Try/Catch/Finally/End Actions

The Try action, along with the Catch, Finally and End actions provide structured exception handling. They allow you to create localised error handling and resource protection, just as you do in programming languages such as C++, C#, Delphi etc.

For each Try action, there should be a matching End Action at the same level. The Try must also have either a Catch Action or a Finally Action as it's next sibling. The actions can be used in the combinations listed below.

Try ... Catch block

Description	Enabled	Ignore Failure	Status
⊿ **T** Try	✔		Completed
🔴 Raise Exception [Exception raised]	✔		Error
⊿ **C** Catch	✔		Completed
The exception will be handled here	✔	☐	Completed
E End	✔		Completed

Try ... Finally block

Description	Enabled	Ignore Failure	Status
⊟ **T** Try	✔		Completed
🔴 Raise Exception	✔		Error
⊟ **F** Finally	✔		Completed
This action will run regardless of whether the try fails or succeeds.	✔	☐	Completed
E End	✔		Completed

A Finally Action will almost always execute it's child actions, the exception being if there is a structural error with the try or catch (ie. a missing end, or finally before catch etc).
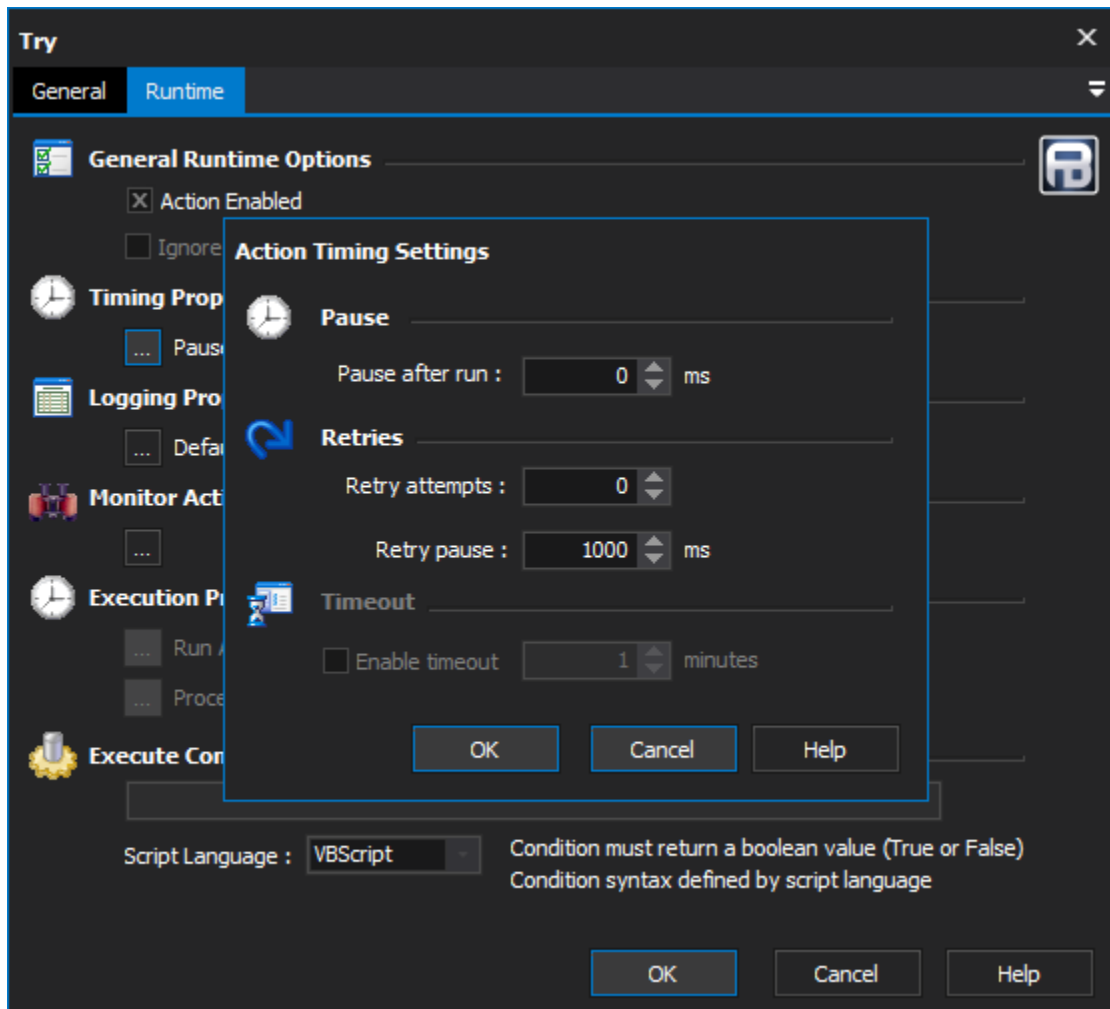
Try ... Catch ... Finally block

Description	Enabled	Ignore Failure	Status
⊿ **T** Try	✔		Completed
🔴 Raise Exception [Exception raised]	✔		Error
⊿ **C** Catch	✔		Completed
The exception will be handled here	✔	☐	Completed
⊿ **F** Finally	✔		Completed
This will be executed before the action list finishes	✔	☐	Completed
E End	✔		Completed

A more complete example:

Description	Enabled	Ignore Failure	Status
ⓘ **	✔		
ⓘ A simple example of using Try...Catch...Finally to handle errors in a project.	✔		
ⓘ **	✔		
▲ T Try	✔		Completed
ⓘ The first action below will fail, and control will move to the "Catch" section, below	✔		
✅ Check if File Exists [c:\TempFinalBuilderDirectory\NonExistent.ini]	✔	☐	Error
🖼 Read Ini File (This action will never run)	✔	☐	
▲ C Catch	✔		Completed
🔔 Beep [Exclamation]	✔	☐	Completed
ⓘ The actions in the Catch section will run if any action fails in the Try section.	✔		
ⓘ The Catch section will prevent the failed actions setting a failure status for the build.	✔		
ⓘ Therefore the failed actions will not trigger the OnFailure action list.	✔		
▲ F Finally	✔		Completed
📋 This action will always run	✔	☐	Completed
ⓘ Any child actions of the Finally action are run regardless of the success or failure	✔		
ⓘ or failure of the actions in the Try block. In this example, the Finally section will run	✔		
ⓘ after the Catch section is finished.	✔		
E End	✔		Completed
ⓘ The End action marks the end of a Try..Catch, Try/Catch/Finally or Try..Finally block.	✔		
ⓘ The Catch block "caught" the error from the try block, so the build continues from here	✔		
📋 Some other actions go here	✔	☐	Completed

Retrying Try Actions

All actions have the option to retry multiple times before failing outright. Try action retries work differently to normal action retries. If you set a number of Retry Attempts on a Try action, the entire try block (ie all of the child actions) will be retried if one of the actions from that block fails.

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The Catch (or Finally) section of the Try/Catch/Finally will not be run until all the retries have failed.

> ⊘ Retrying Try Actions may give unpredictable behaviour when used inside Known Problems for details.