

BridgeStation

Advanced Bridge Management System

Quick Start Guide

January 2014

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1. About BridgeStation



Developed by the London Bridges Engineering Group (LoBEG) BridgeStation allows you to manage your structures inventory, record inspections and assessment results as well as store all your relevant documents and photographs in one place. Use BridgeStation to calculate asset valuation, automatically generate condition indicators, configure 60-year life cycle plans and prioritise your maintenance. The system is web-based and can therefore be accessed from site or from the office wherever you have an internet connection you can access BridgeStation.

BridgeStation Knowledge Base

This guide should be used in conjunction with the **BridgeStation Support Site** and Knowledge Base which provides full step by step instructions for each module and feature. Details on how to access the support site are included in the next section. Links to relevant articles are provided throughout this document.

2. Support and Community Resources

BridgeStation Online Support BridgeStation Support Site and Knowledge Base

www.bridgestation.co.uk/Support

Feedback and support ticket page

bridgestation.co.uk/Support/Main/frmNewTicket

BridgeStation Phone Support

You can get help over the phone from the BridgeStation Support Department, call **+44 (0)20 3551 9320**

3. BridgeStation Asset Management

3.1. Web address, user accounts and logging in

3.1.1. The BridgeStation Web Address

Once the BridgeStation Support Department has your site up and running, it's time to login. The Support Department will forward you the web address. It will take the form:



3.1.2. User Accounts

Each user should have their own separate user account. User accounts are validated via email so the Support Department will request email addresses for your users and make the initial account set up.

Knowledge Base Articles:

You can update user accounts, change permissions, reset passwords and set expiry dates via the **User Administration** module. You can also **Create New Users**.

Each new user will receive an email from the support department containing a link to follow to complete account setup.

3.1.3. Logging in

Following the BridgeStation web address will direct you to the **Login page**. From here you can complete your credentials to gain access to BridgeStation.

Email Address:

Password:

☐ Remember Me

[Forgotten Password](#)

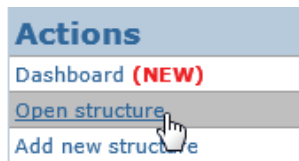
Knowledge Base Articles:

If you have need reminding of your credentials you can use the **forgotten password function**. You can also **update your password** at any time.

3.2. The Structural Inventory

3.2.1. Searching for Structures

If you have been through the migration process then you should find all your structures available to search through on the **Open Structure** page. Click on the **Open Structure link** in the **Actions Menu**.



Use the input boxes and drop downs to filter your results and quickly find the structure record you are interested in.

Open Structure

Name

Example

Identifier:

A

Structure ID:

Owner:

Local Authority

Borough:

All

Structure Type:

Bridge

Stock Type:

All

Search

Clear

Knowledge Base Articles:

Occasionally you'll need to add new assets to your inventory. You can do that using the **Add new structure** module.

The Structure Summary and Details

Clicking on a structure's name opens the structure summary for that record.

Results found: 1

Name	Identifier
Example Bridge	RT1234

The **Structure Summary** page shows basic details about the structure, such as its name and location. Most of the summary information can be edited via the **Structure Details** tab.

Click on the Structure Details tab to start editing the attributes of the selected structure.

Structure Details - Example Bridge

Latest Environment Awareness Sheet

Structure Summary

Structure Details

Photographs (1)

Certain fields in BridgeStation are mandatory, these are denoted by a red asterisk *. On the **Structure Details** tab the **Structure Type** and **Name** fields are mandatory. It's also advised that an identifier

is also provided.

Structure Type:*	Bridge
Name:*	Example Bridge
Identifier:	RT1234

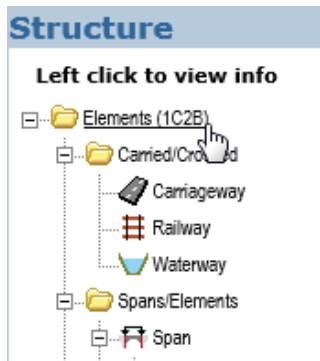
Knowledge Base Articles:

You can read more about the summary and details pages on the **Structure Summary** and **Structure Details** knowledge base articles.

3.3. Building a Structure Hierarchy

3.3.1. Introduction to element hierarchies and levels

As part of any migration an element hierarchy will be created for each structure where data is available. You are able to update these hierarchies or create brand new ones at any point. BridgeStation uses a consistent element inventory approach developed by LoBEG, to start head over to the Structure Menu on the left beneath the Actions Menu and expand the Elements folder



Each structure has a hierarchy level associated with it and displayed in brackets next to the **Elements folder** label. For migrated inventories and hierarchies the level has been selected for you based on various criteria. The available levels are:

Level	Name	Description
1A	Structure Type	An element hierarchy without any sub-divisions. All elements are stored within the elements folder
1B	Super/Sub Structure	Elements are divided automatically between the superstructure and substructure folders
1C	Span/Construction Form	Useful for multi span structures, each element must be attributed to a span or other alternative construction form
1B+1C	Super/Sub Structure and Span/Construction Form	A mixture of 1B and 1C. The superstructure folder can be further sub-divided into spans/construction forms

3.3.2. Making hierarchy modifications

You might find that you have a hierarchy in place but you need to add more elements or perhaps delete a few unwanted ones. To do this, left click the **Elements folder** to bring up the modification options.



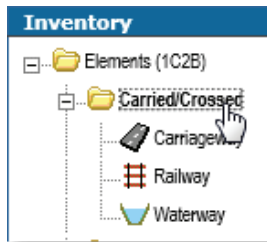
Click on the **Edit an existing compliant inventory link** to start making edits. From here you'll be able to add new elements, edit the attributes of current ones and archive any unwanted elements as well.

Knowledge Base Articles:

Read the full articles on **Element Modification Options**, **Editing Hierarchies**, **Creating New Hierarchies** and **Switching to other hierarchy levels** on the Knowledge Base.

3.3.3. Establishing Carried and Crossed Elements

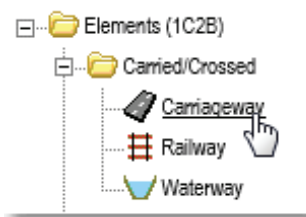
Once you have clicked on the **Edit an existing compliant inventory link** click on the **Carried/Crossed folder**



This will activate the **Add Element panel**, use the check boxes to select the desired carried/crossed elements

Add Elements		
Component	Add	Qty
Private Land	<input type="checkbox"/>	<input type="text"/>
Railway	<input type="checkbox"/>	<input type="text"/>
Waterway	<input type="checkbox"/>	<input type="text"/>
Carriageway	<input checked="" type="checkbox"/>	<input type="text"/>
Footway	<input checked="" type="checkbox"/>	<input type="text"/>

Click the **Add button** to apply the select carried/crossed elements to your structure. Next set the relative position for each of these elements, to do this click on the elements in the **Carried/Crossed folder**

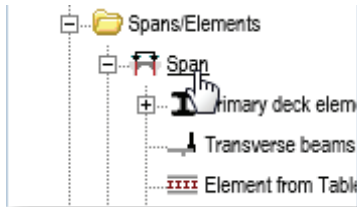


The Element Details page will open for you on the right. Click on the **Relative Position** drop down and select the desired position for the element.

Carriageway Name	<input type="text" value="Carriageway"/>
Comment	<input type="text"/>
Relative Position	<div>Adjacent Structure Carried by Structure Crossed by Structure Foot of Wall Top of Wall Within Structure</div>
Road Use	
Road Number	
Lanes	
Lane Width (m)	

3.3.4. Recording Span Dimensions

Dimensions for your structures are held on the spans. Click the **Span icon** in your **Span** or **Span/Element** folder to begin editing the element details for the Span.



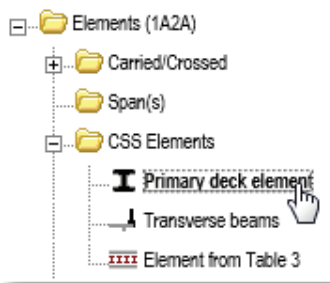
The Element Details will display on the right-hand side of the screen.

Element Details	Structure Summary	Structure Details	Photo
Description	Span		
Display Order	1		
Identifier	001		
Quantity	1		
Comment	1st span		
Length (m)	5		
Maximum Width (m)	14		
Minimum Width (m)			
Measured Height Direction	A- North / B-South ▼		
Measured Height (Direction A) (m)	14		
Measured Height (Direction B) (m)	14		
Headroom (m)	14		

Complete the **Length, Width and Height/Headroom** fields. If you have more than one span, complete this process for each span in your **Elements folder**. The span dimensions are summarised on the **Structure Details tab**.

3.3.5. Adding Construction Information to Elements

Construction information is stored against **Primary Deck Elements** and **Secondary Deck Elements**. Click on the relevant icons in the **CSS Elements folder** to bring up the **Element Details tab**.



Complete the form type and material fields on the **Element Details tab** and repeat this for each of the primary and secondary deck elements present in your **CSS Element folder**.

Element Details - Tablet Test Structure - Bridge

Element Details

Structure Summary

Structure Details

Photographs (1)

Documents

Description

Identifier

Quantity

Comment

Environment/Traffic

Form Type

Material (LCP)

Primary Deck Element

001

1

Primary for span 1

Moderate

01 - Arch (solid spandrel)

Blockwork, i.e. Masonry or Stone

Brickwork

Cast Iron or Wrought Iron

Corrugated Rolled Steel

Save Element

This information is summarised on the **Structure Summary** and **Structure Details** tabs.

Knowledge Base Articles:

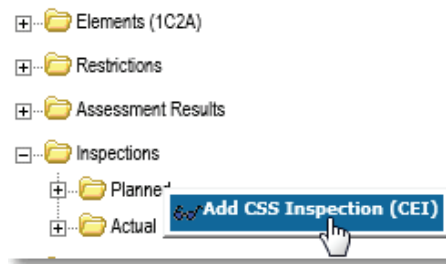
You can read more about the summary and details pages on the **Structure Summary** and **Structure Details** knowledge base articles.

3.4. Completing an Inspection Report

Inspections in BridgeStation are linked to the element hierarchies. If you need to inspect a certain element, it must first be present in the **CSS Elements folder** before its available to have inspection data stored against it.

3.4.1. Adding an Inspection Report to a Structure

Add an inspection by opening a structure and right clicking on the **Inspections folder** in the **Structure menu** on the left.



This will bring up a context menu. Select the **Add CSS Inspection (CEI)** option to add a new inspection form to the structure.

3.4.2. Completing an inspection form

The inspection form will load on the right hand side and is made up of four main sections. Firstly, the **Inspection Details Section**, where the basics regarding the inspection are kept such as the inspector name and date.

Inspection Details:			
<input type="radio"/> Safety	<input checked="" type="radio"/> General	<input type="radio"/> Principal	<input type="radio"/> Special
Inspector:		<input type="text" value="Example Inspector Name"/>	
Risk assessment reviewed and updated ?		<input checked="" type="checkbox"/> Yes	Next Inspection Type: <input type="text" value="Principal"/>
All above ground elements inspected:		<input type="text" value="Yes"/>	Photographs: <input type="text" value="Yes"/>

The **Structure Details Section** displays below this. This section is for your information only and summarises the structure details, construction and dimension information held for the structure.

Below this is the **Element Conditions Section**. Here you can record **Severity** and **Extent** data against each element in your hierarchy.

Page 1 of 2 (39 items) < 1 2 >								
	#	No	Element Description	Sev	Ext	Def Code	PR	Wrks Req
▼ Super Structure - Span								
▼ Deck Elements								
+	1		Primary deck element (Table 2)	2	B	1.11	M	<input checked="" type="checkbox"/>
+	2		Transverse beams	1	A	1.11	M	<input checked="" type="checkbox"/>

Other data can be recorded against each element including; defect

codes, costs, defect comments and suggested remedial works comments.

The final section is the **Comments Section**. Here **Inspector and Engineer Comments** can be added to finish off the form.

4. Learning more about BridgeStation

This quick start guide has provided an introduction to BridgeStation, with your structural inventories and element hierarchies complete and with some inspections added you're ready to move on to the next steps. With BridgeStation you can now:

- **Manage defects**
- **Record structural assessment information**
- **Catalogue any restrictions and interim measures**

With that Information completed you'll then be able to:

- **View summary reports on the BridgeStation Dashboard**
- **Get condition scores (BCI) for each structure**
- **View information on maps**
- **Design your own reports with the Reports builder**

Then finally you can use the planning tools including:

- **Risk-based inspection scheduling**
- **Life cycle planner**
- **Automated Asset Valuation Report**
- **Short term prioritisation report**