

# Preprocessor



Graphic User Interface for  
Reflux / Rubar / Telemac

<http://prepro.fudaa.fr>

# Applications



## Supervisor

- Files Explorer, codes launcher

## Hydrodynamics projects Editor

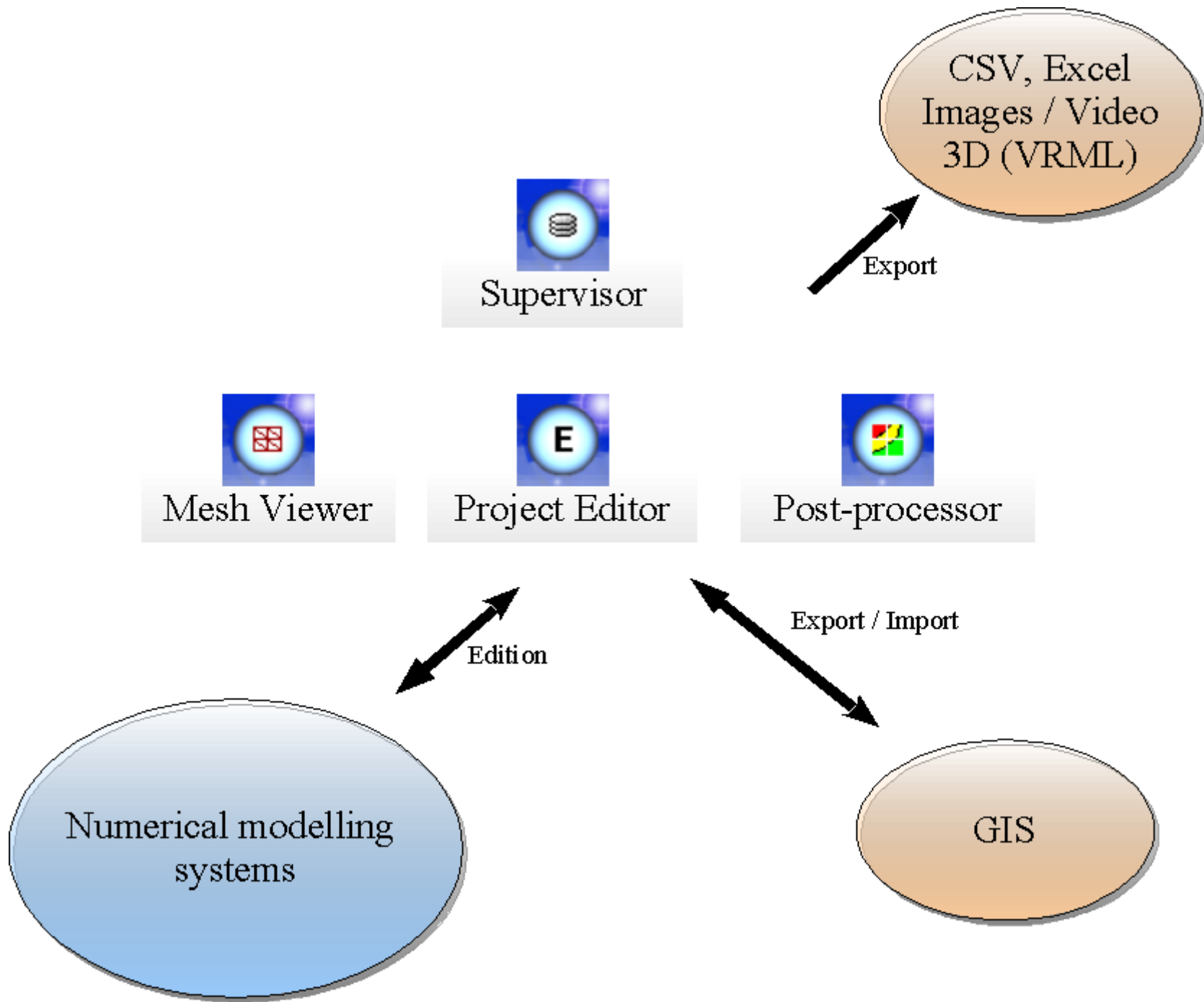
- Keywords, boundary conditions, nodal parameters, initial conditions, sources, weirs, culverts.

## Post-processor

- View results + exportation

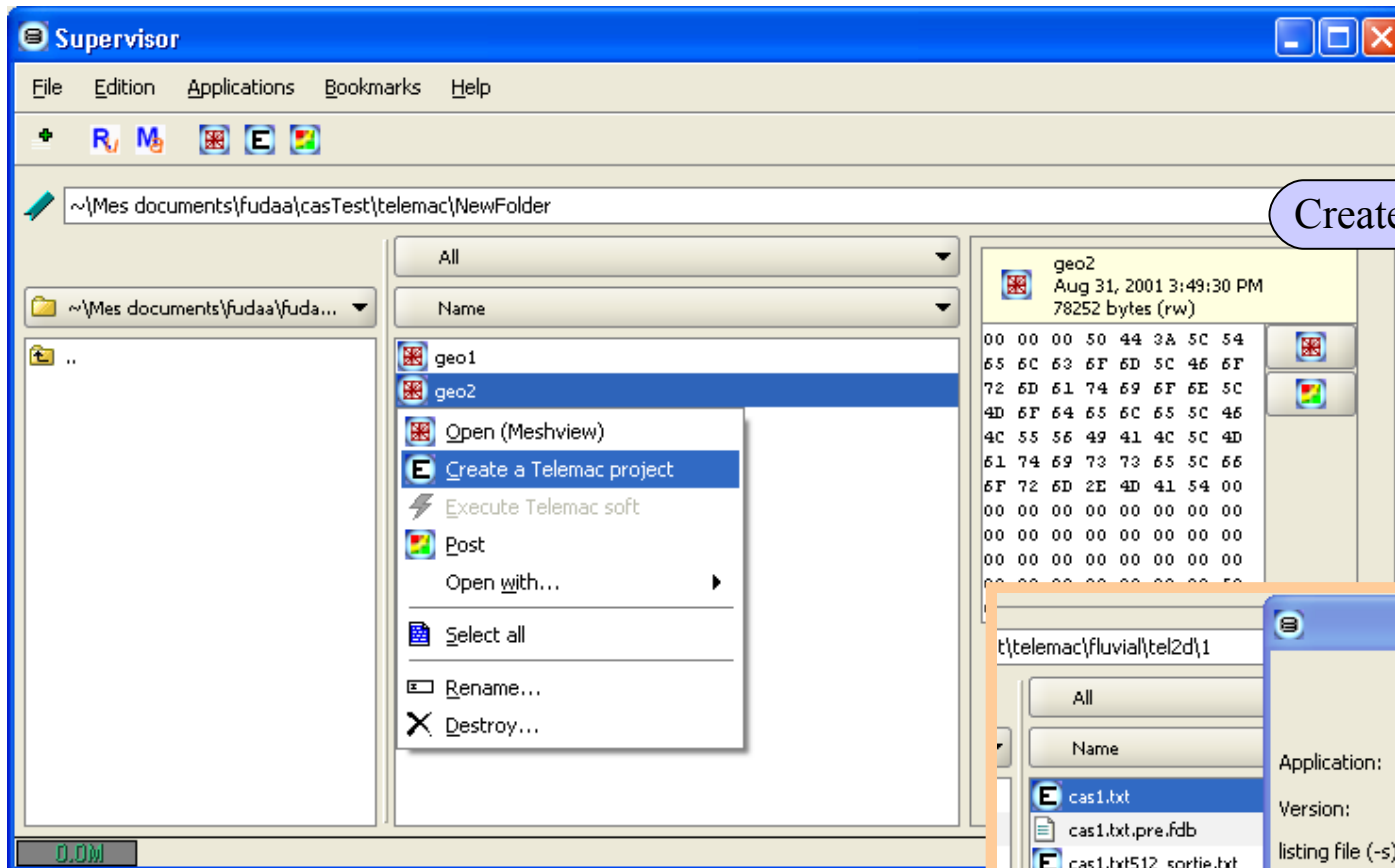
## Mesh View ( under development)

- Check meshes

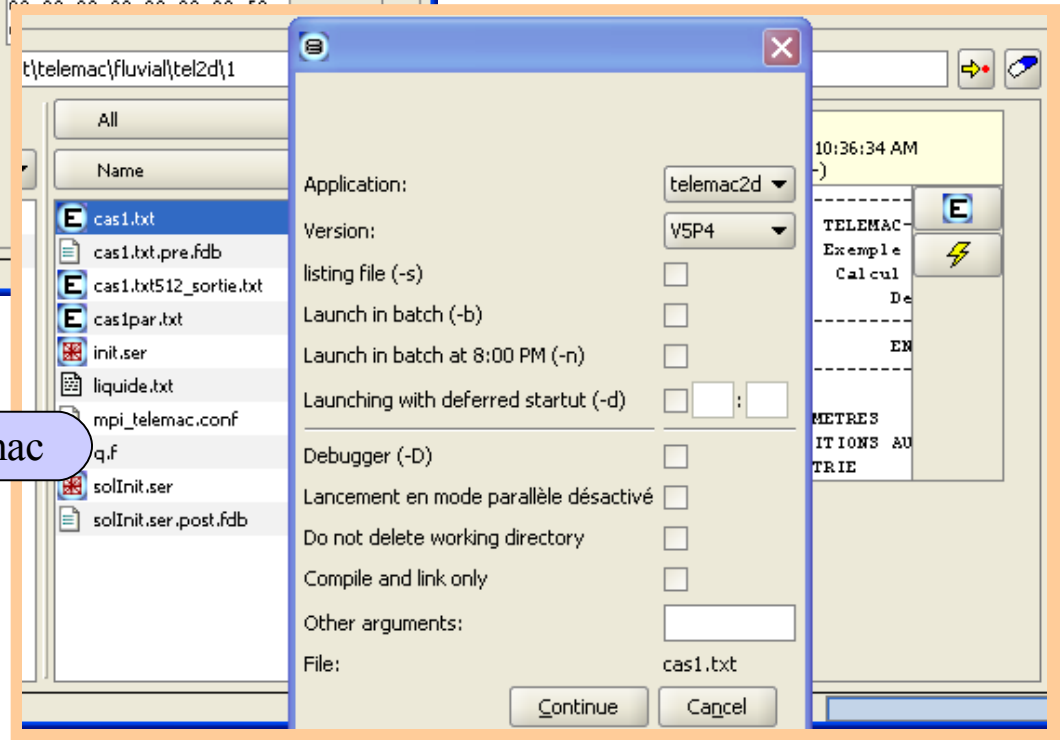




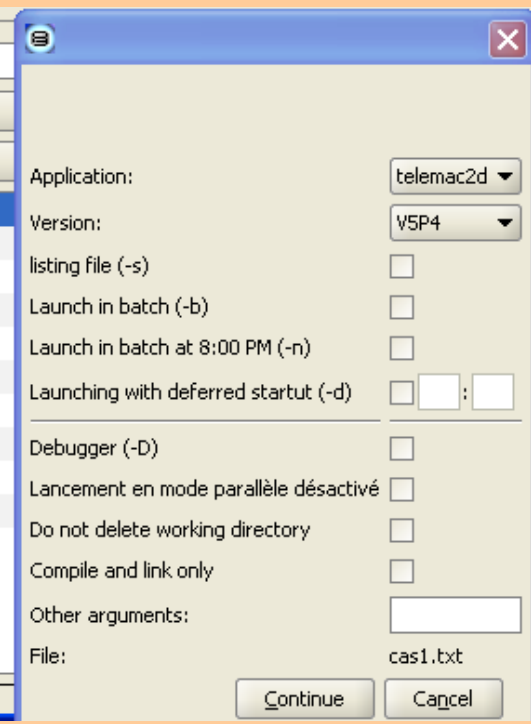
# Supervisor



Create a Telemac Project



Launch Telemac





# Editor : steering file

## Keywords edition:

- Filters
- Accessible Help
- Notes support

Parameters

Words \ Boundaries conditions \

Name	Value
LIQUID BOUNDARIES FILE	
OPTION FOR LIQUID BOUNDAR...	

**OPTION FOR LIQUID BOUNDARIES**

Notes \ Help \

One integer per liquid boundary is given

- 1 : classical boundary conditions
- 2 : Thompson method based on characteristics

Continue Cancel

Infos \ No

Name:

Heading: EQUATIONS, BOUNDARY CONDITIONS

Default value:

Value:

# Editor

## Example: how to edit nodal parameters

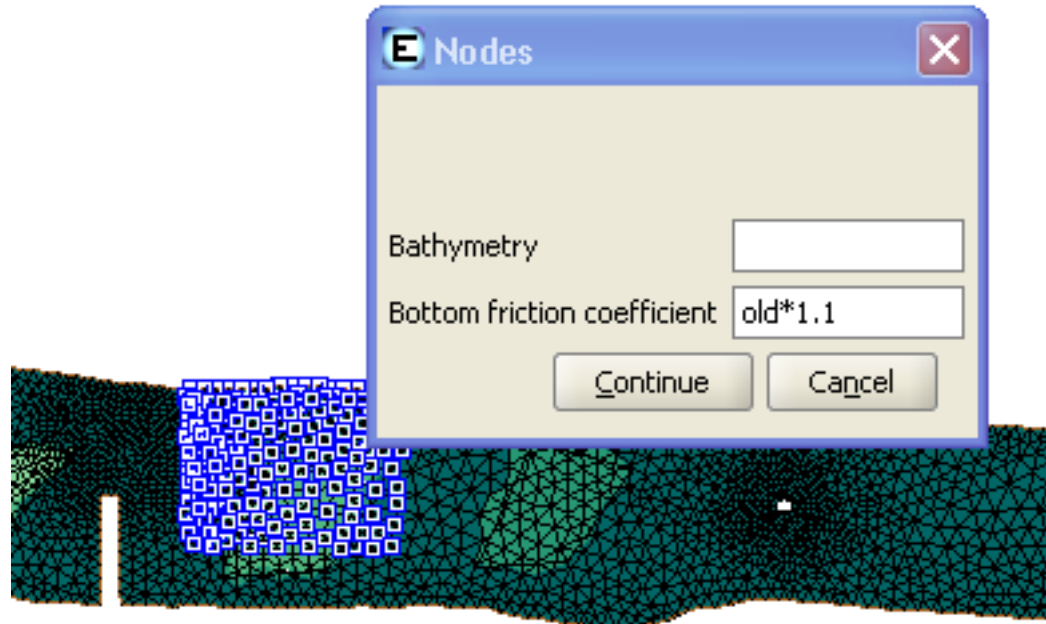
- Modify from selection
- Or/And Modify from geographic data



# Editor

## **Edition from selection**

The friction of the selected nodes will be multiplied by '1.1'.  
The Bathymetry won't be modified



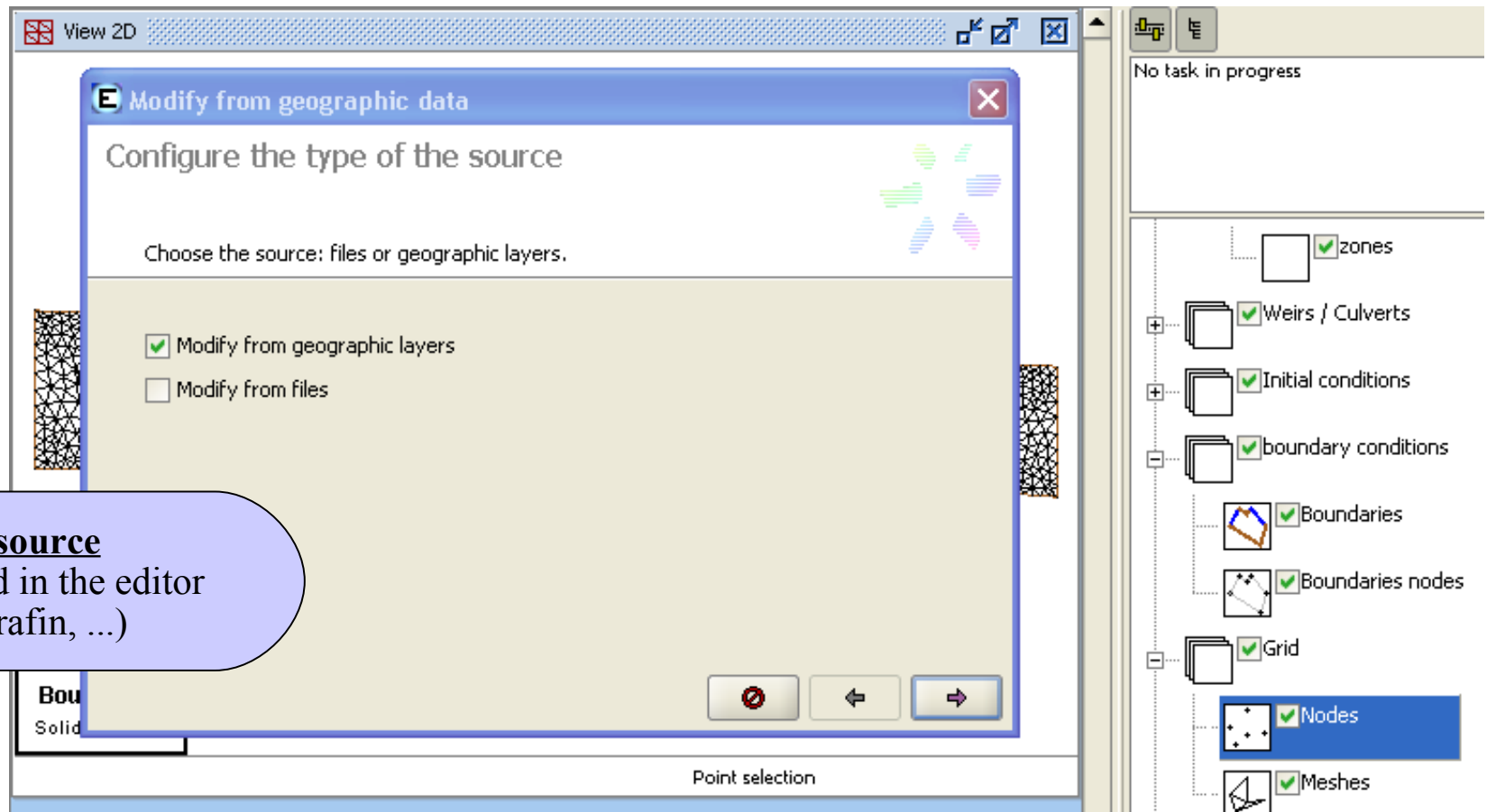
## **Edition from selection**

Edition in a table

Index	Bathymetry	Bottom friction coefficient
316	252.0	50.0
319	252.0	50.0
345	253.9482879638672	50.0
361	258.7342224121094	50.0
397	259.0821533203125	50.0
402	252.0	50.0
429	257.14599609375	50.0
431	252.66302490234375	50.0
548	252.0	50.0

# Editor

**Edition from geographic data**  
Initialization by zones or by interpolation



## **1: Choose the source**

- Layers created in the editor
- Files (GIS, serafin, ...)



# Editor

## Configuration of the target

Define the variables to modify  
If the selection of the current layer is not empty, it's possible to modify only the selected objects



### 2: Choose the target variables to modify

Modify the selected objects only

Variables to modify	From:
Bathymetry	Ignore
Bottom friction coefficient	friction

### 3: Configure options

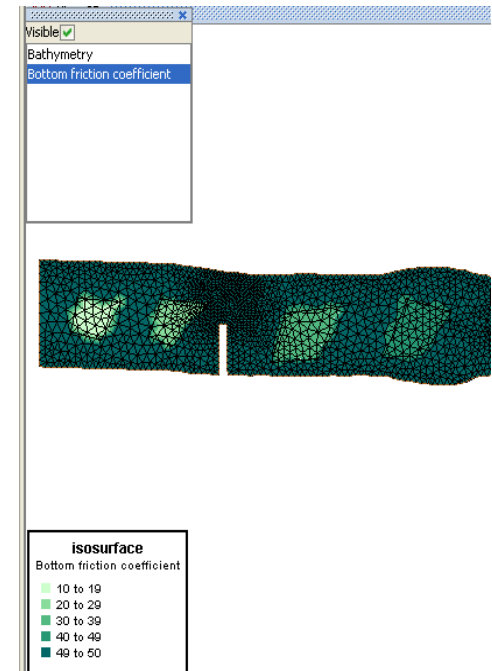
Configure the interpolation method

Number of lines: 0    Number of points: 0  
Number of closed lines: 4    Total number of points: 20

- Initialize from zones
- Interpolate from points

#### Interpolation

- Only modify the points that are contained by the envelope  
Maximum distance: 0.0010
- Use lines' vertex
- Source: ignore points that are out of the project's boundary  
Maximum distance: 0.0010

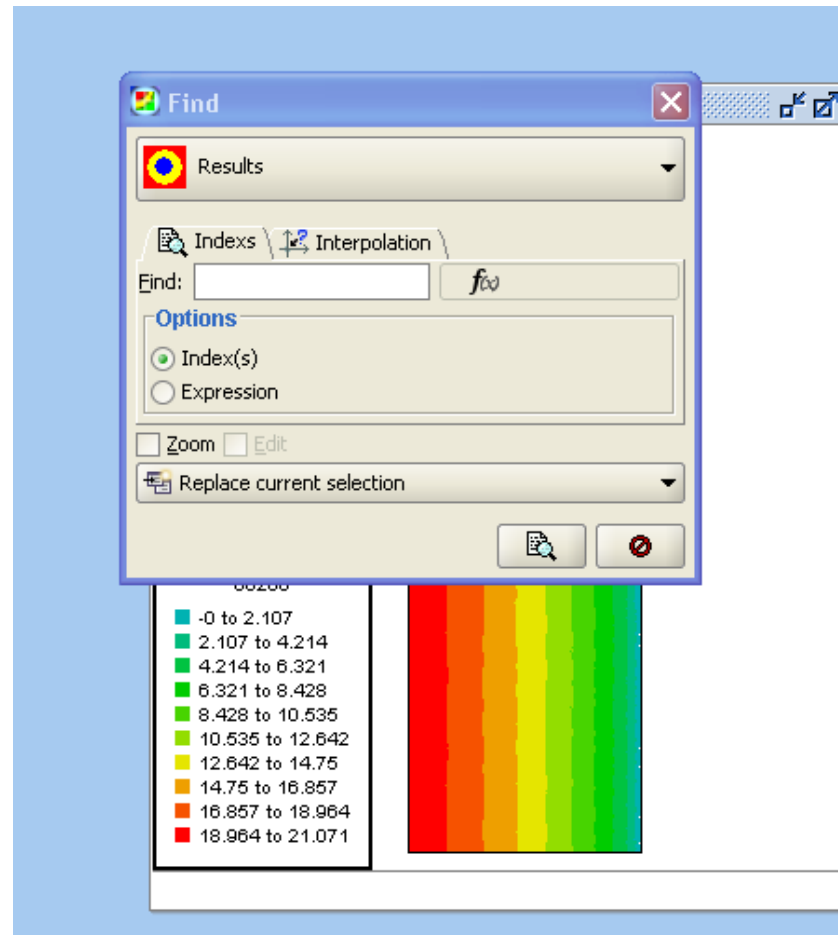


Valid ...



# Post-processor

- Results visualization
- Advanced search: index, expression
- Interpolation on a selected point





# Post-processor

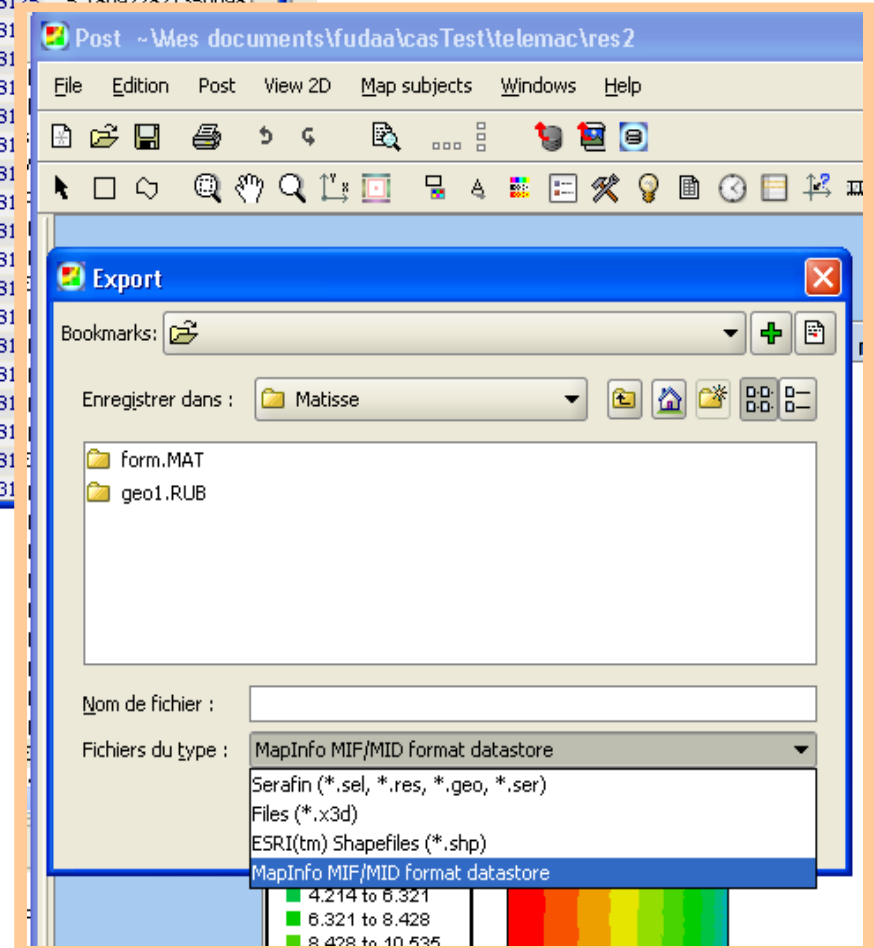
**Export in a tabular format...**  
csv, excel

The screenshot shows the 'Export' dialog box in the Post-processor software. The 'Export table (csv, excel)' option is selected. A table of results is displayed with columns for 'Y' and 'Water depth'. The table contains 15 rows of data.

	Y	Water depth
13	100.0	-7475.080078125 0.005549939349293...
15	-4850.0	-7475.080078125 21.07094383239746
95	46.96329879760742	-7475.080078125 4.471644060686230...
154	-334.9112854003906	-7475.080078125
157	-3691.753173828125	-7475.080078125
187	-688.9605712890625	-7475.080078125
191	-160.65150451660156	-7475.080078125
247	-1113.1390380859375	-7475.080078125
261	-2242.013916015625	-7475.080078125
282	-14.500800132751465	-7475.080078125
286	-84.91439819335938	-7475.080078125
296	-859.1871948242188	-7475.080078125
303	-3169.49169921875	-7475.080078125
315	-547.66259765625	-7475.080078125
323	-1453.287841796875	-7475.080078125
344	-433.3772888183594	-7475.080078125
347	-1829.5335693359375	-7475.080078125
351	-4251.7900390625	-7475.080078125
360	-243.8090057373047	-7475.080078125
1109	-2686.865234375	-7475.080078125
558	61.42839813232422	-7438.770019531

**... or in a geometric format**

- Serafin
- X3d ( web3D)
- Shapefile
- MapInfo



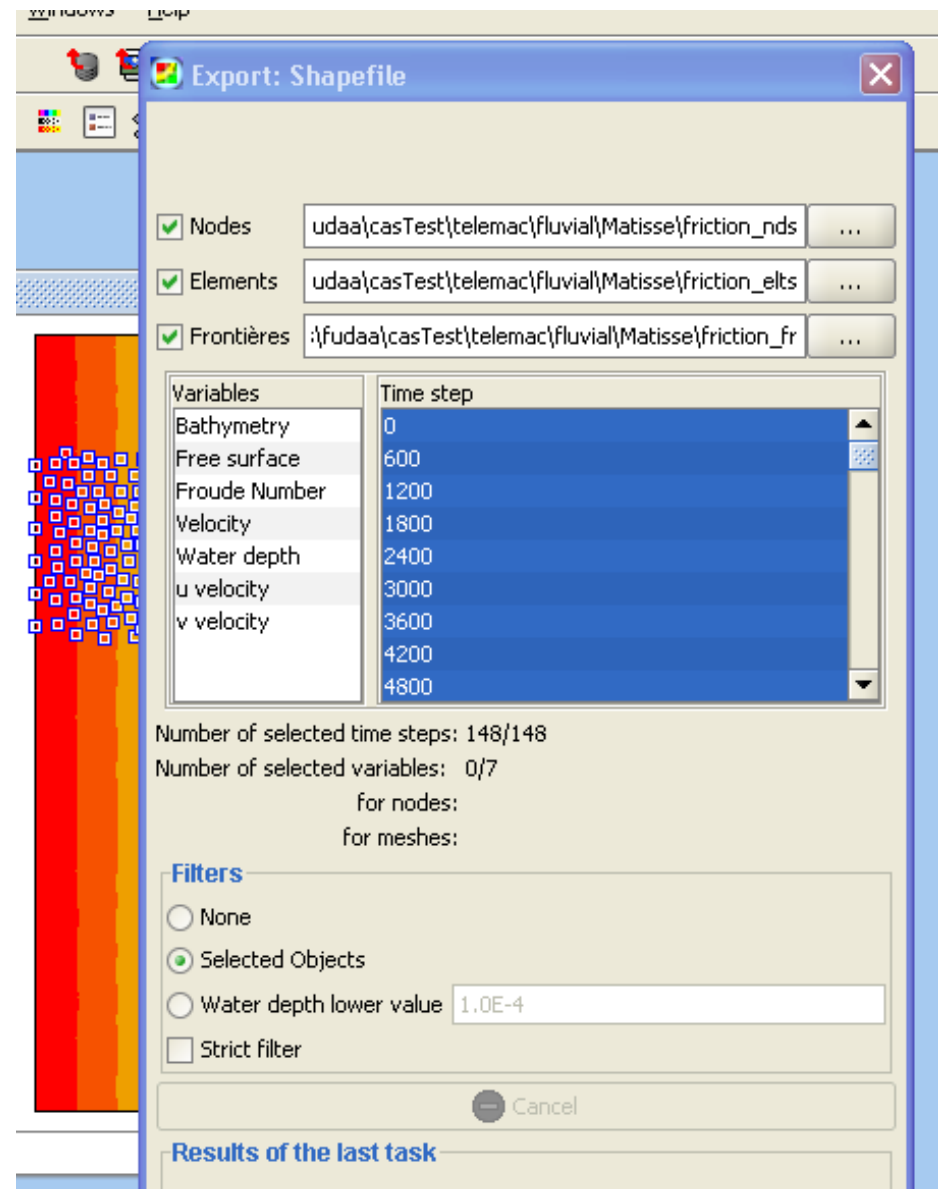


# Post-processor

## Options for the exportation :

- Variables and time steps selection.
- Filters: selected nodes, only wet elements

Can be used to simplify a serafin file.



# Conclusion



- Current version 0.16 : January 2006
- Last version can be downloaded from  
<http://prepro.fudaa.fr/>