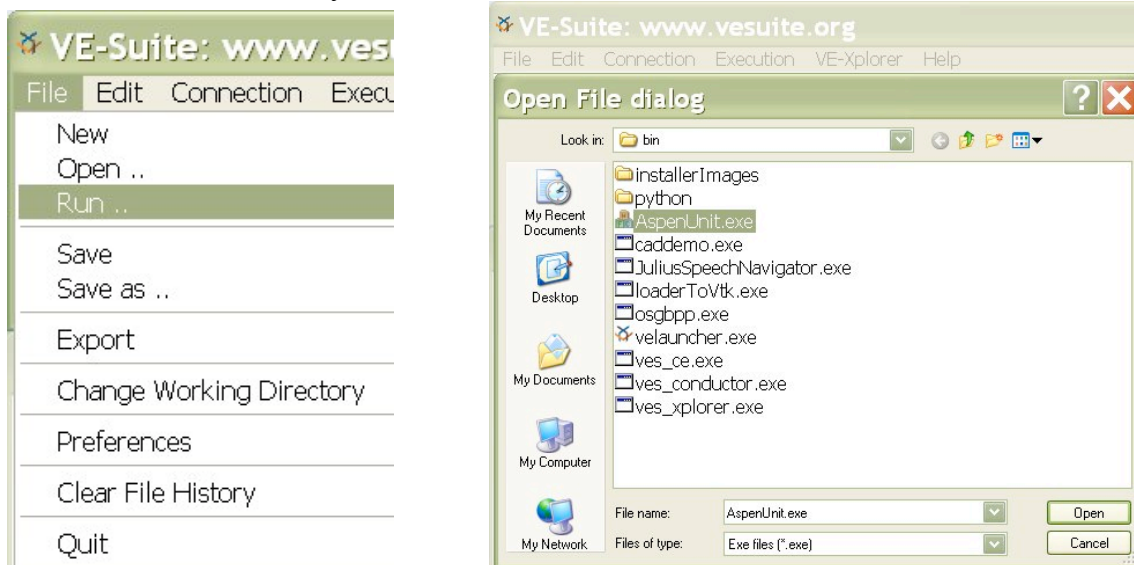


The VE-AspenUnit, which adds process simulation capabilities to VE-Suite will be described in this document. The assumptions are that users have access to Aspen Plus and that they are familiar with general VE-Suite operations.

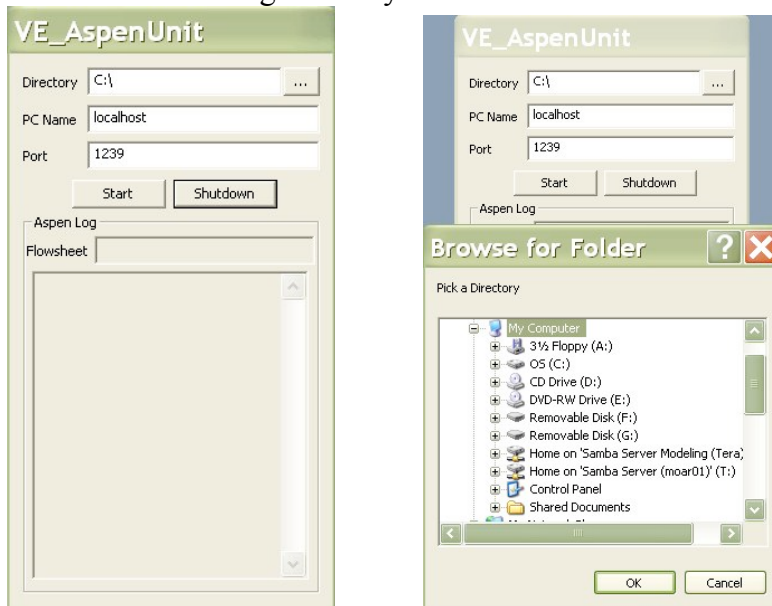
To begin, the user launches VE-Suite through the normal modes that can be found in the VE-Suite documentation. The user then launches the VE-AspenUnit executable via VE-Conductor.

Choose “Open” from the File menu and select the AspenUnit executable from you VE-Suite installation directory.



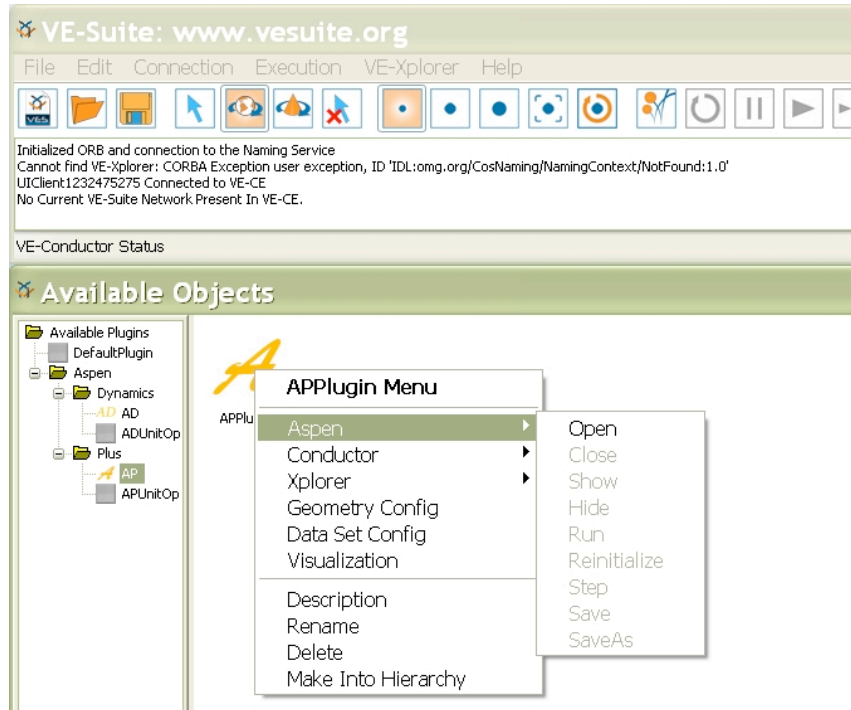
Once the VE-AspenUnit is launched:

Choose “...” to browse for working directory.

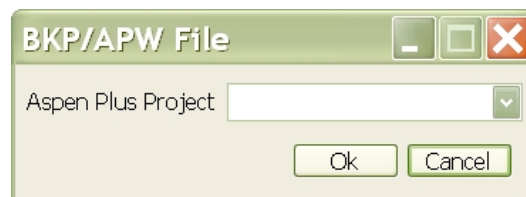


Once working directory choose “Start” - VE-Conductor will show “Successfully registered ASPENUNIT”.

VE-Conductor now requires a plugin be added to the canvas to allow connection to Aspen Plus. Double-click the Aspen Plus or Dynamics plugin to create it on the canvas. Right click the plugin and choose Aspen->Open.

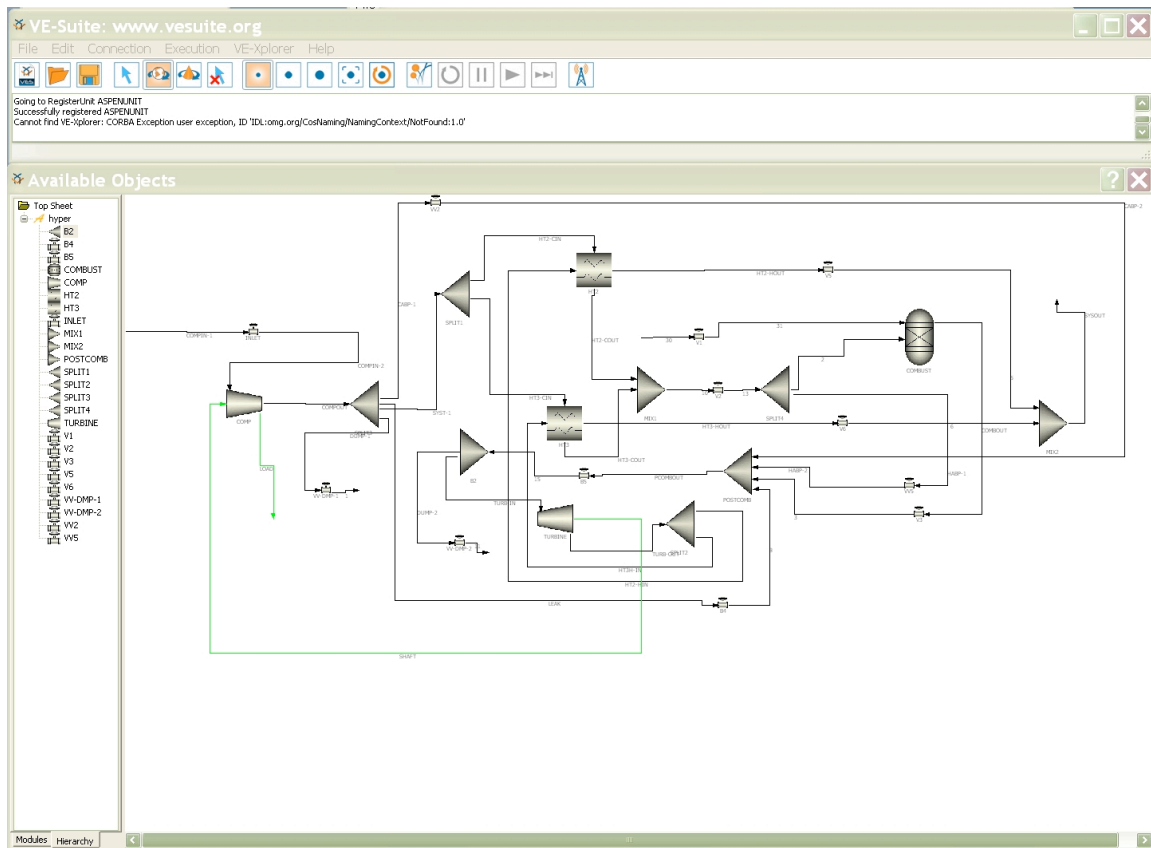


A popup dialog will appear with a pull down menu containing all the .apw/.bkp files that appear in the working directory.

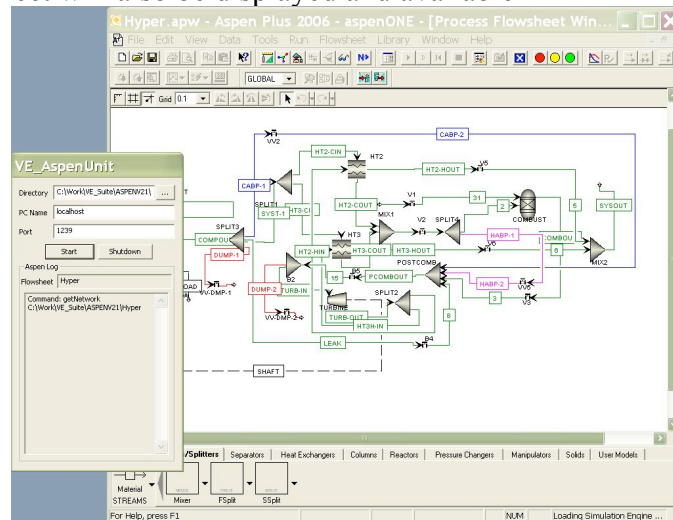


Note: Before doing this step be sure both the APW & bkp files have been created.

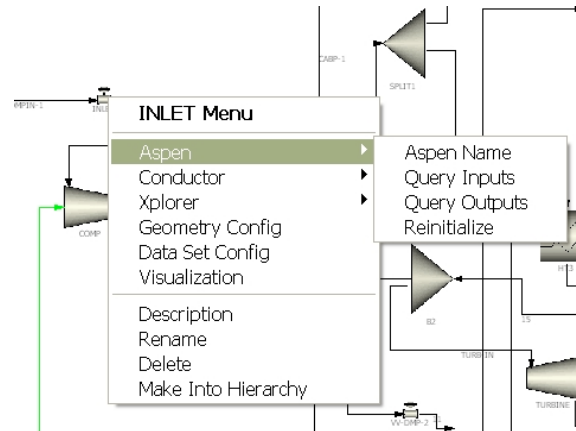
Once the .bkp/.apw file is chosen, navigate to the Hierarchy tab, expand the plugin and select an component on the sheet. The user will then see a network diagram of the Aspen flowsheet similar to what is seen in Aspen:



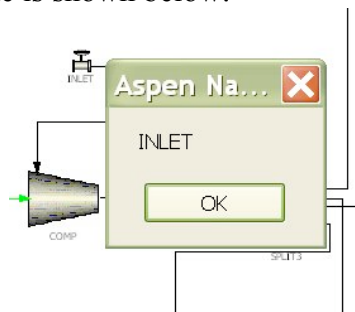
The Aspen flow sheet will also be displayed and available



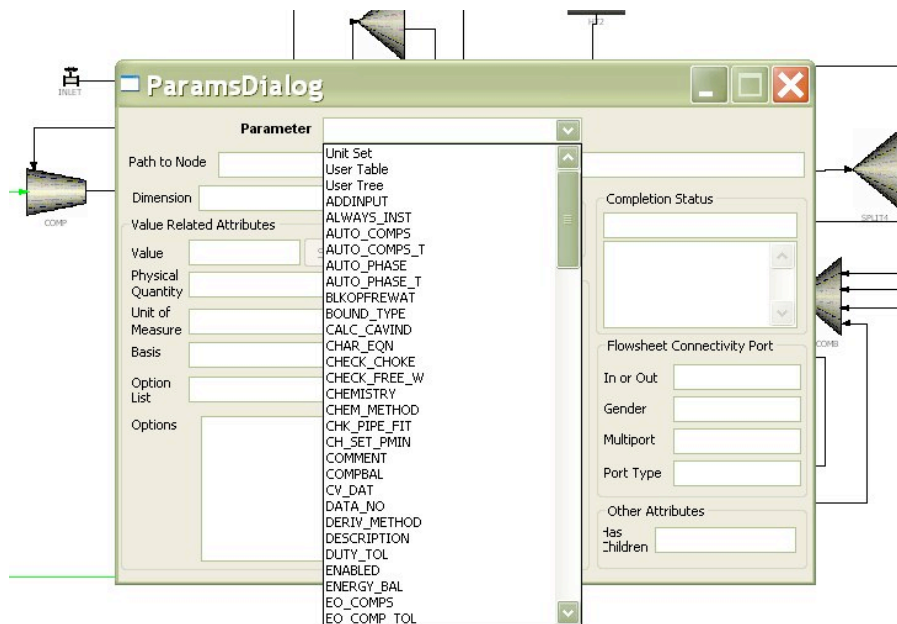
Once the Aspen flowsheet is loaded, it is possible to work with Aspen through the VE-Suite right-click menus:



The Aspen unit operation name is shown below:



When the user chooses to investigate input variables, the parameters dialog allows any variable to be viewed for a specific unit operation and modified. This is also true for the results, except that the user is unable to change results.



Inputs:

**ParamsDialog**

Parameter: **P\_DROP**

Path to Node: Data.Blocks.INLET.Input.P\_DROP

Dimension: 0

Value Related Attributes

Value: 0.100000

Physical Quantity: 75

Unit of Measure: 2

Basis: NOATTR

Option List:

Options: NOT AVAILABLE

Meta-data Attributes for Records

Record Type: NOATTR

Completion Status: NOATTR

Attributes for Variable Nodes

Output: 0

Enterable: 1

Upper Limit: 500000000.000000

Lower Limit: 0.000000

Default Value: 9999999999999999

Prompt: Valve pressure drop (inlet-outlet).

Flowsheet Connectivity Port

In or Out: NOATTR

Gender: NOATTR

Multiport: NOATTR

Port Type: NOATTR

Other Attributes

has Children: 0

Results:

**ParamsDialog**

Parameter: **P\_OUT\_OUT**

Path to Node: Data.Blocks.INLET.Output.P\_OUT\_OUT

Dimension: 0

Value Related Attributes

Value: 14.600000

Physical Quantity: 20

Unit of Measure: 2

Basis: NOATTR

Option List:

Options: NOT AVAILABLE

Meta-data Attributes for Records

Record Type: NOATTR

Completion Status: NOATTR

Attributes for Variable Nodes

Output: 1

Enterable: 0

Upper Limit: NOATTR

Lower Limit: NOATTR

Default Value: NOATTR

Prompt: 0

Flowsheet Connectivity Port

In or Out: NOATTR

Gender: NOATTR

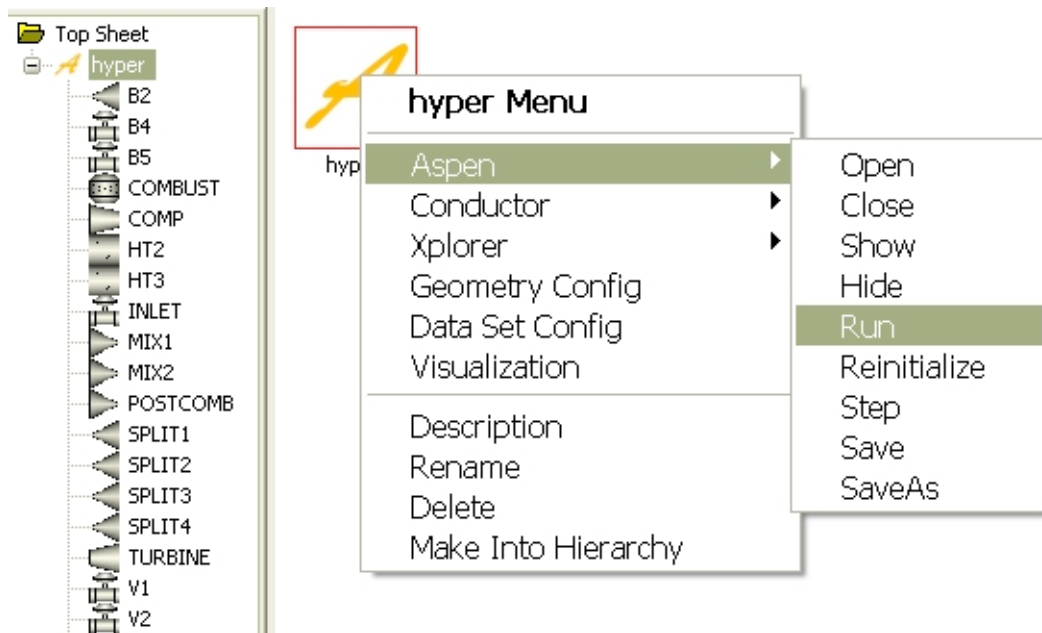
Multiport: NOATTR

Port Type: NOATTR

Other Attributes

has Children: 0

Once the user changes an input, the flowsheet can be run in Aspen by right clicking the plugin and choosing Aspen→Run:



Note: In addition to being able to run the Aspen flowsheet in traditional modes, there is also a 3D mode that can be viewed by selecting VE-Xplorer → Graphical View → Network:

