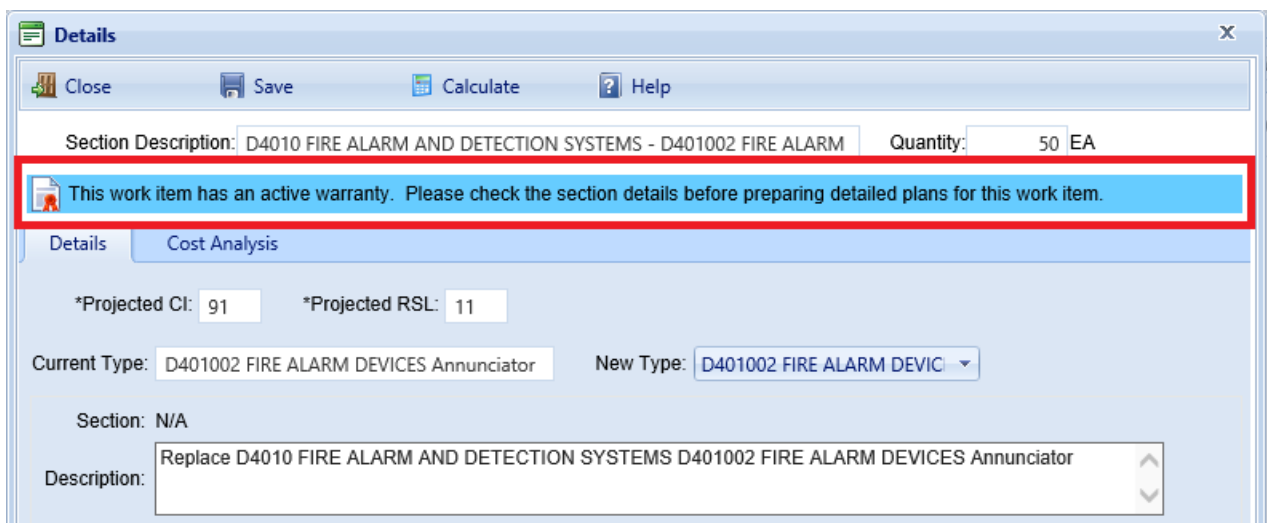
2. **Prioritize Work Items at Organization Level.** Work item prioritization can now be performed at the Organization level.

- **Export Entire Site Work Plan**

Work plan export will now export the entire Site work plan rather than just the currently visible page of work items.

- **Work Item Details Enhancements**

1. **Section Name.** The Section name is now displayed immediately above the "Description" field in the work item "Details" popup window.
2. **Warranty in Effect Indicator.** If an item is under warranty (and only if it is under warranty), an indicator to that effect will be displayed in the work item "Details" popup window:



- **Select Multiple Work Items for Deletion**

Users can select multiple or all work items in a BUILDER work plan for deletion, instead of having to delete them one at a time. For details, see "Delete a Work Item" in the online help documentation.

- **Inventory: Component-Section Cost Book Edits**

In Cost Books, the bug that caused changes to the Component-Section Replacement Cost to be dropped during the Save process has been fixed. The Component-Section Replacement Cost can be edited.

- **Condition Assessment: Distress Severity**

Previously, whenever an existing distress was edited, the Distress Severity field would be reset to "Low" regardless of the previous value. This behavior has been changed, to avoid inadvertent modification of a higher Distress Severity to "Low" while editing another distress parameter. All previously entered values should now persist, to ensure that data is not lost during the editing process.

- **Database Optimization**

A modified database schema speeds up data acquisition by about 15% in most cases.

# BUILDER Account Setup

A BUILDER Administrator will set you up with a user account that has a particular level of user privileges. For details on the levels of user privilege, see ["About BUILDER Permissions Roles" on page 52](#).

Once you have an account and are logged in, you can access User Preferences via a link at the upper right hand corner of the home screen to do any of the following:

- change the unit of measure
- clear all the locks on the database records
- change the default view in the navigation pane of BUILDER's main page
- change the email address associated with your account
- change the password to your account
- register a CAC for use to log into BUILDER

To do any of these things, refer to ["User Preferences" on page 23](#).

# Understanding the BUILDER™ Inventory Hierarchy

The hierarchy that has been designed and built out in a given BUILDER implementation is shown in the [navigation pane](#) at the left hand side of the BUILDER screen. Click on the "plus" boxes to expand the inventory tree shown there.

The levels of hierarchy available in a BUILDER inventory tree are as follows:

Top node: This will be a single Organization or a single Site. The topmost position can not be shared; only one Organization or Site can be at the topmost level.



Organization (Having an Organization level is optional; if the top node is a Site, there can be no Organization in the tree)



Site



Complex



Facility / Building



System



Component



Section

Each of these levels is described briefly under headings below.

## Icon Colors

Condition and functionality metrics used in BUILDER are communicated upwards through the hierarchy in weighted fashion. At each level of the hierarchy, the condition or functionality index for that level provides an understanding of the average condition/functionality of the real property contained in all the inventory items under the specified Organization, Site, Complex, Building, System, or Component. The value of the index will determine whether the inventory icon for any given inventory item appears as green, amber, or red. Gray indicates that no assessment has been recorded in BUILDER for anything under that asset.

The meaning of green, amber and red condition indexes are given in the *BUILDER Condition Assessment Guide*, which can be downloaded from the SMS community user's group website at <https://www.sms.erdcdren.mil>.

## Levels of Hierarchy

### ***Top node***

Your inventory tree will have one and only one "node" at the top, typically named for your service branch, installation, or company. This can only be an Organization or a Site.

### ***Organization***

Organization is the highest possible level in the inventory tree. However, it is not a required level. Depending on the scope of your BUILDER implementation, it is possible to start with the Site level instead.

Unlike the other hierarchical levels, the Organization level may be nested more than one deep. When designing the inventory tree before implementing and filling out your inventory, it is important to accommodate in the inventory tree the highest possible Organization level you may want to expand to in the future. For more detail, see the section on implementation planning .

In the hierarchy tree, an Organization can have either (a) one or more Sites, (b) one or more Organizations, or (c) both created underneath it.

For more information about this hierarchical level, see the "Working with Organizations" chapter in the *BUILDER™ Inventory Guide*.

### ***Site***

The level below Organization is the Site, which usually refers to a geographic location. The Area Cost Factor is one of the Location Factors that is set at the Site level. Other features that are set at the Site level are:

- Seismic Zone
- HVAC Zone

*In practice, a Site as a whole will typically have a facility manager who is responsible for day-to-day management of the Site, often with the assistance of subsidiary personnel.*

Just as an Organization can have one or more Sites and/or other Organizations created underneath it, in the SMS hierarchy a Site can have any combination of Complexes and/or Buildings beneath it.

For more information, see the "Working with Sites" chapter in the *BUILDER™ Inventory Guide*.



## **Complex**

A Complex is an optional grouping of Buildings or facilities. This feature is particularly useful for groupings of Buildings with similar Building Use types or locations.

**Note:** Grouping Buildings into a Complex is done after creating the Buildings, not before.

For more information, see the "Working with Complexes" chapter in the *BUILDER™ Inventory Guide*.

## **Facility / Building**

A Building is a stand-alone building or other facility. At this level in the hierarchy, you can see details such as year constructed, size/area, condition indexes, and work item history. Attachments such as floor plans and photographs can be associated with the Building level.

For more information, see the "Working with Buildings" chapter in the *BUILDER™ Inventory Guide*.

## **Systems, Components, and Sections**

In BUILDER, a Building is divided into Systems, then further divided into Components, following [ASTM UNIFORMAT II](#). Systems equate to Level 2 Group Elements, and Components equate to Level 3 in the UNIFORMAT classification.

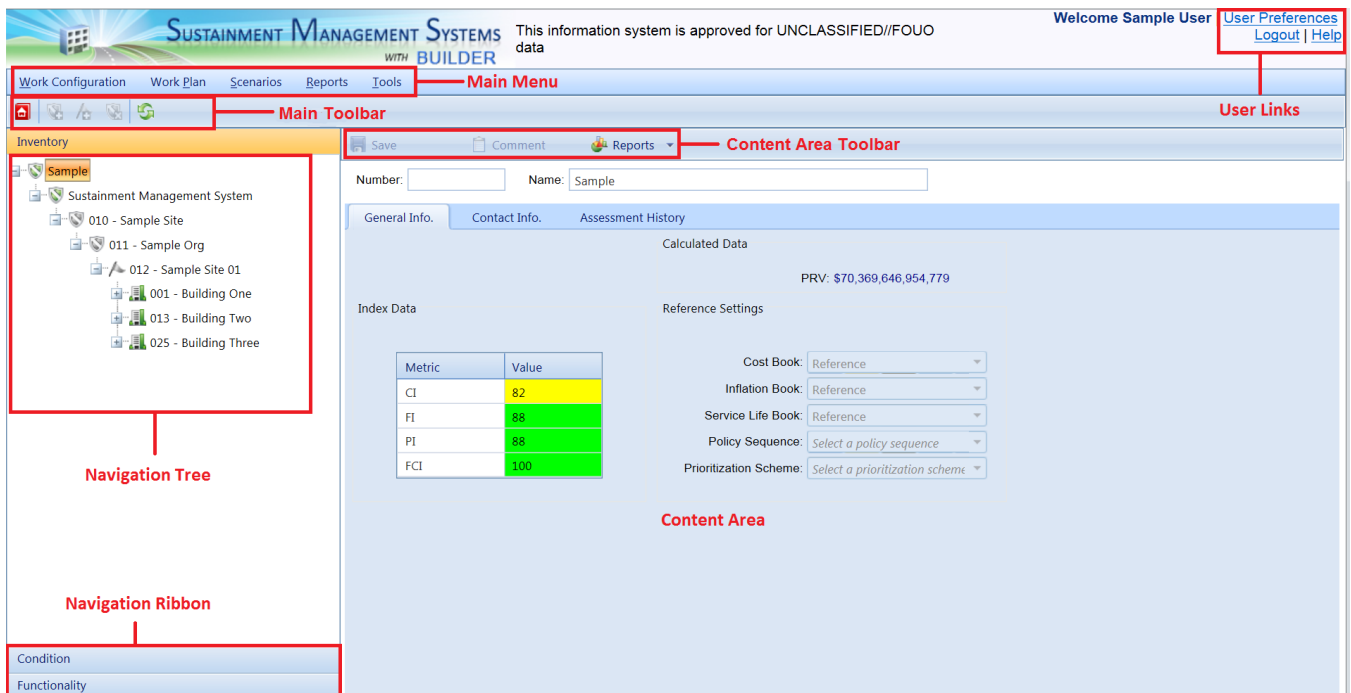
Components are then divided into Component-Sections, also called Sections. It is at the Section level that inspection information is recorded into BUILDER.

# How To Navigate BUILDER™ 3.4

This topic

- Introduces the layout of the BUILDER home page.
- Gives a brief overview of the main menu options and user links.
- Introduces the Inventory, Condition, and Functionality navigation trees.

After you have logged into BUILDER3.4, a screen similar to the one shown below will appear:



The BUILDER user interface has the following main areas, each of which is described in greater detail below:

- User Links
- Main Menu and Toolbar
- Navigation Pane
- Content Area

## User Links

The **User Links** area (upper right) offers these options:

- **User Preferences.** This option allows you to do any of the following:
    - change the unit of measure
    - clear all the locks on the database records
    - change the default view in the navigation pane of BUILDER's main page
    - change the email address associated with your account
    - change the password to your account password
    - register a CAC for use to log into BUILDER
- Note:** To do any of these things, refer to ["User Preferences" on page 23](#).
- **Logout.** Selecting this option causes you to log out of (sign off from) BUILDER. After logging out of BUILDER, you will no longer be able to view or edit data until you are logged back in.
  - **Help.** This option gives you access to a sub-list of multiple user Help options:
    - **Context-Sensitive Help.** Select this to launch a context-sensitive help file pertaining to the current BUILDER screen.
    - **Table of Contents** for the online user documentation. To reach the Contents, first select **Index** in the dropdown list. This will bring you to a Welcome page. In the navigation pane at the left you can choose between (1) **Contents**, (2) the **Index**, and (3) a **Glossary**.
    - **Index.** Selecting this option will bring you to a Welcome page. In the navigation pane at the left you can choose between (1) **Contents**, (2) the **Index**, and (3) a **Glossary**.
    - **Glossary.** To reach the Glossary, first select **Index** in the dropdown list. This will bring you to a Welcome page. In the navigation pane at the left you can choose between (1) **Contents**, (2) the **Index**, and (3) the **Glossary**.
    - **Contact Help.** This option will open an Outlook window for submitting a ticket to BUILDER support. Alternatively, it will enable some other form of access as determined by your specific BUILDER support representative.
    - **About BUILDER.** Select this to open a popup window showing version information pertaining to your BUILDER software. To close the popup window, select the **OK** button in the popup.

# Main Menu and Toolbar

## *Main Menu*

The main menu has the following options:

- **Work Configuration.** Activating **Work Configuration** will give you a drop-down list providing you with the work configuration options for Standards, Policies, Policy Sequences, Prioritization Schemes, and for Funding. In each of these areas, the **Return** button, located above the navigation pane, will return you to the Main Menu page.
- **Work Plan.** Activating **Work Plan** brings you to the table of details about each work plan item. For more information, see *Add a Work Item* in the Work Planning section of the documentation. From the work plan, the **Return** button (located above the navigation pane) will return you to the Main Menu page.
- **Scenarios.** Activating **Scenarios** allows you to create or manage a Scenario (under the "Management" option) or perform Scenario Analysis/Visualization. In each of these areas, the **Return** button, located upper left, will return you to the Main Menu page.

**Note:** Microsoft Silverlight 5 is required for Scenario Management to operate.

- **Reports.** Activating **Reports** brings up a pop-up box listing report formats to choose from. The **Close** button (in the upper left corner of the pop-up box) will return you to the Main Menu page. You can learn more about reports from the topics showing how to select a report, generate a report, and export a report.
- **Tools.** Activating **Tools** will allow you to import data from BuilderRED to BUILDER or to import an image archive; perform **Administration** (Application Settings, Security, and Manual Condition Rollup); or access a **Library** (Cost Books, Inflation Books, Service Life Books, or Component Importance Indexes). In each of these areas, the **Return** button, near the upper left corner of the screen, will return you to the Main Menu page.

## *Main Toolbar*

Directly under the main menu is the main toolbar. The options displayed on the main toolbar will vary, depending on the currently active level (Organization, Site, Complex, etc.).

## Navigation Pane

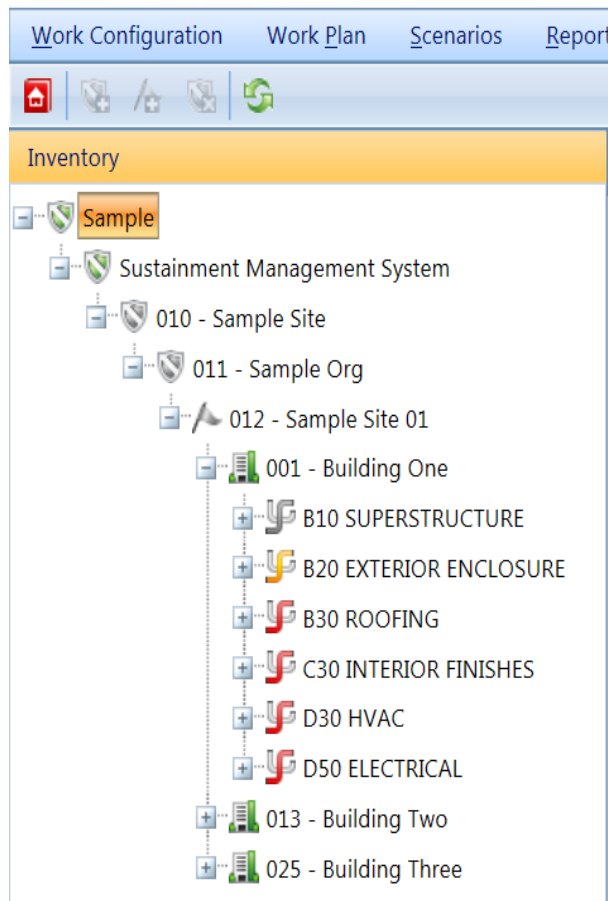
### *Navigation Ribbons*

In the left viewing pane, which is the navigation pane, the navigation ribbons allow you to quickly select between the following navigation trees:

- **Inventory.** The inventory tree is the default view in the navigation pane. If either the **Condition** or the **Functionality** ribbon is highlighted instead of **Inventory**, then activating the **Inventory** ribbon will replace that tree with the inventory tree. Navigating the inventory tree and using it to select tasks to perform is described in the next section, ["Navigation Tree" below](#).
- **Condition.** Activating the **Condition** ribbon will show the condition assessment tree in the navigation pane. Navigating the condition tree and using it to select tasks to perform is described in the next section, ["Navigation Tree" below](#).
- **Functionality.** Activating the **Functionality** ribbon will show the functionality assessment tree in the navigation pane. Navigating the functionality tree and using it to select tasks to perform is described in the next section, ["Navigation Tree" below](#).

### *Navigation Tree*

The navigation tree, in the left-hand viewing area, allows you to select the different levels of the tree and to view data related to that level in the content area. Shown below is an example of the inventory tree.



Here, the tree can be expanded by activating the "+" next to an inventory level or collapsed by activating the "-" next to an inventory level. To select a particular inventory level, left or right-click it. The information pertaining to that inventory level will be displayed in the content area.

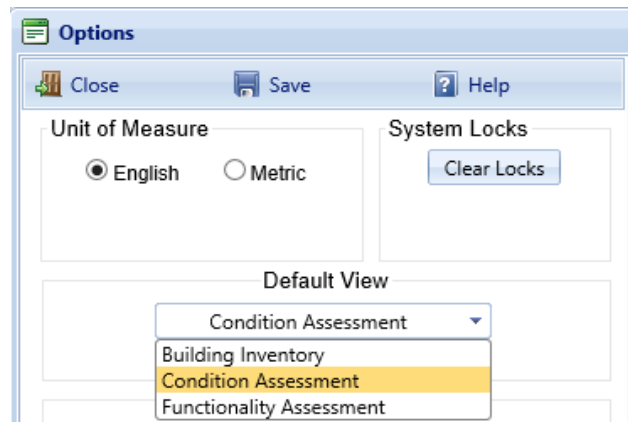
After an inventory level is selected in the tree, right-clicking it with the mouse will cause a sub-menu to drop-down providing you with task options for the selected level. Which options appear depends on whether you are in the inventory, condition, or functionality tree.

**Note:** The example illustration shown above is for the inventory tree. The condition assessment and functionality assessment trees are navigated in the same manner, but the items that appear at lower levels of the tree will differ. For example, in the functionality tree, the only level below Building is Functional Area (where one or more of these have been created in connection with a Building).

## ***Change Default Navigation View***

The inventory tree is the default view in the navigation pane. To change your default view to the condition tree or functionality tree,

1. Activate [User Preferences](#) in the [User Links](#).
2. Activate the dropdown list in the "Default View" section of the user links "Options" popup.



3. Select the desired default view (single click is sufficient in IE).

## **Content Area**

The content area displays specific information pertaining to the current item selected in the navigation tree.

### ***Content Area Toolbar***

The content area toolbar offers options that apply only to what is being displayed in the content area.

### ***Sample Content Area View***

Shown below is an example of what would appear in the content area if a Component-Section was selected in the inventory navigation tree.

Save

Comment

Reports

012 - Sample Site 01 ▸ 001 - Building One

Building No: 001

Building Name: Building One

General Info

Additional Info

Assess. History

Work Item History

Systems at a Glance

Attachments (0)

Building Use: 891024 - BUILDING HOUSING MISCELLANEOUS UTILITY PLANT

Building Type:

Current Status: Active

Construction Type: Permanent

Area: 4,300 SF

Year Constructed: 1985

Number of Floors: 1

ISR Rating:

Replacement Cost: \$758,860

Check box to override automated updates and manually enter replacement cost: ☐

Mission Dependency Index

MDI:

Check box to override automated updates and manually enter MDI: ☐

Condition

Metric	Value
BCI	42
BFI	100
BPI	100
FCI	100

Status

☐ Historic

☐ Child-Occupied Facility

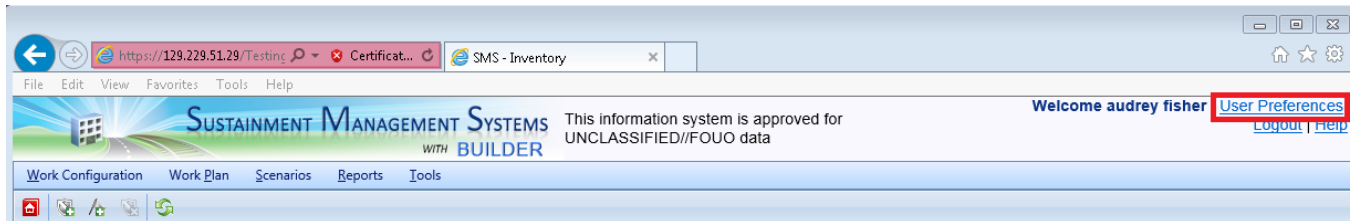
Functionality

Issue	Rating
Location	100
Cultural Resources	No
Building Size and Configuration	100
Structural Adequacy	100
Access	100



# User Preferences

The User preferences window allows you to change your default view, to change the unit of measure, to clear all the locks on the database records, or to change the password to your database. To edit the user preferences, activate the User Preferences link at the top right hand corner of the home page.



The User Preferences window will appear:

**Options**

Close Save Help

Unit of Measure

☒ English ☐ Metric

System Locks

Clear Locks

Default View

Building Inventory

Email Address

Current:

Email:

Confirm:

Change Email

Security

Password:

Confirm:

Change Password

The password cannot match any of the previous 10 password(s).  
The password must be at least 8 character(s) long.  
The password can be no longer than 16 character(s) long.

Register CAC

Insert CAC before clicking!

From this window, the following data can be edited:

- **Unit of Measure.** Select the unit of measure, **English** or **Metric**, to be used for the database.
- **System Locks.** Activate the **Clear Locks** button to clear all the user locks and allow for all data to be edited.
- **Default View.** Expand the dropdown list and select between Building Inventory, Condition Assessment, and Functionality Assessment as your default view when using BUILDER.
- **Email Address.** Your current email address will appear above the two text boxes. To change your email address,
  1. Enter the new address in the first text box.
  2. Enter the new email address again in the second text box to confirm it.
  3. Activate the **Change Email** button.
- **Security.** If you wish to change your login password,
  1. Enter the new password.
  2. Retype it to confirm.
  3. Activate the **Change Password** button.
- In the Security section, you also have the option to register a smartcard (CAC) to log in with.

### ***How To Save Your New User Preferences***

After editing any of the data, activate the **Save** button to save your changes to the database.

### ***How To Cancel User Preference Changes***

- A. If you have not activated the **Save** button, you can simply activate the **Close** button (upper left corner of the User Preferences options window) to exit the User Preferences options window without saving your changes.
- B. If you already activated **Save**, then you will need to change the options back to the way you want them, and activate **Save**.

### ***How to Exit the User Preferences Options Window***

**IMPORTANT:** Make sure to save any changes you want before exiting. With the exception of changing your email or password, changes to the User Preferences options are *not* saved until you activate the **Save** button.

Activate the **Close** button to close the User Preferences window.












# Recognizing Common BUILDER Icons













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Listed below are the common command, toolbar, and menu buttons you will encounter when using BUILDER, along with their definitions. It's a good idea to become familiar with these icons before using BUILDER.

---





## Inventory Icons












-  - ADD ORGANIZATION: Click to add a new Organization to the inventory.
-  - DELETE ORGANIZATION: Click to delete a selected Organization from the navigation tree.
-  - ORGANIZATION: Click this icon on the navigation tree to access data about a particular Organization. The icon color (Gray, Green, Yellow, Red) reflects the condition of the Organization.
-  - ADD SITE: Click to add a new Site under an Organization in the inventory.
-  - DELETE SITE: Click to delete a selected Site from the navigation tree.
-  - SITE: Click this icon on the navigation tree to access data about a particular Site. The icon color (Gray, Green, Yellow, Red) reflects the condition of the Site.
-  - ADD COMPLEX: Click to add a Complex to a Site.
-  - DELETE COMPLEX: Click to delete a selected Complex from the navigation tree.
-  - COMPLEX: Click this icon on the navigation tree to access data about a particular Complex. The icon color (Gray, Green, Yellow, Red) reflects the condition of the complex.
-  - ADD BUILDING: Click to add a new Building to a Site.
-  - DELETE BUILDING: Click to delete a selected Building from a Site.

-  - BUILDING: Click this icon on the navigation tree to access data about a particular Building. The icon color (Gray, Green, Yellow, Red) reflects the condition of the Building.
-  - ADD SYSTEM: Click to add a System to a Building.
-  - DELETE SYSTEM: Click to delete a selected System.
-  - SYSTEM: Designates a System.
-  - ADD COMPONENT: Click to add a Component to a System.
-  - DELETE COMPONENT: Click to delete a selected Component.
-  - COMPONENT: Designates a Component.
-  - ADD SECTION: Click to add a Section to a Component.
-  - DELETE SECTION: Click this button to delete a selected Section.
-  - SECTION: Designates a Section.
-  - ROLLUP: Click to manually roll up performance metrics for a selected Building, Complex, Site, or Organization.
-  - REFRESH: Click to refresh the inventory tree to reflect the latest data edits. Note that refreshing the tree collapses all expanded nodes.



## Task and Form Icons

### *General*




-  - SAVE: Click to permanently save and store changes to the data in the content area or popup window.
-  - COMMENT: Click to add a comment about a particular inventory item.
-  - NEW: Click to create a new record. The type of record to be created is determined by where the NEW button is located.
-  - EDIT: Click to edit a selected record. This icon is available in multiple contexts within BUILDER.

-  - IMAGES: Click to add, view, or delete an image. The scope of the image is determined by the hierarchical level at which you activate the button. When the Images button is visible in color on the toolbar, it can be activated to manage images of the item displayed in the window. For example, the item could be a Building or a Section.
-  - CHECK SPELLING: Click to check spelling in document.
-  - OK: This check mark designates acceptance in the comments box.
-  - DELETE: Click to delete a selected record. The record to be deleted is determined by where the DELETE button is located.
-  - LOCKED RECORD: This indicates that the selected record is locked. When it is locked, the record cannot be edited. This may be the case either because the record is checked out or the user does not have permission.
-  - UNLOCKED RECORD: This indicates that the selected record is unlocked. See also LOCKED RECORD.
-  - CANCEL: Click to cancel the defined operation.
-  - PROCEED: Click to proceed with the defined operation.
-  - CLOSE/RETURN: Click to close a particular popup window or form.
-  - HELP: Click to access context specific help within a particular window or form.
-  - CALENDAR: Click to select a date from a calendar to populate a date type field.





## **Reports**

-  - REPORTS: Click to select and view standard reports. The types and scope of the reports are determined by where the REPORTS button is located. A REPORTS button in the window toolbar is used for reports on the item displayed in the window.
-  - EXPORT REPORT: Click to export the report being viewed.




## ***Import/Export***

-  - IMPORT: Click to import your data.
-  - EXPORT: Click to export your data.
-  - EXPORT TO BRED: Click to export your data to a BUILDER Rapid Entry Data (BRED) file.




## ***Inventory Methods***



-  - COPY INVENTORY TO ANOTHER BUILDING: Click to copy inventory to another building.
-  - RAPID INVENTORY ESTIMATION: Click to get a Rapid Inventory Estimation. \*\*\* support discontinued \*\*\*
-  - BUILDING TEMPLATE: Click to bring up a list of available building templates.
-  - CREATE INVENTORY USING TEMPLATE: Click to create an inventory using a template.

## ***Work Configuration***

-  - EVALUATE: Click to assign weighting points to the various values of a measure. (A measure is a type of objective.)
-  - OBJECTIVE: Objective or sub-objective in a prioritization schema. Click to access the Objective data.
-  - MEASUREMENT: Measurement belonging to an objective or sub-objective in a prioritization schema. Click to evaluate a measurement.

## ***Work Plan***

-  - GENERATE ITEMS: Click to generate analysis results. This may be for inspection schedules, work items, or Scenarios.
-  - PRIORITIZE: Click to prioritize work items according to the active prioritization scheme. The prioritization scheme created in the **Work Configuration > Work Prioritization** area will prioritize and rank your work plan in a quick, objective, repeatable, and representative method with the touch of this button.
-  - RANKINGS: Click to view the rankings of the work items in your work plan.

-  - FUND ITEMS: Click to apply funding to work items according to their priority.
-  - EXPORT: Click to export work items to an Excel spreadsheet.

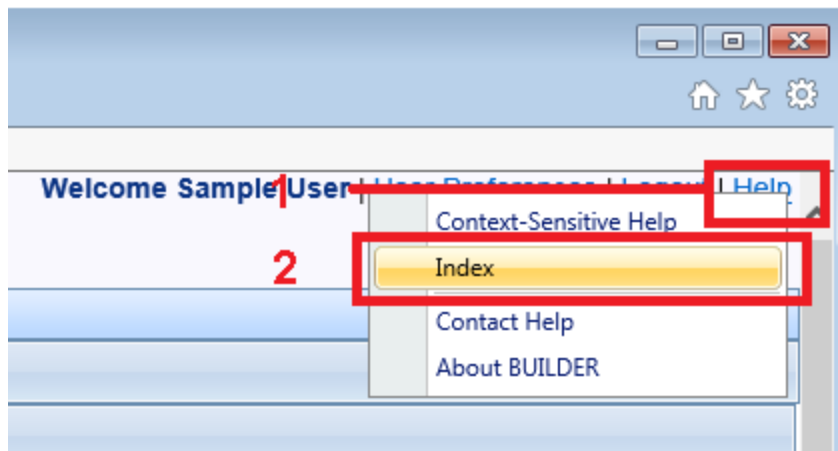
# How to Use Online Help

## Online Help Table of Contents

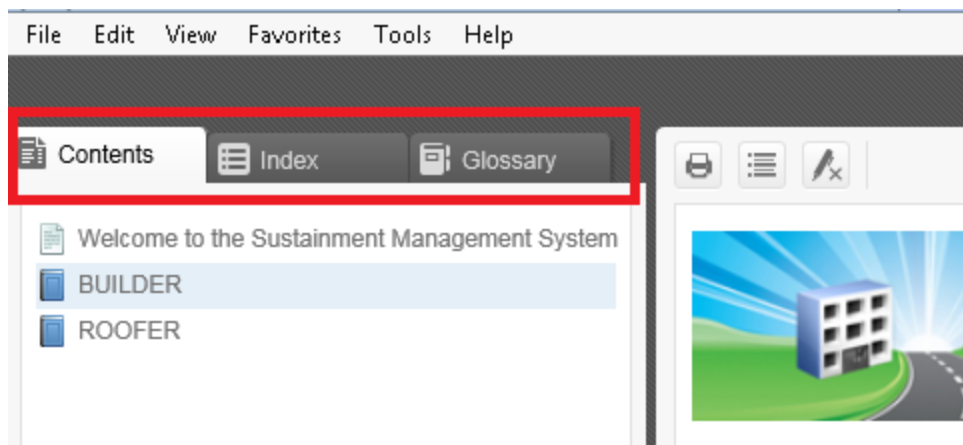
### *Open Table of Contents*

To open the table of contents for the online help documentation,

1. Select Help in the User Links area at the upper right of the main screen.
2. Choose **Index** from the dropdown list.

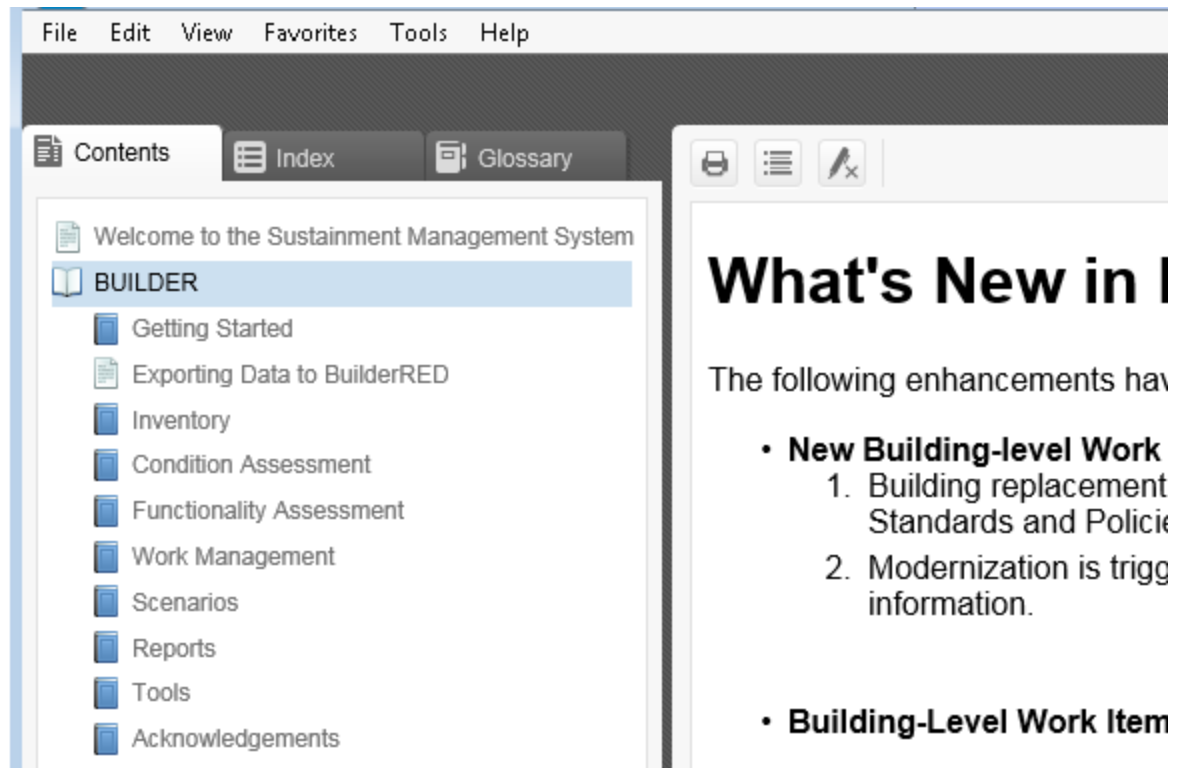


*This will open a Welcome page that has, at the left in the navigation pane, tabs for (1) the online help **Contents**, (2) the **Index**, and (3) the **Glossary**. The **Contents** tab is open by default.*



3. To expand the Table of Contents, activate any closed blue book icon to expand that area of the Contents, as shown below. By contrast, activating a page icon will open that topic.

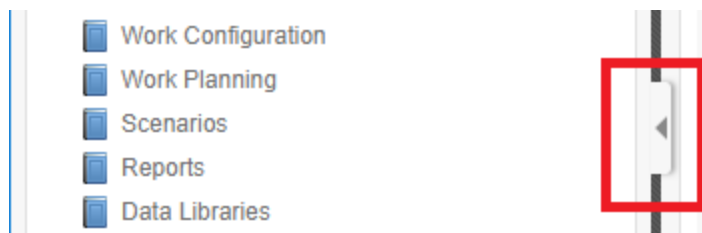




## ***Hide or Unhide Table of Contents***

### **Hide**

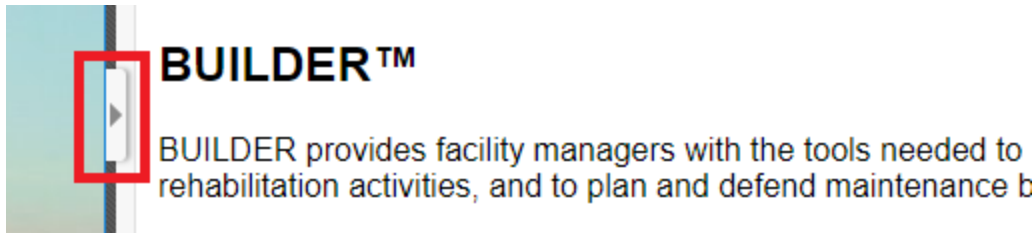
To hide the navigation pane containing the table of contents (or index or glossary), activate the arrow button halfway down the window, between the navigation and content panes:



*The content pane will expand into the navigation pane space, and a right-pointing arrow button will appear halfway down the left edge of the window.*

### **Unhide**

To re-open the table of contents, activate the right-pointing arrow button.



## Context-Sensitive Help

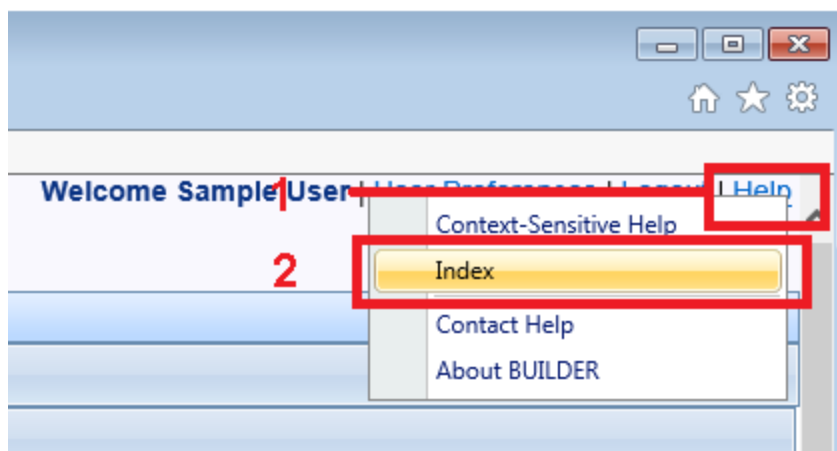
Selecting **Context-Sensitive Help** from the Help dropdown list options should take you directly to a documentation topic that is helpful for a likely task that users might want to perform at the current location. Additionally, the online help Contents will be displayed at the left.

## Index

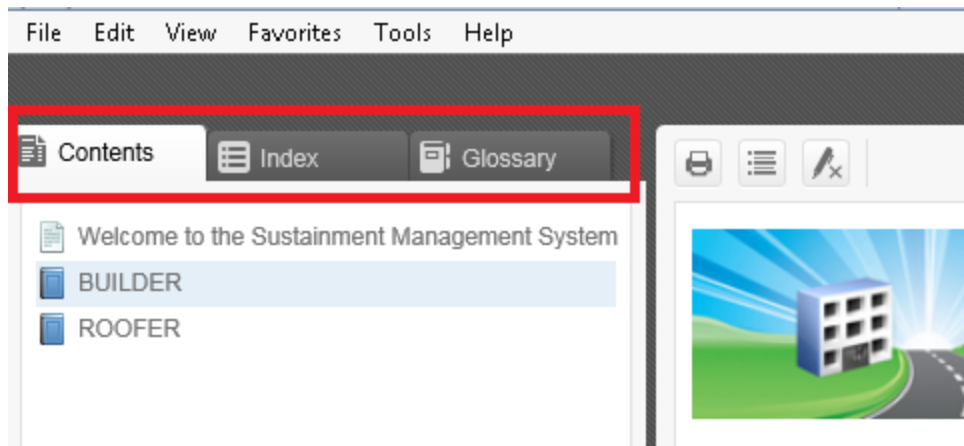
### *Open Online Help Index*

To open the Index,

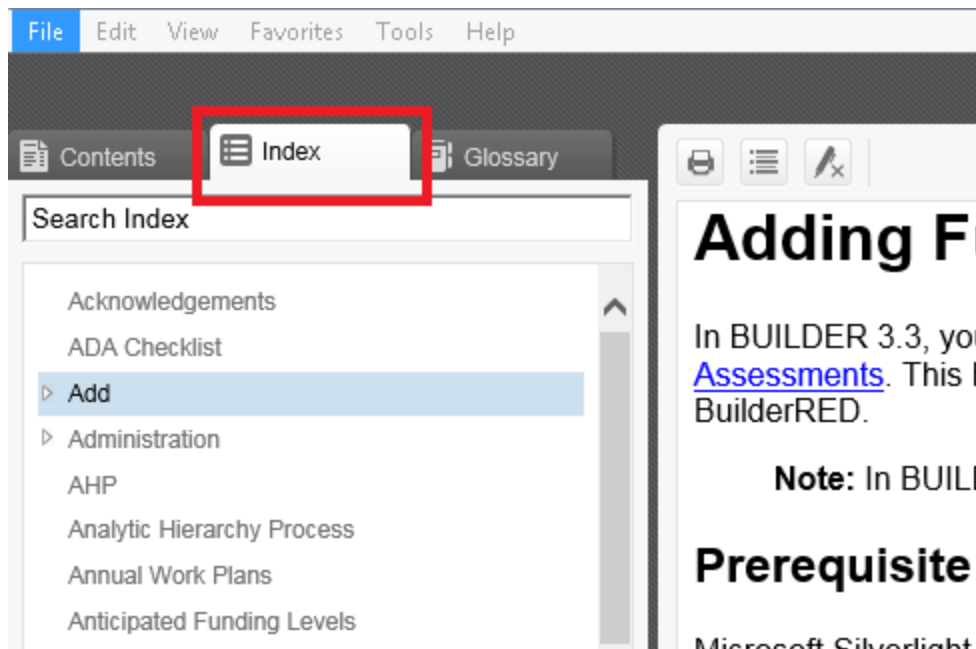
1. Select Help in the User Links area at the upper right of the main screen.
2. Choose **Index** from the dropdown list.



*This will open a Welcome page that has, at the left in the navigation pane, tabs for (1) the online help **Contents**, (2) the **Index**, and (3) the **Glossary**. The **Contents** tab is open by default.*



3. Select the **Index** tab to open the Index.

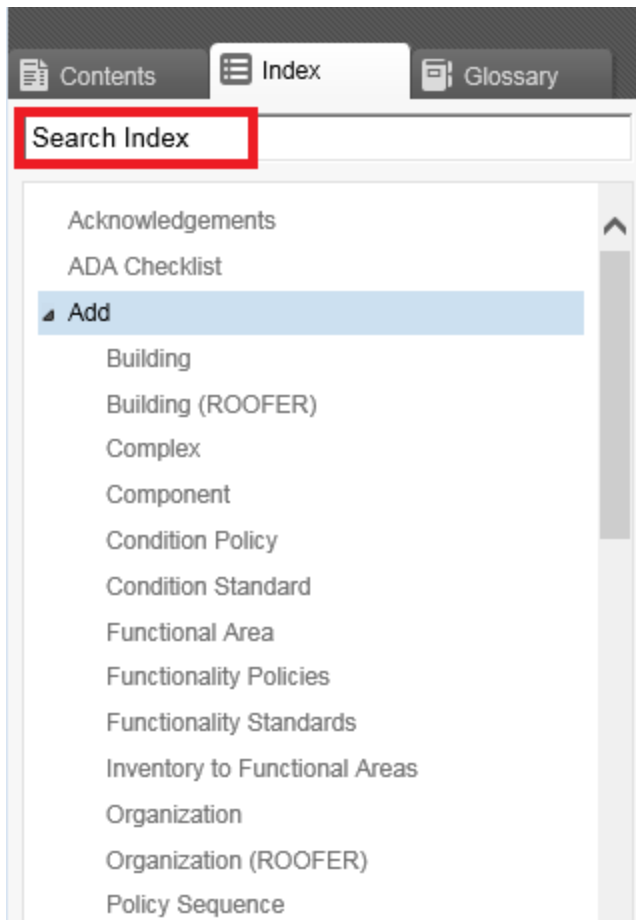


### ***Search the Online Help Index***

You can look for an item in the online help index in either of two ways:

- a. Click the Search box (where the text "Search Index" is initially entered) and type in the item you are looking for.
- b. Alternatively, browse the alphabetical list of index entries.

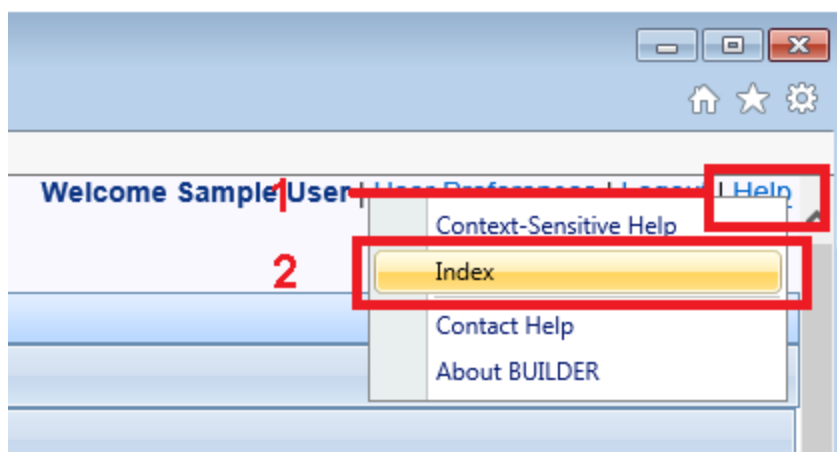
Selecting a term in the index entries that has a right-pointing arrow to the left of it will show sub-entries for that term. (The white arrow will turn black and tilt when the sub-entries are shown.)



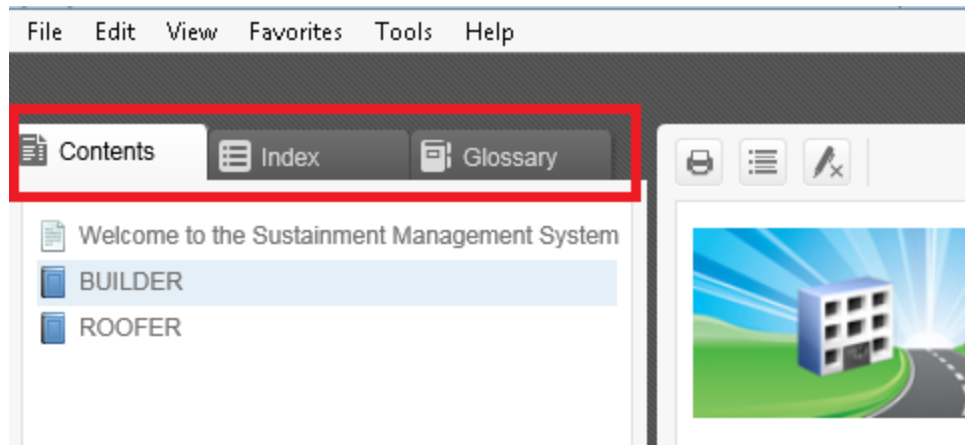
## Glossary

To open the Glossary,

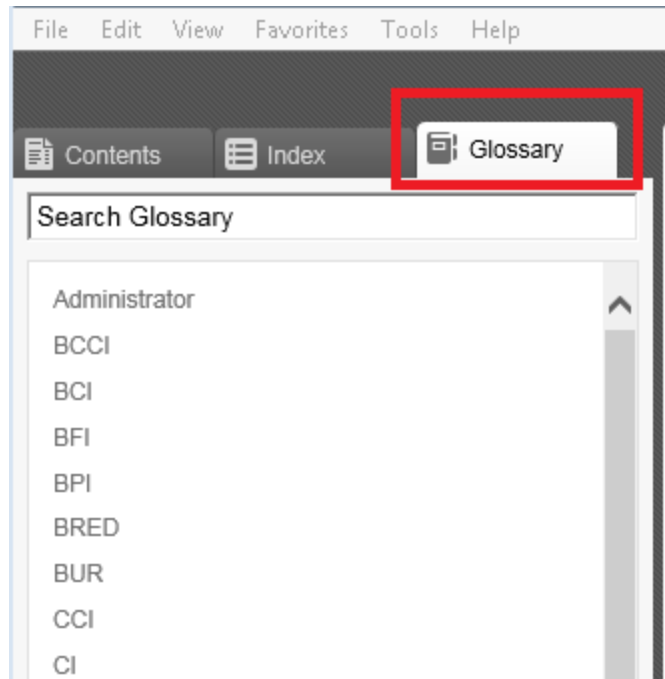
1. Select Help in the User Links area at the upper right of the main screen.
2. Choose **Index** from the dropdown list.



*This will open a Welcome page that has, at the left in the navigation pane, tabs for (1) the online help **Contents**, (2) the **Index**, and (3) the **Glossary**. The **Contents** tab is open by default.*



3. To use the Glossary, select the **Glossary** tab, then enter or select the acronym or term you wish to see defined.



## Contact the Help Desk

To send a help request to your SMS support representative,

1. Select Help in the User Links area at the upper right of the main screen.
2. Choose **Contact Help** from the dropdown list of options.

Generally a help request is sent through Microsoft Outlook, but the procedure may vary depending on the support procedures your SMS provider follows. If you don't have Microsoft Outlook active on your device or computer, a wizard will help you activate it.

## See Version Information

To see the version number for your product, and for other "About" information, select **About BUILDER** in the list of Help options. A popup window with the information will appear.

**Note:** The popup window also provides a link to the SMS Support website.

To close the popup, activate the **OK** button.

# Remote Inspection and Inventory Entry Using BuilderRED

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This topic

- Introduces the BUILDER Remote Entry Database (BuilderRED) tool.
  - Provides the download location.
  - Explains briefly what the tool can do.
  - Links to topics giving detailed instructions for exporting to and importing from BuilderRED.
- 

## What is BuilderRED?

The BUILDER™ Remote Entry Database (BuilderRED, or BRED) is an optional tool designed for use with BUILDER. It allows you to (1) capture and collect inventory and inspection data using a Windows tablet or laptop as you walk through a Building, and then (2) later, load that data into the BUILDER database.

You can download BRED from the **PRODUCTS > BUILDER > Downloads** section of the [SMS community user's group website](#), under the heading **BUILDER Remote Entry Database (BRED)**.

**IMPORTANT:** Before upgrading from BUILDER Version 3.3.6, be sure to read the introductory segment in this documentation that explains the impact of this upgrade on using BuilderRED.

## Collecting Inventory Data

When performing inventory, Buildings and their subparts can be created in BuilderRED, then imported into BUILDER. If the Buildings have already been created in BUILDER, they can be exported to BuilderRED, where inventory details can be entered on-site, then imported back into BUILDER.

## Performing Inspections

Inspectors can use BuilderRED to enter condition assessment data in BUILDER format and then import it into BUILDER. Standard functionality assessments are also built into BuilderRED. These assessments can be initiated and filled out in the field, then imported into BUILDER.

## Export Data to BuilderRED

You can choose to export database items to BuilderRED (aka BRED) either (a) with or (b) without the images that are linked to these items.

Below are some recommendations for best practices to follow to help ensure successful and less time-consuming export of files to BuilderRED:

**Best Practice Recommendation #1:** Be sure to observe the 30-day [time limit on editing inspections](#) and re-importing them into BUILDER, or the time limit in effect for your implementation of BUILDER if it differs from 30 days.

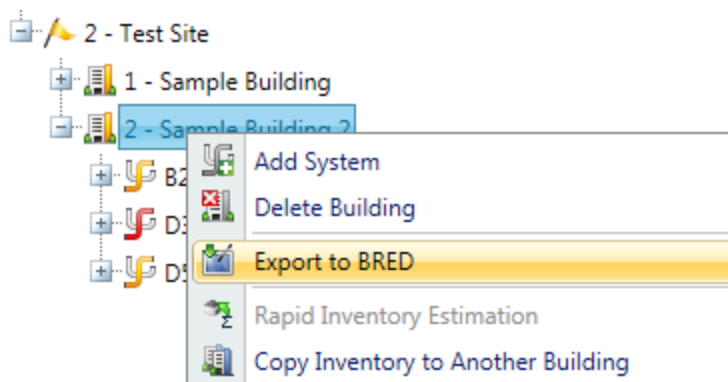
**Best Practice Recommendation #2:** Some Facilities (Buildings) within your Site can already contain several hundred photos. If you know beforehand that you will not need to view or edit these existing photos in BuilderRED, the best practice is to just download the BRED file without images.

**Best Practice Recommendation #3:** 800 pixels is the recommended maximum width and maximum height for images to be used in BuilderRED.

The next section describes how to export both database information and images to BuilderRED. For instructions on exporting database information without images, see [Export Database Information Alone to BuilderRED](#).

### ***Export Database Information and Images to BuilderRED***

1. In the BUILDER navigation tree, right-click the lowest level node (Site, Complex, or Building) that contains the items you wish to export.
2. Select the "Export to BRED" option:



3. In the "BRED Exporter" popup window, highlight the Building(s) you want to export, using the arrows to move Buildings in or out of the Selected

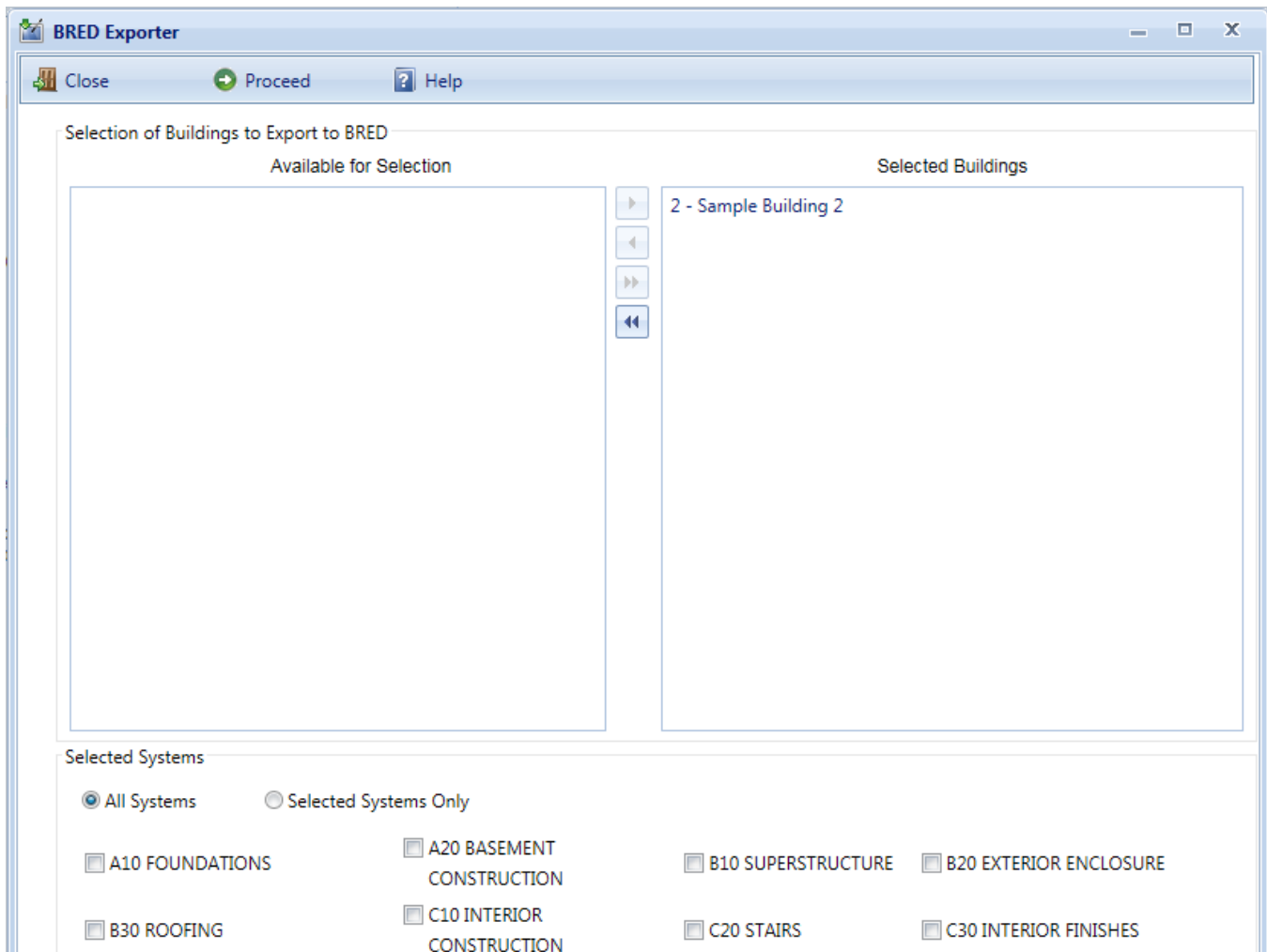


Buildings list. Click here to see different ways you can select Buildings.<sup>1</sup>

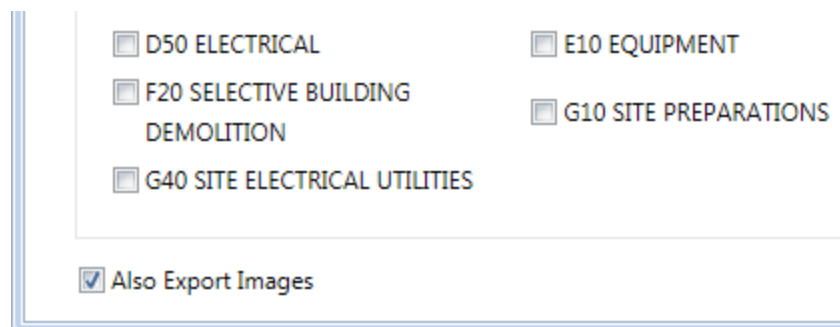
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1

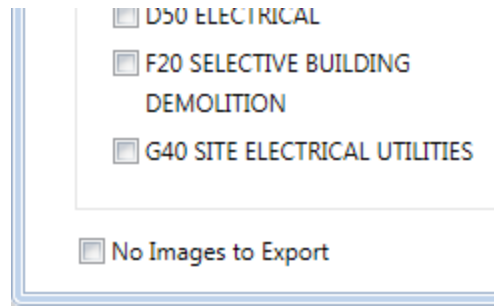
All Buildings:	Activate the double arrow.
One Building:	<ol style="list-style-type: none"><li>1. Select the Building.</li><li>2. Activate the single arrow.</li></ol>
Multiple Buildings, contiguous in the list:	<ol style="list-style-type: none"><li>1. Select the first Building.</li><li>2. Press and hold <b>SHIFT</b>, then select the last Building.</li><li>3. Release <b>SHIFT</b>.</li><li>4. Activate the single arrow.</li></ol>
Multiple Buildings, not contiguous in the list:	<ol style="list-style-type: none"><li>1. Select the first Building.</li><li>2. Press and hold <b>CTRL</b>, then select each subsequent Building desired.</li><li>3. Release <b>CTRL</b>.</li><li>4. Activate the single arrow.</li></ol>
To deselect a high- lighted Building from the list:	<ol style="list-style-type: none"><li>a. Press and hold <b>CTRL</b>, then select the Building.</li><li>b. Alternatively, you can wait until the Building has been moved to the right-hand column under "Selected Buildings", then select the Building, and activate the single arrow pointing to the left. This will move the Building back into the "Available for Selection" column.</li></ol>



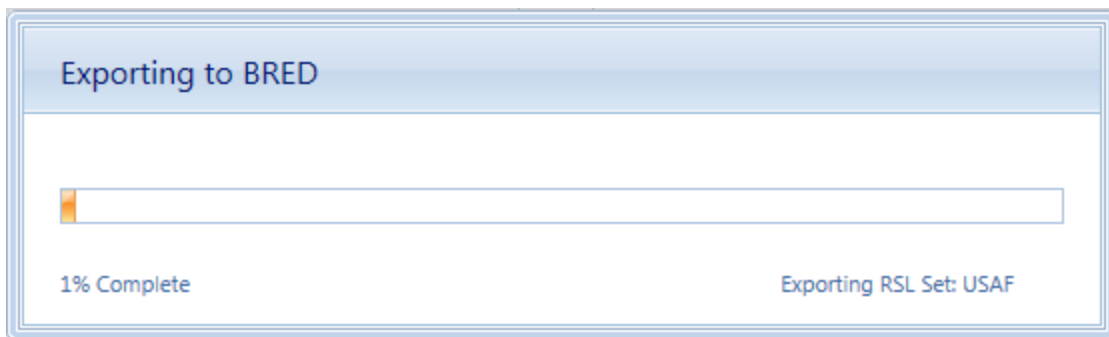
4. Once the desired Buildings are in the Selected Buildings column, do one of the following in the lower section of the "BRED Exporter" window:
  - a. Choose "All Systems" (radio button; this is the default), or
  - b. Select specific systems (using radio button and checkboxes).
5. (Optional) In order to download images with the BRED file, you must select "Also Export Images" at the bottom of BRED Exporter Window, as shown below:



**Note:** If instead of “Also Export Images” you see “No Images to Export” it means that the Building(s) you have selected to export do(es) not currently have any images:



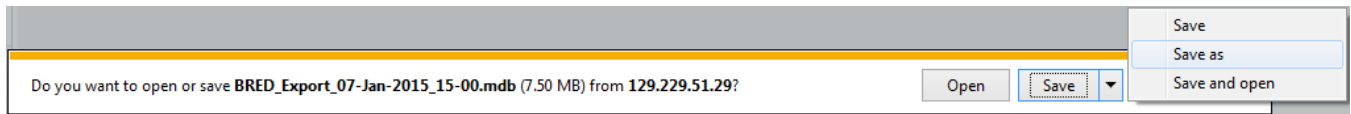
6. To start the export, click the **Proceed** button near the top of the window. A progress bar will display as the BRED database file is downloaded:



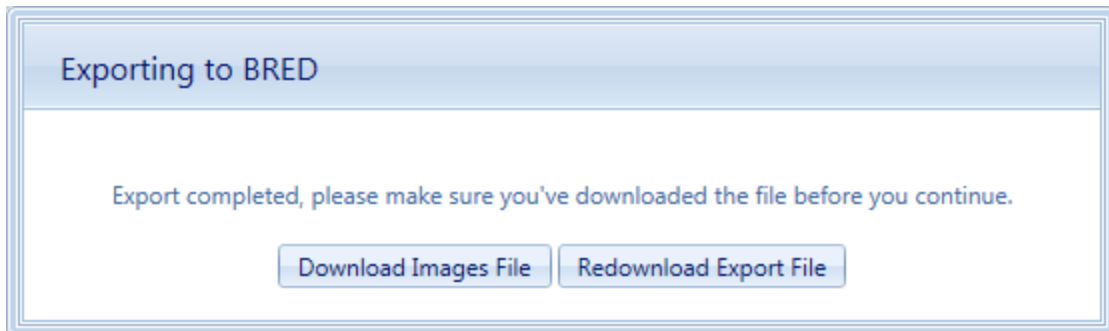
By clicking the **Proceed** button, the following tasks area accomplished:

- A Microsoft Access database is created, which will be identified by the path and name you choose after the export has completed. The database will contain the inventory and condition assessment data for the selected Systems in the Buildings in the Selected Buildings list. This database is accessible to a computer with the BRED software, where inventory and/or condition assessment data can be recorded. Once complete, this file can be imported into BUILDER to add the new data is added to the database.
- The Building inventory records of the selected Systems that were exported are locked so changes cannot be made to them in BUILDER while being edited with BRED. The records are unlocked when the BRED data is imported back into the database.

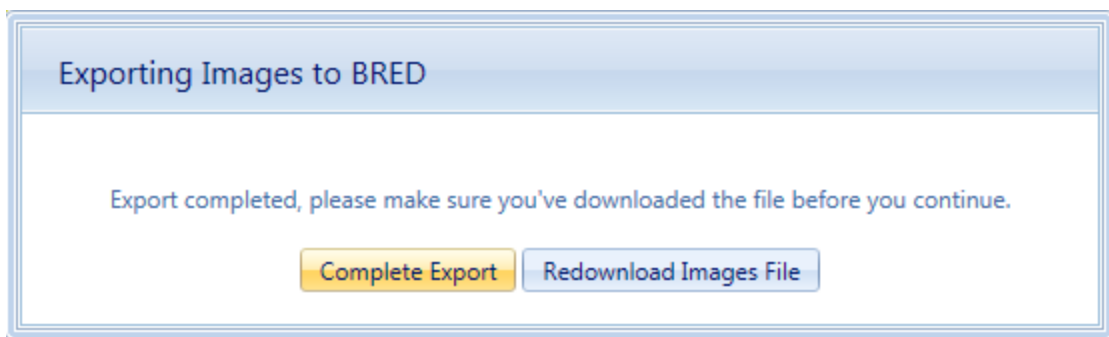
7. After the database file has successfully downloaded, select the “Save As” option to choose a file location for it:



8. If the BRED file did not download correctly, select “Redownload Export File.” Otherwise, select “Download Images File” to start the second download (the download of the images file into BRED):



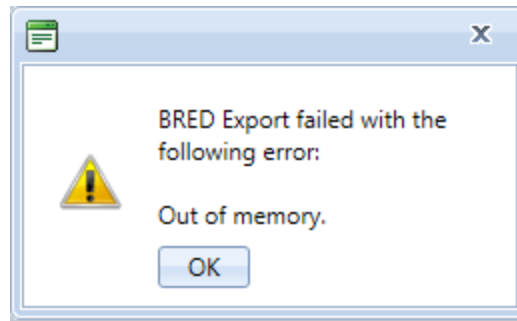
9. After the second download completes, click “Save As” and choose the **same file location** as your BRED database file.
10. Lastly, select “Complete Export” to finish the export process:



### Time Limit on Editing Inspections

Once the export is complete, you can use BuilderRED to collect Inventory data or perform Inspections. Note that it is a common standard to have a 30-day time limit from the date of an Inspection to edit the Inspection or the comments in it. This time limit applies both in BuilderRED and after the data has been imported back into BUILDER.

## Known Issue with Image Export from Builder



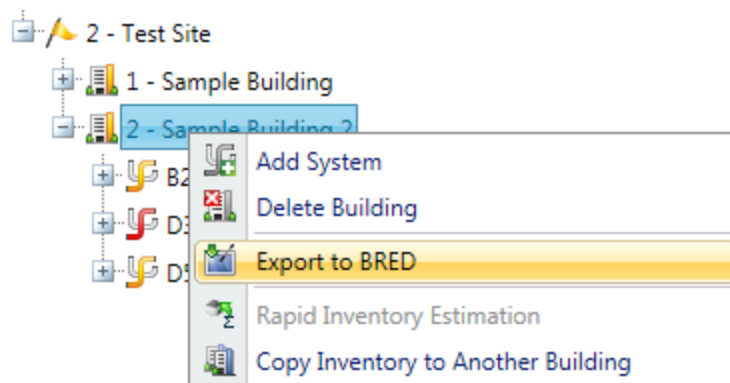
This issue applies to versions of BUILDER 3.3.9 and older.

If the BRED Export error message shown above displays after you try to download the image file from BUILDER, that indicates that somewhere in the exported files there is an attachment (such as a PDF, an Excel file, etc.) that is not an image. The workaround is to export the Building(s) without images.

### ***Export Database Information Alone to BuilderRED***

This section outlines the procedure to export data from BUILDER to BuilderRED without any of the associated image files.

1. In the BUILDER navigation tree, right-click the lowest level node (Site, Complex, or Building) that contains the items you wish to export.
2. Select the "Export to BRED" option:



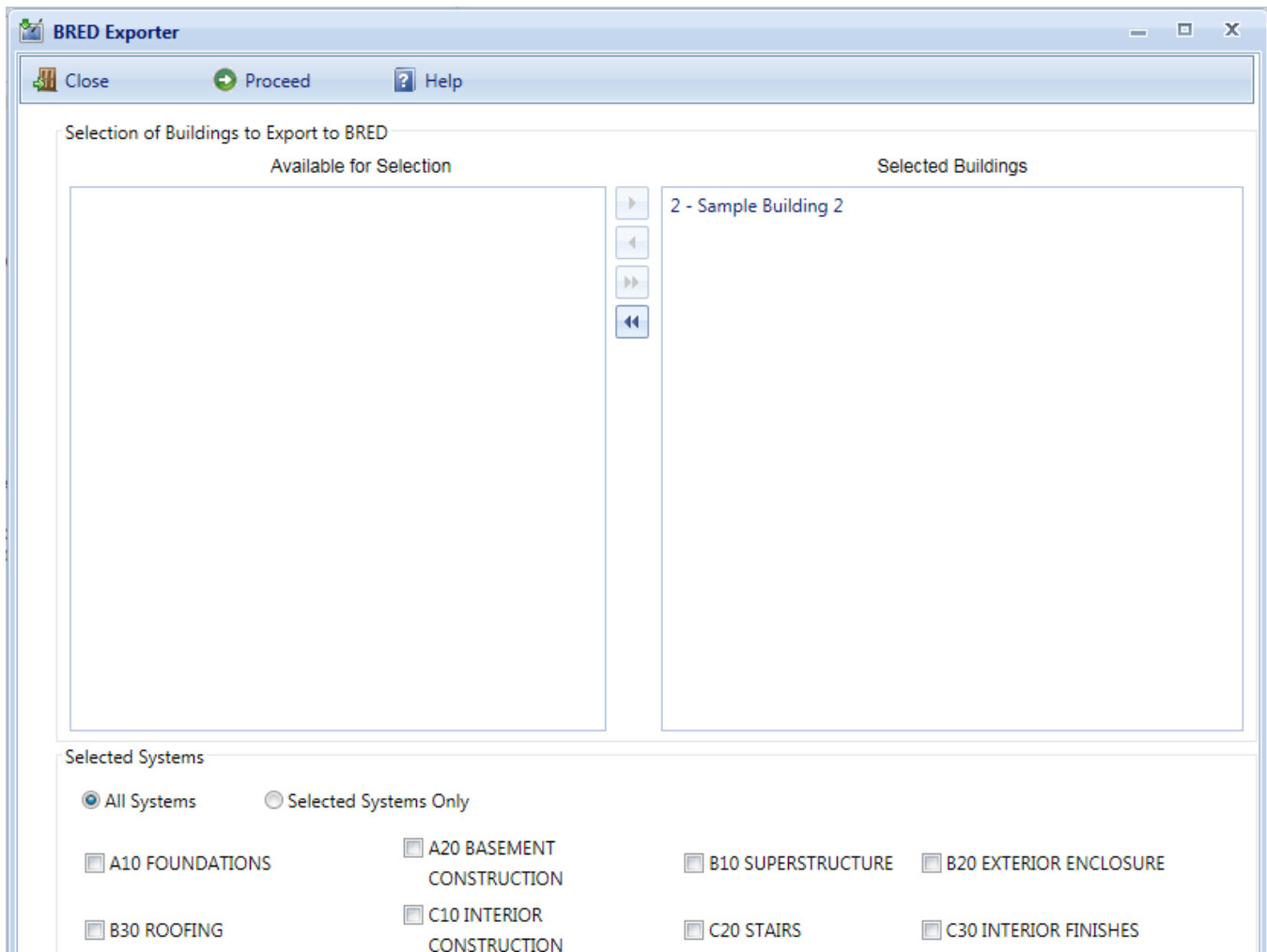
3. In the "BRED Exporter" popup window, highlight the Building(s) you want to export, using the arrows to move Buildings in or out of the Selected Build-

ings list. Click here to see different ways you can select Buildings.<sup>1</sup>

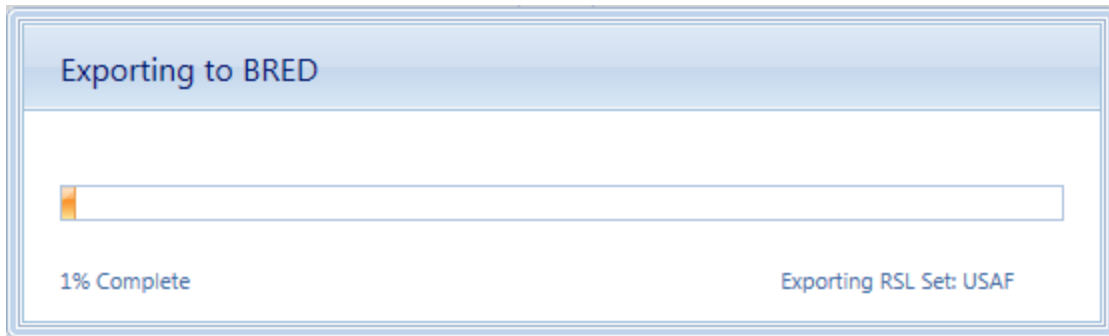
---

1

All Buildings:	Activate the double arrow.
One Building:	<ol style="list-style-type: none"><li>1. Select the Building.</li><li>2. Activate the single arrow.</li></ol>
Multiple Buildings, contiguous in the list:	<ol style="list-style-type: none"><li>1. Select the first Building.</li><li>2. Press and hold <b>SHIFT</b>, then select the last Building.</li><li>3. Release <b>SHIFT</b>.</li><li>4. Activate the single arrow.</li></ol>
Multiple Buildings, not contiguous in the list:	<ol style="list-style-type: none"><li>1. Select the first Building.</li><li>2. Press and hold <b>CTRL</b>, then select each subsequent Building desired.</li><li>3. Release <b>CTRL</b>.</li><li>4. Activate the single arrow.</li></ol>
To deselect a high- lighted Building from the list:	<ol style="list-style-type: none"><li>a. Press and hold <b>CTRL</b>, then select the Building.</li><li>b. Alternatively, you can wait until the Building has been moved to the right-hand column under "Selected Buildings", then select the Building, and activate the single arrow pointing to the left. This will move the Building back into the "Available for Selection" column.</li></ol>



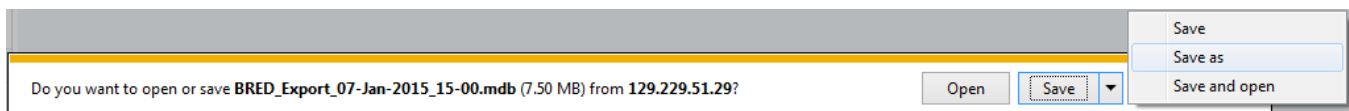
4. Once the desired Buildings are in the Selected Buildings column, do one of the following in the lower section of the "BRED Exporter" window:
  - a. Choose "All Systems" (radio button; this is the default), or
  - b. Select specific systems (using radio button and checkboxes).
5. In order to download the BRED file without downloading the associated images, make sure that the **Also Export Images** checkbox at the bottom of the BRED Exporter Window is *not* checked.
6. To start the export, click the **Proceed** button near the top of the window. A *progress bar will display as the BRED database file is downloaded:*



By clicking the **Proceed** button, the following tasks area accomplished:

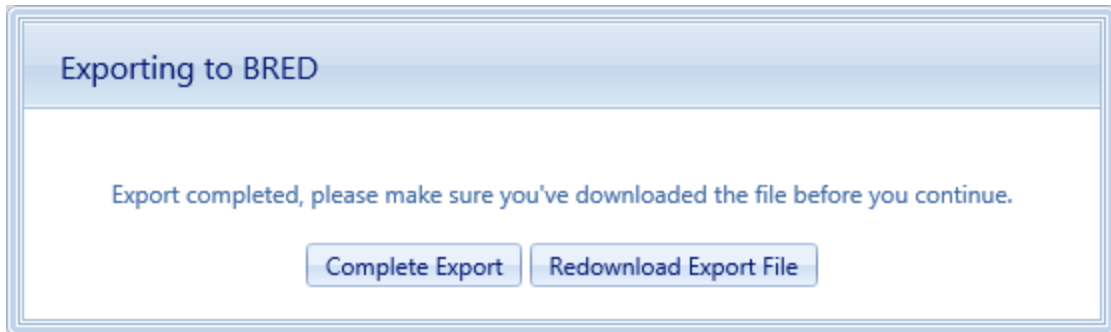
- A Microsoft Access database is created, which will be identified by the path and name you choose after the export has completed. The database will contain the inventory and condition assessment data for the selected Systems in the Buildings in the Selected Buildings list. This database is accessible to a computer with the BRED software, where inventory and/or condition assessment data can be recorded. Once complete, this file can be imported into BUILDER to add the new data is added to the database.
- The Building inventory records of the selected Systems that were exported are locked so changes cannot be made to them in BUILDER while being edited with BRED. The records are unlocked when the BRED data is imported back into the database.

7. After the database file has successfully downloaded, select the “Save As” option to choose a file location for it:



8. If the BRED file did not download correctly, select “Redownload Export File.” Otherwise, select “Complete Export” to finish the export process:





### **Time Limit on Editing Inspections**

Once the export is complete, you can use BuilderRED to collect Inventory data or perform Inspections. Note that it is a common standard to have a 30-day time limit from the date of an Inspection to edit the Inspection or the comments in it. This time limit applies both in BuilderRED and after the data has been imported back into BUILDER.

## **Import Data from BuilderRED to BUILDER**

### ***Overview of the Import Process***

In order to load data collected using BRED into the BUILDER database, you will need to import the database from BRED into BUILDER. It is important to note that the database file containing your new data must be loaded so that the BUILDER program has access to its path and can complete the importing process.

If you added new images during Inventory or Inspections, then importing your information back into BUILDER will be done in two steps: (1) importing the BRED database into BUILDER, and (2) importing the image archive file.

These two steps may be followed by an optional third step: (3) performing a manual condition rollup. This step is optional because the system performs automated rollups nightly.

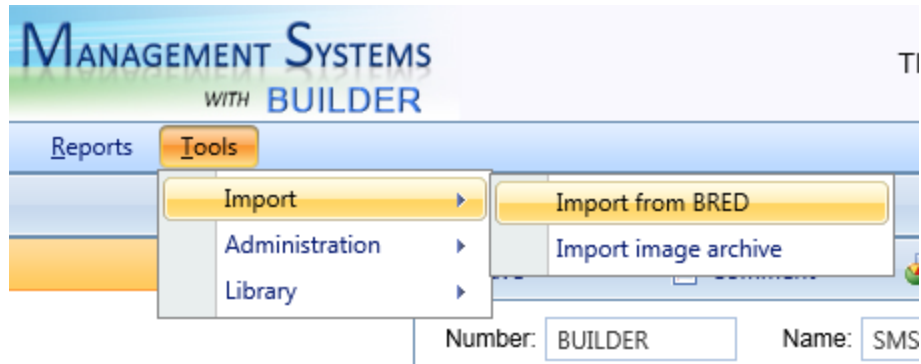
If you have no images to import, then you can go straight from importing the BRED database information into BUILDER to [performing a rollup](#).

### ***How To Import Database Information***

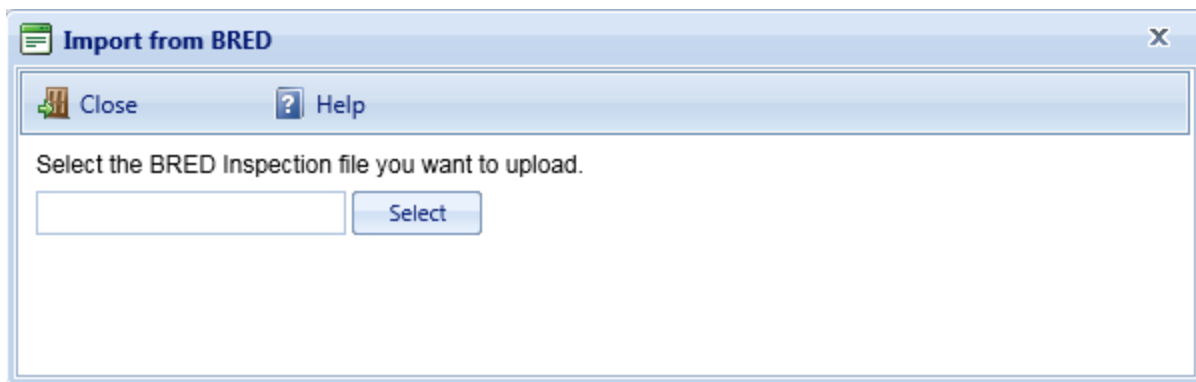
After you have finished adding, editing, and deleting Inventory and/or Inspections data, the updated database must be imported back into BUILDER, to assess the condition of the installation and to plan maintenance and repair.

To import database information into BUILDER from BuilderRED:

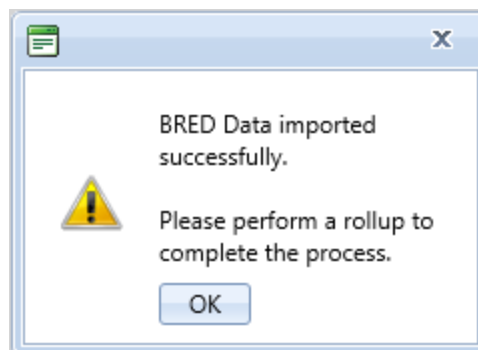
1. Save all changes to the database in BuilderRED.
2. Open BUILDER.
3. Select **Tools > Import > Import from BRED** starting at the main menu.



The "Import from BRED" popup window will appear:



4. Locate the database you wish to import, by either (a) entering the full path and file name in the text box or (b) clicking the **Select** button, navigating to the database file, and selecting it.
5. All changes to the database will be imported into BUILDER and you will see a popup window with the following message:



6. If you don't have any images to be imported into BUILDER, activate **OK**. You are finished with the import, and can [perform a rollup](#) if you wish.
7. **IMPORTANT:** If you have images to import from BuilderRED, it is recommended that you NOT click **OK** to perform a manual condition rollup at this point. Instead, close the popup box by activating the "x," then follow the instructions in the next section:

### ***How To Import Images***

The process of importing images makes use of an image archive file that has the extension .bredpackage. By default, the image archive file has the same name as the .mdb BRED data file containing the imported data, except for the extension.

**WARNING:** It is very important that the name of the image archive file match the name of the .mdb data file. If you rename one of these files, be sure to rename the other one identically (except for the extension). Images will not be found by the BRED (.mdb) file if the .bredpackage file name doesn't match.

To import images into BUILDER from BuilderRED:

1. If you have new images that need to be imported from BRED, this procedure needs to be done *after* importing the database information (see section above).
2. Select **Tools > Import > Import image archive** starting at the main menu. (*The "Import image archive" popup window will appear.*)
3. Locate the image ("bredpackage") file corresponding to the database you just imported, by either (a) entering the full path and file name in the text box or (b) clicking **Select**, navigating to the database file, and selecting it. The image archive will be in the same location as the database file, and similarly named except that the extension is .bredpackage instead of .mdb.
4. When you see the message "Upload successful," close the "Import image archive" window. Follow with a manual condition rollup as warranted (see next section).



### ***Should I Perform a Rollup after Import?***

The items you import from BuilderRED are unlocked as soon as the import is complete, whether you do a manual condition rollup or not. However, the condition and Functionality Indexes will not yet have been updated.

If you only performed inventory with BuilderRED, you need to do a rollup only if

- one or more cost books or other reference books have changed, or
- you wish to see updated PRVs or RSLs immediately instead of waiting on BUILDER's automated rollup (performed overnight)

If you entered inspection data in BuilderRED, performing a rollup after the import is completed allows you to see the changes in the following indexes right away:

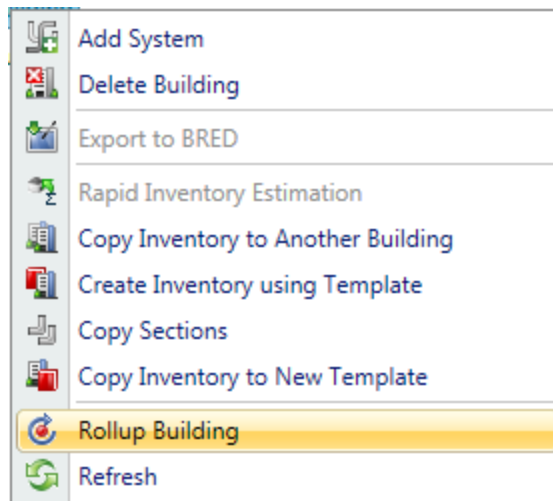
- condition indexes
- functionality indexes
- performance indexes


If you do not perform a rollup at this time, the SMS will do the rollup automatically overnight, and the updated index figures will be available the next day.

### **How To Perform a Manual Rollup after Importing from BuilderRED**

To perform a manual rollup, do one of the following:

- a. Right-click on the affected Building (or Complex, if multiple Buildings were exported from the same Complex). Then select **Rollup Building** or **Rollup Complex**.



- b. Alternatively, select the Building (or Complex, if multiple Buildings were exported from the same Complex) and click the Rollup icon  on the toolbar.

You have the option to roll up the entire Site in similar fashion, but be aware that a Site rollup can take an extremely long time. It would typically be less time consuming to sequentially select the applicable Complexes and Buildings for manual rollup.

# About BUILDER Permissions Roles

**WARNING:** The privileges assigned to each user Role tend to change somewhat over time. Therefore, although the capabilities listed below under each Role will be mostly correct, they might not be 100% accurate at this time.

Each user is assigned to one or more Roles. Roles are allowed varying degrees of program access rights in the software system. The possible Roles include:

## Administrator

A BUILDER Administrator can perform the following functions relating to system administration and user management:

- Administer users
- Assign users to Roles
- Change application settings
- Design the specifications to be met by user passwords
- Clear record locks

To reduce the chance of data loss, the following functions can only be performed by an Administrator:

- Delete an Organization
- Delete a Site
- Delete a Complex

In order to perform these deletions, the Administrator must also have sufficient non-Administrator privileges in order to access the Organization, Site, or Complex to be deleted.

**Note:** If the Organization, Site, or Complex is empty of contents, it may also be deleted by a Master Planner with specific permission for the relevant location in inventory.

## Inventorior

An Inventorior can perform the following functions:

- Add a Building
- Add and delete inventory items at all levels below Building
- Input and edit inventory information at the Inventory screens (all levels)
- Generate reports

**Note:** An Inventorior has no access to either the condition tree or functionality tree.

**Note:** An inventorior can not check out or import a BRED file; this needs to be done by an Inspection Supervisor or above.

## Inspector

In addition to all the rights of an Inventorior, an Inspector can perform the following functions:

- Add an inspection
- Input and edit inspection information at the Condition Assessment screen
- Add a functional area and add inventory to it
- Edit a functional area
- Delete a functional area
- Add, edit, or delete a functional assessment

**Note:** An inspector can not check out or import a BRED file; this needs to be done by an Inspection Supervisor or above.

## Inspection Supervisor

In addition to all the rights of an Inspector, an Inspection Supervisor can perform the following functions:

- Import and export data to and from BuilderRED
- Add inspection schedules
- Perform Rapid Inspection

**Note:** An Inspection Supervisor does not have permission to delete Buildings/facilities.

## Work Planner

A Work Planner can perform a large number of functions directly related to work planning, plus some additional privileges. In addition to all the rights of an Inspection Supervisor, a Work Planner can perform the following functions:

- Delete a Building
- Enter or change RSL (remaining service life)
- Delete an inspection (condition assessment)

Work planning functions that can be done by Work Planner or above are as follows:

- Add and edit work plans
- Add and edit a Scenario
- Copy a Scenario to a work plan
- Add and edit standards
- Add and edit policies
- Add and edit policy sequences
- Add and edit prioritization schemes
- Add and edit cost books
- Add and edit funding

## **Master Planner**

In addition to all the rights of a Work Planner, a Master Planner can perform the following functions:

- Generate multi-year work plan Scenarios
- Edit any and all data saved by other users of the program
- Add an Organization
- Add a Site
- Add a Complex
- Delete standards
- Delete policies
- Delete policy sequences
- Delete prioritization schemes
- Delete cost books
- Delete service life books

Master Planner is the highest level of non-Administrator user privileges.



# Glossary

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**Administrator**

A user with Administrator Role can administer users, assign users to Roles, and change software configuration settings.

**Area Cost Factor**

A multiplier that adjusts national average labor/material/equipment costs to local costs. For example, in a remote area with high shipping costs and a tight labor market, the Area Cost Factor might be 1.3. The Area Cost Factor is generally a number between 0.8 and 1.2 for continental U.S. locations, but it can be even greater than 2.0 in high-cost geographic locations.

**ATFP**

Antiterrorism Force Protection

**BCCI**

Building Component Condition Index - a condition rating for the target Building Component. For each Component, the BCCI is computed by taking the average of its Sections' CIs, weighted by replacement cost

**BCI**

Building Condition Index - a condition rating for the overall Building. For each Building, the BCI is computed by taking the average of its Systems' CIs, weighted by replacement cost.

**BFI**

Building Functionality Index - computed from the results of a functionality assessment.

**BPI**

Building Performance Index - a measure of a Building's overall performance, derived from a weighted combination of the BCI and BFI, where the lower of the two values is given two-thirds of the weight and the higher of the two values is given one-third of the weight. If no functional assessment has been performed, the BFI is assigned a value of 100.

**BRED**

BUILDER Remote Entry Database (BuilderRED)

**BUR**

Built-up Roofing

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**CCI**

Coating Condition Index

**CI**

Condition Index

**CII**

Component Importance Index. This index may be used to rank the relative importance of components against one another. An example of its use is in Work Configuration to hold different Component-Sections to different thresholds, or to prioritize them differently based on relative importance.

**CM**

Corrective Maintenance

**CMC**

Component material category

**Complex CI**

Complex Condition Index - a condition rating for the target Complex. The Complex CI is computed by taking the average of the BCIs of each Building in the Complex, weighted by replacement cost.

**CSCCI**

Component Section Coating Condition Index

**CSCI**

Component-Section Condition Index - a condition rating for the target Component-Section. The CSCI is computed by using the assessment data to calculate a deduct value, then subtracting that deduct value from the maximum possible rating of 100. The deduct value computation differs for each condition assessment method.

**Equipment Make**

The series, collection or line that the equipment is included in, if applicable. For example, a Trane® gas furnace might be designated as S9V2, XC95, or XV95.

**ERDC-CERL**

U.S. Army Engineer Research and Development Center, Construction Engineering Research Laboratory

**ESC**

Emergency Service Call

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**FAFI**

Functional Area Functionality Index

**FCA**

Facility Condition Assessment

**FCI (ROOFER)**

Flashing Condition Index. In ROOFER the FCI, as determined by inspection and/or algorithm, is used in the calculation of the Roof Condition Index (RCI).

**FEMA**

Federal Emergency Management Agency

**FI**

Functionality Index

**HABS**

Historic American Buildings Survey

**HAER**

Historic American Engineering Record

**HPSB**

High Performance and Sustainable Building

**IAQ**

Indoor air quality

**ICI (ROOFER)**

Insulation Condition Index

**Icon Color**

Icon color designates the condition of an SMS element, or whether it has yet been inspected at all. If the icon is gray, no inspection has been performed. Red, amber, and green icons indicate a red-, amber-, or green-level average condition of all sublevels below the designated icon, assuming that a rollup has been performed.

**Inspection Supervisor**

A user with Inspection Supervisor Role has all the rights of an Inspector, and can also create inspection schedules

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**Inspector**

Person who performs inspections to be input into BUILDER or ROOFER. As a permissions Role, Inspectors can input and edit inventory information in Inventory mode, and can input and edit inspection information from the Condition Assessment screen.

**Inventorior**

A user with Inventorior Role can add and edit records below the Building level.

**KBI**

Knowledge-Based Inspection

**M&R**

Maintenance and Rehabilitation

**Master Planner**

A user with Master Planner Role has all the rights of a Work Planners, and can also generate multi-year work plan scenarios, and edit any and all data saved by other users of the program. Master Planner is the highest level of user privileges.

**MBH**

1,000 BTU/hour

**MCI (ROOFER)**

Membrane Condition Index

**MDI**

Mission Dependency Index - measures the relative importance of a Building

**MOA**

Memorandum of Agreement

**MOU**

Memorandum of Understanding

**NAGPRA**

Native American Graves Protection and Repatriation Act

**PCBs**

Polychlorinated biphenyls

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**PCI (ROOFER)**

Panel Condition Index. The PCI is one component making up the Roof Condition Index (RCI) for a metal panel roof, along with the Insulation Condition index (ICI) if applicable, and the Flashing Condition Index (FCI).

**PI**

Performance Index. See also: BPI. The Performance Index is a weighted combination of the CI value and the FI value, with the lower of the two values being given two-thirds of the weight and the higher of the two values being given one-third of the weight.

**PM**

Preventative Maintenance

**PM inspection**

Preventative maintenance inspection

**POM**

Program Objectives Memorandum

**PRV**

Plant Replacement Value. For an inventory item above the Building level, this number will be the aggregate of the PRV of all Buildings included in that item.

**RCI (ROOFER)**

Roof Condition Index

**RML**

Remaining Maintenance Life

**RPIE**

Real property installed equipment

**RSL**

Remaining Service Life

**SCCI**

Subcomponent condition index, produced when using direct rating in a preventative maintenance (PM) inspection

**SCI**

System Condition Index - a condition rating for a Building System. For each System, the SCI is computed by taking the average of its

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Components' CIs, weighted by replacement cost.

**SCI (ROOFER)**

Substrate Condition Index

**Site CI**

Site Condition Index - a condition rating for the target Site. The Site CI is computed by taking the average of the BCIs of each Building at the Site, weighted by replacement cost.

**SMS**

Sustainment Management System

**SOW**

Statement of Work

**SP**

Single Ply

**SR**

Shingle Roofing

**SRM**

Sustainment, Restoration, and Modernization

**STIG**

Security Technical Implementation Guide (DoD)

**Stop gap repair**

Repair that will keep the CI at its current level for one year, without further deterioration.

**SUCI**

Sample Unit Condition Index

**UM**

Unit of Measure. Examples: Each; LF (linear feet)

**Work item**

A discrete work activity applied to a single managed object such as a Component-Section, intended to improve its life cycle performance.

**Work plan**

A multi-year collection of work items and/or projects planned for a Site or Organization.

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**Work planner**

A user with Work Planner Role has all the rights of an Inspection Supervisors, and can also create and edit work plans, standards, policies, prioritization schemes, and RSL and cost books.

**Work project**

A grouping of work items to be managed, prioritized, funded, and executed as a single work effort.





# Index

---

## A

Administrator 52

## B

BRED See **BuilderRED**

BUILDER Remote Entry Database (BRED) See **BuilderRED**

BuilderRED

- capabilities 37

- export data to 38

- import data from 47

- import images from 49

- rollup after import 50

## C

Content area 21

- location on the BUILDER screen 16

Content area toolbar

- location on the BUILDER screen 16

Copyright 2

## D

Disclaimer 2

## E

Export

- BuilderRED data 38

---

## G

### Glossary

open Glossary in Online Help 34

## H

### Help

BUILDER Help index 32

context-sensitive help 32

open Glossary 34

open table of contents 30

## I

### Import

BuilderRED data 47

images from BuilderRED 49

### Index

BUILDER Help index 32

Inspection Supervisor user role 53

Inspection tools *See also* **BuilderRED**

Inspector user role 53

Inventorior user role 52

Inventory hierarchy 13

## M

### Main menu 18

location on the BUILDER screen 16

### Main toolbar

location on the BUILDER screen 16

### Master Planner 54

---

## **N**

Navigating BUILDER 16

Navigation

- content area 21

- main menu 18

- navigation ribbons 19

- navigation tree 19

Navigation tree

- location on the BUILDER screen 16

## **O**

Online help 30

## **P**

Permissions 52

- Administrator 52

- Inspection Supervisor 53

- Inspector 53

- Inventorior 52

- Master Planner 54

- Work Planner 53

## **R**

Roles 52

## **T**

Table of contents

- open 30

---

## **U**

User links 17

location on the BUILDER screen 16

User permissions roles 52

User preferences 23

## **W**

Welcome 3

Work Planner user role 53