

PD2CAEPIPE™- Plant Design-to-CAEPIPE Translator (For Aveva's TRIBON)

1.0 Installing Program

To install PD2CAEPIPE on Windows NT, load the product CD supplied by InfoPlant and execute the followings steps:

- 1.1 Browse the CD, and run the program "SETUP.EXE" and follow the instructions as they appear on the screen.

2.0 Limitations

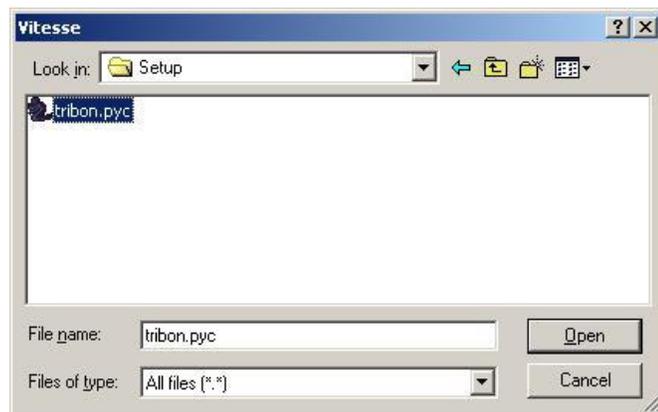
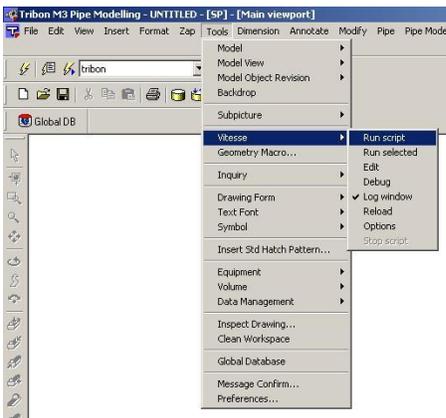
- 2.1 By default, the analysis code is set to "B31.1". Refer the CAEPIPE_ReadMe-supplement Manual for different types of Analysis Code.
- 2.2 Pressure and Temperature will be transferred to CAEPIPE, if it is defined in the Specification DB of TRIBON and the piping components are placed into the TRIBON outfitting using the Specification DB. On the other hand, if you use the component DB of TRIBON directly to place the piping component into the TRIBON outfitting, the program will write the value of Temperature and Pressure as 0 in the neutral file. By default, the program will write the value of Pressure in "kg/cm2" and the value of Temperature in "Deg C".
- 2.3 Support modeled in TRIBON is not transferred to CAEPIPE at this time.
- 2.4 The materials available in TRIBON Component DB are mapped with the CAEPIPE Materials and are listed below for your reference. (for e.g. if you use, "Steel Ordinary" as material in TRIBON Component DB, then the program will transfer the material as A53 Grade A to CAEPIPE.)

TRIBON Material	CAESAR II Material
Steel Ordinary	A53 Grade A
Steel Heat Proof	A53 Grade A
Steel Stainless	A312 TP304 (18cr-8Ni)
Copper, Brass	Red Brass B43 (C23000) Annealed
Aluminum Brass	Aluminum B241 A96061 T6
Copper Nickel	Monel B165 Annealed (Ni-Cu)
Aluminum Alloy	Aluminum B241 A96061 T6
Plastic	A53 Grade A
Other Materials	A53 Grade A

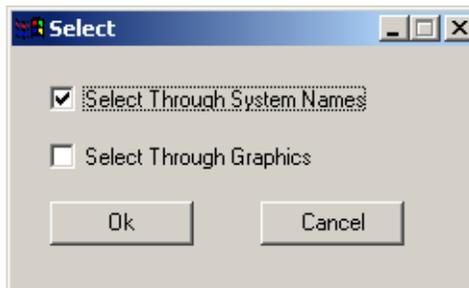
3.0 Neutral File Extraction

3.1 Load the TRIBON Outfitting Pipe Module and from the “Tools” menu select “Vitesse->Run script” as shown in figure left below.

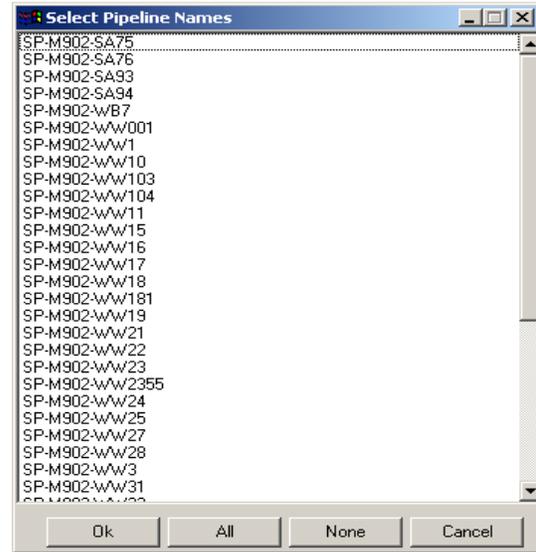
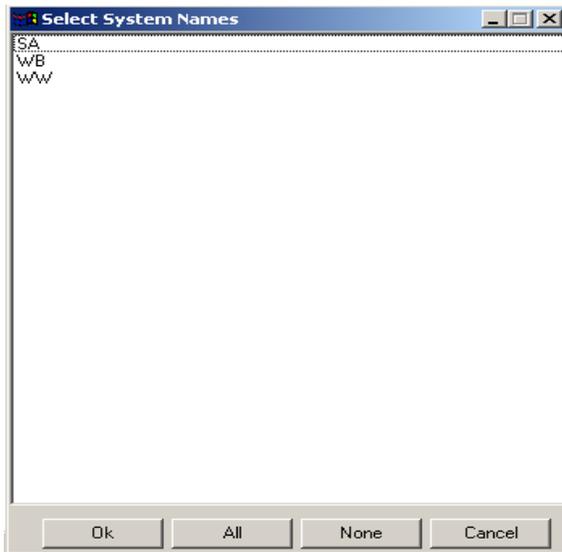
3.2 Locate and select the file “TRIBON.pyc” by navigating to the folder “setup” which is available in Plant Design-to- CAEPIPE Translator (for Aveva’s TRIBON) installed directory as shown in figure right below.



3.3 Choose the method to be followed for selection of pipelines from the dialog box as shown in Figure below.

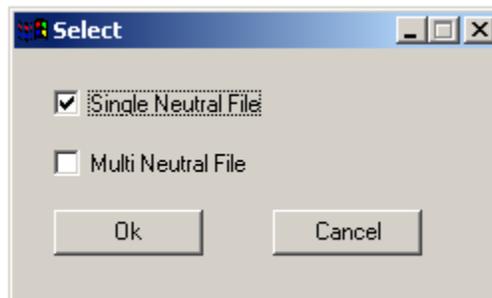


- The option “Select Through Graphics” lets the user to select the objects from the graphics and display the names of the pipeline thus selected in the dialog box as shown in below.
- “Select Through System Names” option lets the user to select pipeline names to be transferred to CAEPIPE by displaying the System Names available in the TRIBON Pipe Outfitting Module.

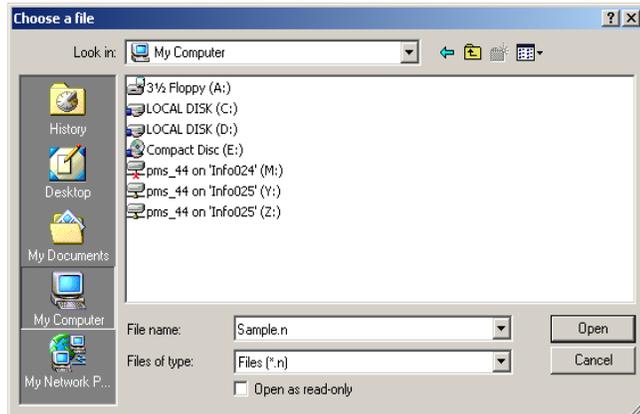
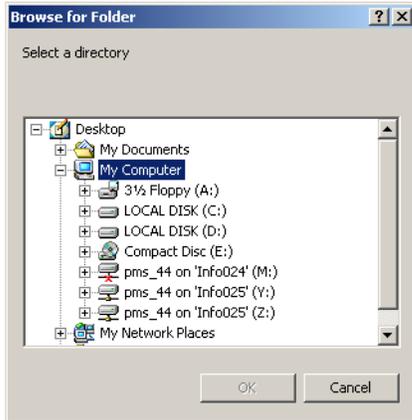


3.4 From the pipeline list, select the name(s) of the pipeline to be transferred and press the button “Ok”.

3.5 Then specify file creation method from the options as shown in figure left below.



- a. Selecting the option “Multiple Neutral File” pops up a directory browser as shown in figure left below and through which the user can define the file storage location. The translator then creates a set of files in the specified directory with the name(s) of the file(s) identical to the name of the pipeline(s).
- b. Secondly, selecting the option “Single Neutral File” pops up a file browser as shown in figure right below and through which the user can define the name of the file. This creates a single neutral file for all the selected pipeline(s) from the list. At this time, the numbers of branches are limited to 49, if they are interconnected to each other and 24, if they are not interconnected to each other. Now, Type in the name of the neutral file with or without extension (.n) and press the button “Open”.

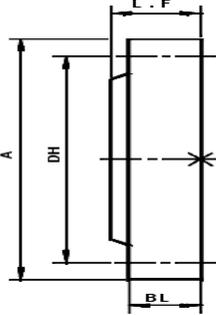
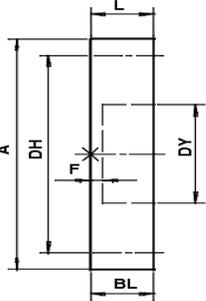
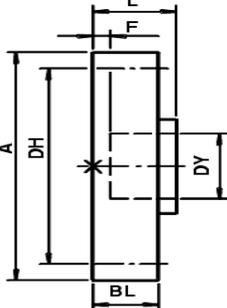
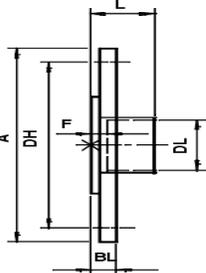


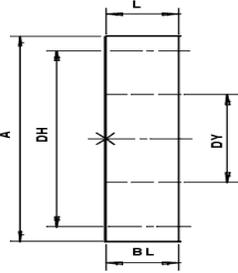
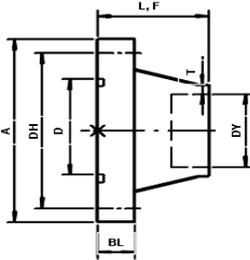
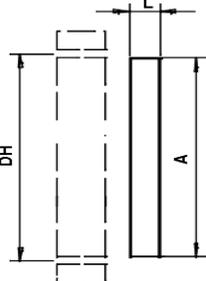
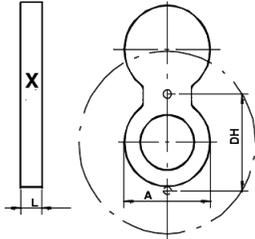
4.0 Plant Design to CAEPIPE Component Mapping

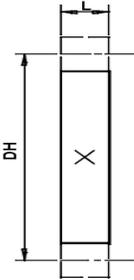
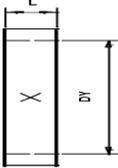
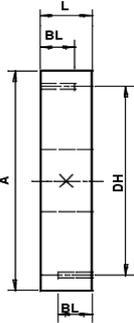
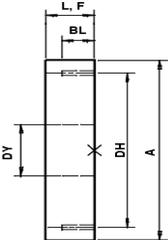
The types of component available in TRIBON Pipe Outfitting Module are mapped with CAEPIPE components and are listed below for reference. If the TRIBON components meets the “Component Type Code” as listed in the table below, the program transfers them into CAEPIPE as mentioned in the column “CAEPIPE Component” below.

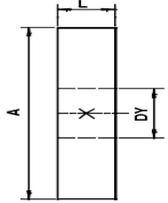
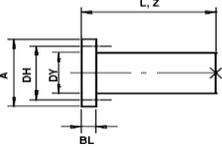
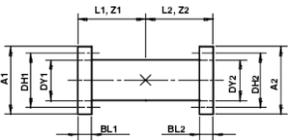
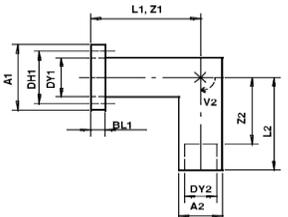
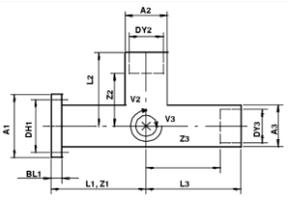
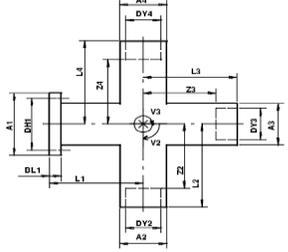
Plant Design Software Component Description	Component Type Code	Shape	CAEPIPE Component	Key Word in Neutral File
Coupling Group:				
Cap	1101		Rigid Element	RB
Plug	1102			
Straight Coupling	1201		Rigid Element	RB
Straight Joint Coupling	1202		Rigid Element	RB
Sleeve Straight Coupling	1203		Rigid Element	RB
Nipple Straight Coupling	1204		Rigid Element	RB
Straight Connector Pipe	1205		Rigid Element	RB
Straight Reducer	1206		Conc. Reducer	RD

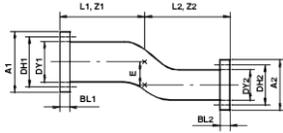
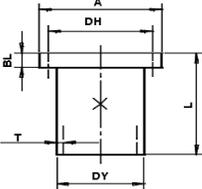
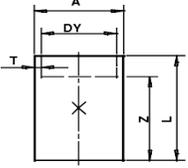
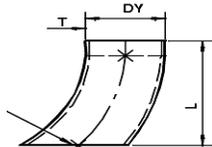
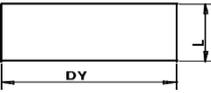
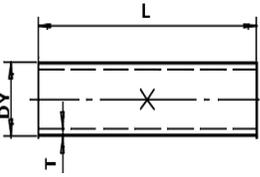
Angle Coupling	1221		Bend	EL
Angle Joint Coupling	1222			
Nipple Angle	1224			
Elbow	1225			
Angle	1226			
Tee Coupling	1301		Three Pipes with Branch SIF (Welding Tee)	TW
Tee Joint Coupling	1302			
Tee Nipple	1304			
Y – Piece, Tee	1305			
Cross Coupling	1401		Four Pipes with Branch SIF (Welding Tee)	CR
Cross Nipple	1404			
Cross Pipe	1405			
Eccentric Reducer	1501		Reducer Eccentric	ER
Return Elbow	1522		Bend	EL
Flange Group:				

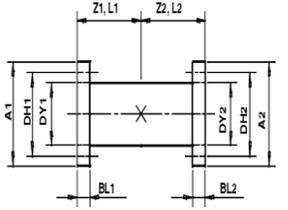
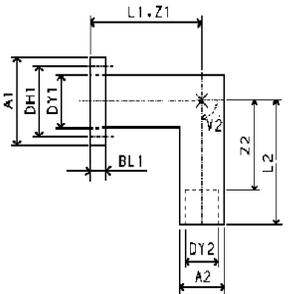
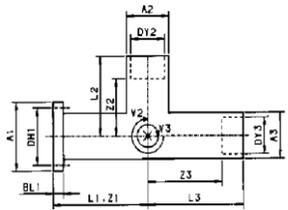
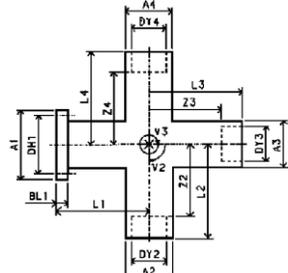
Blank Flange	2101		Pipe with Flange or Rigid Element	FL
Slip on Flange Circular Slip on Flange Square	2201 2202		Pipe with Flange or Rigid Element	FL
Thread Flange and Flange with Bevel	2203		Pipe with Flange or Rigid Element	FL
Weld Neck Flange	2204		Pipe with Flange or Rigid Element	FL
Flange With Hubs	2205		Pipe with Flange or Rigid Element	FL

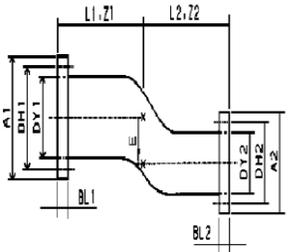
Backing Ring	2206		Pipe with Flange or Rigid Element	FL
Weld Neck Flange With Gasket Groove Weld Neck Flange Without Gasket Groove	2301 2302		Pipe with Flange or Rigid Element	FL
Orifice Plate	2401		Pipe with Flange or Rigid Element	FL
Spectacle Flange	2402		Pipe with Flange or Rigid Element	FL

Gasket dh	2403		Pipe with Flange or Rigid Element	FL
Gasket ID	2404		Pipe with Flange or Rigid Element	FL
Gasket D	2405		Pipe with Flange or Rigid Element	FL
Penetration Flange	2501		Pipe with Flange or Rigid Element	FL
Set-on Flange Circular Set-on Flange Square	2502 2503		Pipe with Flange or Rigid Element	FL

Set-on Flange and other Set-on Components	2601		Pipe with Flange or Rigid Element	FL
Cock	3101		Rigid Element	RB
Straight Valve	3201		Valve	VA
Angled Valve	3221		Valve	VA
3 Way Valve	3301		Three Rigid Elements or Three Pipes with Concentrated Mass	3W
4 Way Valve	3401		Four Rigid Elements or Four Pipes with Concentrated Mass	4W

Eccentric Valve	3501		Valve	VA
Connection Pieces Group:				
Connection Piece With Flanges	4101		Pipe	PI
Connection Piece Without Flanges	4102		Pipe	PI
Welded Elbow	4201		Bend	EL
Stop Lug	4301		Pipe	PI
Pipe Group:				
Straight Pipes Bend Pipes	7101 7102 7103 7104 7105 7106 7108 7109 7110	Part Type = "Straight pipe" Part Type = "Bend pipe"		Pipe Bend PI EL
Miscellaneous Group:				

Straight Expansion Element Straight Heating Coil Straight Strainer, Mud Box Straight Pump Straight Indicator	8201 8202 8203 8204 8205		Rigid Element	RB
Angled Expansion Element Angled Heating Coil Angled Strainer, Mud Box Angled Pump Angled Indicator	8221 8222 8223 8224 8225		Rigid Element	RB
3 Way Expansion Element 3 Way Heating Coil 3 Way Strainer, Mud Box 3 Way Pump 3 Way Indicator	8301 8302 8303 8304 8305		Three Rigid Elements or Three Pipes with Concentrated Mass	3W
4 – Way Expansion Element 4 – Way Heating Coil 4 – Way Strainer, Mud Box 4 – Way Pump 4 – Way Indicator	8401 8402 8403 8404 8405		Four Rigid Elements or Four Pipes with Concentrated Mass	4W

<p>2 – Way Eccentric Expansion Element</p> <p>2 – Way Eccentric Heating Coil</p> <p>2 – Way Eccentric Strainer, Mud Box</p> <p>2 – Way Eccentric Pump</p> <p>2 – Way Eccentric Indicator</p>	<p>8501</p> <p>8502</p> <p>8503</p> <p>8504</p> <p>8505</p>		<p>Rigid Element</p>	<p>RB</p>
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