AASHTOWare BrDR 7.5.0 Feature Tutorial EII – Export/Import BrDR Data This example describes the BrDR system data exchange. The user will need to have two databases to do the data exchange.

BrDR 7.5.0 is capable of performing the following system data exchanges,

- Analysis Event Template
- Load Combination Settings Template
- Load Palette Template
- System Defaults
- Unit Tolerances
- General Preference Template
- Parameters
- Custom Agency Field Labels
- Engine Defaults

### **Topics Covered**

- Import and export Analysis Event Template
- Import and export System Defaults

# Import and export Analysis Event Template

Open a bridge in the sample database (AASHTOWareBr75s), click the **Analysis Settings** button in the Analysis group of the DESIGN/RATE ribbon.

Analysis Settings		_	
O Design review	Rating method:	LFR	
Analysis type:	Analysis option:	DL, LL and Spec-Checking	
Lane / Impact loading type: As Requested	Apply preference setting:	None 🗸	
Vehicles Output Engine Description			
Traffic direction: Both directions	Refresh	Temporary vehicles Advanced	
Vehicle selection -Vehicles 	Add to Remove from <<	y tles y perating nventory perating	
Reset Clear Open template Save te	mplate	OK Apply	Cancel

Click the Open template button and select HS 20 LFR Rating and click Open to apply this template.

On the **Output** tab of the Analysis Settings window, click the **Select All** button for **Tabular Results**. Click the **Save template** button to save the change as a new Template **"HS 20 Rating with Report"**. Close the Analysis Settings window. Close the bridge.

Design review       Rating         Analysis type:       Line Girder         Lane / Impact loading type:       As Requested         Vehicles       Output         Engline       Description         Vehicles       Output         Engline       Description         Wehicles       Output         Engline       Description         Miscellaneous reports       Girder properties         Summary influence line loading       Decarity summary         Capacity detailed computations       FE model for DL analysis         Truss panel point concurrent forces report       Capacity detailed computations         FE model for DL analysis       Et model for LL analysis         IL linfluence lines FE actions       LL distrib. factor computations         Regression data       Camber	🕰 Analysis Settings			_	×
Analysis type:       Line Girder       Analysis option:       D.L. Ll. and Spec-Checking       Apply preference setting:         Lane / Impact loading type:       As Requested       Apply preference setting:       None         Vehicles       Output       Engine       Description         Tabular results       1       Image: Second	O Design review	Rating method:	LFR	~	
Vehicles       Output       Engine       Description         Tabular results       1       AASHTO engine reports         Dead load action report       Girder properties         Live load action report       Girder properties         Truss panel point concurrent forces report       Detailed influence line loading         Truss panel point maximum forces report       Capacity summary         Capacity detailed computations       FE model for DL analysis         FE model for DL analysis       FE model         Li influence lines FE model       Li influence lines FE model         Li influence lines FE model       Camber	Analysis type: Line Girder v Lane / Impact loading type: As Requested v	Analysis option: Apply preference setting:	DL, LL and Spec-Checking None	>	
Select all     Clear all	Vehicles       Output       Engine       Description         Tabular results       1         Dead load action report         LFR critical loads report         Ive load action report         Truss panel point concurrent forces report         Truss panel point maximum forces report	AASHTO engine rep Miscellaneous re Summary infl Detailed influ Capacity sum Capacity deta FE model for LL influence li LL distrib. fact Regression da Camber	ports ports: ties uence line loading mary iiled computations DL analysis LL analysis LL analysis ines FE model ines FE actions tor computations ata		
	2 Select all	Select all Cle	ear all		

Click the **Export** button on the **Bridge Explorer ribbon** as shown below:

Br 🖁		AASHTOWare Bridge Design and Rat	ing
BRIDGE EXPLORER BRIDGE	FOLDER	RATE TOOLS VIEW	
Angle Retrieve All 🛛 🛱 Se	elect All	💓 🔲 US Customary 🗹 🎼 🎡	
🔍 🧠 Retrieve Next 🗱 Se	elect None		
Kefresh 🔘 In	vert Selection	By  Columns	tion
	Bridge Explorer	er View	
···· 🚖 Favorites Folder		BID Bridge ID	Bridge Name
million Recent Bridges		1 TrainingBridge1     Training Bridge 1(I	LRFD)
All Bridges		2 TrainingBridge2 Training Bridge 2(I	LRFD)
Deleted Bridges		3 TrainingBridge3 Training Bridge 3(I	LRFD)
- Deletted bridges		4 PCITrainingBridge1 PCI TrainingBridge	1(LFD)
		5 PCITrainingBridge2 PCITrainingBridge2	2(LRFD)
		6 PCITrainingBridge3 PCI TrainingBridge	3(LFD)
$\langle\!$		AASHTOWare Bridge Desig	gn and Rating
Ŭ	Database info	prmation	
Preferences	Connected	Yes	
_	Build date	Oct 12 2022	
Database information	Version	7.5.0.1	
Export	BrM and BrDR	R share this database No Maintenance info	
🖳 Import	Database conr	nection and driver information	
	Server name	localhost User name bridge	
Help	DataSource na	ame localhost Driver name	
	Database name	ne AASHTOWareBr75is Driver version	
🔀 Exit	DBMS name	SQL Server Database DBMS version 15.00.2095	

## The System Data Export dialog will open as shown below:

System Data Export		×	
System data items: System Data Analysis Event Template Cand Combination Settings Template Cand Palette Template System Defaults General Preference Template Parameters Custom Agency Fields Labels Engine Defaults	Details:	Selected to export:	
	>>	Export Close	

Select the Analysis Event Template to see all of the available analysis templates for export. Select the HS 20 Rating

with **Report** template created earlier and click the button to add this analysis event template to export.

System Data Export			×
System data items:	Details:		Selected to export:
<ul> <li>System Data</li> <li>Analysis Event Template</li> <li>Load Combination Settings Template</li> <li>Ouad Palette Template</li> <li>System Defaults</li> <li>Unit Tolerance</li> <li>General Preference Template</li> <li>Parameters</li> <li>Custom Agency Fields Labels</li> <li>Engine Defaults</li> </ul>	Name HL 93 Design Review HS 20 LFR Rating LRFR Design Load Rating LRFR Legal Load Rating HRF Legal Load Rating HS 20 Rating with Report	Description HL 93 Design Review HS 20 LFR Rating LRFR Design Load Rating LRFR Legal Load Rating HS 20 LFR Rating	
			Export Close

#### Click the **Export** button.

System Data Export					×
System Data Export System Data items:    System Data  System Data  System Data  System Data  System Data  Data D	Details: Name HL 93 Design Review HS 20 LFR Rating LRFR Design Load Rating LRFR Legal Load Rating	Description HL 93 Design Review HS 20 LFR Rating LRFR Design Load Rating LRFR Legal Load Rating	Se <	elected to export: =- 🔁 System Data =- 🏠 Analysis Event Template 🥔 HS 20 Rating with Report	~
Concerning Preference Lemplate     Port Parameters     Custom Agency Fields Labels     Port Engine Defaults			>>		
				Export Clos	e

The **System Data Export** window will open to save the selected analysis event template as a **.brsx** file on the local drive.

System Data Expo	rt						×
← → • ↑ 💻	> This PC		~	Ö		s PC	
Organize 🔻						₩	3
🗸 🛄 This PC	▲ ✓ Folders (7)						
> i 3D Objects	3D Objects	-	Desktop		Documents		
> 😸 Documents > 🖶 Downloads > 🎝 Music	Downloads		Music		Pictures		
> 📰 Pictures > 📑 Videos	Videos						
> 🖆 OS (C:) > 🚔 DATA (D:)	✓ Devices and drives OS (C:)	2)	DATA (D:)				
> 💣 Network	S66 GB free of 9	151 GB	678 GB free of 953 GB				
File name:							~
Save as type:	System Data export file (*.brsx)						~
∧ Hide Folders					Save	Cancel	

Enter a name in **File name** and click the **Save** button to save the **HS 20 Rating with Report** template as System Data Export **.brsx** file on local drive.

When the export process is complete the following message will be displayed.



Click OK and Close the System Data Export window.

Close BrDR, restart BrDR and log in to a different database to which you are going to import the **HS 20 Rating with Report** template.

Click **Import** button on the **Bridge Explorer ribbon** as shown below:



The **System Data Import** window will open allowing the user to select an analysis event template **.brsx** file on the local drive to import. In this example, we select the **HS 20 Rating with Report** template that was exported from the sample database in the previous step. The **System Data Import** window will open as shown below.

B System Data Import			×
System data items: System Data System Data Dad Combination Settings Template Doad Palette Template System Defaults Unit Tolerance General Preference Template Parameters Custom Agency Fields Labels	Details:          Name       Description         HS 20 Rating with Report       HS 20 LFR Rating	Selected to export:	

Select the **Analysis Event Template** and **HS 20 Rating with Report** and click the button to add this analysis event template to the import and click the **Import** button to start the import.

When the import process is complete, the following message will be displayed.

🖬 System Data Import			×
System data items: System Data System Data Cad Combination Settings Template Cad Combination Settings Template System Defaults System Defaults General Preference Template Parameters Custom Agency Fields Labels	Details: Name Bridge Design &	Description >	Selected to export:
		<u>ОК</u> >> <<	Import Close

Click OK and Close the System Data Import window.

To use this imported analysis event template, open a bridge in this database, click the **Analysis Settings** button on the Analysis group of the DESIGN/RATE ribbon.

○ Design review ● Rating       Rating met         Analysis type:       Line Girder       ✓         Analysis type:       Analysis op         Lane / Impact loading type:       As Requested       ✓         Vehicles       Output       Engine       Description         Traffic direction:       Both directions       ✓         Vehicle selection       ✓       ✓         ✓       -Alternate Military Loading       –         – EV3       –       H 15 - 44         – H 15 - 44       –       H 20 - 44         – H 5 20 (SI)       –       >>         – H 5 20 (SI)       –       >>         – H 5 20 (SI)       –       >>         – SU6       –       SU5       –         – SU6       –       SU6       –         – SU6       –       <<       <         – Type 3 - 3       –       –       <         – Operave       SU2       –       <	Refresh	LFR  DL, LL and Spec-Checking  GR, None  Comporting Advanced ary hicles tory ting	]
Analysis type: Line Girder  Analysis op Analysis type: As Requested  Apply prefi Vehicles Output Engine Description Traffic direction: Both directions Vehicle selection Vehic	Refresh ehicle summa Rating veh Rating veh Noperat Uperat	DL, LL and Spec-Checking None Temporary vehicles Advanced ary hicles tory ting	]
ane / Impact loading type:     As Requested     ✓     Apply prefive       Vehicles     Output     Engine     Description       Traffic direction:     Both directions     ✓     ✓       Vehicle selection     ✓     ✓     ✓       Image: Standard     —     Add to     ✓       Image: Standard     —     Standard     ✓       Image: Standard     —     —       Image: Standard     — <td>Refresh ehicle summa Retring veh Rating veh Unvento Operat Legal o</td> <th>g: None</th> <td>]</td>	Refresh ehicle summa Retring veh Rating veh Unvento Operat Legal o	g: None	]
Vehicles     Output     Engine     Description       Traffic direction:     Both directions     ✓       Vehicle selection     ✓       Image: Standard     Image: Standard       Image: Image: Standard     Image: Standard       Image: Image: Image: Image: Standard     Image: Image: Standard       Image: I	Refresh ehicle summa Rating veh Unvento Operat Legal c	Temporary vehicles Advanced ary hicles tory	]
Traffic directions       ▼         Vehicle selection       ∨         Image: Standard       -Alternate Military Loading         Image: -EV3       -Alternate Military Loading         -EV3       -H 15-44         -H 515-44       -H 52 0 (SI)         -HS 20 (SI)       >>         -HS 20 (SI)       -SU4         -NRL       -SU4         -SU5       -SU5         -SU6       -SU7         -Type 3.3       -Type 3.3         -Type 3.2       -Type 3.2	Refresh ehicle summa Rating veh Unvento Operat	Temporary vehicles Advanced ary hicles tory	
Vehicle selection         V           Image: Standard         -Alternate Military Loading         -           Image: Standard         -Alternate Military Loading         -           Image: Standard	ehicle summa Rating veh Operat	ary hicles tory ting	
	B-Rating veh	hicles tory tting	
-Juser defined -User defined -Temporary	-Permit	operating t inventory t operating	

Click the **Open template** button at the bottom of the **Analysis Settings** window to open the window as shown below:

remplates	Description	Analysis	Owner	Public / Private	
HL 93 Design Review	HL 93 Design Review	LRFD		Public	
HS 20 LFR Rating	HS 20 LFR Rating	LFR		Public	
LRFR Design Load Rating	LRFR Design Load Rating	LRFR		Public	
LRFR Legal Load Rating	LRFR Legal Load Rating	LRFR		Public	
HS 20 Rating with Report	HS 20 LFR Rating	LFR		Public	

Select the HS 20 Rating with Report and click the Open button.

The analysis settings window will be populated as per the template file selected, as shown below:

Design review       ● Rating         Analysis type:       Line Girder         Lane / Impact loading type:       As Requested         Vehicles       Output         Earler       Malysis option:         Design review       Rating method:         Impact loading type:       As Requested         Vehicles       Output         Earler       Malysis option:         Vehicles       Description         Vehicles       Malysis option:         Vehicles       Bandard         Add to       Sandard         Impact loading       Sandard         Impact loading       Hiterrate Military Loading         Impact loading       Hiterrate Military         Im	<ul> <li>Analysis Settings</li> </ul>					-	Ш	
halysis type: Line Girder are / Impact loading type: As Requested Vehicles Output Engine Description Traffic direction: Both directions Vehicle selection Vehicle selection Vehicle selection Vehicle selection Vehicle summary Vehicle summary Permit inventory Vehicle summary Vehicle summary Vehicl	O Design review   Rating		Rating m	ethod:	LFR	~		
ane / Impact loading type: As Requested  Apply preference setting: None  Vehicles Cutput Engine Description  Traffic direction: Both directions Vehicles selection  Vehicles selection  Vehicles selection  Vehicles  Vehicles  Vehicles  Vehicles  Vehicles  Advanced Vehicle Refresh Temporary vehicles Advanced Vehicle Refresh Temporary vehicles Advanced Vehicle selection  Vehicles  Vehicles  Vehicles  Refresh Temporary vehicles Advanced Vehicle Refresh Temporary vehicles Advanced Vehicle Refresh Temporary vehicles  Vehicles  Vehicles  Refresh Temporary vehicles Advanced Vehicle Refresh Temporary vehicles Advanced Vehicle Refresh Temporary vehicles  Vehicles Refresh Temporary Vehicles Advanced Vehicle Refresh Temporary Vehicles Advanced Vehicle Refresh Temporary Vehicles Advanced Vehicle Refresh Temporary Vehicles Advanced Vehicles Refresh Temporary Vehicles Advanced Vehicles Refresh Temporary Vehicles Advanced Vehicles Refresh Temporary R	analysis type: Line Girder	~	Analysis (	option:	DL, LL and Spec-Checki	ng 🗸		
Vehicles       Output       Engine       Description         Traffic directions	ane / Impact loading type: As Requested	~	Apply pre	ference setting:	None	~		
Traffic direction:       Both directions       ✓       Refresh       Temporary vehicles       Advanced         Vehicle selection       Vehicle summary       Vehicle summary         Image: Standard       -Alternate Military Loading	Vehicles Output Engine Description							
Vehicle selection     Vehicle summary       Image: Standard     Image: Standard       Image: Image: Standard     Image: Standard       Image: Image: Image: Standard     Image: Standard       Image: Image	Traffic direction: Both directions	~		Refresh	Temporary vehicles	Advanced		
<ul> <li>➡ Vehicles</li> <li>➡ Standard</li> <li>→ Alternate Military Loading</li> <li>→ EV2</li> <li>→ EV3</li> <li>→ H 15-44</li> <li>→ H 5 15-44</li> <li>→ H 5 20-43</li> <li>→ H 5 20-44</li> <li>→ H 5 20-44</li> <li>→ H 5 20-44</li> <li>→ Su0-44</li> <li>→ Figure 100 more 100 more</li></ul>	Vehicle selection			Vehicle summaŋ	y			
	<ul> <li>➡ Standard</li> <li>→Alternate Military Loading</li> <li>→EV2</li> <li>→EV3</li> <li>→H 15-44</li> <li>→H 20-44</li> <li>→H 5 20-544</li> <li>→NRL</li> <li>→SU4</li> <li>→SU5</li> <li>→SU6</li> <li>→SU7</li> <li>→Type 33</li> <li>→Type 34</li> <li>→Temporary</li> </ul>		Add to >> Remove from <<	i Inventor I H32 Operatin I H32 I Operatin I H32 I H32	0-44 9-44 0-44 werating wentory perating			

The output settings are exported and imported to the analysis event template.

Analysis Settings			-		×
O Design review   Rating	Rating method:	LFR	~		
nalysis type: Line Girder 🗸	Analysis option:	DL, LL and Spec-Checking	~		
ane / Impact loading type: As Requested	Apply preference setting	: None	~		
Vehicles Output Engine Description					
Tabular results	AASHTO engine re	ports			
Dead load action report	🛍 Miscellaneous n	eports:			
✓ LFR critical loads report	Girder prope	rties			
✓ Live load action report	Summary inf	luence line loading			
Truss panel point concurrent forces report	Detailed influ	ence line loading			
Truss panel point maximum forces report	Capacity sun	nmary			
	Capacity det	ailed computations			
	FE model for	DL analysis			
	FE model for	LL analysis			
	LL influence	lines FE model			
	LL influence	lines FE actions			
	LL distrib. fac	tor computations			
	Regression d	ata			
	Camber				
Select all Clear all	Select all CI	ear all			
					_
Reset Clear Open template Save t	emplate	OK Ar	oply	Cano	el

# Import and export System Defaults

To export system defaults, open BrDR with the sample database (AASHTOWareBr75s) that is provided with the installation and click the **Export** button on the **Bridge Explorer ribbon** as shown below:

Br	AASHTOWare Brid	dge Design and Rating
BRIDGE EXPLORER BRIDGE FOLDER	RATE TOOLS VIEW	
Retrieve All C Select All Refresh	Sort Select By Columns	Library Configuration
Bridge Explo	orer View	
	BID Bridge ID	Bridge Name
Recent Bridges	1 TrainingBridge1	Training Bridge 1(LRFD)
🖵 📁 All Bridges	2 TrainingBridge2	Training Bridge 2(LRFD)
Sample bridges	3 TrainingBridge3	Training Bridge 3(LRFD)
	4 PCITrainingBridge1	PCI TrainingBridge1(LFD)
	5 PCITrainingBridge2	PCITrainingBridge2(LRFD)
	6 PCITrainingBridge3	PCI TrainingBridge3(LFD)
	7 DCITrainingPridge4	DCITrainingPridge//I PED)

Database information				
	tion			
Connected		Yes		
Build date		Oct 12	2022	
Version		7.5.0.1		
BrM and BrDR sha	re this database	No	[	Maintenance info
Database connect	ion and driver info	rmation		
Server name localhost		User name bridge		bridge
DataSource name	localhost		Driver name	
Database name	AASHTOWareBr75	is	Driver version	n
DBMS name	SQL Server Databa	ase	DBMS versio	on 15.00.2095
	Connected Build date Version BrM and BrDR sha Database connect Server name DataSource name DataSource name Database name	Connected Build date Version BrM and BrDR share this database Database connection and driver info Server name localhost DataSource name localhost Database name AASHTOWareBr75 DBMS name SQL Server Database	Connected     res       Build date     Oct 12 :       Version     7.5.0.1       BrM and BrDR share this database     No       Database connection and driver information       Server name     localhost       DataSource name     localhost       Database name     AASHTOWareBr75is       DBMS name     SQL Server Database	Connected     res       Build date     Oct 12 2022       Version     7.5.0.1       BrM and BrDR share this database     No       Database connection and driver information       Server name     localhost       DataSource name     localhost       Database name     AASHTOWareBr75is       DBMS name     SQL Server Database     DBMS version

The System Data Export dialog will open as shown below:

System Data Export		>	<
System data items: System Data Analysis Event Template Coad Combination Settings Template Coad Palette Template System Defaults General Preference Template Parameters Custom Agency Fields Labels Engine Defaults	Details:	Selected to export:	
	>> <<	Export Close	

Select the **System Defaults** under System Data Items and click the button to add this System Defaults to the export.

📴 System Data Export			×
System data items:	Details:	Selected to export:	ort

Select the **System Defaults** and click the **Export** button. The **System Data Export** window will open to save the System Defaults as a **.brsx** file on the local drive. Enter a name in **File name** and click the **Save** button to save the System Defaults on the local drive. When the export process is complete the following message will be displayed.

Bridge Design & Rating	×
1 system data item(s) successfully exported.	
ОК	

Click OK and Close the System Data Export window.

Close BrDR, restart BrDR and log on to the production database that you are going to import the system defaults.

Click the **Import** button on the **Bridge Explorer ribbon** as shown below:

Br	AASHTOWare B	ridge Design and Rating
BRIDGE EXPLORER BRIDGE	FOLDER RATE TOOLS VIEW	
Retrieve All 🛛 🛱 Select	All 🔀 🔲 US Customary 🗸	
🔍 🦓 Retrieve Next 🗱 Select	None Z	
Ketresh 🔘 Invert	Sort Select Selection By - Columns	Library Configuration
Brid	lge Explorer View	
	BID Bridge ID	Bridge Name
📁 Recent Bridges	▶ 1 TrainingBridge1	Training Bridge 1(LRFD)
🖻 🎾 All Bridges	2 TrainingBridge2	Training Bridge 2(LRFD)
Sample Bridges	3 TrainingBridge3	Training Bridge 3(LRFD)
Deleted bridges	4 PCITrainingBridge1	PCI TrainingBridge1(LFD)
	5 PCITrainingBridge2	PCITrainingBridge2(LRFD)
	6 PCITrainingBridge3	PCI TrainingBridge3(LFD)
	7 DCITrainingPridge4	DCITrainingPridge//UPED)
E	AA	SHTOWare Bridge Design and Rating
	onnected Ves	
Preferences	uild date Oct 12 2022	
Database information	ersion 7.5.0.1	
Br	M and BrDR share this database No	Maintenance info
	atabase connection and driver information	
E Import Se	erver name localhost User name	e bridge
(2) Help Date: Control of the second seco	ataSource name localhost Driver nam	ne
Da	atabase name AASHTOWareBr75is Driver ver	sion
🖾 Exit DE	BMS name SQL Server Database DBMS ver	sion 15.00.2095

The **System Data Import** window will open allowing the user to select and import the system defaults **.brsx** file saved to the local drive. In this example, the **System Defaults** template is selected that was exported from the sample database in the previous step. The **System Data Import** window will open as shown below.

💵 System Data Import				×
System data items:	Details:		Selected to exp	ort:
System data items: System Data Coad Combination Settings Template Coad Palette Template Coad Palette Template Coad Palette Template Coad Palette Template Control Control Contr	Details: Name System Defaults	Description System Defaults	Selected to exp	ort:
			<<	
				Import Close

Select the **System Defaults** and click the button to add this system defaults template to the **Selected for import** view box and click **Import** button to start the import.

When the import process is complete, the following message will be displayed.

System Data Import X
System data items: Details: Selected to export:

Click **OK** and **Close** the System Data Import window.

To view the imported System Defaults, click the **Configuration Browser** button on the View ribbon. The **Configuration Browser** will open as shown below.



Select the **System Defaults** at the bottom and double click to open the **System Defaults** window to view imported data.

System Defaults								_ 🗆 ×
General Bridge workspa	ace Superstructure analysis	Specifications	Substructure analysis	Tolerance	Custom agency fields			
Agency name:	AASHTO							
Default preference setting:	None	~						
Multimedia server folder:	C:\							
	Include multimedia links in b	oridge export/imp	ort					
							Save	Close