

# BizBlock

Biz Block is a versatile analysis tool that lets users combine multiple inputs together to create multiple unique outputs.

The outputs from a Biz Block behave like a virtual sensor which is added to your system; the outputs can be then used in Charts and Dashlets. Just look for the name of your Biz Block in the lists of data sources throughout Info360 (e.g. [Data Sources](#), [Charts](#), [Dashlets](#), [Pattern](#), etc.). If you just created a new BizBlock and don't see the results in dropdown menus, refresh the page.

## Biz Block Tab

The Biz Block Tab in the Info360 Ribbon controls the management of Biz Block objects.

Feature	Description
	Click this button to create a new Biz Block and open the New/Edit Biz Block window where the name and group are assigned.
 	The Ready and Run buttons show the status of the Biz Block. Click to re-sample and re-run the Biz Block analysis.
  	These are the standard Info360 tools for editing, cloning, and deleting objects.
	Click this button to add the selected Biz Block to the current Workspace. Once added, the Biz Bock can be Designed and Viewed.

Once a Biz Block is added to the Workspace, it can be customized in Design Mode and reviewed with live data in Snapshot Mode as described below.

## Design Mode

Feature	Description				
<b>Add Elements</b>	Click the  icon to access the Input and Output tools. Then simply click and drag to add inputs and outputs to the Biz Block canvas.				
<b>Set up Inputs and Outputs</b>	Double click on an input or output to open and edit its properties: <table border="1" data-bbox="267 1312 1494 1375"> <thead> <tr> <th>Type</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> </tr> </tbody> </table>	Type	Description		
Type	Description				



Biz Block Inputs can be set to take in any sensor data or a constant value.

If a sensor is selected as the Data Source, the primary Series can also be specified ([Open](#), [High](#), [Low](#), [Close](#), [Average](#), or [Sensor](#)).

**Add/Edit Biz Block input**

<b>Name(*):</b>	<input type="text" value="Flow Rate"/>
<b>Description:</b>	<input type="text"/>
<b>Input Type:</b>	<input type="text" value="Data Source"/>
<b>Data Source(*):</b>	<input type="text" value="SanAntonio_Station.Flow.Flow Rate"/>
<b>Series:</b>	<input type="text" value="Average"/>
<b>Convert Missing Data to 0:</b>	<input checked="" type="checkbox"/>



Biz Block Outputs are defined using [Analytical Functions](#).

The Inputs are accessed by writing expressions with the format: {@ "Input Name" }

For example, if two inputs are "A" and "B", and the desired output is A times B, then the expression becomes: {@A} \* {@B}

**Add/Edit Biz Block output**

<b>Name(*):</b>	<input type="text" value="In A Cost"/>
<b>Description:</b>	<input type="text"/>
<b>Display Unit:</b>	<input type="text"/>
<b>Expression:</b>	<input type="text" value="Volume({Flow Rate}) * {Cost of In A Cost}"/>



The Biz Block itself is simply the point in the tree where calculations occur.

Assign a name that will help you find the outputs later on. The outputs will be named after the BizBlock name followed by each output name.

Optionally you can set the BizBlock to calculate its results based on a selected interval (see more below).

This feature is accessed in design mode when you create a new calculation block. The Add Block window will give the option to Calculate higher interval results based on selected result.

Checking this box allows you to define your expressions with an expected time interval, and let other larger intervals aggregate based on those calculations rather than calculate with larger intervals.

### Add Block

Name(\*):

Description:

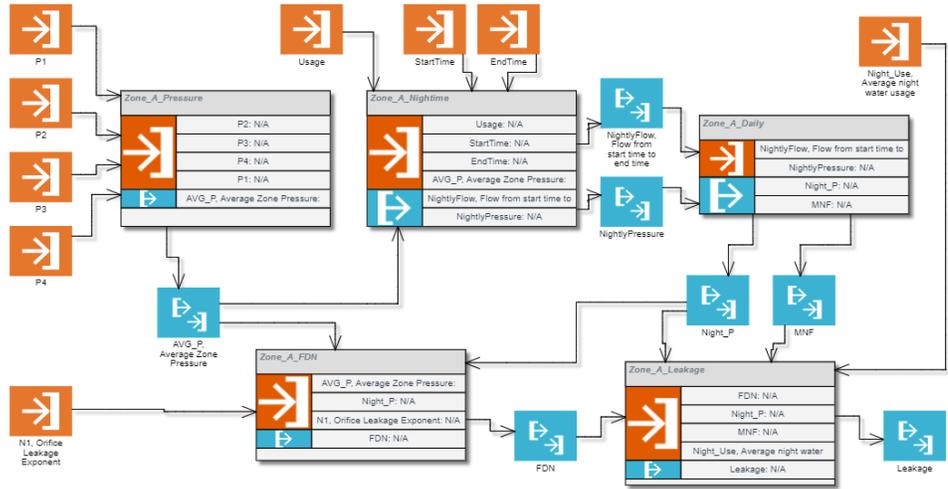
Calculate higher interval results based on selected interval result:

This is necessary in calculations like Minimum Nightly Flow where daily values are based on calculations from a few hours of the day. One of the equations we use in this analysis is to filter out only values that occur between two times of the day (e.g. from 3 AM to 4 AM). The equation below is based specifically on hourly data or smaller. If daily data is fed into this function, no results will be generated.

$$\text{IIF}(\text{((Hour() > \{ @StartTime \}) \text{ and } (\text{Hour() } \leq \{ @EndTime \})), \text{IIF}(\{ @FlowDMA \} > 0, \{ @FlowDMA \}, " " )$$

**Tip:**

To create multistep calculations, simply draw multiple BizBlocks and connect the outputs from one block as inputs to the next block.



**Resize and Relocate Elements**

Clicking on an object on the Biz Block canvas will show node points. Click and drag points to move and re-size any object.

Any object or arrow can be removed by selecting it and hitting the Delete key on the keyboard.

**Save**

Saves changes to Biz Block

To run the results from the BizBlock itself, click on the play button in the upper right corner. Notifications will by default indicate when the calculation is complete.

# Snapshot Mode

Snapshot mode displays the results of the Biz Block. Simply check the Real-time Snapshot box or select a snapshot time to calculate and display results.

Once results have been calculated, double click on any input or output object to open a Chart of the data in the current Workspace.

