baseform

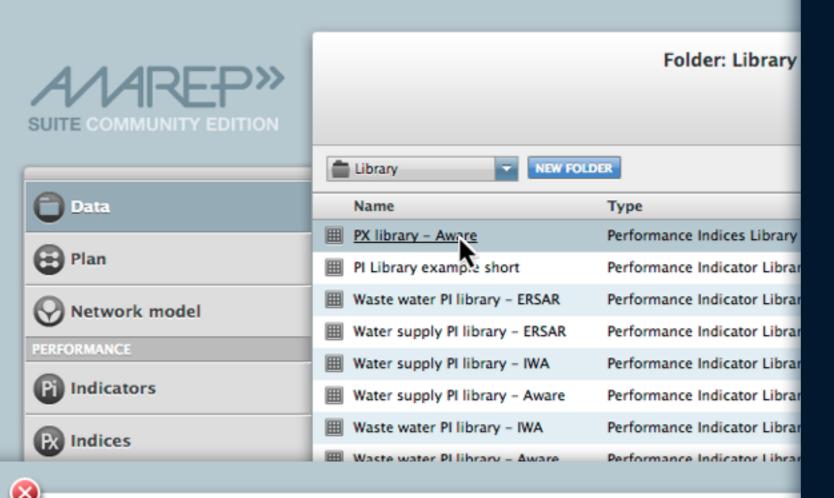## How to
access and edit a PX library

How to edit a PX library

To access, examine, edit or download the contents of the PX library file, use the **Data Manager** to navigate to the Library folder, as shown on the top screenshot.

In the next screen (bottom image), click on the **Data** tab as shown, to access the data.

Don't forget to make a copy

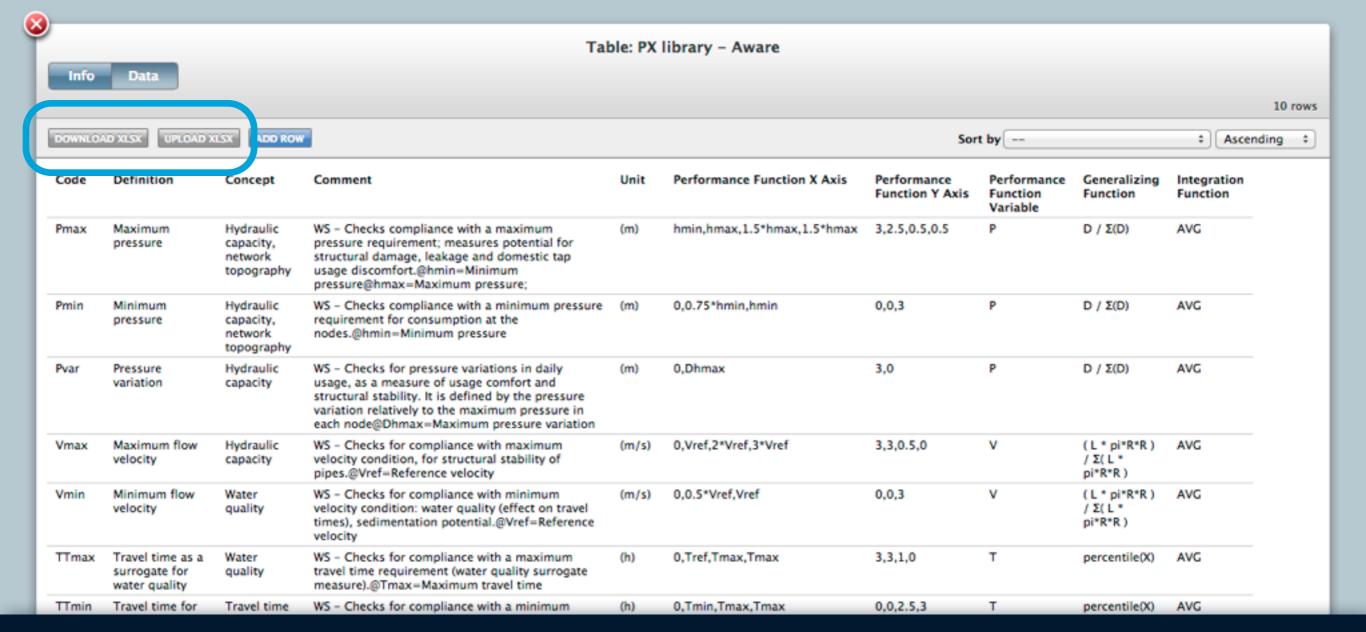Before making any changes to a library file, it is strongly advisable to first create a safety copy by using the **Duplicate as** function in the menu shown.

In case of need, the latest versions of the standard libraries are available as backup from baseform.org

Table: PX library – Aware

Info | Data

10 rows

DOWNLOAD XLSX | UPLOAD XLSX | ADD ROW

Sort by [--] [Ascending]

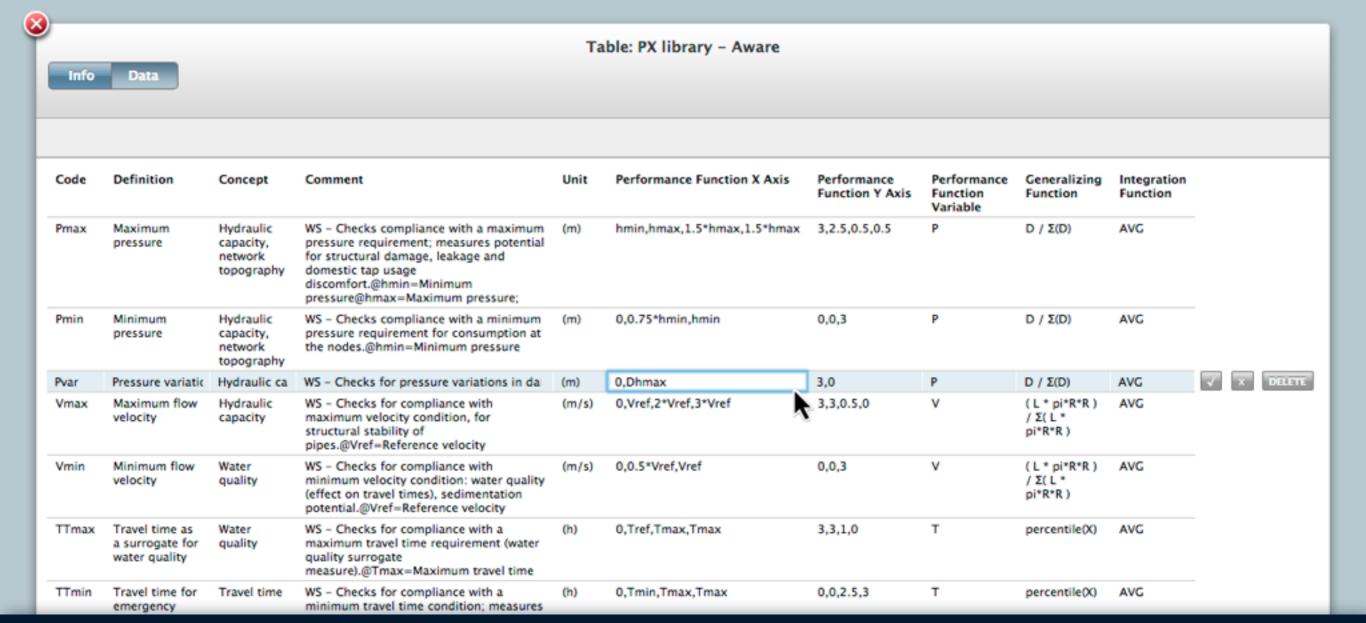| Code	Definition	Concept	Comment	Unit	Performance Function X Axis	Performance Function Y Axis	Performance Function Variable	Generalizing Function	Integration Function
Pmax	Maximum pressure	Hydraulic capacity, network topography	WS – Checks compliance with a maximum pressure requirement; measures potential for structural damage, leakage and domestic tap usage discomfort.@hmin=Minimum pressure@hmax=Maximum pressure;	(m)	hmin,hmax,1.5*hmax,1.5*hmax	3,2.5,0.5,0.5	P	D / Σ(D)	AVG
Pmin	Minimum pressure	Hydraulic capacity, network topography	WS – Checks compliance with a minimum pressure requirement for consumption at the nodes.@hmin=Minimum pressure	(m)	0,0.75*hmin,hmin	0,0,3	P	D / Σ(D)	AVG
Pvar	Pressure variation	Hydraulic capacity	WS – Checks for pressure variations in daily usage, as a measure of usage comfort and structural stability. It is defined by the pressure variation relatively to the maximum pressure in each node@Dhmax=Maximum pressure variation	(m)	0,Dhmax	3,0	P	D / Σ(D)	AVG
Vmax	Maximum flow velocity	Hydraulic capacity	WS – Checks for compliance with maximum velocity condition, for structural stability of pipes.@Vref=Reference velocity	(m/s)	0,Vref,2*Vref,3*Vref	3,3,0.5,0	V	(L * pi*R*R) / Σ(L * pi*R*R)	AVG
Vmin	Minimum flow velocity	Water quality	WS – Checks for compliance with minimum velocity condition: water quality (effect on travel times), sedimentation potential.@Vref=Reference velocity	(m/s)	0,0.5*Vref,Vref	0,0,3	V	(L * pi*R*R) / Σ(L * pi*R*R)	AVG
TTmax	Travel time as a surrogate for water quality	Water quality	WS – Checks for compliance with a maximum travel time requirement (water quality surrogate measure).@Tmax=Maximum travel time	(h)	0,Tref,Tmax,Tmax	3,3,1,0	T	percentile(X)	AVG
TTmin	Travel time for	Travel time	WS – Checks for compliance with a minimum	(h)	0,Tmin,Tmax,Tmax	0,0,2.5,3	T	percentile(X)	AVG

Px

Export to or import from Excel®

The Data tab provides a viewer and editor of the PX library — essentially a table with the columns shown above, with one performance index (PX) defined per row.

As with most tables in Baseform software, it is possible to export (download) to or import (upload) from Excel® in a specific workbook format. To use this facility:

1. click **Download XLSX** to generate an Excel® file in the appropriate format;

2. edit that file in Excel®;

3. click **Upload XLSX** to import the data to your PX library.

Info | Data

Code	Definition	Concept	Comment	Unit	Performance Function X Axis	Performance Function Y Axis	Performance Function Variable	Generalizing Function	Integration Function
Pmax	Maximum pressure	Hydraulic capacity, network topography	WS – Checks compliance with a maximum pressure requirement; measures potential for structural damage, leakage and domestic tap usage discomfort.@hmin=Minimum pressure@hmax=Maximum pressure;	(m)	hmin,hmax,1.5*hmax,1.5*hmax	3,2.5,0.5,0.5	P	D / Σ(D)	AVG
Pmin	Minimum pressure	Hydraulic capacity, network topography	WS – Checks compliance with a minimum pressure requirement for consumption at the nodes.@hmin=Minimum pressure	(m)	0,0.75*hmin,hmin	0,0,3	P	D / Σ(D)	AVG
Pvar	Pressure variatic	Hydraulic ca	WS – Checks for pressure variations in da	(m)	0,Dhmax	3,0	P	D / Σ(D)	AVG
Vmax	Maximum flow velocity	Hydraulic capacity	WS – Checks for compliance with maximum velocity condition, for structural stability of pipes.@Vref=Reference velocity	(m/s)	0,Vref,2*Vref,3*Vref	3,3,0.5,0	V	(L * pi*R*R) / Σ(L * pi*R*R)	AVG
Vmin	Minimum flow velocity	Water quality	WS – Checks for compliance with minimum velocity condition: water quality (effect on travel times), sedimentation potential.@Vref=Reference velocity	(m/s)	0,0.5*Vref,Vref	0,0,3	V	(L * pi*R*R) / Σ(L * pi*R*R)	AVG
TTmax	Travel time as a surrogate for water quality	Water quality	WS – Checks for compliance with a maximum travel time requirement (water quality surrogate measure).@Tmax=Maximum travel time	(h)	0,Tref,Tmax,Tmax	3,3,1,0	T	percentile(X)	AVG
TTmin	Travel time for emergency	Travel time	WS – Checks for compliance with a minimum travel time condition; measures	(h)	0,Tmin,Tmax,Tmax	0,0,2.5,3	T	percentile(X)	AVG

Editing library rows directly in the Data tab

The library may edited directly in the **Data** tab. Clicking on any value on the table activates the row editor. Once any changes have been made to the values:

- The ✓ button saves changes to the row;
- The **X** button exits the row without saving.

Delete eliminates the row.

Any changes to the library file will potentially affect the calculations performed in the Performance Indices tool.

It is advisable to create a backup of the original library (using the **Copy** or **Duplicate** function in the **Data Manager**) before any changes are made.

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For more details and technical background on this or any other tool of the AWARE-P Suite, please refer to baseform.org