EDITPIPE Version 10.1 Enhancements

Please find below the list of the main enhancements in Editpipe version 10.1. More details follow in the rest of the document. The Editpipe HTML Help accessible from the top menu Help → Contents, and then Introduction → New features in Editpipe 10.1 is also a valuable source of information on those features.
This software is part of the package PepS 7.1 together with PIPESTRESS version 4.1.0.

Short List

Changes in Editpipe Manager

- Improvement of the stress report generator process : new tool to display the available keywords, inject them in the template, and preview the tables. New keywords were introduced to display nodes, elements, operability criteria, user defined local axes (elements and nodes). A new syntax allows to print only one report from the PIPESTRESS result files (e.g. the report of SIF values).

Changes in Editpipe

View

- Option to display results of automatically generated PIPESTRESS cases.
- Option to display operating conditions for all cases on the same table.
- Possibility to group equivalent data in the Data Lists.
- New "Runs" and "Node Coordinate Systems" Data Lists
- Save filters with the Filter Manager.

Input File Edition

- New custom editor for MATH and MATD cards.
- The SOIL calculator has been made HDPE friendly.
- POSTR input file can be associated to PIPESTRESS input file to get a better integration.
- The Quick POSTR tool can be used to edit an already existing POSTR input file.
- A tree view is available for POSTR input file.

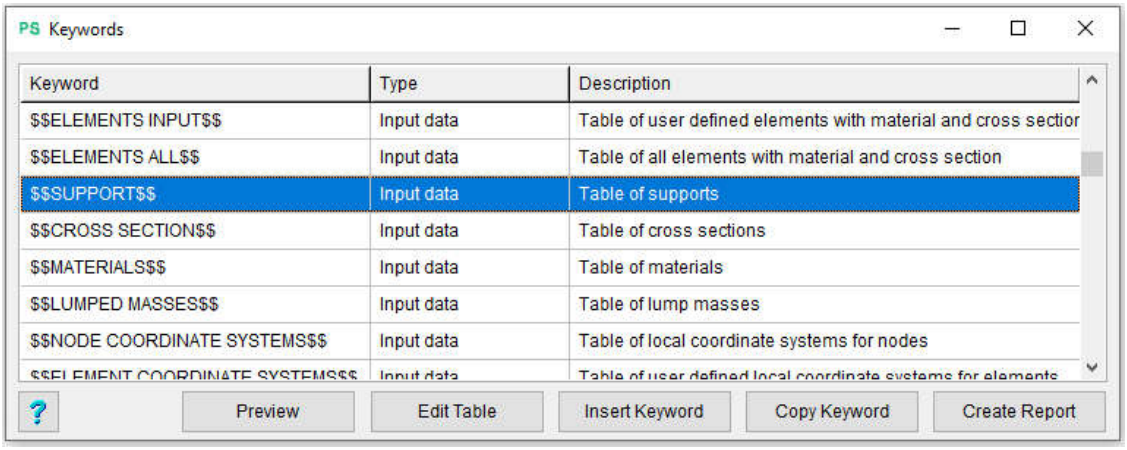
Interaction between View and Input File

- New option to open PIPESTRESS model in split view
- New options to automatically update the view : when saving the input file, when editing a card, when typing or only on demand.
- Redesign of the Error and Warnings window and significant increase of the input error detections.

Details

Stress report generator

A new window pops up when editing the stress report.



It shows the list of the available keywords with a description. Buttons allow you to insert or copy the keyword, or preview the table.

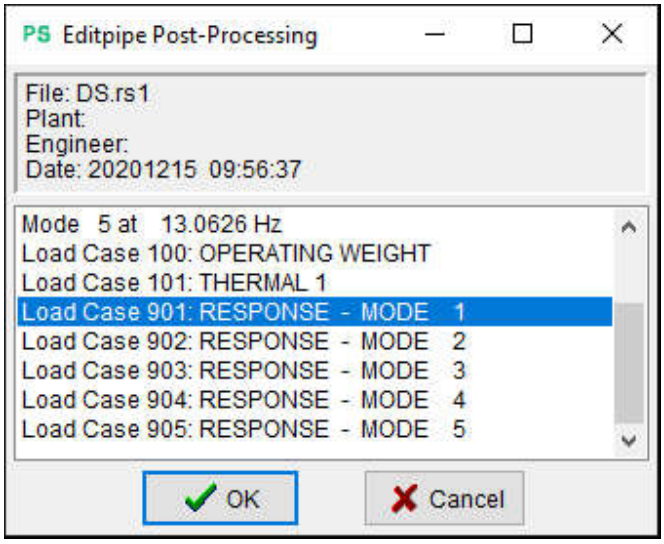
New keywords have been introduced :

- NODES INPUT : Table of user defined nodes with coordinates and end conditions
- NODES ALL : Table of all nodes with coordinates and end conditions
- ELEMENTS INPUT : Table of user defined elements with material and cross section
- ELEMENTS ALL : Table of all elements with material and cross section
- NODE COORDINATE SYSTEMS : Table of local coordinate systems for nodes
- ELEMENT COORDINATE SYSTEMS : Table of user defined local coordinate systems for elements
- OPERABILITY PRIMARY : Report for valve operability (primary)
- OPERABILITY SECONDARY : Report for valve operability (secondary)

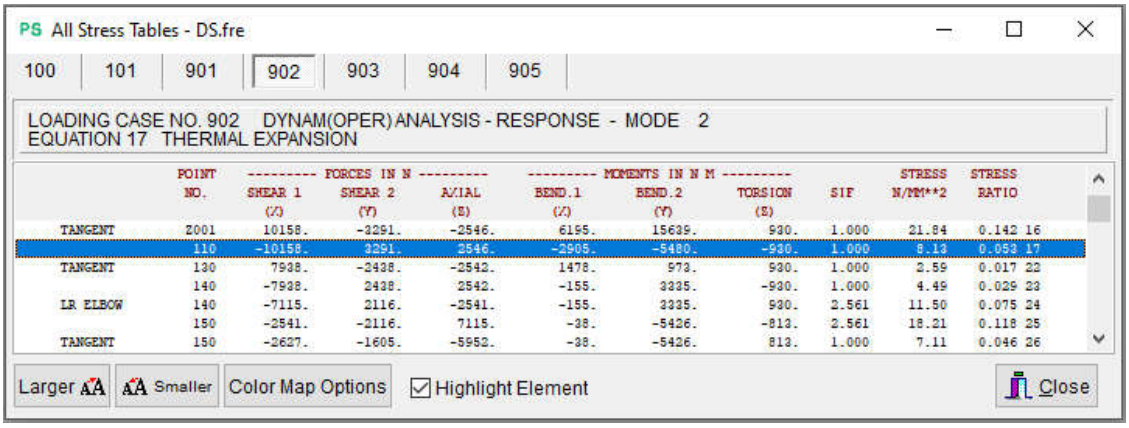
A new syntax has been introduced to add only one report from a text file. For example the keyword $$FILE=name_of_the_file.pri?P-5$$ will only add the P-5 report (containing the SIF) to the word document.

Display automatically generated PIPESTRESS cases

A new option is available in the “Data List and Results” tab : “Show generated cases”. If enabled, the cases automatically generated by PIPESTRESS can be selected when consulting the restart file :

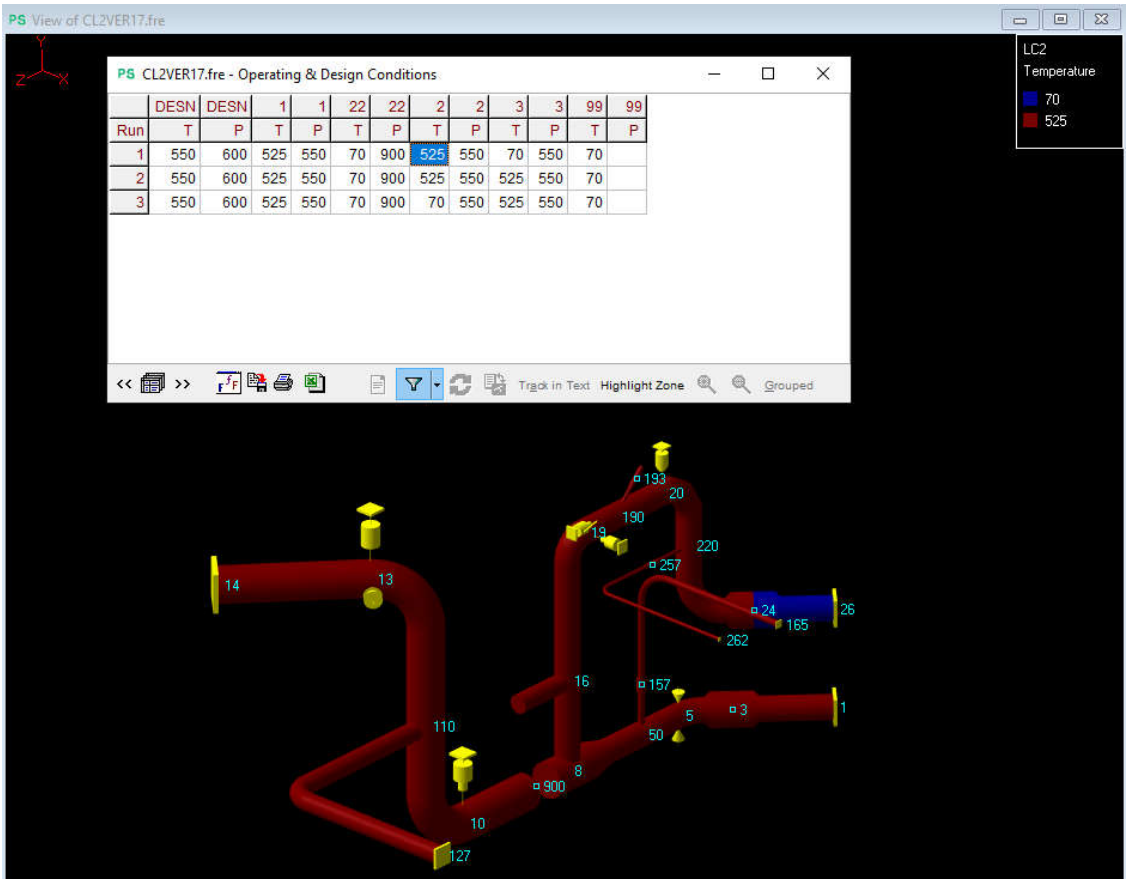


If the options is enabled, the user will also be able to see the stresses of the generated cases (if the dynamic susceptibility calculation was activated)



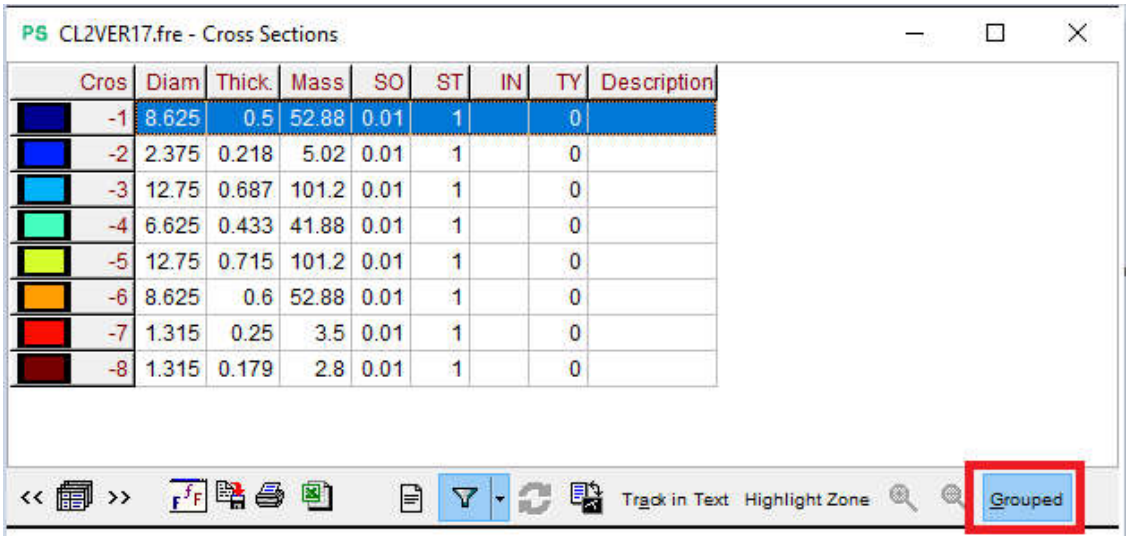
Show all operating conditions on one table

A new option is available in the “Data List and Results” tab : “Display all operating condition on one table”. If enabled, all operating conditions are shown on the same table



Group data in data lists

Whenever it makes sense, a new option is available on the data list to group the equivalent data.

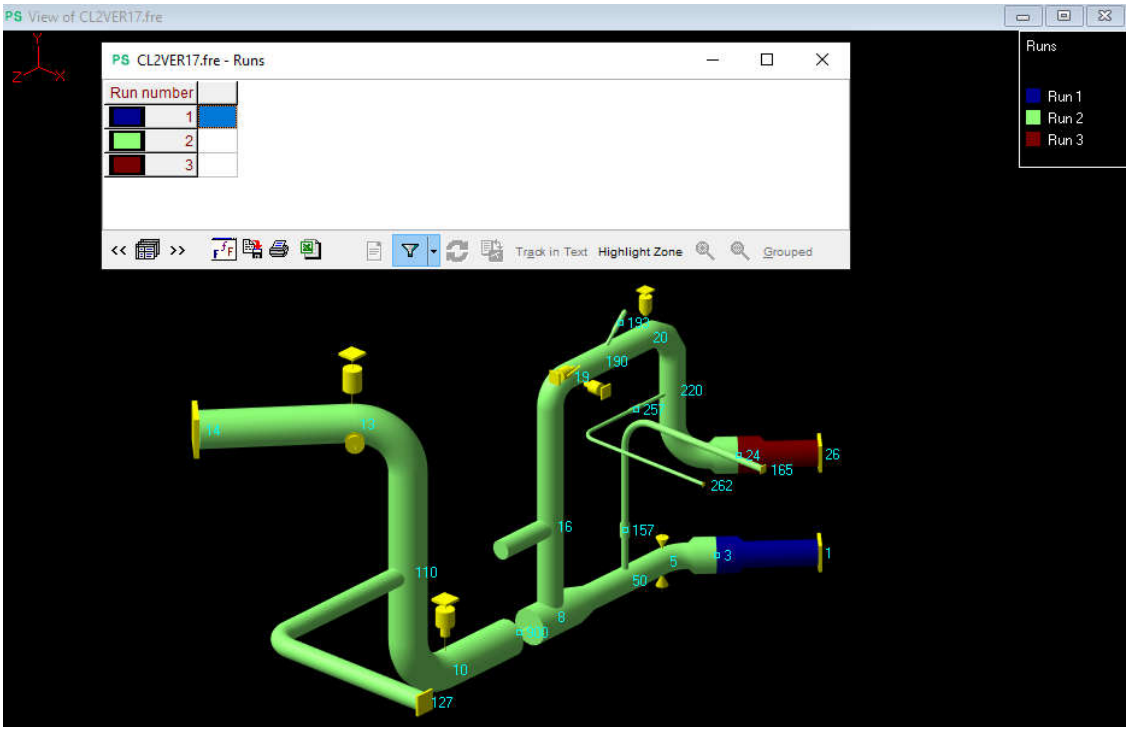


Cros	Diam	Thick.	Mass	SO	ST	IN	TY	Description
-1	8.625	0.5	52.88	0.01	1		0	
-2	2.375	0.218	5.02	0.01	1		0	
-3	12.75	0.687	101.2	0.01	1		0	
-4	6.625	0.433	41.88	0.01	1		0	
-5	12.75	0.715	101.2	0.01	1		0	
-6	8.625	0.6	52.88	0.01	1		0	
-7	1.315	0.25	3.5	0.01	1		0	
-8	1.315	0.179	2.8	0.01	1		0	

It can be used to merge the equivalent cards onto an unique row in the list, instead of displaying every card on its own row. Grouped data might be better for visualisation, while ungrouped data might be more convenient for edition, as every input card will be easily accessible.

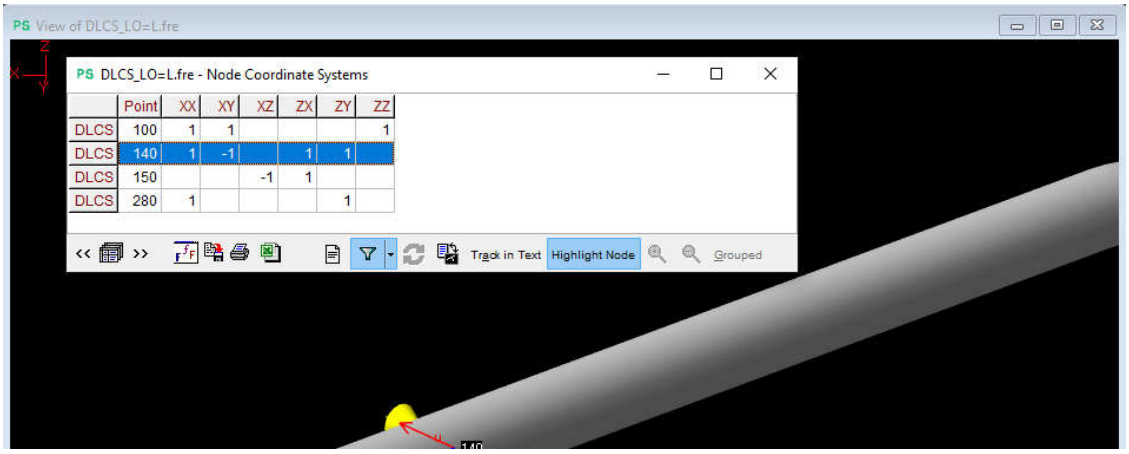
Runs

All piping elements are grouped by Editpipe according to their operating conditions to form a partition of the piping system. Groups in this partition are called runs. Two piping elements are in the same run if and only if they have the same operating conditions (temperature and pressure) for all the cases. These runs are used in the stress report generator or in the operating condition data list (when the “Display all operating condition on one table” option is activated). You can now display them in a data list and see them in the graphical view :



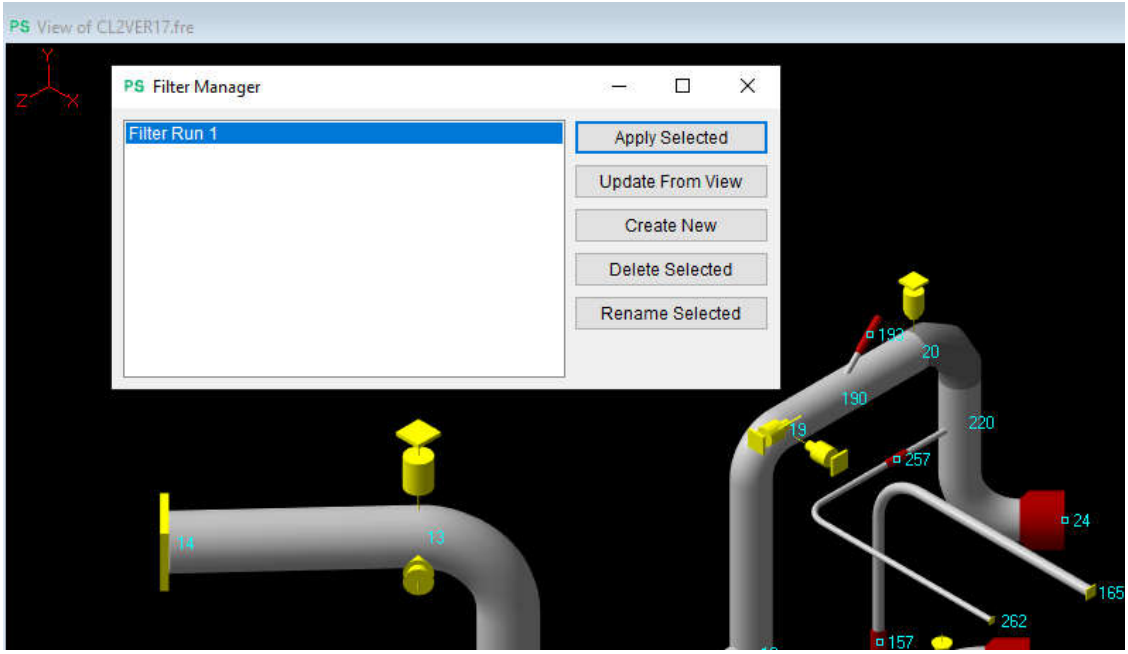
Node Coordinate Systems data list

The new DLCS cards are listed in this new data list :



Saving filters

The user can now save filters with the Filter Manager.



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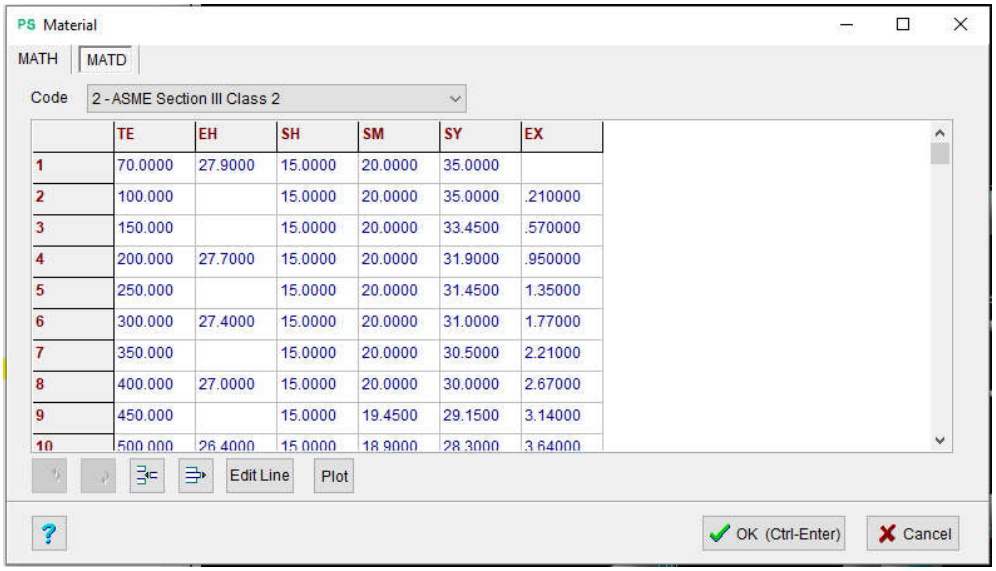
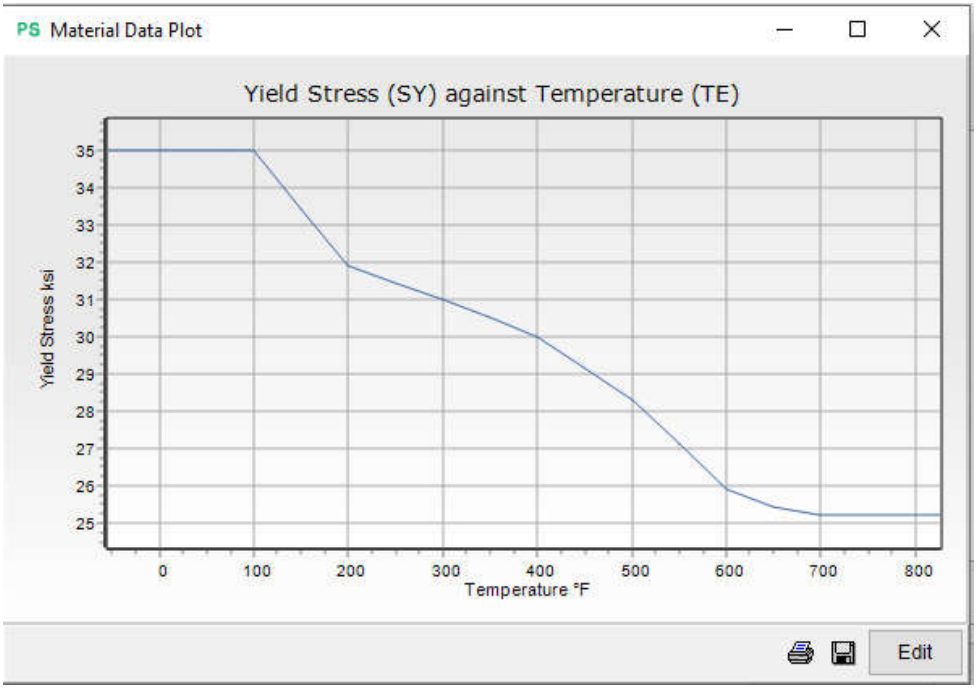
MATH and MATD editor

This new editor can be used to edit the MATH and the MATD cards at the same time.



	TE	EH	SH	SM	SY	EX
1	70.0000	27.9000	15.0000	20.0000	35.0000	
2	100.000		15.0000	20.0000	35.0000	.210000
3	150.000		15.0000	20.0000	33.4500	.570000
4	200.000	27.7000	15.0000	20.0000	31.9000	.950000
5	250.000		15.0000	20.0000	31.4500	1.35000
6	300.000	27.4000	15.0000	20.0000	31.0000	1.77000
7	350.000		15.0000	20.0000	30.5000	2.21000
8	400.000	27.0000	15.0000	20.0000	30.0000	2.67000
9	450.000		15.0000	19.4500	29.1500	3.14000
10	500.000	26.4000	15.0000	18.9000	28.3000	3.64000

Plots of the columns can also be displayed :



SOIL calculator

The SOIL calculator is now compatible with HDPE materials.

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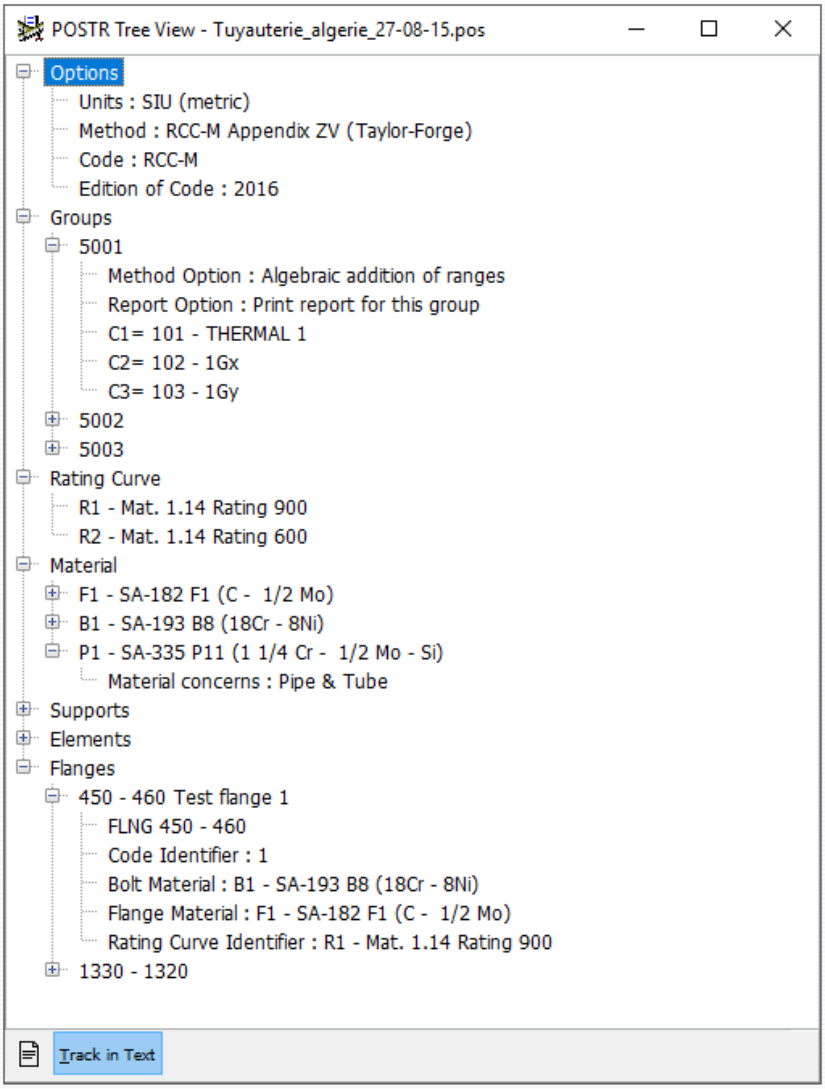
Association between POSTR and PIPESTRESS input files
If the POSTR input file is correctly associated to a PIPESTRESS input file, then Editpipe can retrieve information from the *.fre file and display it to the user (e.g. retrieve the load cases from PIPESTRESS in the GROU card, define dynamic link to jump to the support definition, etc.).

Reuse Quick POSTR tool

The Quick POSTR tool can now be used to edit an existing POSTR file.

POSTR tree view

Displays the data in a tree. It can be used to see the group hierarchy, interact with the POSTR or PIPESTRESS input file (Edit icon), or navigate in these files (Track in Text button).



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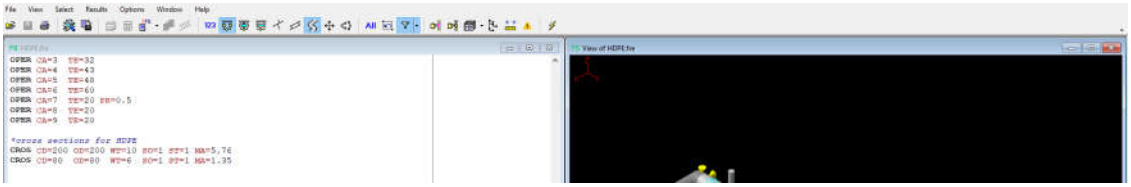
Open model in split view

The new option “Automatically open model in split view” can be activated in the General tab of the options.



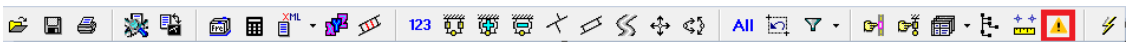
Automatic update of the view

The new option “Automatic update of the view” can be set in the General tab of the options. The possible values are :

- Never : the view is only updated when the user toggles from the input to the view.
- When saving file : the view is updated when the user saves the input file.
- When editing card : the view is updated when the user changes the input by the mean of a card editor.
- When typing : the view is updated whenever the input file is modified.

Errors and warnings

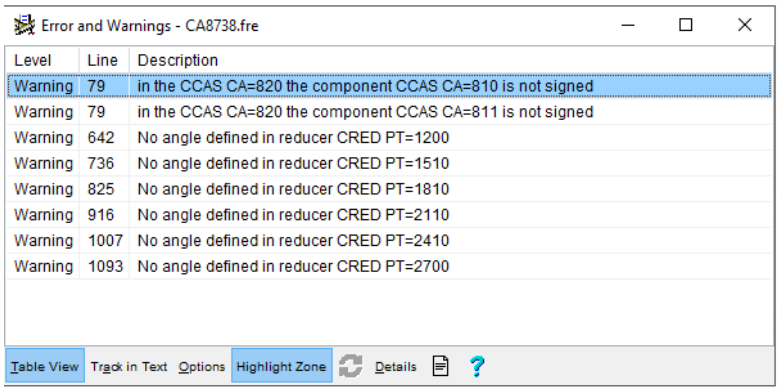
The errors and warnings mechanism has been revised. It is less intrusive than before. The list is only displayed on user demand, by clicking on the icon on the toolbar :

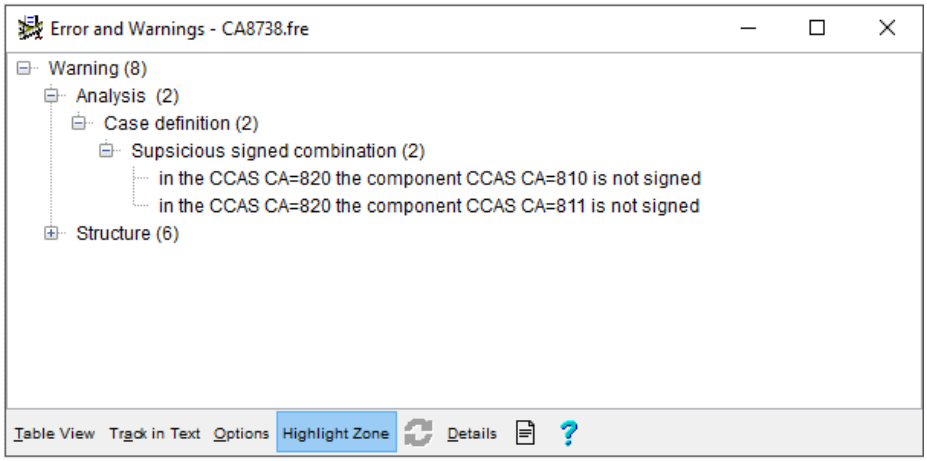


The colour of the icon indicates the status of the model :

- Green : no error and no warning were detected.
- Orange : a warning was detected.
- Red : an error was detected.

The errors can be displayed in a table or in a tree depending on user’s preference :




Error and Warnings - CA8738.fre
Warning (8)
Analysis (2)
Case definition (2)
Supsicious signed combination (2)
in the CCAS CA=820 the component CCAS CA=810 is not signed
in the CCAS CA=820 the component CCAS CA=811 is not signed
Structure (6)
Table View
Track in Text
Options
Highlight Zone
Details